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February 16, 2018

***VIA ELECTRONIC FILING
AND OVERNIGHT DELIVERY***

Utah Public Service Commission
Heber M. Wells Building, 4th Floor
160 East 300 South
Salt Lake City, UT 84114

Attention: Gary Widerburg
Commission Secretary

RE: Docket No. 17-035-40
**Application for Approval of a Significant Energy Resource Decision and Voluntary
Request for Approval of Resource Decision**

In accordance with the Utah Admin. Code R746-1-203 and the Order Granting Motion to Vacate Remaining Schedule and Amended Scheduling Order issued by the Utah Public Service Commission ("Commission") on February 13, 2018, in the above referenced docket, Rocky Mountain Power hereby submits for electronic filing its Second Supplemental Direct Testimony on the results of the 2017R Request for Proposals ("RFP"), and its Motion to Deviate from R746-1-601(2)(d)(i), (ii) and (ii) and from R746-1-203(1)(c).

As requested by the Commission, Rocky Mountain Power is also providing seven (7) printed copies of the filing via overnight delivery. Workpapers supporting this application will also be provided electronically.

Certain exhibits included in this filing contain highly confidential information, consisting of bid information, analysis and modeling that relies on bid information, and reports provided by independent evaluators that rely on and refer to bid information. In accordance with Utah Admin. Code R746-1-601(2)(a)(i), the Company has engaged with the parties regarding the treatment of highly confidential information. Based on those discussions and on the Company's representations regarding the content of the information to be designated as highly confidential, the parties do not dispute the Company's highly confidential designation and the Company and parties have reached mutually agreeable protections for access to highly confidential information.

To assist the Commission and parties in reviewing this filing, the Company has also included with this cover letter a revised and updated Attachment A, which was originally included with the Company's June 30, 2017, Application. Attachment A describes the filing requirements set forth in Utah Admin. Code R746-430-2 and R746-440-1 and identifies where in the record the Company has satisfied each requirement.


Rocky Mountain Power respectfully requests that all formal correspondence and requests for additional information regarding this filing be addressed to the following:

By E-mail (preferred): datarequest@pacificorp.com
Jana.saba@pacificorp.com
utahdockets@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232

Informal inquiries may be directed to Jana Saba at (801) 220-2823.

Sincerely,



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Vice President, Regulation

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Attorneys for Rocky Mountain Power

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of:	Docket No. 17-035-40
THE APPLICATION OF ROCKY MOUNTAIN POWER FOR APPROVAL OF A SIGNIFICANT ENERGY RESOURCE DECISION AND VOLUNTARY REQUEST FOR APPROVAL OF RESOURCE DECISION	ROCKY MOUNTAIN POWER'S MOTION TO DEVIATE FROM UTAH ADMIN. CODE R746-1-601(2)(d)(i), (ii) and (iii), and R746-1-203(1)(c)

INTRODUCTION

In accordance with Utah Admin. Code R746-1-109, Rocky Mountain Power, a division of PacifiCorp (“Rocky Mountain Power” or “Company”) moves the Public Service Commission of Utah (“Commission”) for a waiver from Utah Admin. Code R746-1-601(2)(i), (ii) and (iii) and

from Utah Admin. Code R746-1-203(1)(c) (the “Formatting Rules”).¹ In support of its Motion, the Company states as follows.

1. Rocky Mountain Power is a division of PacifiCorp, an electrical corporation and public utility in the state of Utah and is subject to the jurisdiction of the Commission with regard to its public utility operations. PacifiCorp also provides retail electric service in the states of Idaho and Wyoming under the name Rocky Mountain Power, and in the states of Oregon, Washington and California under the name Pacific Power.

2. Communications regarding this Motion should be addressed to:

Jana Saba
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1407 West North Temple, Suite 330
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Salt Lake City, Utah 84116
E-mail: yvonne.hogle@pacificorp.com

In addition, Rocky Mountain Power requests that all data requests regarding this application be addressed to:

By email (preferred)

datarequest@pacificorp.com

By regular mail

Data Request Response Center
PacifiCorp
825 NE Multnomah, Suite 2000
Portland, OR 97232

Informal inquiries related to this application may be directed to Jana Saba at (801) 220-2823.

¹ Utah Admin. Code R746-1-601 (2)(d)(i), (ii) and (iii) (requiring the party providing highly confidential information to: (i) place the information on a document with a pink background; (ii) highlight the information with shading, text boxes, borders, asterisks, or other conspicuous formatting; and (iii) include the following designation, as applicable, on each page containing highly confidential information: (A) HIGHLY CONFIDENTIAL – SUBJECT TO UTAH PUBLIC SERVICE COMMISSION RULES R746-1-602 and 603 ...” and Utah Admin. Code R746-1-203(1)(c) (requiring the form of identification of an electronic file name that includes a particular naming convention).

ARGUMENT

Utah Admin. Code R746-1-109 allows Rocky Mountain Power to move for the deviation from a specified rule if it believes that the rule imposes a hardship that outweighs the benefit(s) of the rule.

The Company believes it meets the burden given the following circumstances. The second supplemental direct testimony of Company witness Rick T. Link, filed concurrently, with this motion (among several other pieces of supporting testimony and exhibits), includes several highly confidential exhibits that contain voluminous information submitted by bidders in the 2017R Request for Proposals (“RFP”) and the 2017 Solar Request for Proposals (“2017S RFP”). The exhibits include bid summary information, analyses and modeling based on that bid information, rankings of the bid information from each of the 2017R RFP and the 2017S RFP, as well as several Independent Evaluator Reports and appendices.

Specifically, the highly confidential exhibits contain approximately 2 gigabytes of data and over 240 files that are too voluminous to format as required by the Formatting Rules. The Formatting Rules require that each page a) be placed on pink background; b) is highlighted in conspicuous formatting, and c) include the “highly confidential” designation. In addition, each page must be identified electronically by name that includes several naming conventions that must be followed in a specific order. The Company is also concurrently filing the same second supplemental testimony and exhibits, including the highly confidential exhibits discussed above in two other states that do not require the same formatting required by the Formatting Rules. Therefore, following the Formatting Rules would require the Company to format the highly confidential exhibits differently by states—essentially doubling the Company’s efforts.

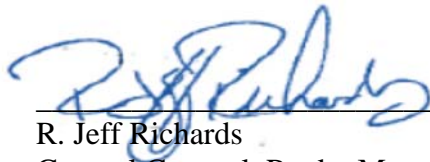
A waiver of the Formatting Rules would cause no harm to the parties in this case. Consistent with Utah Admin. Code R746-1-601(2)(a)(i), the Company engaged the parties and reached mutual agreement on access to the highly confidential information. The format used by the Company for the highly confidential exhibits is easy to use and will have no impact on the parties' ability to access the highly confidential exhibits.

CONCLUSION

Based on the foregoing, the Company's request is reasonable because the hardship of meeting the requirements of the Formatting Rules for the highly confidential exhibits far outweighs the benefit of the Formatting Rules. Therefore, the Company respectfully requests the Commission grant a waiver of the Formatting Rules.

DATED this 16th day of February, 2018.

Respectfully submitted,



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Attorney for Rocky Mountain Power

ATTACHMENT A

R746-430-2(a)-(i) Information Location Matrix for Wind Facilities

Paragraph	Filing Requirement	Testimony and Exhibits
(a)	Information to demonstrate the utility has complied with the requirements of the Energy Resource Procurement Act and Commission rules	<ol style="list-style-type: none"> 1. <i>Prefiling Public Notice of Intent to File a Voluntary Request for Approval of Significant Energy Resource Decision</i>, filed June 23, 2017; 2. <i>Application for Approval of a Significant Energy Resource Decision and Voluntary Request for Approval of Resource Decision</i>, filed June 30, 2017; 3. Link Second Supplemental Direct Testimony, lines 533-731; 4. Exhibit RMP__(RTL-4SS); 5. Teply Second Supplemental Direct Testimony, lines 213-308; 6. Vail Second Supplemental Direct Testimony, lines 147-209; and 7. Steward Second Supplemental Direct Testimony, lines 47-55.
(b)	Information to demonstrate whether approval of the selected Significant Energy Resource is in the public interest	<ol style="list-style-type: none"> 1. Crane Direct Testimony, lines 226-260; 2. Link Direct Testimony, lines 751-935; 3. Link Supplemental Direct and Rebuttal Testimony, lines 559-770; 4. Link Second Supplemental Direct Testimony, lines 239-532; 5. Teply Supplemental Direct and Rebuttal Testimony, lines 178-206, lines 478-515, and lines 545-557; and 6. Vail Supplemental Direct and Rebuttal Testimony, lines 522-709.
(c)	Information regarding the solicitation process, if the Significant Energy Resource was solicited through a solicitation process, including, but not limited to: <ol style="list-style-type: none"> (i) Summaries of all bids received; (ii) Summaries of the Affected Utility's rankings and evaluations of bids; (iii) Copies of all reports relating to the solicitation process made by an 	<ol style="list-style-type: none"> 1. Link Supplemental Direct and Rebuttal Testimony, lines 66-558; 2. Link Second Supplemental Direct Testimony, lines 45-238; 3. Exhibit RMP__(RTL-4SS), Exhibit RMP__(RTL-5SS), Exhibit RMP__(RTL-6SS), Exhibit RMP__(RTL-7SS), Exhibit RMP__(RTL-8SS), Exhibit RMP__(RTL-9SS), Exhibit RMP__(RTL-10SS), Exhibit RMP__(RTL-11SS); and

	<p>independent evaluator who may have been involved with the solicitation process;</p> <p>(iv) A copy of the complete Commission approved Solicitation with appendices, attachments and drafts, if applicable; and</p> <p>(v) A signed acknowledgment from a utility officer involved in the solicitation that to the best of his or her knowledge, the utility fully observed and complied with the requirements of the Commission's rules or statutes applicable to the solicitation process</p>	<p>4. The complete Commission-approved solicitation, with appendices, attachments, and drafts, is also publicly available at the following: http://www.pacificorp.com/sup/rfps/2017-rfp.html)</p>
(d)	<p>Identification of all information, data, models and analyses used by the Affected Utility to evaluate the acquisition of the Significant Energy Resource if the acquisition is pursuant to Section 54-17-201(3), or to evaluate and rank bids and the selected resource, if the acquisition is by a solicitation process pursuant to Section 54-17-201(2)</p>	<p>1. Link Supplemental Direct and Rebuttal Testimony, lines 66-770;</p> <p>2. Link Second Supplemental Direct Testimony, lines 45-532;</p> <p>3. Exhibit RMP__(RTL-1SD), Exhibit RMP__(RTL-2SD); Exhibit RMP__(RTL-10SS), Exhibit RMP__(RTL-12SS), Exhibit RMP__(RTL-13SS), Exhibit RMP__(RTL-14SS), Exhibit RMP__(RTL-15SS), Exhibit RMP__(RTL-16SS), Exhibit RMP__(RTL-17SS), Exhibit RMP__(RTL-18SS); and</p> <p>4. Teply Supplemental Direct and Rebuttal Testimony, lines 253-324.</p>
(e)	<p>Contracts proposed for execution or use in connection with the acquisition of the Significant Energy Resource and identification of matters for which contracts are being negotiated or remain to be negotiated</p>	<p>1. Exhibit RMP__(CAT-1SS-17), Exhibit RMP__(CAT-4SS-8), Exhibit RMP__(CAT1-2), Exhibit RMP__(CAT2-2), Exhibit RMP__(CAT3-2), Exhibit RMP__(CAT1-3), Exhibit RMP__(CAT2-3), and Exhibit RMP__(CAT3-3);</p> <p>2. Exhibits RMP__(RAV-6SS);</p> <p>3. Vail Supplemental Direct and Rebuttal Testimony, lines 129-182, lines 554-562, lines 643-651, lines 666-673; and</p> <p>4. Teply Supplemental Direct and Rebuttal Testimony, lines 157-168, lines 186-223, lines 272-289, lines 478-503, lines 516-534, lines 545-568.</p>
(f)	<p>Information on the estimated costs for the Significant Energy Resource, including but not limited to engineering studies, data, and models used in the analysis, and any other costs which the</p>	<p>1. Crane Second Supplemental Direct Testimony, lines 101-106;</p> <p>2. Teply Supplemental Direct and Rebuttal Testimony, lines 290-324;</p> <p>3. Exhibit RMP__(CAT-5SS);</p>

	utility considers recoverable pursuant to Section 54-17-303;	4. Vail Direct Testimony, lines 101-311; 5. Vail Second Supplemental Direct Testimony, lines 97-103; 6. Exhibit RMP__(RAV-2SS), Exhibit RMP__(RAV-3SS), Exhibit RMP__(RAV-4SS), Exhibit RMP__(RAV-5SS); and 7. Link Second Supplemental Direct Testimony, line 63.
(g)	An analysis of the estimated effects the Significant Energy Resource will have on the Affected Utility's revenue requirement	1. Steward Second Supplemental Direct Testimony, lines 15-46; 2. Exhibit RMP__(JRS-2SS); and 3. Link Second Supplemental Direct Testimony, lines 375-403.
(h)	Financial information demonstrating adequate financial capability to obtain the Significant Energy Resource pursuant to the proposed acquisition	1. Crane Direct Testimony, lines 303-310.
(i)	Identification of all other relevant information in support of the requested approval	Refer to the entirety of the Company's Direct, Supplemental Direct and Rebuttal, and Second Supplemental Direct Testimony and Exhibits.

R746-440-1(1)(a)-(k) Information Location Matrix for Transmission Facilities

Paragraph	Filing Requirement	Testimony and Exhibits
(a)	A description of the Resource decision	<ol style="list-style-type: none"> 1. Vail Direct Testimony, lines 101-311; 2. Vail Supplemental Direct and Rebuttal Testimony, lines 41-83; and 3. Vail Second Supplemental Direct Testimony, lines 109-130.
(b)	Information to demonstrate that the Energy utility has complied with the applicable requirements of the Act and Commission rules	<ol style="list-style-type: none"> 1. <i>Prefiling Public Notice of Intent to File a Voluntary Request for Approval of Significant Energy Resource Decision</i>, filed June 23, 2017; 2. <i>Application for Approval of a Significant Energy Resource Decision and Voluntary Request for Approval of Resource Decision</i>, filed June 30, 2017; 3. Link Second Supplemental Direct Testimony, lines 533-731; 4. Teply Second Supplemental Direct Testimony, lines 213-308; 5. Vail Second Supplemental Direct Testimony, lines 147-209; and 6. Steward Second Supplemental Direct Testimony, lines 47-55.
(c)	The purposes and reasons for the Resource decision	<ol style="list-style-type: none"> 1. Vail Direct Testimony, lines 312-546; 2. Vail Supplemental Direct and Rebuttal Testimony, lines 260-380, lines 58-81; 3. Vail Second Supplemental Direct Testimony, lines 109-130; 4. Exhibit RMP__(RAV-1SS), Exhibit RMP__(RAV-2SS), Exhibit RMP__(RAV-3SS), Exhibit RMP__(RAV-4SS), Exhibit RMP__(RAV-5SS); and 5. Link Direct Testimony, lines 106-224.
(d)	An analysis of the estimated or projected costs of the Resource decision, including the engineering studies, data, information and models used in the Energy utility's analysis	<ol style="list-style-type: none"> 1. Vail Direct Testimony, lines 101-311; 2. Vail Second Supplemental Direct Testimony, lines 97-103; and 3. Exhibit RMP__(RAV-2), Exhibit RMP__(RAV-3), Exhibit RMP__(RAV-4), Exhibit RMP__(RAV-5), Exhibit RMP__(RAV-6), Exhibit RMP__(RAV-7), Exhibit RMP__(RAV-9), Exhibit RMP__(RAV-1SD), Exhibit RMP__(RAV-2SD), Exhibit RMP__(RAV-3SD), Exhibit

		RMP__(RAV-4SD), Exhibit RMP__(RAV-1SS), Exhibit RMP__(RAV-2SS), Exhibit RMP__(RAV-3SS), Exhibit RMP__(RAV-4SS), and Exhibit RMP__(RAV-5SS).
(e)	Descriptions and comparisons of other resources or alternatives evaluated or considered by the Energy utility, in lieu of the proposed Resource decision	1. Link Direct, lines 96-364; 2. Link Supplemental Direct and Rebuttal Testimony, lines 66-383; and 3. Link Second Supplemental Direct Testimony, lines 45-238.
(f)	Sufficient data, information, spreadsheets, and models to permit an analysis and verification of the conclusions reached and models used by the Energy utility	1. Exhibit RMP__(RAV-2), Exhibit RMP__(RAV-3), Exhibit RMP__(RAV-4), Exhibit RMP__(RAV-5), Exhibit RMP__(RAV-6), Exhibit RMP__(RAV-7), Exhibit RMP__(RAV-9), Exhibit RMP__(RAV-1SD), Exhibit RMP__(RAV-2SD), Exhibit RMP__(RAV-3SD), Exhibit RMP__(RAV-4SD), Exhibit RMP__(RAV-1SS), Exhibit RMP__(RAV-2SS), Exhibit RMP__(RAV-3SS), Exhibit RMP__(RAV-4SS), and Exhibit RMP__(RAV-5SS); 2. Link Supplemental Direct and Rebuttal Testimony, lines 66-770; 3. Link Second Supplemental Direct Testimony, lines 45-532; and 4. Exhibit RMP__(RTL-1SD), Exhibit RMP__(RTL-2SD), Exhibit RMP__(RTL-10SS), Exhibit RMP__(RTL-12SS), Exhibit RMP__(RTL-13SS), Exhibit RMP__(RTL-14SS), Exhibit RMP__(RTL-15SS), Exhibit RMP__(RTL-16SS), Exhibit RMP__(RTL-17SS), Exhibit RMP__(RTL-18SS).
(g)	An analysis of the estimated effect of the Resource decision on the Energy utility's revenue requirement	1. Steward Second Supplemental Direct Testimony, lines 15-46; 2. Exhibit RMP__(JRS-2SS); and 3. Link Second Supplemental Direct Testimony, lines 375-403.
(h)	Financial information demonstrating adequate financial capability to implement the Resource decision	1. Crane Direct Testimony, lines 303-310.

(i)	Major contracts, if any, proposed for execution or use in connection with the Resource decision	1. Exhibits RMP__(RAV-6SS); and 2. Vail Supplemental Direct and Rebuttal Testimony, lines 129-182, lines 554-562, lines 643-651, lines 666-673.
(j)	Information to show that the Energy utility has or will obtain any required authorization from the appropriate governmental bodies for the Resource decision	1. Vail Direct Testimony, lines 656-855; and 2. Exhibit RMP__(RAV-18).
(k)	Other information as the Commission may require	No other information has currently been requested.

CERTIFICATE OF SERVICE

Docket No. 17-035-40

I hereby certify that on February 16, 2018, a true and correct copy of the foregoing was served by electronic mail and/or overnight delivery to the following:

Utah Office of Consumer Services	
Cheryl Murray (C) Utah Office of Consumer Services 160 East 300 South, 2 nd Floor Salt Lake City, UT 84111 cmurray@utah.gov	Michele Beck (C) Utah Office of Consumer Services 160 East 300 South, 2 nd Floor Salt Lake City, UT 84111 mbeck@utah.gov
Division of Public Utilities	
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Katie Savarin
Coordinator, Regulatory Operations

Rocky Mountain Power
Docket No. 17-035-40
Witness: Cindy A. Crane

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Second Supplemental Direct Testimony of Cindy A. Crane

February 2018

1 **Q. Are you the same Cindy A. Crane who previously filed testimony in this case on**
2 **behalf of Rocky Mountain Power (“the Company”), a division of PacifiCorp?**

3 A. Yes.

4 **PURPOSE AND SUMMARY OF TESTIMONY**

5 **Q. What is the purpose of your second supplemental direct testimony?**

6 A. I support the request that the Public Service Commission of Utah (“Commission”) approve the Company’s significant and voluntary energy resource decisions for new
7 wind resources (“Wind Projects”) and for the Aeolus-to-Bridger/Anticline line and
8 network upgrades (“Transmission Projects”) (collectively, the “Combined Projects”). I
9 update the Company’s policy testimony based on the updated results of the Company’s
10 2017R request for proposals (“2017R RFP”).
11

12 **Q. Please summarize your testimony.**

13 A. The Company updated the 2017R RFP final shortlist to reflect the results of the
14 interconnection restudy process and new system impact studies (“SISs”). The updated
15 final shortlist replaces one Company benchmark resource, McFadden Ridge II, with
16 another benchmark resource, Ekola Flats. The Company's economic analysis for the
17 updated final shortlist shows an increase in customer benefits, demonstrating that the
18 2017R RFP was robust and produced favorable resource opportunities for customers.

19 **SECOND SUPPLEMENTAL DIRECT TESTIMONY**

20 **Q. Why is the Company making this second supplemental filing?**

21 A. In its first supplemental filing, the Company explained that it had selected four Wind
22 Projects, totaling 1,170 megawatts (“MW”), for the 2017R RFP final shortlist: TB Flats
23 I and II; McFadden Ridge II; Cedar Springs; and Uinta. At that time, however, the

24 Company had not concluded its interconnection restudy process for the Aeolus-to-
25 Bridger/Anticline line or updated its SISs for resources interconnecting to that line,
26 including resources on the 2017R RFP final shortlist. This second supplemental filing
27 updates the 2017R RFP final shortlist to reflect the results of the interconnection
28 restudy process and updated SISs. The updated 2017R RFP shortlist consists of 1,311
29 MW, replacing the McFadden II benchmark resource, totaling 109 MW, with another
30 Company benchmark resource, Ekola Flats, totaling 250 MW.

31 **Q. Why did the Company select the final shortlist in the 2017R RFP before it had SIS**
32 **results?**

33 A. In the original draft of the 2017R RFP filed in Docket No. 17-035-23, the Company
34 proposed that all bidders have a completed SIS to qualify. The Utah independent
35 evaluator and certain intervenors, including Utah Association of Energy Users,
36 proposed that the Company require only that bidders show they have requested a SIS.
37 The Company removed the requirement of a completed SIS in the final 2017R RFP
38 approved by the Commission. When the Company announced the final shortlist in
39 January 2018, it still had not completed the interconnection restudy process and
40 updated the SISs. While the interconnection restudy process ultimately affected the
41 final shortlist, the potential implications of the restudy process, if any, on bid selections
42 were not known until the interconnection restudy process was finalized.

43 **Q. What were the results of this process?**

44 A. As explained by Company witness Mr. Rick A. Vail and Mr. Rick T. Link, there were
45 two important findings. First, the interconnection restudy process identified that
46 projects with interconnection queue positions higher than a certain point were not

47 viable without Energy Gateway South, a PacifiCorp transmission project that is not
48 scheduled to be built before the expiration of production tax credits (“PTCs”) in 2020.
49 McFadden Ridge II has a queue position higher than the cutoff point, so the Company
50 removed it from the final shortlist.

51 Second, the restudy identified 1,510 MW of total interconnection capacity for
52 projects in eastern Wyoming, up from 1,270 MW. The Company updated its System
53 Optimizer (“SO”) model simulations taking into account these findings. The SO model
54 continued to select TB Flats I and II, Cedar Springs, and Uinta, but replaced McFadden
55 Ridge II with Ekola Flats for the 2017R RFP final shortlist now that more
56 interconnection capacity was identified.

57 **Q. Did the Company update its SO and Planning and Risk (“PaR”) studies to reassess**
58 **the economic benefits of the Combined Projects?**

59 A. Yes. As explained by Company witness Mr. Link, the Company updated the SO and
60 PaR studies for all nine price-policy scenarios. Mr. Link's updated economic analysis
61 demonstrates increased customer benefits of \$196 million in the medium case through
62 2050 (as compared to \$137 million in the original filing and \$177 million in the first
63 supplemental filing), and an increased benefit range of \$333 million to \$405 million in
64 the medium case through 2036. Moreover, the updated economic analysis demonstrates
65 the Combined Projects continue to provide net customer benefits under all scenarios
66 studied through 2036, and in seven of the nine scenarios through 2050.

67 **Q. Did the Company prepare new sensitivity analyses to test the likelihood of**
68 **achieving these economic benefits?**

69 A. Yes, as in the first supplemental filing, the Company updated several different scenarios

70 to determine their impact on the Combined Projects' economic benefits, including a
71 scenario reflecting the Company's proposal for wind repowering, and one comparing
72 the benefits with and without projects from the pending solar RFP, using the latest
73 pricing information from that RFP. In each case, the scenarios confirm the significant
74 customer benefits associated with the Combined Projects.

75 **Q. Based on the results of the 2017R RFP, what modifications is the Company making**
76 **to its request for resource approval related to the Wind Projects?**

77 A. In its first supplemental direct testimony, the Company sought approval to construct or
78 procure four new Wyoming wind projects with a total capacity of 1,170 MW, including
79 three of the benchmark facilities (TB Flats I and II, now combined as a single project,
80 and McFadden Ridge II), and two new facilities (Cedar Springs and Uinta).

81 In this second supplemental filing, the Company still seeks approval of three of
82 the benchmark facilities, but has replaced McFadden Ridge II with Ekola Flats. The
83 Company seeks resource approval for Wind Projects totaling 1,311 MW, consisting of
84 1,111 MW of Company-owned facilities, and a 200 MW Power Purchase Agreement.
85 Of the 1,311 MW total, there are 1,150 MW of Wind Projects in eastern Wyoming
86 enabled by the Aeolus-to-Bridger/Anticline transmission line.

87 **Q. Has any aspect of the Aeolus-to-Bridger/Anticline transmission line changed as a**
88 **result of the updated final shortlist?**

89 A. No. The proposed route and facilities required for the construction of the Aeolus-to-
90 Bridger/Anticline transmission line have not changed.

91 **Q. Are there any modifications to the network upgrades included in this second**
92 **supplemental filing?**

93 A. Yes. The network upgrades required to interconnect McFadden Ridge II are no longer
94 needed. Based on the results of the updated SISs, however, some additional network
95 upgrades to other Wind Projects are required. Mr. Vail provides a detailed description
96 of these network upgrades.

97 **Q. The Company's original and supplemental filings contained a capital cost estimate**
98 **of approximately \$2 billion for the Combined Projects. With additional wind**
99 **resources and network upgrades, have the total costs of the Combined Projects**
100 **changed?**

101 A. Yes. Adding the Ekola Flats wind resource increases total projected capital costs for the
102 Combined Projects from approximately \$2 billion to \$2.245 billion. Mr. Link explains,
103 however, the Company's capital costs have declined by 18 percent from the initial filing
104 on cost-per kilowatt basis. The per-unit capital cost for the benchmark wind projects
105 was \$1,590/kW in the initial filing, and \$1,320/kW in the first supplemental filing. The
106 total capital for the Wind Projects in the final shortlist is now \$1,310/kW.

107 **Q. Based on the Company's updated economic analysis, has the Company updated**
108 **its forecast of the near-term rate impact to Utah customers?**

109 A. Yes. As explained in the testimony of Ms. Steward, the first-year revenue requirement
110 of the Combined Projects is less than 1.7 percent in 2021, the first full year of operation.
111 This is 0.2 percent lower than the increase projected in the initial filing and 0.1 percent
112 higher than the increase projected in the first supplemental filing.

113 **Q. Considering the updated results of the 2017R RFP and the Company's updated**
114 **analysis of benefits, costs, and risks, do the Combined Projects satisfy the public**
115 **interest standard?**

116 A. Yes. The Combined Projects are the least-cost, least-risk path available to serve the
117 Company's customers by meeting both near-term and long-term needs for additional
118 resources. The Combined Projects provide significant benefits to customers under
119 virtually all scenarios and sensitivities studied.

120 **Q. Does this conclude your second supplemental direct testimony?**

121 A. Yes.

Rocky Mountain Power
Docket No. 17-035-40
Witness: Chad A. Teply

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Second Supplemental Direct Testimony of Chad A. Teply

February 2018

1 **Q. Are you the same Chad A. Teply who previously submitted testimony in this**
2 **proceeding on behalf of Rocky Mountain Power (“the Company”), a division of**
3 **PacifiCorp?**

4 A. Yes.

5 **PURPOSE AND SUMMARY OF TESTIMONY**

6 **Q. What is the purpose of your second supplemental direct testimony in this**
7 **proceeding?**

8 A. I address the limited change to the final shortlist of the Company’s 2017R Request for
9 Proposals (“2017R RFP”) by updating my previous testimony to describe the new wind
10 resources (“Wind Projects”) selected as final shortlist resources in the 2017R RFP and
11 explain how the Wind Projects compare to the original proxy-benchmark resources
12 incorporated into my direct testimony. I also provide the information required by Public
13 Service Commission of Utah (“Commission”) Rule R746-430-2(1)(b), (e) and (f) for
14 the Wind Projects and the associated facilities necessary to interconnect the Wind
15 Projects. The other requirements under Utah Admin. Code Rule R746-430-2(1) are
16 addressed in the testimony of other Company witnesses.

17 **Q. Please summarize your testimony.**

18 A. The Company has updated the final shortlist for the 2017R RFP and replaced the
19 McFadden Ridge II project with the Ekola Flats project, a benchmark included in the
20 Company's initial filing. The Ekola Flats project has remained substantively identical
21 to the project described in my direct testimony. The Company is on track to
22 successfully deliver the Combined Projects by year-end 2020 through timely

23 development, procurement, and implementation. All of the steps taken by the Company
24 ensure that the Wind Projects will qualify for production tax credits (“PTCs”).

25 **SECOND SUPPLEMENTAL DIRECT TESTIMONY**

26 **Q. Please describe any changes to the Wind Projects selected to the 2017R RFP final**
27 **shortlist since the Company’s January 16, 2018, supplemental filing.**

28 A. There is one change to the final shortlist--the 109 MW McFadden Ridge II Company
29 benchmark project has been replaced by the 250 MW Ekola Flats Company benchmark
30 project. Thus, the Wind Projects selected to the 2017R RFP final shortlist are still four
31 facilities in Wyoming, which now total approximately 1,311 MW:

- 32 1. Ekola Flats - 250 MW Company benchmark;
33 2. TB Flats I and II (combined into single project) - 500 MW Company
34 benchmark;
35 3. Cedar Springs - 400 MW third-party build-transfer and power purchase
36 agreement; and
37 4. Uinta - 161 MW third-party build-transfer.

38 **Q. How do these projects relate to the benchmark projects included in the initial**
39 **application?**

40 A. The Ekola Flats and TB Flats I and II projects were benchmark projects included in the
41 Company's initial application. The Cedar Springs and Uinta projects were not included
42 in the Company's initial application, but were included in the Company's January 16,
43 2018, supplemental filing.

44 **Q. Has the Ekola Flats project substantively changed since the Company provided**
45 **detailed information in its initial application?**

46 A. No. The Ekola Flats project selected to the updated final shortlist is substantively
47 identical to the project described in the Company's direct testimony (Teply Direct, lines
48 352-377; Confidential Exhibit RMP__(CAT-1)). Ekola Flats is still a nominal 250 MW
49 wind facility located in Carbon County, Wyoming. It is currently being developed by a
50 third-party under a Development Transfer Agreement and will be delivered by the
51 Company under an engineer, procure, and construct ("EPC") contractual structure, with
52 a turbine supply agreement ("TSA") being the other major commercial agreement for
53 the project. Ekola Flats is expected to have approximately 64 2.3-MW-to-4.2-MW wind
54 turbine generators. The facility will consist of an electrical collection system, one (two,
55 if more economic) 34.5-kilovolt ("kV") to 230-kV collector substation, 230-kV
56 breakers, and 230-kV infrastructure between the wind project and the point-of-
57 interconnection substation, meteorological towers, access roads, required
58 communication and control facilities (e.g., metering, hardware, software, and
59 associated communication circuits and other equipment), and an operations and
60 maintenance ("O&M") building.

61 **Q. What are the total updated costs for the Wind Projects?**

62 A. The Wind Projects are estimated to cost \$1.46 billion, based on their total nominal
63 capacity of 1,311 MW and recognizing the split procurement attributes of the Cedar
64 Springs facility. This compares to the Company's initial estimated costs of \$1.37 billion
65 for 860 MW of nominal capacity described in my direct testimony (Teply Direct, line
66 93).

67 On a cost per kilowatt of installed capacity, the Wind Projects are estimated to
68 cost approximately \$1,310 per kilowatt, again recognizing the split procurement
69 attributes of the Cedar Springs project. This amount is lower than the cost per kilowatt
70 estimate for the initial benchmark projects, as well as the original shortlist projects
71 included in the January 16, 2018, supplemental direct testimony. Thus, the Wind
72 Projects selected to the 2017R RFP final shortlist provide additional capacity while
73 continuing to deliver significant customer benefits. The overall costs of the Combined
74 Projects reflected in this filing are generally consistent with the costs included in the
75 initial filing.

76 **Q. Does the Ekola Flats project rely on the Transmission Projects for**
77 **interconnection?**

78 A. Yes. The Ekola Flats project relies on the construction of the Transmission Projects,
79 which will relieve existing congestion and allow interconnection of the Wind Projects.
80 In total, the benefits generated by the Wind Projects' zero-fuel-cost generation, which
81 lowers net power costs and provides 10 years of federal PTCs, continue to support cost-
82 effective development of the Transmission Projects.

83 **Q. Does the Ekola Flats project meet the Internal Revenue Service's ("IRS") start-**
84 **of-construction criteria to qualify for PTCs?**

85 A. Yes. The Ekola Flats project has sufficient wind turbine generator equipment procured
86 before December 31, 2016, to meet the start-of-construction definition for tax purposes.
87 The procurement transaction for Ekola Flats satisfies the safe-harbor requirements
88 under the PTC guidance issued by the IRS.

89 **Q. How does the Company plan to continue to procure the Ekola Flats project?**

90 A. The Company will continue to engage the Ekola Flats shortlisted EPC and TSA
91 counterparties in negotiations to finalize terms and conditions, with a target for
92 executable definitive agreements by April 16, 2018, to align with the ongoing
93 regulatory review proceedings.

94 **CONTINUED DEVELOPMENT, NEGOTIATIONS, AND IMPLEMENTATION**

95 **Q. Does re-introduction of the Ekola Flats project require additional landowner**
96 **notifications?**

97 A. Yes. Under the Wyoming Certificate of Public Convenience and Necessity statute
98 applicable to wind and transmission facilities, additional landowner notifications are
99 required for the 230 kV interconnection infrastructure for the Ekola Flats project.
100 Notifications will be sent to landowners within 2,000 feet of any 230 kV transmission
101 infrastructure related to the project. This approach is consistent with notifications
102 provided to landowners when the Company filed supplemental direct testimony.

103 **Q. Is an application with the Wyoming Industrial Siting Council (“ISC”) for the**
104 **Ekola Flats project being prepared?**

105 A. Yes. The ISC Permit Application for the Ekola Flats project is being developed and will
106 be filed timely to support year-end 2020 in-service date now that the project has been
107 selected to the 2017R RFP final shortlist. Based upon a review of the shortlisted project
108 schedules, the Company expects the ISC review processes and hearings for the Ekola
109 Flats project will be completed in 2018, subject to updates identified during agency
110 coordination and development of a detailed project implementation plan. The ISC is
111 required to hold a hearing within ninety days of each application under W.S. § 35-12-

112 109.

113 **Q. Has the Company performed preliminary evaluations of the wind potential at the**
114 **Ekola Flats project site?**

115 A. Yes. The Company submitted a third-party wind potential assessment for Ekola Flats
116 as part of its 2017R RFP benchmark proposal. The Company's 2017 RFP evaluation
117 team also validated wind potential with a third-party wind resource evaluation firm as
118 part of the 2017R RFP process, as described in the Company's supplemental direct
119 testimony. Wind assessments for the Ekola Flats project indicate that the site has a
120 favorable wind regime suitable for a high performance wind resource. Due to its
121 proximity to the Company's existing Seven Mile Hill wind project, the Company is
122 confident in the anticipated performance of the Ekola Flats project on a net capacity
123 factor basis.

124 **Q. Has the Company determined who will be responsible for construction of the**
125 **Ekola Flats project?**

126 A. Not yet. The Company is negotiating with shortlisted EPC contractors that submitted
127 formal proposals for the Ekola Flats project in 2017.

128 **Q. Has the Company determined who will supply the wind turbine generators for the**
129 **Ekola Flats project?**

130 A. Yes. The Company is finalizing negotiations with the shortlisted turbine suppliers that
131 submitted formal proposals for the Ekola Flats project follow-on turbines in 2017 and
132 as identified in its 2017R RFP benchmark proposal. The Company has acquired or has
133 rights to acquire safe-harbor wind turbine generator equipment which it proposes to use
134 at the Ekola Flats project as required to meet the IRS's start-of-construction criteria for

135 PTC eligibility.

136 **Q. How did the Company generate the cost information for construction, operation,**
137 **and maintenance of the Ekola Flats project through its useful life?**

138 A. As discussed in my supplemental direct testimony in this docket, the Company
139 prepared its capital cost estimates for the Wind Projects using information from a
140 variety of sources. (Teply Supplemental Direct, lines 294-324.)

141 For its Ekola Flats benchmark project, the Company obtained wind turbine
142 costs from solicitations in 2016 to procure the Company's safe-harbor wind turbine
143 generator equipment, and in 2017 for follow-on wind turbine generator equipment. The
144 Company also obtained balance of plant engineering, procurement, construction, and
145 commissioning costs from a solicitation in 2017 to support final submittals in the
146 2017R RFP process. Transmission interconnection costs were estimated using
147 comparable wind facility transmission studies and prior project experience, and internal
148 project development, management and permitting costs were estimated based upon the
149 Company's experience with construction of past wind facilities and other recent
150 generation resource additions. The Company applied contingencies in various cost
151 categories to account for project uncertainties given the current stage of development
152 of the project. O&M cost estimates were developed based upon the Company's
153 experience with wind resource O&M budgets and third-party contracts for the
154 Company's existing wind facilities. Ongoing capital costs were estimated based upon
155 the Company's experience and indicative costs provided by wind turbine generator
156 suppliers for critical capital components.

157 **Q. Will the Company and third-party developers collaborate with the Wyoming**
158 **Game and Fish Department, the U.S. Fish and Wildlife Service, and other**
159 **environmental agencies to develop and implement the Ekola Flats project?**

160 A. Yes. The Company and the third-party project developer have initiated discussions with
161 the Wyoming Game and Fish Department and the U.S. Fish and Wildlife Service
162 regarding developing and implementing the Ekola Flats project. The Company and the
163 third-party project developer have also begun pre-construction usage surveys for
164 various avian, bat, and wildlife species using recommendations from applicable state
165 and federal guideline documents, including the 2012 Land Based Wind Energy
166 Guidelines. The Company and the third-party project developer will coordinate with
167 county, state, and federal agencies that have jurisdiction over development, permitting,
168 and operations to ensure appropriate environmental and safety measures are
169 implemented throughout the life of all of the Wind Projects. The Company is
170 committed to establishing development and implementation schedules and protocols
171 that recognize the potential environmental impacts of all of the Wind Projects and strive
172 to mitigate negative impacts.

173 **Q. Will the Ekola Flats wind turbine generators or associated infrastructure be built**
174 **in Wyoming's Greater Sage Grouse Core area?**

175 A. No. The Ekola Flats wind turbine generators and associated infrastructure will not be
176 located within the current boundaries of Wyoming's Greater Sage Grouse Core area.

177 **Q. How will potential visual and lighting impacts from the Ekola Flats project be**
178 **addressed?**

179 A. State and county permitting regulations contain requirements that recognize and

180 address potential visual and lighting impacts. The Company and the third-party
181 developer will incorporate those applicable measures into the siting, construction, and
182 operations of the Ekola Flats projects as part of the permitting process. Such measures
183 may include: down-shielded lighting on project infrastructure; Federal Aviation
184 Administration approved/recommended turbine lighting protocols; active aviation light
185 management; and use of approved paint colors for turbines.

186 **Q. When will construction of the Ekola Flats project begin and end?**

187 A. As described in detail in the exhibits attached to my testimony, site construction of the
188 Ekola Flats project will begin as soon as the second quarter of 2019. The Company and
189 the third-party developer will not begin construction, however, until all of the necessary
190 regulatory approvals and applicable permits and authorizations from other local, state,
191 tribal or federal governmental agencies that have jurisdiction over the construction or
192 operation of the Ekola Flats project have been received, including approval from the
193 Wyoming ISC. The Company anticipates that substantial completion for the Ekola Flats
194 project, under normal construction circumstances, weather conditions, labor
195 availability and materials delivery, will be achieved by November 15, 2020, or as
196 otherwise updated during detailed negotiation of project contracts, schedules, and
197 implementation plans.

198 **Q. What is the expected operational life of the Ekola Flats project?**

199 A. The anticipated operational life of the Ekola Flats project has been assessed at 30 years
200 in this filing, which aligns with the Company's currently approved depreciable life for
201 wind resources. The operational life may be reviewed and extended based on advances
202 in turbine technologies or improvements in maintenance processes (or both) through

203 the course of the Company's regular depreciation studies and filings.

204 **Q. Will the Ekola Flats project be decommissioned or repowered at the end of its**
205 **operational life?**

206 A. The Company may dismantle and reclaim the Ekola Flats project at the end of its
207 operational life based upon the requirements of the operating permit. Typically, county
208 and state agencies identify the decommissioning requirements during the permitting
209 process, including expected reclamation efforts and overall decommissioning costs and
210 security requirements. The Company may also consider replacing or upgrading the
211 existing infrastructure at the end of the operational life if conditions (*i.e.*, economics,
212 permitting, customer load needs, etc.) are conducive to reinvestment in the project.

213 **REQUIREMENTS OF UTAH ADMIN. CODE RULE R746-430-2(1)**

214 **Q. Please summarize how the Company's filing meets the requirements for approval**
215 **of a significant energy resource.**

216 A. Utah Admin. Code Rule 746-430-2(1) describes what must be included in a request for
217 approval of a significant energy resource. As such, I have incorporated exhibits to my
218 direct testimony, supplemental direct testimony, and second supplemental direct
219 testimony that provide information for the Wind Projects pertaining to the requirements
220 set forth in Utah Admin. Code Rule R746-430-2(1)(b), (e), and (f).

221 **Q. Please describe the filing requirements set forth in Utah Admin. Code Rule R746-**
222 **430-2(1)(b), (e), and (f).**

223 A. Utah Admin. Code Rule R746-430-2(1)(b), (e), and (f) require the Company to provide
224 the following:

225 (b) Information to demonstrate whether approval of the selected
226 Significant Energy Resource is in the public interest;

227 * * *

228 (e) Contracts proposed for execution or use in connection with
229 the acquisition of the Significant Energy Resource and
230 identification of matters for which contracts are being negotiated
231 or remain to be negotiated;

232 (f) Information on the estimated costs for the Significant Energy
233 Resource, including but not limited to engineering studies, data,
234 and models used in the analysis, and any other costs which the
235 utility considers recoverable pursuant to Section 54-17-303.

236 **Q. Has the Company provided information to demonstrate that approval of the**
237 **Significant Energy Resource is in the public interest?**

238 A. Yes. Information to demonstrate that approval of the Significant Energy Resource is in
239 the public interest is included not only in my testimony and exhibits filed in this case,
240 but also in the initial application, testimony, and exhibits of Company witnesses. (*See*
241 *e.g.*, Crane Direct, lines 226-260; Link Direct, lines 751-935; Link Supplemental
242 Direct, lines 559-770.)

243 **Q. Has the Company provided contracts proposed for execution in connection with**
244 **the acquisition of the Significant Energy Resource and identified matters for**
245 **which contracts are being negotiated or remain to be negotiated?**

246 A. Yes. Confidential Exhibit RMP___(CAT-1SS-17) and Exhibit RMP___(CAT-4SS-8)
247 provide the pro forma contract forms that were used in connection with solicitation of
248 balance of plant EPC contract proposals for the Ekola Flats and TB Flats I and II Wind
249 Projects and solicitation of build transfer agreement proposals for the Cedar Springs
250 and Uinta Wind Projects. In addition, representative contract terms for wind turbine

generator procurement were provided in Highly Confidential Exhibits RMP__(CAT1-2), RMP__(CAT2-2), and RMP__(CAT3-2) in the Company's initial filing, as were balance of plant technical work scope documentation in Confidential Exhibits RMP__(CAT1-3), RMP__(CAT2-3), and RMP__(CAT3-3).

I also describe the status of negotiations and matters that remain to be negotiated above (relative to the Ekola Flats project) and in my prior testimony (relative to the TB Flats I and II, Cedar Springs, and Uinta projects) (*See* Teply Supplemental Direct and Rebuttal, lines 157-168, lines 186-223, lines 272-288, lines 478-503, lines 516-534, lines 545-568.) As would be expected with negotiation of definitive agreements for projects such as this, it is likely that the language of individual terms and condition in the pro forma agreements will change prior to execution with individual counterparties; however, the Company does not anticipate material deviations from the pro forma agreements' concepts and risk mitigation measures responded to by competitive market participants during the Company's competitive solicitations.

Q. Has the Company provided information on the estimated costs for the Significant Energy Resources, including but not limited to engineering studies, data, and models used in the analysis, and any other costs which the utility considers recoverable pursuant to Section 54-17-303?

A. Yes. Confidential Exhibit RMP__(CAT-5SS) is a summary of estimated costs for the Ekola Flats, TB Flats I and II, Cedar Springs, and Uinta Wind Projects. Company witness Mr. Link provides information including data and models used in the analysis of the Combined Projects, and describes other cost information considered recoverable pursuant to Section 54-17-303.

274 **Q. Please describe the exhibits attached to this testimony for the nominal 250 MW**
275 **Ekola Flats facility that provide information required by Commission Rule 746-**
276 **430-2(1), or information otherwise pertinent to this case.**

277 A. Confidential Exhibit RMP____(CAT-1SS) provides information required for the
278 nominal 250 MW Ekola Flats, or information otherwise pertinent to this case. Subparts
279 to Confidential Exhibit RMP____(CAT-1SS) include:

- 280 • Confidential Exhibit RMP__(CAT-1SS-1): Updated Wind Turbine Generator Site
281 Layout
- 282 • Confidential Exhibit RMP__(CAT-1SS-7): Updated Project Map
- 283 • Confidential Exhibit RMP__(CAT-1SS-14): Signed Large Generator
284 Interconnection Agreement
- 285 • Confidential Exhibit RMP__(CAT-1SS-16): Third-party Wind Assessments
- 286 • Confidential Exhibit RMP__(CAT-1SS-17): Pro forma BOP EPC Contract
287 (applicable to Ekola Flats and TB Flats I and II)

288 **Q. Please describe the exhibits attached to this testimony for the nominal 400 MW**
289 **Cedar Springs facility and the nominal 161 MW Uinta facility that provide**
290 **information required by Commission Rule 746-430-2(1), or information otherwise**
291 **pertinent to this case.**

292 A. The following exhibit provides information required for the nominal 400 MW Cedar
293 Springs facility and the nominal 161 MW Uinta facility, or information otherwise
294 pertinent to this case:

- 295 • Exhibit RMP____(CAT-4SS-8): Pro forma Build Transfer Agreement (applicable to
296 Uinta and Cedar Springs projects; publicly available, but provided for ease of

297 reference).

298 **Q. Please provide a summary of the capital expenditures required to construct the**
299 **Wind Projects.**

300 A. Confidential Exhibit RMP___(CAT-5SS) to my testimony includes the summary.

301 **Q. Please describe the exhibits included with this testimony labeled Confidential**
302 **Exhibit RMP__(CAT-1SD-4) and Confidential Exhibit RMP__(CAT-2SD-1).**

303 A. To clarify the locations of the 230 kilovolt transmission tie-in lines for the Cedar
304 Springs and the TB Flats I and II wind projects, Confidential Exhibit RMP___(CAT-
305 1SD-4) and Confidential Exhibit RMP___(CAT-2SD-1) filed with my supplemental
306 testimony on January 16, 2018, were updated. These exhibits replace the original
307 Confidential Exhibit RMP___(CAT-1SD-4) for Cedar Springs and the original
308 Confidential Exhibit RMP___(CAT-2SD-1) for TB Flats in their entirety.

309 **CONCLUSION AND RECOMMENDATION**

310 **Q. What do you conclude in your second supplemental direct testimony?**

311 A. The Combined Projects remain well positioned to provide customer benefits and are
312 being effectively developed concurrently with ongoing regulatory proceedings--
313 including the 2017R RFP, procurement activities, and upcoming permitting--to
314 mitigate project risks and deliver desired outcomes. The Company continues to manage
315 project-development activities within a reasonable timeline to assess project risks,
316 incorporate those assessments into decision-making, and allow for changes in project
317 direction (*i.e.*, off-ramps), if necessary. The Company appreciates the parties'
318 engagement, and believes the Combined Projects will benefit from this rigorous
319 stakeholder review before the Company makes major commitments to the projects.

320 **Q.** **Does this conclude your second supplemental direct testimony?**

321 **A.** Yes.

Rocky Mountain Power
Exhibit RMP____(CAT-1SS)
Docket No. 17-035-40
Witness: Chad A. Teply

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Chad A. Teply
Information and Subpart Exhibits for the Ekola Flats Wind Energy Project

February 2018

Information and Subpart Exhibits For the Ekola Flats Wind Energy Project

(A) The name and address of the applicant:

The applicant information is:

PacifiCorp / Rocky Mountain Power

1407 West North Temple Street

Salt Lake City, Utah 84116

(B) The type of plant, property, or facility proposed to be constructed or acquired:

PacifiCorp proposes to construct a 250-megawatt (nominal) wind energy project located on a site that consists of approximately 22,500 acres of participating wind lease private and state land located in Carbon County, Wyoming.

(C) A description of the facilities proposed to be constructed or acquired, including preliminary engineering specifications in sufficient detail to properly describe the principal systems and components, and final and complete engineering specifications when they become available:

The Ekola Flats wind energy project will consist of wind turbine generators (“WTGs”), an electrical collector system, a collector substation, access roads, WTG foundations, an operations / maintenance building, fiber optic and / or microwave communication equipment, supervisory control and operating status data acquisition (“SCADA”) equipment, permanent meteorological towers with wind measurement equipment, and an interconnecting 230 kilovolt (“kV”) transmission tie-line. The point of interconnection will be at the proposed Aeolus substation in Carbon County, Wyoming. The WTG supply and the balance of project engineer, procure, and construction (“EPC”) contracts were competitively bid and negotiations continue toward reaching

final contract terms.

An updated overview of WTG placement across the proposed project site is presented in Confidential Exhibit RMP__(CAT-1SS-1). WTG placement will continue to evolve based on several factors, including: land acquisition, field identified sensitive environmental and cultural areas, landowner commentary received from future WTG placement reviews, definitive geotechnical site studies, aviation / air space impact reviews, site access availability, and wind resource characteristics.

Confidential Exhibit RMP__(CAT-1-2) (original June 2017 Ekola Flats submittal label) was provided previously as an example of a WTG purchase agreement, including specifications.

(Note: Exhibits that have not been updated for this project are not resubmitted in this CPCN filing second supplement and are numbered herein with the original June 2017 Ekola Flats project filing submittal exhibit labels. Updated exhibits are numbered in this document in a RMP__CAT-1SS-Varies series.)

Confidential Exhibit RMP__(CAT-1-3) (original June 2017 Ekola Flats submittal label) was provided previously as an example of a technical specification for the scope of work included in a balance of project (“BOP”) EPC contract. Confidential Exhibit RMP__(CAT-1SS-17) is provided as an example of a BOP EPC contract Project Agreement.

Confidential Exhibit RMP__(CAT-1SS-16) presents third-party site wind assessment information.

(D) List the rates, if any, proposed to be charged for the service that will be rendered because of the proposed construction or acquisition:

The impact of the proposed facilities on the Company’s revenue requirement and the Company’s proposed ratemaking treatment is described in the testimony of Ms. Joelle R. Steward.

In addition, the Company will provide service on the Transmission Projects subject to the terms and conditions of its Open Access Transmission Tariff ("OATT").

(E) State the estimated total cost of the proposed construction or acquisition:

At the time of this supplemental filing, updated estimated project cost details are summarized in Confidential Exhibit RMP__(CAT-5SS).

(F) State the manner by which the proposed construction or acquisition will be financed:

The Company intends to finance the proposed wind project through its normal sources of capital, both internal and external, including net cash flow from operating activities, public and private debt offerings, the issuance of commercial paper, the use of unsecured revolving credit facilities, capital contributions and other sources. The financial impact of the proposed investment will not impair the Company's ability to continue to provide safe and reliable electricity service at reasonable rates. In addition, preapproval of the Company's resource decision provides important regulatory support for the Company's current credit rating. This is described in more detail in Ms. Cindy A. Crane's testimony.

(G) Documentation of the financial condition of the applicant:

Rocky Mountain Power's ("RMP") current financial condition is on file with the Commission in response to the annual reporting requirements and through RMP's semi-annual earnings reports. PacifiCorp is financially capable of funding this project.

(H) The estimated annual operating revenues and expenses that are expected to accrue from the proposed construction or acquisition, including a comparison of the overall effect on the applicant's revenues and expenses:

PacifiCorp provides the economic evaluation represented in Mr. Rick T. Link's testimony and exhibits, which show the revenue stream and expenses associated with the wind projects and

demonstrates that the project is a risk-adjusted, least-cost alternative to serve customer loads.

The approximate operational, maintenance, and run-rate capital costs expected as a result of this project are presented in previously provided Confidential Exhibit RMP___(CAT-1-5) (original June 2017 Ekola Flats submittal label). Wind lease related costs are included in these amounts. Routine maintenance of the WTGs will be necessary to maximize performance and detect potential malfunctions. Operational and maintenance (“O&M”) procedures will be established in accordance with the WTG manufacturer’s recommendations. Scheduled maintenance will be conducted on each WTG. Substations, step-up transformers, and pad-mounted transformers (when used) will be maintained as part of normal operating activities. Periodic maintenance of underground collection lines will also be required. No substantial quantities of industrial materials will be brought onto or removed from the site during execution of O&M tasks. Project operation will use lubricants, oils, grease, antifreeze, degreasers, and hydraulic fluids, which will be stored in approved containers and located aboveground. During operation, it is also anticipated that hazardous waste generation will be minimal. A minimal amount of energy will be required to operate the project. O&M costs reported include labor, employee expenses, materials, and contracts.

(J) The estimated start and completion dates of the proposed construction or date of acquisition:

PacifiCorp proposes to begin engineering and construction the project in June 2018, but with only limited activities occurring 2018. The proposed project commercial operation (in-service) operating date is November 1, 2020, under normal construction circumstances, weather conditions, labor availability, materials delivery, and permit and agreement processing durations. An indicative project execution schedule was provided previously as Confidential Exhibit

RMP___(CAT-1-6) (original June 2017 Ekola Flats submittal label).

(K) A description of the proposed site, including the county or counties in which the facility will be located, with a metes and bounds description, and a description of the terrain where the facility will be constructed:

The project footprint spans Township (“T”) 24 North (“N”) and Range (“R”) 80 West (“W”) of the sixth principal meridian and T 24 N and R 79 W in the north direction; T 22 N and R 79 W in the south direction; T 23 N and R 80 W in the west direction; and to east direction, extending to T 23 N and R 79 W parcel’s east border. The town of Medicine Bow is located approximately one mile to the southeast of the project area. The project site varies in elevation, with a representative elevation of approximately 6,550 feet above mean sea level. Mountain elevations in the area rise to approximately 8,300 feet. The site drainage follows various paths to the Medicine Bow River that flows east to west across the project site and eventually joins the North Platte River at the Seminoe Reservoir. Updated Confidential Exhibit RMP___(CAT-1SS-7) presents a map of area surface ownership.

(L) A geological report of the proposed site, including foundation conditions, groundwater conditions, operating mineral deposits within a one-mile radius, and a topographical map showing the area within a five-mile radius:

Confidential Exhibit RMP___(CAT-1-8) (original June 2017 Ekola Flats submittal label), previously provided, is a geotechnical report for the Dunlap Ranch Wind Energy facility and is provided as proxy geological and foundation information for the Ekola Flats project. Regional geologic conditions are summarized within the Dunlap geotechnical report.

Also, according to the U.S. Geological Survey Digital Geologic Map of Wyoming, the project area intersects fifteen geologic formations. These include: the Chugwater Formation,

Cloverly Formation, Ferris Formation, Frontier Formation, Goose Egg Formation, Lewis Shale, Medicine Bow Formation, Mesaverde Formation, Mowry Shales, Niobrara Formation, Steele Shale, Wind River Formation, Sundance Formation, Tensleep Sandstone Formation, and Amsden Formation.

The project area is anticipated to be within the Lower Cretaceous aquifer. Groundwater wells in the area vary in depth from 45 to 99 feet below ground surface (“bgs”), with well static water levels ranging from three to 20 feet bgs.

PacifiCorp will continue to assess the impacts of any operating mineral deposits within a radius of approximately one mile from the facility.

A topographical map showing the terrain of the surrounding area within a five-mile radius of the facility was provided previously as Confidential Exhibit RMP___(CAT-1-9) (original June 2017 Ekola Flats submittal label).

(M) A description of and plans for protecting the surrounding scenic, historical, archeological, and recreational locations; natural resources; plant and animal life; and land reclamation, including: (I) A general description of the devices to be installed at the major utility facility to protect air, water, chemical, biological, and thermal qualities; (II) The designed and tested effectiveness of such devices; and (III) The operational conditions for which the devices were designed and tested:

Confidential Exhibit RMP___(CAT-1-10) (original June 2017 Ekola Flats submittal label), provided previously, presents information on nearby area scenic byways, recreational locations, national parks, and state parks; and visual simulation photos of the completed project area. Impacts to visual resource concerns should be minimal because of the rural setting of the project. The project will be sited adjacent to an existing wind energy project with similar visual impacts. The

WTGs are not anticipated to significantly degrade the surrounding scenic quality of the area.

PacifiCorp has preliminarily sited project components to mitigate potential environmental and natural resource impacts in the project area. This effort will continue as project details emerge.

Confidential Exhibit RMP___(CAT-1-11) (original June 2017 Ekola Flats submittal label), provided previously, presents information on known cultural and paleontological resources at the project site. The preliminary project layout has been arranged to avoid and / or minimize impacts to cultural resources. As part of PacifiCorp's plan for protecting the environment, sensitivity practices would be adhered to and any cultural resources would be afforded appropriate protection required by the State Historic Preservation Office in the event of a discovery during design and construction.

The project has the flexibility to microsite major project features to avoid or significantly reduce impacts to jurisdictional waters of the U.S. and wetlands. More importantly, no permanent, unmitigated losses of wetland and water resource bodies are anticipated for this project. Any impact to wetlands and the waters of the U.S., should they arise, will be minimized using best management practices.

The project area lies within the Rolling Sagebrush Steppe, Foothill Shrublands, and Low Mountains Ecoregions. Within these areas, Wyoming big sagebrush, rabbitbrush, prickly pear, wheatgrass, and fescues are common. In rock outcrop areas, juniper and mountain mahogany are also expected. The lowland plain zones, a variable brush layer of tall big sagebrush, greasewood, bunchgrasses, forbs, and prickly pear have been observed. In upland areas, mountain big sagebrush, mountain mahogany, bunchgrasses, forbs, and prickly pear / pincushion cacti have been observed. Occasionally, more diverse riparian communities are present along spring-fed draws, where red willow, chokecherry, currants, various tall grasses, various reeds, forb varieties, thistle,

and Indian paintbrush are present. Currently, no rare or unique vegetative communities are documented or have been mapped within the project area. Therefore, it is not anticipated that the project will contribute to degradation of these resources.

Wild animals including mule deer, whitetail deer, pronghorn antelope, coyotes, chipmunks, prairie dogs, ground squirrels, and rattlesnakes have been observed. Birds including red-tailed hawks, golden eagles, bald eagles, nighthawks, sparrows, and various songbirds have been observed. Construction of the project will potentially cause temporary displacement of individuals for some wildlife species that may relocate in response to project activities, and lead to permanent impacts to wildlife.

Wildlife impact studies are on-going and PacifiCorp will utilize recommendations from U.S. Fish and Wildlife Service and Wyoming Game and Fish Department guidance documents to implement appropriate avoidance, minimization, and mitigation practices.

Two occupied greater sage-grouse leks are located within the project footprint. The occupied leks are located in T 23 N, R 80 W at Sections 24 and 38.

PacifiCorp will continue to collect bat use data within the proposed project area.

Wildlife and plant species of potential concern that continue to be assessed are presented in previously provided Confidential Exhibit RMP___(CAT-1-12) (original June 2017 Ekola Flats submittal label), including U.S. Fish and Wildlife Service listed species, Wyoming Game and Fish Department species of greatest conservation need, and Bureau of Land Management sensitive species.

At the end of project life, PacifiCorp will have reserved funds in its asset retirement obligation (“ARO”) account and will use ARO funding to restore the site to near natural conditions.

Lands disturbed during construction would be reclaimed to current conditions to the extent

practicable. Ground disturbance would be minimized and best management practices employed by the construction contractors to minimize environmental impacts. PacifiCorp would also employ an environmental inspector(s) to ensure that environmental considerations, and any unforeseen environmental incidents, are appropriately addressed. This individual would ensure prompt and appropriate response to any identified non-compliance situations and ensure environmental protections are appropriately implemented. Periodic environmental audits of the site will also be conducted by PacifiCorp affiliated personnel that are independent of the project team.

During construction, each on-site contractor will be expected to develop, publish, and orchestrate a site and project specific environmental protection plan.

Site specific wildlife management plans will be developed and implemented.

(N) A description of any potential safety hazards:

Prevention of safety hazards and impacts from failure of the project's components will be achieved by a combination of planning and controlled site access. By following industry guidelines and WTG certification processes, the most safe and reliable project will be constructed. WTGs are equipped with multiple safety systems as standard equipment. For example, rotor speed is controlled by a redundant pitch control system and a backup disk brake system. Critical components have multiple temperature sensors and a control system to shut the system down and take it off-line if overheating conditions are detected. Lightning protection is a standard feature on the WTGs, and a specially engineered lightning protection and site grounding system will be installed for the project.

Turbine towers, WTG foundations, and above ground transmission line support structures will be designed according to applicable building codes and nationally accepted design standards to avoid failure or collapse. The selected WTG and tower combination will be subjected to

engineering reviews to ensure that the design and construction specifications are appropriate for the project. This review will include consideration of code / nationally accepted design standard requirements under various anticipated worst case loading conditions to provide a high degree of confidence in the structural adequacy of the towers. The WTGs have been preliminarily sited at locations which exceed a reasonable set-back of over one tip-height.

During active construction, PacifiCorp will follow the WTG manufacturers' recommended handling instructions and erection procedures, along with the constructor's recommendations, to prevent material damage to towers, nacelles, or blades that could lead to failure. In addition, certification of the WTG to the requirements of the *International Electrotechnical Commission* ("IEC") 61400-1 standard to ensure that the static, dynamic, and defined-life fatigue stresses in the blades will not be exceeded under the combined load combinations expected at the project site. The standard includes safety factors for normal, abnormal, fatigue, and construction loads. This certification, together with regular periodic inspections, will give a high level of assurance against blade failure during operation.

The WTGs will be sited at locations that exceed a reasonable set-back distance to safeguard against ice throw. No ice throw injury has been reported from existing wind energy generation projects. In general, icing is an infrequent event, and the turbines for this project will be situated in a remote area.

During construction, planned construction safety controls include: (1) a "PacifiCorp Safety Plan," and (2) the EPC contractor's "Site Specific Safety Plan."

The impact of the project site from an aviation and airspace point of view is presented in previously provided Confidential Exhibit RMP___(CAT-1-13) (original June 2017 Ekola Flats submittal label). The WTGs will be grouped in strings, and some of the WTGs will include aviation

warning lights, as required by the Federal Aviation Agency (“FAA”). The number of WTGs with lights, and the lighting pattern of the WTG, will be determined through collaboration with the FAA.

(O) A description of the real property, fuel, and water requirements, including any source of water along which the major utility facility will be constructed or from which it will obtain or return water:

There are no fuel, minerals, or process water requirements for this wind energy project.

The project will be constructed in the vicinity of the Medicine Bow River drainage.

At the time of this supplemental filing, it is anticipated that during project construction, water will be obtained from a municipal water source; an existing senior water rights holder and trucked to the site; or a new well with a permit issued by the Wyoming State Engineer’s Office to appropriate groundwater. Once available on-site, water will either be put to immediate use or placed in an on-site temporary water storage tank. Once the project is in operation, only minimal daily domestic water use will be required. The primary domestic water requirement will occur at the operations / maintenance building, and is anticipated to be limited to consumption in restrooms, sinks, washing station(s), showers, internal / external hose use, and as dishwater.

A septic system and drain field for sanitary sewer waste disposal will be provided and placed in service once the operational and maintenance building is operational.

(P) The acquisition status, source, and location of real property, right-of-way, fuel, and water requirements:

Property and right-of-way acquisition status was mentioned previously. There are no fuel acquisition requirements for this project. A Wyoming State Engineer’s Office groundwater use application will be applied for if a new extraction well is necessary.

(Q) The proposed means of transporting fuel and water requirements:

There is no process related requirement to transport material quantities of fuel and water for this project.

(R) A description of all mineral rights associated with the facility and plans for addressing any split-estate issues:

PacifiCorp will not own any of the mineral rights at the site.

PacifiCorp has done prudent legal research on its rights as a surface wind lease holder, as compared to those of mineral right holders, and is comfortable that the law does not allow mineral right holders to unilaterally displace the Company's facilities and that any mineral right holder would be obligated to enter into good faith negotiations to reasonably accommodate existing use of the surface.

For areas where mineral estate development is imminent or anticipated (i.e. areas with existing mine permits, applications for permits to drill, etc.) it is expected that the Company will secure agreements with the mineral estate owner via some form of surface and accommodation agreement.

This project is not expected to adversely affect operating mineral deposits, or oil and gas leases.

(S) A statement setting forth the need for the facility in meeting present and future demands for service in Utah and other states:

Development of the proposed wind energy generation project in compliance with regulatory requirements is the risk-adjusted least-cost alternative to meet service obligations in Utah and other states as represented in the Company's testimonies and exhibits. The Company's forward looking generation planning activities are further described in the Company's 2017 IRP

which was submitted to the Commission on April 4, 2017 (Docket No. 17-035-16.)

(T) A description of the commodity or service the facility will make available:

The project will generate electricity using wind as the renewable energy source. Fossil fuel consumption and waste residual disposal obligations will be avoided.

(U) A statement of the facilities effect on the applicant's and other systems' stability and reliability:

This project is not expected to adversely affect the quality, stability, and reliability of the Rocky Mountain Power ("RMP") transmission system or that of other entities. As an update, a "Standard Large Generator Interconnection Agreement" ("LGIA"), referencing queue position Q0706, was executed on November 27, 2017 with the transmission provider, and is provided as Confidential Exhibit RMP___(CAT-1SS-14) that summarizes the expected impact.

Additional system impact restudies of the project interconnection may be required, along with any necessary adjustments to the executed LGIA identified during implementation of the project.

(V) The status of satisfying local, state, Tribal, or federal governmental agency requirements. The applicant shall immediately fill all agencies' final orders:

A list of the local, state, Tribal, and federal governmental agencies having requirements known at the time of this application, which PacifiCorp must meet in connection with the construction and operation of the project is listed, along with their timing and status, was previously provided with Confidential Exhibit RMP___(CAT-1-15) (original June 2017 Ekola submittal label). Any unforeseen permit requirements will be adequately addressed.

By applying to and working with the various agencies for the construction / operation permits and the Commission, the major regulatory requirements and critical reviews for the project

are being addressed. PacifiCorp's contractors may provide certain permits including permits for construction storm water pollution prevention control, compliance with building regulations through the Carbon County Planning and Zoning Commission, sanitary sewer extensions, and requirements of the Wyoming Department of Transportation. PacifiCorp will monitor and audit the successful completion, maintenance, and closeout of all contractor supplied permits.

The following documents included in Exhibit RMP____(CAT-1SS) are confidential in their entirety:

Confidential Exhibit RMP (CAT 1SS-1)	Updated Wind Turbine Generator Site Layout
Confidential Exhibit RMP (CAT 1SS-7)	Updated Project Map
Confidential Exhibit RMP (CAT 1SS-14)	Signed Large Generator Interconnection Agreement
Confidential Exhibit RMP (CAT 1SS-16)	Third-party Wind Assessments
Confidential Exhibit RMP (CAT 1SS-17)	Pro forma BOP EPC Contract

The confidential exhibits listed above are provided on CD.

Rocky Mountain Power
Exhibit RMP___(CAT-4SS-8)
Docket No. 17-035-40
Witness: Chad A. Teply

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Chad A. Teply
Pro Forma Build Transfer Agreement

February 2018

Exhibit RMP___(CAT-4SS-8)

The following 2017R RFP hyperlink provides access to the entirety of 2017R RFP documents and appendices, including RFP Appendix F-2 “Build Transfer Agreement” and associated Appendices A-BB:

http://www.pacificorp.com/sup/rfps/2017-rfp/2017R_RFP_Doc_and_Appendices.html

For convenience of review, the pro forma “Build Transfer Agreement” found under this link and applicable to the market proposals received for the Uinta and Cedar Springs projects is provided in the following pages. Due to their voluminous nature, “Build Transfer Agreement” Appendices A through CC are available upon request.

BUILD TRANSFER AGREEMENT

RFP 2017R

dated as of

[DATE]

by and between

PACIFICORP

and

[DEVELOPER]

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Appendix M:	Critical Milestones
Appendix N:	Form of Progress Report
Appendix O:	Spare Parts and Special Tools
Appendix P:	Wind Final Cost Report Requirements
Appendix Q-1:	Contractor Acquired Insurance
Appendix Q-2:	Owner Acquired Insurance
Appendix Q-3:	General Insurance Provisions
Appendix R:	Progress Payments
Appendix S:	Form of Parent Guaranty
Appendix T:	Developer Safety Assurance Program
Appendix U:	[Reserved]
Appendix V:	[Reserved]
Appendix W:	Change Order Work Rates
Appendix X:	Form of Acceptable Letter of Credit
Appendix Y:	Form of Developer's Invoice
Appendix Z:	Glossary of Defined Terms
Appendix AA:	Mechanical Completion, Substantial Completion, Final Acceptance, Performance Guarantees and Performance Tests
Appendix BB:	Change Order Costing
Appendix CC	Change in Tax Law Losses Methodology

List of Exhibits

Exhibit A	Form of Notice of Request for Progress Payment
Exhibit B	Form of Notice to Proceed
Exhibit C	Credit Matrix
Exhibit D-1	Form of Change Order
Exhibit D-2	Form of Change Order Request
Exhibit D-3	Form of Change Order Notice

List of Schedules

Schedule 4.4	Developer Consents
Schedule 4.5(a)	Developer Permits
Schedule 4.5(d)	Developer Regulatory Approvals
Schedule 4.6	No Proceedings - Exceptions
Schedule 4.9(a)	Environmental Matters
Schedule 4.11	Real Estate - Exceptions
Schedule 4.12(a)	Contracts
Schedule 4.12(d)	No Developer Default under Project Documents - Exceptions
Schedule 4.14(c)	Tax Incentive Matters
Schedule 5.4	PacifiCorp Consents
Schedule 5.5(a)	PacifiCorp Permits
Schedule 5.5(b)	PacifiCorp Regulatory Approvals
Schedule 17.1(b)(viii)	Permitted Lien Filings and Recordings

THIS DRAFT DOES NOT CONSTITUTE A BINDING OFFER AND SHALL NOT FORM THE BASIS FOR AN AGREEMENT BY ESTOPPEL OR OTHERWISE. PACIFICORP RESERVES THE RIGHT, IN ITS SOLE DISCRETION, TO MODIFY THIS DRAFT AT ANY TIME. ANY ACTIONS TAKEN BY A PARTY IN RELIANCE ON THE TERMS SET FORTH IN THIS DRAFT OR ON STATEMENTS MADE DURING NEGOTIATIONS PURSUANT TO THIS DRAFT SHALL BE AT THAT PARTY'S OWN RISK. UNTIL PACIFICORP HAS COMPLETED ITS DUE DILIGENCE AND THIS AGREEMENT IS NEGOTIATED, APPROVED BY MANAGEMENT, EXECUTED AND DELIVERED, NO PARTY SHALL HAVE ANY LEGAL OBLIGATIONS, EXPRESSED OR IMPLIED, OR ARISING IN ANY OTHER MANNER UNDER THIS DRAFT OR IN THE COURSE OF ANY NEGOTIATIONS.

BUILD TRANSFER AGREEMENT

THIS BUILD TRANSFER AGREEMENT (this "Agreement") is made and entered into as of [_____] (the "Effective Date"), by and between PacifiCorp, an Oregon corporation ("PacifiCorp"), and [DEVELOPER], a [STATE, ENTITY] ("Developer"). Each of PacifiCorp and Developer are referred to herein individually as "Party" and, collectively, as the "Parties."

RECITALS

WHEREAS, Developer has responded to PacifiCorp's Request for Proposal - Renewable Resources (RFP 2017R) (the "RFP") which was issued by PacifiCorp on [_____] , 2017;

WHEREAS, PacifiCorp's selection of Developer's bid was based upon a competitive bidding process and was, in part, based upon Developer's representations and warranties contained herein and Developer's obligations contained herein, including the obligation to develop, design, procure, construct and commission the Facility, subject to and on the terms and conditions provided herein. Such matters were a material inducement for the selection of Developer, and Developer's failure to perform in accordance with the terms and conditions herein shall cause material damages to PacifiCorp; and

WHEREAS, following negotiations with Developer, PacifiCorp desires to engage Developer and Developer desires to be engaged to develop, design, procure, construct, and commission the Facility for PacifiCorp, subject to and on the terms and conditions hereinafter set forth.

NOW THEREFORE, in consideration of the premises and mutual representations, warranties, covenants and agreements set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows.

AGREEMENT

ARTICLE 1 DEFINITIONS AND INTERPRETATION

Section 1.1 Defined Terms.

Unless the context requires otherwise, capitalized terms used in this Agreement shall have the meanings assigned to them in the Glossary of Defined Terms attached hereto as Appendix Z.

Section 1.2 Interpretation.

(a) Unless the context requires otherwise, in this Agreement:

(i) Headings and the rendering of text in bold or italics are for convenience and reference purposes only and do not affect the meaning or interpretation of this Agreement.

(ii) A reference to an Appendix, Exhibit, Schedule, Article, Section or other provision shall, unless otherwise specified, be deemed to be a reference to appendices, exhibits, schedules, articles, sections or other provisions of this Agreement, which appendices, exhibits and schedules are incorporated herein by reference.

(iii) Any reference in this Agreement to another Contract or document shall be a reference to that other Contract or document as the same may be amended, modified, supplemented or replaced from time to time.

(iv) Any reference in this Agreement to “this Agreement,” “herein,” “hereof,” “hereunder” or “herewith” shall be a reference to this Agreement as a whole and not limited to the particular Appendix, Article, Section, Exhibit, Schedule or provision in which the relevant reference appears and to this Agreement as amended, modified, supplemented or replaced from time to time.

(v) References to any Party shall include any successors and assigns of the Party but, if applicable, only if such successors and assigns are permitted by this Agreement.

(vi) References to the term “includes” or “including” shall mean “includes, without limitation” or “including, without limitation.”

(vii) Words importing the singular shall include the plural and vice versa and the masculine, feminine and neuter genders shall include all genders.

(viii) The word “or” shall be deemed to be disjunctive but not necessarily exclusive (*i.e.*, unless the context dictates otherwise, “or” shall be interpreted to mean “or” rather than “either/or”).

(ix) “Shall” and “will” have equal force and effect.

(x) Relative to the determination of any period of time, “from” shall mean “including and after,” “to” shall mean “to but excluding,” and “through” shall mean “through and including.”

(xi) If the time for performing an obligation under this Agreement occurs or expires on a day that is not a Business Day, the time for performance of such obligation shall be extended until the next succeeding Business Day.

(xii) References to Laws shall be references to the same as amended, modified, supplemented or reenacted and in effect from time to time, and shall include references to all bylaws, instruments, orders, rules and regulations for the time being made thereunder or deriving validity therefrom, unless the context otherwise requires.

(xiii) References to any amount of money shall mean a reference to the amount in United States dollars.

(xiv) Unless specifically stated to the contrary, reference in this Agreement to the “discretion” of a Party or Person means the Party’s or Person’s sole and absolute discretion. Such discretion is not subject to any external standard, including any standard of custom, “good faith” or reasonableness.

(xv) Any reference in this Agreement to time of day refers to the prevailing Mountain Time.

(xvi) Unless specifically stated to the contrary, all references to days, months and years in this Agreement refer to calendar days, months and years, respectively.

ARTICLE 2

PURCHASE AND SALE OF DEVELOPMENT ASSETS

Section 2.1 Sale and Transfer of Development Assets.

On the terms and subject to the conditions set forth in this Agreement, Developer shall sell, convey, transfer, deliver and assign to PacifiCorp, and PacifiCorp shall purchase, receive and accept from Developer, the Development Assets, free and clear of all Liens and Liabilities not otherwise permitted hereunder. Title to the Project (other than the Development Assets), including the Facility, Equipment and Materials, will be transferred over time as provided in Section 20.6

Section 2.2 Closing Deliverables.

(a) Developer’s Deliverables. At the Closing, Developer shall deliver or cause to be delivered to PacifiCorp the following documents and such other documents, bills of sale, assignments and other instruments of transfer or assignment, together with such releases of Liens and Liabilities and certificates, as PacifiCorp shall deem necessary or PacifiCorp may reasonably request to effect the Closing contemplated by this Agreement, all of which shall be in form and substance reasonably satisfactory to PacifiCorp:

(i) An assignment or assignments of the Leases (the “Assignment of Leases”), deeds in recordable form, properly executed and acknowledged by an Authorized Officer of Developer, and if required by the Leases, the landlords under the Leases, conveying to PacifiCorp the Leases, and upon such assignment of the Leases, PacifiCorp shall assume the obligations of Developer under such Leases on and after the Closing Date and shall be entitled to any return of any security deposit pursuant to the Leases;

(ii) any assignment or assignments of the Easements (the “Assignment of Easements”), in form acceptable to PacifiCorp, properly executed and acknowledged by an Authorized Officer of Developer, and if required by the Easements, the landowners under the Easements, assigning to PacifiCorp the Easements, and upon such Assignment of the Easements, PacifiCorp shall assume the obligations of Developer under such Easements on and after the Closing Date;

(iii) the Title Policy issued for the benefit of PacifiCorp;

(iv) a complete and accurate survey of the Real Property, in accordance with minimum ALTA/ACSM standards then in effect and sufficient in form and substance to permit issuance of the Title Policy, prepared and certified as correct by a licensed land surveyor or registered engineer reasonably satisfactory to PacifiCorp. Such survey shall show the location of the Site and all improvements thereon, and the location of all easements and rights-of-way, whether above or underground, and shall show no encroachments of any improvements onto such easements or rights-of-way (except as expressly permitted under the documents governing such easements and rights-of-way) or onto property outside the boundaries of the Site as shown on the survey;

(v) estoppels from each applicable landlord under the Leases and each applicable owner under the Easements, dated no more than thirty (30) days prior to the Closing, each of which shall include a statement that the respective Lease or Easement is in full force and effect (the “Estoppels”);

(vi) a certification of non-foreign status of Developer (or if Developer is a disregarded entity, the entity treated as owning Developer’s assets for federal income tax purposes), duly executed by an Authorized Officer of Developer or other appropriate Person in the form and manner which complies with the requirements of Section 1445(b)(2) of the Code and Treasury Regulation Section 1.1445-2(b)(2);

(vii) a counterpart signature page to a bill of sale with respect to any Improvements, including the Equipment, Materials or any other component of the Facility, at the Site as of the Closing Date (the “Bill of Sale”), duly executed by an Authorized Officer of Developer;

(viii) a counterpart signature page to an assignment and assumption agreement with respect to the Developer Permits and any Contracts which are part of the Development Assets (the “Assignment and Assumption Agreement”), together with the consent of the applicable Persons, as may be required or reasonably requested by PacifiCorp, duly executed by an Authorized Officer of Developer;

(ix) a certificate of the Secretary or an Assistant Secretary of Developer certifying that: (A) attached thereto is a true, correct and complete copy of a certificate of good standing with respect to Developer, issued by the Secretary of State of the State of [STATE] as of a date not more than thirty (30) days prior to the Closing Date; (B) attached thereto are true, accurate and complete copies of the organizational documents of Developer, and all amendments thereto, as in effect at Closing; (C) attached thereto are copies of resolutions duly adopted by Developer's board of directors (or similar body), authorizing the sale of the Development Assets to PacifiCorp and the execution, delivery and performance by Developer of this Agreement and the transactions contemplated hereby and attesting that such resolutions are in full force and effect without amendment or modification at Closing; (D) attached thereto is the name, title and signature of each of the Authorized Officers of Developer authorized to execute and deliver this Agreement and the Project Documents, and any other document or instrument contemplated hereby or thereby; (E) the conditions specified in Section 2.7(a) and Section 2.7(b) have been satisfied; and (F) attached thereto are true, correct and complete originals (or copies where originals do not exist) of the Project Documents, including the Leases (together with all amendments, supplements, schedules and exhibits thereto), the Transferred Permits, the Reports and any Contracts which are part of the Development Assets;

(x) a current and valid Phase I environmental site assessment with respect to the Site conducted in accordance with ASTM E1527-13 and, if reasonably required by PacifiCorp, a Phase II environmental site assessment with respect to the Site, and a reliance letter from the environmental consultant; and

(xi) such other documents and instruments as may be reasonably requested by PacifiCorp to complete the transactions contemplated by this Agreement.

(b) PacifiCorp's Deliverables. At the Closing, PacifiCorp shall deliver or cause to be delivered to Developer the following documents and such other documents, deeds, bills of sale, assignments and other instruments of transfer or assignment, together with such certificates, as Developer shall deem necessary or Developer may reasonably request to effect the Closing contemplated by this Agreement, all of which shall be in form and substance reasonably satisfactory to Developer:

(i) a counterpart signature page to the Assignment of Leases, duly executed by an Authorized Officer of PacifiCorp;

(ii) a counterpart signature page to the Assignment of Easements, duly executed by an Authorized Officer of PacifiCorp; and

(iii) a counterpart signature page to the Bill of Sale, duly executed by an Authorized Officer of PacifiCorp;

(iv) a counterpart signature page to the Assignment and Assumption, duly executed by an Authorized Officer of PacifiCorp;

(v) a certificate of the Secretary or an Assistant Secretary of PacifiCorp certifying that: (A) attached thereto is a true, correct and complete copy of a certificate of good standing with respect to PacifiCorp, issued by the Secretary of State of the State of Oregon as of a date not more than thirty (30) days prior to the Closing Date; (B) attached thereto are true, accurate

and complete copies of the organizational documents of PacifiCorp, and all amendments thereto, as in effect at Closing; (C) attached thereto are copies of resolutions duly adopted by PacifiCorp's board of directors (or similar body), authorizing the purchase of the Development Assets by PacifiCorp and the execution, delivery and performance by PacifiCorp of this Agreement and the transactions contemplated hereby and attesting that such resolutions are in full force and effect without amendment or modification at Closing; (D) attached thereto is the name, title and signature of each of the Authorized Officers of PacifiCorp authorized to execute and deliver this Agreement and the Project Documents, and any other document or instrument contemplated hereby or thereby; (E) the conditions specified in Section 2.7(a) and Section 2.7(b) have been satisfied; and

(vi) such other documents and instruments as may be reasonably requested by Developer to complete the transactions contemplated by this Agreement.

Section 2.3 Purchase Price.

(a) Purchase Price. The aggregate consideration payable by PacifiCorp to Developer for the Development Assets shall be [_____] Dollars (\$[_____] (the "Purchase Price").

(b) Prorated Amounts. The Purchase Price shall include a proration of operating expenses, rent, and any other amounts due from tenants pursuant to the Leases. Developer shall be responsible for all operating expenses, rent, and any other amounts due from tenants pursuant to the Leases allocable to the period prior to the Closing Date, and PacifiCorp shall be responsible for all operating expenses, rent, and any other amounts due from tenants pursuant to the Leases allocable to the period on and after the Closing Date. Any "true up" payments, credits, or other reimbursements received under the Leases after the Closing Date shall be allocated between Developer and PacifiCorp pro rata in accordance with the Closing Date.

Section 2.4 Closing.

(a) Closing Date, Place and Time. The closing of the transactions contemplated by this ARTICLE 2 (the "Closing") shall take place at PacifiCorp's offices in Portland, Oregon, at 10:00 a.m., Pacific Time (11:00 a.m. Mountain Time) on the date all of the conditions precedent set forth in Section 2.6 and Section 2.7 have been satisfied (or waived in writing by PacifiCorp or Developer, as applicable), which date shall be on or before the Target Closing Date, or at such other time and date as the Parties shall mutually designate in writing (the "Closing Date"). The Closing shall be effective as of 12:01 a.m. Mountain Time on the Closing Date.

(b) Payment of Purchase Price. At the Closing, PacifiCorp shall pay to Developer the Purchase Price via wire transfer of immediately available federal funds to an account located in the United States and designated by Developer at least ten (10) Business Days prior to the Closing Date.

Section 2.5 Assumption of Liabilities.

(a) Excluded Liabilities. Except for the Assumed Liabilities, PacifiCorp shall not assume by virtue of this Agreement or any of the Project Documents or the transactions contemplated hereby or thereby, by operation of law or otherwise, and shall have no liability for and Developer shall remain liable in respect of, any and all debts, liabilities and obligations, of any kind whatsoever, whether

absolute, accrued, contingent, fixed, known or unknown, or whether due or to become due, of Developer, Contractor or any Subcontractor.

(b) Assumed Liabilities. PacifiCorp shall assume, and shall thereafter pay, perform and discharge, without recourse to Developer, as and when due, any liabilities and obligations under the Leases arising out of events, conditions or circumstances first occurring on or after the Closing Date (collectively, the “Assumed Liabilities”).

Section 2.6 Further Assurances.

From time to time after the Closing Date, Developer shall, at the request of PacifiCorp but without further consideration, promptly execute and deliver to PacifiCorp such other agreements, certificates and further instruments of sale, assignment, transfer and conveyance and take such other and further actions as PacifiCorp may reasonably request in order to vest or perfect in PacifiCorp or its assigns, and put PacifiCorp or its assigns in possession of, the Development Assets and to carry out and implement the Closing and the transactions contemplated in this ARTICLE 2, including any regulatory requirements of PacifiCorp.

Section 2.7 Conditions Precedent to PacifiCorp’s Obligation to Complete the Closing.

The obligations of PacifiCorp to effect the Closing and the transactions contemplated in this ARTICLE 2 are subject to the satisfaction or waiver by PacifiCorp on or prior to the Closing Date of each of the following conditions:

(a) Accuracy of Representations and Warranties. The representations and warranties made by Developer in this Agreement that are qualified with respect to materiality shall be true and accurate in all respects, and the representations and warranties made by Developer in this Agreement that are not so qualified shall be true and accurate in all material respects, on and as of the Closing Date (or on the date when made in the case of any representation and warranty which specifically relates to an earlier date).

(b) Performance. Developer shall have performed or complied in all material respects with all obligations and covenants required by this Agreement to be performed or complied with by it on or prior to the Closing Date.

(c) Deliveries. Developer shall have executed and delivered or caused to be executed and delivered to PacifiCorp the items set forth in Section 2.2(a).

(d) Project Documents. All of the Project Documents (together with all amendments, supplements, schedules and exhibits thereto) other than the Consents shall have been duly authorized, executed and delivered by each party thereto, shall be in full force and effect, and shall be in form and substance satisfactory to PacifiCorp in its discretion.

(e) Transferred Permits. All of the Transferred Permits required to be transferred as of the Closing shall have been so transferred, shall be in full force and effect, and shall be in form and substance satisfactory to PacifiCorp in its discretion.

(f) PacifiCorp Consents. All of the PacifiCorp Consents shall have been duly obtained, made or given, shall be in full force and effect, and shall be in form and substance satisfactory to PacifiCorp in its discretion.

(g) PacifiCorp Regulatory Approvals. All of the PacifiCorp Regulatory Approvals shall have been duly obtained, made or given, shall be in full force and effect, and shall be in form and substance satisfactory to PacifiCorp in its discretion.

(h) Reports. All of the Reports shall be in form and substance satisfactory to PacifiCorp in its discretion.

(i) Absence of Orders; Law. No preliminary or permanent injunction or other Judgment of any Governmental Authority to prevent the consummation of the transactions contemplated by this Agreement, including the Closing, shall be in effect or pending, and no applicable Law shall have been enacted by any Governmental Authority that makes consummation of such transactions illegal.

(j) Material Adverse Change. No Material Adverse Change shall have occurred and be continuing.

(k) Estoppels. Prior to the Closing, Developer shall have delivered to PacifiCorp estoppels from each applicable landlord under the Leases and each applicable owner under the Easements, in forms approved by PacifiCorp in advance, dated no more than thirty (30) days prior to the Closing. Each estoppel shall include a statement that the respective Lease or Easement is in full force and effect. PacifiCorp shall have five (5) Business Days after receipt of each estoppel to approve the same.

(l) Notice to Proceed. PacifiCorp shall have issued to Developer the Notice to Proceed.

(m) Network Resource Integration. PacifiCorp Transmission shall have demonstrated to PacifiCorp, in PacifiCorp's satisfaction, such satisfaction in its discretion, that the Project can be integrated with PacifiCorp Transmission's system as a network resource.

(n) Appendices, Exhibits and Schedules. Each Appendix, Exhibit and Schedule to this Agreement shall be in final form and substance satisfactory to PacifiCorp.

(o) Equipment, Materials and Facility. PacifiCorp shall be satisfied in its discretion with the Equipment, Materials and Facility, and all anticipated storage plans with respect thereto.

Section 2.8 Conditions Precedent to Developer's Obligations to Complete the Closing.

The obligation of Developer to effect the Closing and the transactions contemplated in this ARTICLE 2 is subject to the satisfaction or waiver by Developer on or prior to the Closing Date of each of the following conditions:

(a) Accuracy of Representations and Warranties. The representations and warranties made by PacifiCorp in this Agreement that are qualified with respect to materiality shall be true and accurate in all respects, and the representations and warranties made by PacifiCorp in this Agreement that are not so qualified shall be true and accurate in all material respects, on and as of the Closing Date (or on the

date when made in the case of any representation and warranty which specifically relates to an earlier date).

(b) Performance. PacifiCorp shall have performed or complied in all material respects with all obligations and covenants required by this Agreement to be performed or complied with by it on or prior to the Closing Date.

(c) Deliveries. PacifiCorp shall have executed and delivered or caused to be executed and delivered to Developer the items set forth in Section 2.2(b).

(d) Developer Consents. All of the Developer Consents shall have been duly obtained, made or given, shall be in full force and effect, and shall be in form and substance satisfactory to Developer in its discretion.

(e) Developer Regulatory Approvals. All of the Developer Regulatory Approvals shall have been duly obtained, made or given, shall be in full force and effect, and shall be in form and substance satisfactory to Developer in its discretion.

(f) Absence of Orders; Law. No preliminary or permanent injunction or other Judgment of any Governmental Authority to prevent the consummation of the transactions contemplated by this Agreement shall be in effect or pending, and no applicable Law shall have been enacted by any Governmental Authority that makes consummation of such transactions illegal.

(g) Notice to Proceed. PacifiCorp shall have issued to Developer the Notice to Proceed.

Section 2.9 Early Termination.

(a) Notwithstanding anything contained in this Agreement to the contrary, this Agreement may be terminated at any time prior to the Closing Date:

(i) by the mutual written agreement of the Parties;

(ii) by Developer upon notice to PacifiCorp, if there has been a breach by PacifiCorp of any representation, warranty, covenant, agreement or obligation contained in this Agreement which would result in a failure of, or inability of PacifiCorp to satisfy, any condition set forth in Section 2.8, and such breach has not been cured to Developer's reasonable satisfaction within thirty (30) days following PacifiCorp's receipt of notice of such breach;

(iii) by PacifiCorp upon notice to Developer, if there has been a breach by Developer of any representation, warranty, covenant, agreement or obligation contained in this Agreement which would result in a failure of, or inability of Developer to satisfy, any condition set forth in Section 2.7, and such breach has not been cured to PacifiCorp's reasonable satisfaction within thirty (30) days following Developer's receipt of notice of such breach;

(iv) by PacifiCorp, if it becomes apparent that any of the conditions precedent set forth in Section 2.7 will not be satisfied or become impossible to satisfy, by the Target Closing Date, other than if PacifiCorp's breach of this Agreement has been the cause of, or resulted in, such failure or impossibility to satisfy any of the conditions precedent set forth in Section 2.7;

(v) by either Party, if any Law shall become effective after the Effective Date or a Governmental Authority shall have issued a final and non-appealable order, injunction, judgment, decree or ruling, in each case, restraining, enjoining or otherwise prohibiting or making illegal the Closing or the transactions contemplated in connection therewith; and

(vi) by either Party, if the Closing has not occurred by [_____] (the “Target Closing Date”); provided, however, that the right to terminate this Agreement pursuant hereto shall not be available to any Party whose breach of this Agreement has been the cause of, or resulted in, the failure of the Closing to occur on or before the Target Closing Date.

(b) Either Party desiring to terminate this Agreement pursuant to Section 2.9(a) shall given written notice thereof to the other Party.

(c) If this Agreement is terminated by PacifiCorp pursuant to Section 2.9(a)(iii), (iv), or (vi) or by Developer pursuant to Section 2.9(a)(vi), then Developer shall be liable for an early termination fee in the amount of Fifty Dollars (\$50.00) per kW of the nameplate capacity of the Facility. The Parties agree that such early termination fee shall be PacifiCorp’s sole and exclusive remedy for termination by PacifiCorp pursuant to Section 2.9(a)(iii), (iv), or (vi) or termination by Developer pursuant to Section 2.9(a)(vi). The Parties agree that PacifiCorp’s actual damages as a result of termination of this Agreement by PacifiCorp pursuant to Section 2.9(a)(iii), (iv), or (vi) or by Developer pursuant to Section 2.9(a)(vi) would be extremely difficult or impracticable to determine. After negotiation, the Parties have agreed that the above liquidated damages are in the nature of liquidated damages and are a reasonable and appropriate measure of the damages that PacifiCorp would incur as a result of such delays or failures, and do not represent a penalty.

(d) If either Party terminates this Agreement pursuant to Section 2.9(a), then all further obligations of the Parties under this Agreement (other than the provisions which by their terms are intended to survive the expiration or termination of this Agreement) shall be terminated and, except as provided in Section 2.9(c) and notwithstanding any provisions to the contrary contained in this Agreement, neither Party shall have any further liability to the other Party pursuant hereto and termination by such Party shall be its sole and exclusive remedy.

ARTICLE 3

CONTRACT PRICE; TERMS FOR PROGRESS PAYMENTS

Section 3.1 Contract Price.

(a) The aggregate consideration payable by PacifiCorp to Developer for the Project, comprising the sum of Progress Payments made pursuant to ARTICLE 3 on or prior to Final Acceptance, plus any amounts retained by PacifiCorp as Retainage pursuant to Section 3.5, but excluding the Purchase Price (collectively, the “Contract Price”).

(b) Basis of Contract Price

(i) Developer Duty to Inform Itself. Developer shall be deemed to have satisfied itself, through its own due diligence efforts and not based on any representation of PacifiCorp or its representatives (except as set forth in this Section), as to the nature and location of the Work, the general, local, physical and other conditions of the Work, and all other matters which could

in any way affect the Work or the cost thereof under this Agreement. Without limiting the foregoing, Developer shall be deemed to have inspected the Site and to have satisfied itself as to the state and condition (including ground, geological, climatic and hydrological condition) of all circumstances affecting the Site (including any and all safety regulations of PacifiCorp or otherwise applicable to the Work and the Project) and to have examined any documentation and information supplied or made available to Developer by PacifiCorp or available for inspection in the public domain, the conditions or the Technical Specification (with such drawings, exhibits, plans and information as may be annexed thereto or referred to therein) and to have satisfied itself as to the feasibility of executing the Work at the Site. Developer shall be responsible for its own interpretation of such documentation and information. The failure of Developer to adequately investigate and acquaint itself with any applicable conditions and other matters shall not relieve Developer from any of its obligations under this Agreement or any other Project Document, including the responsibility for properly estimating the difficulties and costs of successfully performing the Work and completing this Agreement, and shall not be grounds for adjusting either the Contract Price or the Project Schedule agreed to in this Agreement.

(ii) Underground Obstructions. Without prejudicing or limiting the provisions of Section 3.1(b)(i) or Section 10.1, Developer shall be responsible for ascertaining the location of and avoiding damage to all underground installations including cable, gas, water pipes, telephone lines, and other underground installations, whether the location of the excavation, digging, or trenching required for performance of the Work is fixed by PacifiCorp or by Developer. Developer shall be responsible for all delays, costs, loss or expense arising, whether directly or indirectly, from any ground conditions or artificial obstructions or hazards, including Regulated Materials encountered by Developer during the execution of the Work and including any Work underground or involving excavation that Developer should have been made reasonably aware of based on information available and Developer shall not be entitled to any adjustment as a result thereof to either the Contract Price or the Project Schedule.

(iii) Surveying. Developer is responsible for performing, and shall include in the Contract Price, all construction layout surveying required for execution of the Work.

(iv) Responsibility for Information. Developer shall be responsible for any misunderstanding or incorrect information in connection with the Site (including information provided by PacifiCorp or its representative prior to the date of commencement of the Work).

(v) Existing Improvements, Equipment and Materials. Developer shall be solely responsible for the consequences of incorporating into the Work any existing Improvements, Equipment or Materials. To the extent that the same are incorporated into the Work, such preexisting items shall be subject to the applicable conditions of this Agreement as if they were supplied by Developer hereunder. Without prejudice to the foregoing, Developer shall notify PacifiCorp's Representative of its intention to incorporate any existing Improvements, Equipment or Materials into the Work, other than those specifically identified in this Agreement, as soon as is practicable and seek the prior written consent of PacifiCorp's Representative to the use or utilization thereof, which consent shall be in PacifiCorp's discretion.

Section 3.2 Terms.

(a) Procedures. Subject to the Closing occurring, PacifiCorp shall pay Developer Progress Payments, subject to and in accordance with the requirements of Appendix R and this ARTICLE 3, including satisfaction of the conditions precedent set forth in Section 3.3. To the extent that a Progress Payment Date is other than a Business Day, no interest shall accrue on such Progress Payment until the next Business Day.

(b) Payment in Dollars. All payments to Developer hereunder shall be paid in U.S. Dollars via wire transfer of immediately available federal funds to a bank account located in the United States as specified by Developer. Any payments to PacifiCorp hereunder shall be paid in U.S. Dollars via wire transfer of immediately available federal funds to a bank account located in the United States as specified by PacifiCorp.

Section 3.3 Conditions Precedent to PacifiCorp's Obligation to Pay Progress Payments.

The obligation of PacifiCorp to pay Progress Payments is subject to the satisfaction on each Progress Payment Date of each the following conditions precedent:

(a) Payments on Business Days. The Progress Payment Date shall be a Business Day. If any Progress Payment becomes payable on a day that is not a Business Day, the Progress Payment shall be paid on the next succeeding Business Day. Developer shall bear the cost of any and all banking charges imposed by Developer's bank with respect to any Progress Payment.

(b) Milestones. Developer shall have achieved the Milestones associated with the Work for which the Progress Payment is requested prior to Developer submitting its invoice with respect thereto, and shall have completed all Milestones to have been achieved prior to the date of such Progress Payment in accordance with Appendix R.

(c) Representations and Warranties. (i) The representations and warranties made by Developer in this Agreement and each Project Document to which it is a party that are qualified with respect to materiality shall be true and accurate in all respects, and the representations and warranties made by Developer in this Agreement and each Project Document to which it is a party that are not so qualified shall be true and accurate in all material respects, on and as of such Progress Payment Date (or on the date when made in the case of any representation and warranty which specifically relates to an earlier date), both before and after giving effect to the making of such Progress Payment; and (ii) the representations and warranties made by each Project Party (other than Developer) in the Project Documents that are qualified with respect to materiality shall be true and accurate in all respects, and the representations and warranties made by each Project Party (other than Developer) in this Agreement and each Project Document to which it is a party that are not so qualified shall be true and accurate in all material respects, on and as of such Progress Payment Date (or on the date when made in the case of any representation and warranty which specifically relates to an earlier date), in each case, such representations and warranties shall be deemed renewed and restated as of the date of such Progress Payment.

(d) No Default. (i) No circumstance, event or condition shall exist which either immediately or with the passage of time or the giving of notice, or both, would (A) permit Developer to withhold payment under any Project Document to which Developer is a party, (B) permit any Project Party to

terminate or suspend performance under any Project Document, or (C) reasonably be expected to result in a Material Adverse Change; and (ii) no breach, violation or default shall have occurred and be continuing under any Project Document to which a Project Party is a party.

(e) No Proceeding or Litigation. No action, suit, proceeding or investigation by or before any Governmental Authority or any arbitrator shall be pending or, to Developer's Knowledge, threatened against or affecting a Project Party or the Project which would reasonably be expected to result in a Material Adverse Change, unless such action, suit, proceeding or investigation has been initiated or threatened by PacifiCorp.

(f) Material Adverse Change. Since the date of this Agreement, no Material Adverse Change shall have occurred and be continuing, except and to the extent that such Material Adverse Change is a result of an act or omission of PacifiCorp (other than acts of PacifiCorp contemplated by this Agreement).

(g) Notice of Request for Progress Payment. PacifiCorp shall have received a Notice of Request for Progress Payment in compliance with Section 3.4, together with all supporting documents required thereby.

(h) Permits. All Developer Permits required by applicable Law and the Project Documents to have been obtained prior to the Progress Payment Date shall have been obtained and shall be in full force and effect.

(i) Right to Withhold Payment. Other than with respect to Retainage withheld in accordance with Section 3.5, PacifiCorp shall have determined that it is not necessary to withhold payment to protect PacifiCorp from loss relating to any of the following causes:

(i) Work not in accordance with the requirements of the Project Documents;

(ii) Claims filed against PacifiCorp or the Project as a result of the actions or inactions of Developer, Contractor or any Subcontractor in connection with the performance of the Work (and not otherwise covered by insurance), unless Developer, Contractor or any Subcontractor is disputing such Claims in good faith and if reasonably requested by PacifiCorp, has bonded the Claim with a bonding company or other surety reasonably acceptable to PacifiCorp, and if any Lien is imposed with respect to such Claims, Developer, Contractor or any Subcontractor has discharged such Lien; or

(iii) Failure of Developer to make payments in respect of Equipment, Material and Supplies, or labor or other obligations incurred as a result of activities covered by this Agreement, unless Developer has, in good faith, disputed such payments and, if any Lien is filed with respect thereto, Developer has posted a bond against such Lien with a bonding company or other surety reasonably acceptable to PacifiCorp.

Section 3.4 Notice of Request for Progress Payment.

(a) Notice Required. It shall be a condition precedent to PacifiCorp's obligation to make any Progress Payment pursuant to Section 3.2(a), that Developer deliver to PacifiCorp a Notice of Request

for Progress Payment that satisfies all of the requirements of this Section 3.4 and that is otherwise in form and substance reasonably satisfactory to PacifiCorp.

(b) Documents to be attached to Notice for Progress Payment. Each Notice of Request for Progress Payment shall be accompanied by the following documents:

(i) an invoice of Developer, substantially in the form of Appendix Y, substantiating the amounts payable by PacifiCorp in connection with such Progress Payment and the Work covered thereunder in accordance with Appendix R and certifying as to the other matters provided for therein. Developer's invoice shall provide separate invoices, line-items, breakdowns or further descriptions for amounts payable by PacifiCorp in connection with such Progress Payment and Work covered thereunder as PacifiCorp may reasonably require;

(ii) a Progress Report that indicates the percentage completion of Work achieved compared to the planned percentage completion of Work pursuant to the Project Schedule and, where any Work is behind the Project Schedule, providing comments, describing likely consequences and stating the corrective action being taken by Developer to cause the Work to progress in accordance with the Project Schedule. The Progress Report also shall present any other information reasonably requested by PacifiCorp relating to progress of the Work;

(iii) an officer's certificate signed by an Authorized Officer of Developer certifying that each of the conditions in Section 3.3(b), (c), (d), (e), (f) and (h) has been and will be satisfied as of the applicable Progress Payment Date and such other items as may be required by this Agreement or as PacifiCorp may reasonably request;

(iv) A bill of sale transferring title to all Work subject to the Notice of Request for Progress Payment, in form and substance reasonably satisfactory to PacifiCorp; and

(v) Lien releases from Developer, Contractor and all Subcontractors, in the forms attached in Appendix J, with respect to all Liens that arise with respect to the Project, including the Work, subject to the Notice of Request for Progress Payment.

(c) Address. All Notices of Request for Progress Payment shall be addressed in accordance with Section 35.1.

(d) Review of Notice.

(i) PacifiCorp shall, within fifteen (15) days after receipt of any Notice of Request for Progress Payment, notify Developer if it disputes whether: (A) the Work evidenced by the Notice of Request for Progress Payment has been completed in conformance with the requirements of this Agreement; (B) the Notice of Request for Progress Payment and any additional information requested by PacifiCorp pursuant hereto have been delivered to PacifiCorp in accordance with the requirements of this Section 3.4; or (C) the Progress Payment requested by Developer pursuant to the Notice of Request for Progress Payment is in accordance with Appendix R. If PacifiCorp disputes all or any portion of the Notice of Request for Progress Payment, then PacifiCorp may, in its discretion, withhold such portion of the Progress Payment requested by Developer in the Notice of Request for Progress Payment as PacifiCorp, in its

discretion, determines may be reasonably necessary to complete any portion of the Work in accordance with the Notice of Request for Progress Payment and this Agreement.

(ii) Upon receipt of notice from PacifiCorp that a Notice of Request for Progress Payment is disputed, Developer shall promptly take any and all reasonable actions as may be necessary to remedy any condition identified by PacifiCorp leading to such dispute. Payment of the disputed portion of any Notice of Request for Progress Payment shall be made by PacifiCorp within ten (10) Business Days following the date on which the Parties mutually agree upon resolution of such dispute or such dispute is finally resolved pursuant to Section 32.2. In no event shall any action taken by PacifiCorp in compliance with this ARTICLE 3 affect the Guaranteed Substantial Completion Date for the Facility.

(iii) Subject to the satisfaction of the conditions set forth in Section 3.3, as determined by PacifiCorp in its discretion, and except for disputed portions of any Notice of Request for Progress Payment pursuant to Section 3.4(d)(i), PacifiCorp shall pay Developer on the applicable Progress Payment Date the requested amount of Progress Payment, less any disputed portion of such Notice of Request for Progress Payment pursuant to Section 3.4(d)(i) and any withholding and Retainage permitted under this Agreement.

(iv) Late payments not excused under the provisions of Section 3.4(d)(iii) shall accrue interest at the Late Payment Rate at that time from the date due until paid. Disputed late payments shall not accrue interest until the event giving rise to the dispute has been remedied; provided, however, that if it is later determined that a disputed payment or withholding or Retainage was improper, interest shall accrue at the Late Payment Rate on the amount which should have been paid from the date such amount should have been paid until actual payment is received by Developer.

(v) If PacifiCorp, in its discretion, pays a disputed portion of a Progress Payment requested by Developer pursuant to a Notice of Request for Progress Payment and the Parties mutually agree or it is subsequently determined that PacifiCorp was entitled to withhold such disputed portion of Progress Payment in accordance with the provisions of this Agreement, then Developer shall pay to PacifiCorp upon demand interest at the Late Payment Rate on the disputed portion of the Progress Payment that PacifiCorp was entitled to withhold from the date of payment by PacifiCorp until the earlier of the date of repayment to PacifiCorp and the date on which PacifiCorp offset such disputed portion of the Progress Payment against other payments owing by PacifiCorp to Developer under this Agreement. The determinations made by PacifiCorp pursuant to this ARTICLE 3 are solely for the purpose of determining whether to pay a Progress Payment, and such determinations shall not prevent PacifiCorp from subsequently asserting that Developer, Contractor or any Subcontractor failed to perform its respective obligations under this or any other Project Document, nor shall such determinations be used as evidence that Developer, Contractor or any Subcontractor performed such obligations in accordance with this or any other Project Document.

(e) **A NOTICE OF REQUEST FOR PROGRESS PAYMENT THAT DOES NOT MEET THE REQUIREMENTS OF THIS SECTION 3.4 MAY RESULT IN A PAYMENT DELAY.**

Section 3.5 Retainage

There shall be withheld as retainage from each Progress Payment due and payable to Developer hereunder (other than from the payment due and payable with respect to the achievement of Final Acceptance) five percent (5%) of the amount of such payment (the "Retainage"). Such amount shall be held by PacifiCorp as security for the performance of Developer's obligations hereunder and any interest thereon shall accrue for the account of PacifiCorp and not Developer. PacifiCorp may use the Retainage to cure a Developer Default, for liquidated damages, for payment of unpaid Subcontractors and payments made to remove Liens filed by Subcontractors, and any and all other amounts payable to PacifiCorp hereunder. In accordance with Section 20.3(b), within twenty (20) Business Days after the Substantial Completion Date, PacifiCorp shall pay to Developer the result of subtracting the Punch List Holdback Amount from the Retainage, if a positive dollar value. As Final Punch List items are completed, the Punch List Holdback Amount shall be reduced to an amount equal to two hundred percent (200%) of the aggregate estimated cost of completing the then-remaining Final Punch List items. PacifiCorp shall pay, within twenty (20) Business Days of the reduction of such Punch List Holdback Amount, the amount of the Retainage in excess of such adjusted Punch List Holdback Amount then held by PacifiCorp. PacifiCorp shall pay the balance of the Retainage then held by it to Developer within twenty (20) Business Days after the achievement of Final Acceptance.

ARTICLE 4 REPRESENTATIONS AND WARRANTIES OF DEVELOPER

Developer hereby represents and warrants to PacifiCorp that all of the statements contained in this ARTICLE 4 are true and correct: (a) as of the Effective Date, except to the extent such representations and warranties are specifically made as of a particular date (in which case such representations and warranties will be true and correct as of such date); and (b) on each date such statements are made or are deemed made pursuant to this Agreement.

Section 4.1 Organization, Standing and Power.

Developer is duly formed, validly existing and in good standing, under the applicable Laws of the jurisdiction of its formation. Developer has the requisite [_____] power and authority to own, operate and lease its properties and assets and to carry on its business as now being conducted and as proposed to be conducted pursuant hereto. Developer is duly qualified or licensed to do business and is in good standing in all jurisdictions in which the character of the properties owned or held under lease by it or the nature of the business now being transacted by it or proposed to be transacted by it pursuant hereto makes qualification necessary, including the State of [STATE WHERE FACILITY IS LOCATED].

Section 4.2 Authority; Execution and Delivery.

Developer has full [_____] power and authority to execute and deliver this Agreement and the Project Documents to which it is or will be a party in connection with the transactions contemplated hereby, to perform its obligations hereunder and thereunder, and to complete the transactions contemplated hereby and thereby. The execution and delivery by Developer of this Agreement and the Project Documents to which it will be a party, and the performance by Developer of its obligations hereunder and thereunder, have been duly and validly authorized by all necessary [_____] action.

Section 4.3 Binding Agreement.

This Agreement and the Project Documents to which Developer is, or will be, a party have been, or will be when delivered, duly executed and delivered by Developer and, assuming due and valid authorization, execution and delivery thereof by PacifiCorp and each other party thereto, this Agreement and the Project Documents to which it is, or will be, a party are, or will be when delivered, valid and binding obligations of Developer enforceable against Developer in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar applicable Laws relating to or affecting the enforcement of creditors' rights generally and to general principles of equity.

Section 4.4 No Conflicts.

The execution and delivery by Developer of this Agreement and the Project Documents to which Developer is, or will be, a party does not, and the performance by Developer of its obligations hereunder and thereunder and the completion of the transactions contemplated hereby and thereby, shall not:

(a) conflict with or result in a violation or breach of any of the terms, conditions or provisions of Developer's organizational documents;

(b) assuming all of the consents and approvals set forth on Schedule 4.4 (the "Developer Consents") have been obtained or given, result in a breach, default or violation (or give rise to any right of termination, cancellation or acceleration) under any of the terms, conditions or provisions of any Contract or Permit (with or without notice or lapse of time or both) with respect to which Developer or any of its Affiliates is a party or by which Developer, any of its Affiliates or the Project may be bound, except for such breaches, defaults or violations (or rights of termination, cancellation or acceleration) as to which requisite waivers or consents have been obtained in writing (true and correct copies of which have previously been furnished to PacifiCorp);

(c) assuming all of the Developer's Consents have been obtained or given, conflict with or result in a violation or breach in any term or provision of any applicable Law applicable to Developer or the Project; or

(d) assuming all of the Developer's Consents have been obtained or given, result in the imposition or creation of any Lien of any nature on the Project, other than Permitted Liens.

Section 4.5 Developer Permits; Developer Regulatory Approvals.

(a) Schedule 4.5(a) sets forth all Permits (other than PacifiCorp Permits) required by applicable Law in connection with the design, engineering, development, construction, startup, testing, commissioning, completion, ownership and operation of the Project in accordance with this Agreement and the other Project Documents (the "Developer Permits").

(b) All Developer Permits that are required by applicable Law on or prior to the date this representation is made or deemed made pursuant to this Agreement have been obtained, are in full force and effect, and are final and all appeal periods with respect thereto have expired or terminated. There is no action, suit, investigation or proceeding pending, or, to Developer's Knowledge, threatened, that could result in the modification, rescission, termination, or suspension of any Developer Permit obtained prior to the date this representation is made or deemed made pursuant to this Agreement.

(c) To Developer's Knowledge, no facts or circumstances exist that would reasonably be expected to hinder, impair, restrict, limit or disqualify Developer or the Project from obtaining any Deferred Permit in the ordinary course prior to the time it is required to be obtained hereunder or under the other Project Documents and, in any event, prior to the time required by applicable Law.

(d) Except as set forth on Schedule 4.5(d), no consent or approval of, filing with or notice to, any Governmental Authority by Developer (each, a "Developer Regulatory Approval") is required in connection with the execution, delivery and performance by Developer of this Agreement or any of the Project Documents to which it is or will be a party or the completion of the transactions contemplated hereby or thereby.

Section 4.6 No Proceedings.

Except as set forth on Schedule 4.6, there are no actions, suits, investigations or proceedings by or before any Governmental Authority or arbitrator or, to Developer's Knowledge, threatened against or affecting Developer or any other Project Party or the Project, which would reasonably be expected to result in a Material Adverse Change.

Section 4.7 Compliance with Laws.

(a) The Project is being, and at all times has been, developed, constructed and permitted in compliance with all applicable Laws, all Developer Permits and Prudent Industry Practice. As constructed, the Project shall conform to and comply with all zoning, environmental, wildlife, land use and other applicable Laws and the requirements of all Developer Permits.

(b) Developer is, and at all times has been, and, to Developer's Knowledge, Contractor and each Subcontractor is, and at all times has been, in compliance with all applicable Laws, including those relating to occupational health and safety, and the Developer Permits with respect to the Project, including the design, engineering, supply, construction, installation, testing, commissioning, operation and ownership of the Facility.

Section 4.8 Taxes.

Developer has timely filed all Tax Returns that it was required to file. All such Tax Returns were prepared in compliance with applicable Law and were complete and correct in all material respects. All Taxes due and owing by Developer or with respect to the Project (whether or not shown due on any Tax Return) have been paid. There are no Liens for Taxes (other than Liens for Taxes that are not yet due and payable) upon any assets of Developer, nor to the Knowledge of Developer are any such Liens pending or threatened. Developer has withheld and paid all Taxes required to have been withheld and paid by it in connection with amounts paid or owing to any employee, independent contractor, creditor, owner or other person, and all Forms W-2 and 1099 required with respect thereto have been properly completed and timely filed. The unpaid Taxes of Developer (i) did not, as of the date of its (or, if applicable, its Affiliate's) most recent financial statements, exceed the amount accrued for Tax (excluding amounts accrued for deferred Taxes to reflect book-tax timing differences) in the most recent financial statements and (ii) do not, as of the Closing Date, exceed that amount as adjusted for the passage of time in accordance with the past custom and practice of Developer. No extension of time for filing a Tax Return of Developer has been received or requested. No written claim, and no other claim to Developer's Knowledge, has been made by a Tax authority in a

jurisdiction in which Developer does not file Tax Returns that Developer is or may be subject to taxation by that jurisdiction. There is no audit, claim, assessment, levy, or other proceeding concerning any Tax liability of Developer either claimed or raised by any Tax authority in writing or as to which Developer has Knowledge. Developer has not waived any statute of limitations with respect to Taxes or agreed to any extension of time with respect to a Tax assessment or deficiency. Developer does not have liability for the Taxes of any person under Treasury Regulation Section 1.1502-6 or any similar provision of state, local, or foreign law, as a transferee or successor, by contract, or otherwise. Developer is not a “foreign person” within the meaning of Code Section 1445.

Section 4.9 Environmental Matters.

(a) Schedule 4.9(a) sets forth all environmental reports, assessments and audits, including reports, assessments and audits relating to wetlands, air and emissions or discharges, studies relating to threatened or endangered species, and studies related to avian species, including those species protected by Environmental Law, and studies relating to archaeological, cultural, and historical resources prepared by or on behalf of Developer in connection with the Project or otherwise in Developer’s possession or control with respect to the Project. Developer has provided PacifiCorp with copies of the materials included in Schedule 4.9(a).

(b) (i) Developer has maintained a due diligence program designed to identify all Developer Permits; (ii) as of the Closing Date and any date thereafter on which this representation and warranty is made or deemed made, Developer holds and is in compliance with, all Developer Permits; (iii) PacifiCorp appears properly as the permittee, co-permittee or authorized party with respect to all Developer Permits other than as set forth on Schedule 4.5(a); (iv) the Project has been constructed and can be operated, and the Work has been performed, in compliance with all Environmental Laws; (v) Developer has not received any notice of a pending or threatened Claim, or inquiry by any Governmental Authority or other Person relating to any actual or alleged violations of Environmental Laws or any actual or potential obligation on the part of Developer to investigate or take any other action relative to any Regulated Material or threatened Release of any Regulated Material, in each case, related to the Project, and is and has been in compliance with all Environmental Laws; (vi) Developer has not entered into or agreed to any decree or order with any Governmental Authority and Developer is not subject to any Judgment relating to compliance with any Environmental Law or to the investigation or cleanup of Regulated Materials; (vii) neither Developer nor any other Person has generated, transported, treated, stored, disposed of, arranged to be disposed of, Released or threatened to Release any Regulated Materials at, on, from or under the Site in violation of, or so as would reasonably be expected to result in liability under, any Environmental Laws; (viii) Developer has not assumed any liabilities or obligations arising under any Environmental Law in connection with the Project; and (ix) Developer has not utilized any underground storage tanks (“USTs”) or Equipment using PCBs or asbestos in the conduct of its operations at the Site. For the avoidance of doubt, compliance with Environmental Laws includes performance of all studies required or recommended under Environmental Law to assess the impacts of the Project on the environment, wildlife, or cultural resources and the development and implementation of best management practices and mitigation measures to reduce or avoid impacts to environmental, wildlife, or cultural resources, including, as applicable, an Avian Protection Plan, Bird and Bat Conservation Strategy, Conservation Agreement, Eagle Conservation Plan, and a Cultural Resources Treatment Plan.

(c) No Environmental Law imposes any obligation upon Developer or PacifiCorp arising out of or as a condition to any transaction contemplated by this Agreement or any other Project Document, including (i) any requirement to modify or to transfer any Developer Permit, (ii) any requirement to file any notice or other submission with any Governmental Authority, (iii) the placement of any notice, acknowledgment or covenant in any land records, or (iv) the modification of or provision of notice under any Contract, consent order or consent decree. No Lien has been placed upon any of Developer's currently-owned properties related to the Project under any Environmental Law.

Section 4.10 Title to Properties.

(a) Developer has good and marketable title to the Project assets (whether tangible or intangible, and whether real property, personal property, or mixed real and personal property) free and clear of all Liens, except for Permitted Liens.

(b) At the Closing, PacifiCorp will acquire good and marketable title to the Development Assets, free and clear of all Liens, except for Permitted Liens.

Section 4.11 Real Estate.

(a) The Leases constitute the sole real property leases which are required in connection with the Project, including the design, engineering, supply, construction, installation, testing, commissioning, operation and ownership of the Facility. Neither Developer nor any of its Affiliates owns any real property associated with the Project. The Leases are in full force and effect, and the applicable landlords under the Leases have not given Developer or any of its Affiliates any notice of breach, default or termination of any of the Leases. There exists no breach, default, or event or condition which, with the giving of notice or the passage of time or both, would constitute a breach or default under the Leases either by Developer or the applicable landlord. The rent, fees, and other sums due and payable under the Leases will be or have been paid through the Closing Date. There exists no lease superior to the Leases, and there is no mortgage, deed of trust, or security interest which may disturb the Leases, as long as there is no tenant default under the Leases. The Leases are free and clear of all Liens other than Permitted Liens.

(b) The Easements constitute the sole easements which are required for the Project, including the design, engineering, supply, construction, installation, testing, commissioning, operation and ownership of the Facility. The Easements are in full force and effect, and the applicable land downers under the Easements have not given Developer or any of its Affiliates any notice of breach, default or termination of any of the Easements. There exists no breach, default, or event or condition which, with the giving of notice or the passage of time or both, would constitute a breach or default under the Easements either by Developer or the applicable landowner. Any amounts due and payable under the Easements will be or have been paid through the Closing Date. There is no mortgage, deed of trust, or security interest which may disturb the Easements, as long as there is not default by grantee under the Easements. The Easements are free and clear of all Liens other than Permitted Liens.

(c) At the Closing, Developer will assign the Leases and the Easements to PacifiCorp, free and clear of all Liens other than Permitted Liens. Developer has delivered to PacifiCorp true, correct and complete copies of (i) the Leases, (ii) any Easements with respect to the Real Property or the Site,

and (iii) the most recent leasehold title insurance policy (together with exceptions thereto) and survey with respect to the Real Property and the Site that are in the possession of Developer.

(d) Developer has delivered to PacifiCorp true, correct and complete copies of all Contracts providing for the sale, lease, transfer or other disposition, including any option Contracts, of or with respect to the Real Property or the Site.

(e) Except as set forth on Schedule 4.11, there is no pending appropriation or condemnation Claim of which Developer or any of its Affiliates has been notified, and there is no contemplated or threatened appropriation or condemnation Claim, in each case, affecting the Real Property or the Site or any part thereof, or any sale or other disposition of the Real Property or the Site or any part thereof in lieu of condemnation;

(f) To Developer's Knowledge, except for assessments occurring on a regular basis in accordance with applicable Law or as a result of the sale of the Development Assets contemplated by this Agreement, there is no pending or contemplated reassessment of any parcel included in the Site that is reasonably expected to increase the real estate Tax assessment for such parcels; and

(g) There is no violation of any applicable Law relating to or affecting the Real Property or the Site.

Section 4.12 Project Documents; Representations and Warranties in Project Documents.

(a) Set forth on Schedule 4.12(a) is a list of all Contracts (including all amendments, supplements, waivers, letter agreements, interpretations and other documents amending, supplementing or otherwise modifying or clarifying such Contracts) to which Developer or its Affiliates is a party or by which Developer or its Affiliates or their respective property is bound that, in each case, may affect the Project or any transaction contemplated by this Agreement and (i) the termination or cancellation of which would reasonably be expected to result in a Material Adverse Change, or (ii) have a value of Twenty-Five Thousand Dollars (\$25,000) or more.

(b) All representations and warranties made by Developer in each Project Document (other than this Agreement) are true and correct in all material respects as of the date made or deemed made pursuant to this Agreement, and, to Developer's Knowledge, all representations, warranties and other factual statements made by each Project Party other than Developer in the Project Documents are true and correct in all material respects as of the date made or deemed made pursuant to this Agreement except, in each case, for any such representations and warranties which are not true and correct in all materials but which would not reasonably be expected to result in a Material Adverse Change.

(c) All Project Documents required for the ownership, development, construction, operation and maintenance of the Project are in full force and effect.

(d) Except as set forth on Schedule 4.12(d), no event has occurred that constitutes or, with the giving of notice or passage of time, or both, would constitute, (i) a Developer Default under this Agreement, (ii) a default by Developer under any other Project Document to which it is a party, or (iii) to Developer's Knowledge, a default by any other Project Party under any Project Document to which it is a party and which, in the case of clause (ii) or (iii) would reasonably be expected to result in a Material Adverse Change.

(e) No Claim, action, proceeding or investigation is pending, or to Developer's Knowledge, threatened, that challenges the enforceability of this or any other Project Document.

Section 4.13 Sufficiency of Assets.

(a) Developer has, or will have at the Closing, the power and right to sell, convey, deliver, transfer and assign to PacifiCorp, the Development Assets free and clear of all Liens, other than Permitted Liens.

(b) Other than the Project Documents, the Developer Permits, the Transferred Intellectual Property, the Contractor Guaranties, the Transferred Warranties, the Improvements, the Equipment, the Materials, the Leases and the Easements, there are no other material assets or rights of any kind, whether tangible or intangible, real or personal, owned or held by Developer or any of its Affiliates relating to, associated with or concerning the Project.

(c) To Developer's Knowledge, there are no adverse Claims of ownership to the Project or any assets of the Project, including the Development Assets, and neither Developer nor any of its Affiliates has received any notice that any Person has asserted a Claim of ownership or right of possession or use in or to the Project or any assets of the Project, including the Development Assets.

(d) The Project Documents, the Developer Permits, the Transferred Intellectual Property, the Contractor Guaranties, the Transferred Warranties, the Improvements, the Equipment, the Materials, the Leases and the Easements, constitute all of the material Contracts, Permits, assets and properties necessary to develop, permit, design, engineer, supply, construct, install, test, commission, use, operate and maintain the Facility in accordance with applicable Law, Prudent Industry Practice, the Developer Permits and the Project Documents.

Section 4.14 Renewable Energy Incentives; Tax Incentives.

(a) To Developer's Knowledge, no facts or circumstances exist that would reasonably be expected to hinder, impair, restrict, limit or disqualify the Project from qualifying for, and producing and giving rise to, the Renewable Energy Incentives.

(b) Neither the Project nor any property that is part of the Project has been placed in service for federal income tax purposes, and there has been no "original use" (within the meaning of Section 48 or Section 168(k) of the Code) of the Project or any property that is part of the Project. Neither Developer nor any Developer Affiliate has claimed or intends to claim any depreciation deductions, amortization deductions, the ITC, the PTC, or other income tax credits or deductions with respect to the Project or any property that is part of the Project. No grants have been provided by the United States, a State, or a political subdivision of a State for use in connection with the Project within the meaning of Section 45(b)(3)(A)(i) of the Code. No proceeds of any issue of State or local governmental obligations have been used to provide financing for the Project within the meaning of Section 45(b)(3)(A)(ii) of the Code, the interest on which is exempt from tax under Section 103 of the Code. No "subsidized energy financing" within the meaning of Section 45(b)(3)(A)(iii) of the Code has been provided directly or indirectly under a federal, state, or local program provided in connection with the Project (within the meaning of Section 45(b)(3)(A)(iii) of the Code.) No application with respect to any of the foregoing grants, rebates or financings has been filed or submitted with respect to the Project. No portion of the Site is currently enrolled in the U.S. Department of Agriculture's Conservation Reserve Program. No

property that is part of the Project is (i) “tax-exempt bond financed property” or “tax-exempt use property” within the meaning of Section 168 of the Code or (ii) imported property of the kind described in Section 168(g)(6) of the Code.

(c) For purposes of the Begin Construction Guidance, construction of the Project, any PTC Facility in the Project, and any property that is part of the Project began not earlier than [YEAR] and no later than [YEAR]. The factual certifications contained in Schedule 4.14(c) are accurate as to Developer’s efforts to begin construction within the meaning of the Begin Construction Guidance. For purposes of the Begin Construction Guidance (including Section 4.04 of IRS Notice 2013-29 and Section 5.04 of Notice 2016-31), all PTC Facilities in the Project and any property that is part of the Project will be operated as part of a single project and treated as a single facility.

(d) The transactions contemplated by this Agreement will not have an adverse effect on the continuing validity and effectiveness of any Tax exemption, Tax holiday, other Tax-sharing arrangement or Tax incentives for which the Project is currently eligible. The Site has not been subject to a preferential or special property tax assessment, value limitation, or other favored tax treatment. The Site is not, has not been, and will not be (as a result of the Closing and the transactions contemplated hereby) subject to rollback Taxes.

(e) Developer has no legal obligation, absolute or contingent, to any Person other than PacifiCorp to sell or effect a sale of all or any portion of the Project, including any electric power, net metering credits, Environmental Attributes or Renewable Energy Credits in connection with or related to the Project. All Renewable Energy Incentives (including all Renewable Energy Credits) and Environmental Attributes shall belong to PacifiCorp.

Section 4.15 Financial Resources.

Developer has the financial resources, assets, operating capital, credit and other resources and means necessary to fulfill its obligations under this Agreement and the other Project Documents to which it is or will be a party on a timely basis.

Section 4.16 Construction of the Facility; Expertise.

(a) To Developer’s Knowledge, there exist no facts or circumstances that reasonably could be expected to hinder, delay, restrict or prevent: (a) the ability of the Facility to be developed, permitted, designed, engineered, supplied, constructed, installed, tested and commissioned in all material respects in accordance with the terms and conditions of the Project Documents, applicable Laws, the Developer Permits and Prudent Industry Practice; (b) the Facility from achieving Substantial Completion on or prior to the Guaranteed Substantial Completion Date; or (c) the Facility from achieving Final Acceptance in accordance with the Project Schedule.

(b) The assets constituting the Project to be sold, transferred, conveyed, assigned and delivered to PacifiCorp pursuant to this Agreement or any other Project Document, include all of the assets used, held by or necessary or convenient for the ownership and operation of the Project, and collectively provide to PacifiCorp an operational Project at the Site in accordance with all Developer Permits, applicable Law and Prudent Industry Practice, and no Person other than Developer or PacifiCorp owns or has any rights in or to the Project.

(c) The development, permitting, design, engineering, supply, construction, installation, testing, commissioning and operation of the Project in accordance with this and the other Project Documents is in compliance with all Developer Permits, applicable Law and Prudent Industry Practice.

(d) Each of Developer and Contractor has substantial experience and expertise in the development, design, engineering, construction, and management of turnkey construction of renewable energy facilities such as the Facility and the capability to carry out the Work in accordance with terms and conditions of this Agreement and the other Project Documents, and acknowledges that PacifiCorp is relying on such experience, expertise and capability in entering into this Agreement.

(e) Neither Developer nor, to Developer's Knowledge, Contractor has relied on any information supplied by PacifiCorp regarding the environmental condition or Regulated Materials at, on, or under the Site in order to make any representation or warranty in this Agreement accurate or not misleading.

Section 4.17 Reports.

Developer has delivered to PacifiCorp a true, accurate and complete copy of each Report. The Reports neither individually nor in the aggregate indicate any event, result, occurrence, development, fact, change or effect of whatever nature or kind that has or would reasonably be expected to result in a Material Adverse Change. To Developer's Knowledge, there has been no material change in any findings or conclusions of any Report delivered by Developer to PacifiCorp other than for which Developer has redelivered such Report to PacifiCorp in final form as revised to address any such change.

Section 4.18 Due Diligence.

Developer has made available for PacifiCorp's review all material information in its possession or control or in the possession or control of its Affiliates relating to the Project in connection with PacifiCorp's due diligence examination conducted with respect to the transactions contemplated by this Agreement. To Developer's Knowledge, none of the information provided by Developer or its Affiliates to PacifiCorp contains any untrue or incorrect statement of fact, or omits to state any fact necessary to make the information, in light of the circumstances in which it was provided, not misleading.

Section 4.19 Disclosure.

No representation or warranty by Developer in this Agreement or any Project Document to which it is a party contains or, as of the Effective Date and any date on which this representation and warranty is made or deemed made, will contain any untrue statement of a material fact, or omits or, as of the Effective Date and any date on which this representation and warranty is made or deemed made, will omit any material fact necessary to make the statements or facts contained herein or therein not misleading.

Section 4.20 No Material Adverse Change.

No Material Adverse Change has occurred and is continuing and, to Developer's Knowledge, no event, result, occurrence, development, fact, change or effect of whatever nature or kind exists that would reasonably be expected to result in a Material Adverse Change.

Section 4.21 Brokers.

All negotiations relative to this Agreement and the other Project Documents and the transactions contemplated hereby and thereby have been carried out by Developer directly with PacifiCorp without the intervention of any Person on behalf of Developer in such manner as to give rise to any valid Claim by any Person against PacifiCorp or any of its Affiliates for a finder's fee, brokerage commission or similar payment.

ARTICLE 5 REPRESENTATIONS AND WARRANTIES OF PACIFICORP

PacifiCorp hereby represents and warrants to Developer that all of the statements contained in this ARTICLE 5 are true and correct (a) as of the Effective Date, except to the extent such representations and warranties are specifically made as of a particular date (in which case such representations and warranties will be true and correct as of such date), and (b) on each date such statements are made or are deemed made pursuant to this Agreement.

Section 5.1 Organization, Standing and Power.

PacifiCorp is duly formed, validly existing and in good standing under the applicable Laws of the jurisdiction of its formation. PacifiCorp has the requisite corporate power and authority to own, operate and lease its properties and assets and to carry on its business as now being conducted and as proposed to be conducted pursuant hereto.

Section 5.2 Authority; Execution and Delivery.

PacifiCorp has full corporate power and authority to execute and deliver this Agreement and the Project Documents to which it is or will be a party in connection with the transactions contemplated hereby, to perform its obligations hereunder and thereunder, and to complete the transactions contemplated hereby and thereby. The execution and delivery by PacifiCorp of this Agreement and the Project Documents to which it will be a party, and the performance by Developer of its obligations hereunder and thereunder, have been duly and validly authorized by all necessary corporate action.

Section 5.3 Binding Agreement.

This Agreement and the Project Documents to which PacifiCorp is, or will be, a party have been, or will be when delivered, duly executed and delivered by PacifiCorp and, assuming due and valid authorization, execution and delivery thereof by Developer and each other party thereto, this Agreement and the Project Documents to which it is, or will be, a party are, or will be when delivered, valid and binding obligations of PacifiCorp enforceable against PacifiCorp in accordance with their terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other similar applicable Laws relating to or affecting the enforcement of creditors' rights generally and to general principles of equity.

Section 5.4 No Conflicts.

The execution and delivery by PacifiCorp of this Agreement and the Project Documents to which it is a party does not, and the performance by PacifiCorp of its obligations hereunder and thereunder, and the completion of the transactions contemplated hereby and thereby, shall not:

(a) conflict with or result in a violation or breach of any of the terms, conditions or provisions of PacifiCorp's organizational documents;

(b) assuming all of the consents and approvals set forth on Schedule 5.4 (the "PacifiCorp's Consents") have been obtained or given, result in a breach, default or violation (or give rise to any right of termination, cancellation or acceleration) under any of the terms, conditions or provisions of any material Contract or Permit (with or without notice or lapse of time or both) with respect to which PacifiCorp is a party or by which PacifiCorp or its assets may be bound, except for such breaches, defaults or violations (or rights of termination, cancellation or acceleration) as to which requisite waivers or consents have been obtained in writing (true and correct copies of which have previously been furnished to Developer) or which would not reasonably be expected to result in a Material Adverse Change; or

(c) assuming all of the PacifiCorp's Consents have been obtained or given, conflict with or result in a violation or breach in any term or provision of any applicable Law applicable to PacifiCorp.

Section 5.5 PacifiCorp Permits; PacifiCorp Regulatory Approvals.

(a) Schedule 5.5(a) sets forth all Permits required with respect to the design, engineering, development, construction, startup, testing, commissioning and completion of the Project that are the responsibility of PacifiCorp to obtain (the "PacifiCorp Permits").

(b) Except as set forth on Schedule 5.5(b), no consent or approval of, filing with or notice to, any Governmental Authority by PacifiCorp (each, a "PacifiCorp Regulatory Approval") is required in connection with the execution, delivery and performance by PacifiCorp of this Agreement or any of the Project Documents to which it is or will be a party or the completion of the transactions contemplated hereby or thereby.

Section 5.6 No Proceedings.

Except as set forth on Schedule 4.6, there are no actions, suits, investigations or proceedings by or before any Governmental Authority or arbitrator pending against PacifiCorp or, to PacifiCorp's Knowledge, threatened against PacifiCorp, which would reasonably be expected to result in a Material Adverse Change.

Section 5.7 Brokers.

All negotiations relative to this Agreement and the other Project Documents and the transactions contemplated hereby and thereby have been carried out by PacifiCorp directly with Developer without the intervention of any Person on behalf of PacifiCorp in such manner as to give rise to any valid Claim by any Person against Developer or any of its Affiliates for a finder's fee, brokerage commission or similar payment.

ARTICLE 6 CREDIT REQUIREMENTS

Section 6.1 Credit Requirements.

(a) At any time during the Term, Developer may have to post Credit Support Security in the amounts outlined on the Credit Matrix based upon its Credit Rating or that of the entity providing credit assurances as Credit Support Security on behalf of Developer, and the size of the Project. If the required Credit Support is greater than zero dollars (\$0.00), upon the request of PacifiCorp, Developer shall provide the Credit Support in the form of: (x) a guaranty, in the form set forth in Appendix S from a Person acceptable to PacifiCorp in its discretion; (y) a Letter of Credit, in the form set forth in Appendix X, from a Person acceptable to PacifiCorp in its discretion; or (z) a Cash Escrow.

(b) If requested by PacifiCorp, Developer shall, within thirty (30) days, provide PacifiCorp with copies of its most recent annual and quarterly financial statements prepared in accordance with GAAP.

ARTICLE 7 GENERAL OBLIGATIONS OF DEVELOPER

Section 7.1 Developer's General Obligations.

(a) Developer's general obligation under this Agreement is to provide PacifiCorp with the Project for the Contract Price, completed in accordance with the terms of this Agreement.

(b) The finished Work shall be complete in all respects. The intent of this Agreement, the Appendices, Exhibits and the Scope of Work is for Developer to provide to PacifiCorp an engineered solution of first class workmanship in each and every respect. All hardware shall be manufactured, fabricated, assembled, finished and documented with workmanship of the highest quality throughout, and all of its components shall be new and suitable for the purposes specified. In addition, the solution shall be engineered, implemented, tested and documented in accordance with the Prudent Industry Practice and shall be suitable for the purpose specified.

(c) The Work shall be manufactured and executed in the manner set forth in the Technical Specification or, where not so set forth, to the reasonable satisfaction of PacifiCorp's Representative and all Work on the Site shall be carried out in accordance with Prudent Industry Practice and such reasonable directions as PacifiCorp or PacifiCorp's Representative may give.

(d) Developer shall, in accordance with the terms and conditions of this Agreement, employ Contractor and the Subcontractors who in turn shall provide all labor, services, management, supervision, Equipment, Materials, tools, facilities, utilities, Permits and other aspects of the Work necessary for the design, engineering, construction, startup, testing, commissioning and completion of the Facility including those items specifically required in Appendix A.

(e) Developer shall: (i) cause Contractor and Subcontractors to carry out and complete the Work in accordance with the requirements, duties and obligations imposed on Contractor and Subcontractors pursuant to Prudent Industry Practice and all applicable Site conditions; (ii) ensure that Contractor and every Subcontractor designs and performs the Work so as to achieve the objective of a

Project which complies with applicable Laws and the other requirements of this Agreement and their respective Project Documents; (iii) have the resources, experience, qualifications and capabilities as are required to fully perform its obligations under this Agreement; (iv) keep PacifiCorp informed as to the status of deliveries, and if any such Materials or Equipment are not being properly manufactured or fabricated in accordance with the requirements of the Project Documents and, if different, the Contracts pursuant to which they were purchased, or do not otherwise conform with such requirements, promptly making PacifiCorp aware thereof and taking necessary corrective action; (v) acquire the Site, all Permits necessary for the design, engineering, development, construction, startup, testing, commissioning, completion, ownership and operation of the Facility, and the Emission Reduction Credits consistent with the Project Schedule; (vi) cause each of the conditions precedent to complete the Closing set forth in Section 2.7 to occur; and (vii) maintain at least one office in the State of Wyoming.

Section 7.2 Contractor and Subcontractors.

(a) In connection with its performance of this Agreement, Developer shall either (i) cause Contractor and each Subcontractor to purchase Equipment from the Approved Subcontractors set forth in Appendix C, or (ii) elect to use vendors (including, for the avoidance of doubt, substation and transmission line consultants) that are reasonably satisfactory to PacifiCorp, in which event, Developer shall provide PacifiCorp a Change Order Request for a price adjustment to the Contract Price. A Change Order for a price adjustment to the Contract Price shall be approved by PacifiCorp in accordance with ARTICLE 13.

(b) Developer shall be fully liable to PacifiCorp hereunder for all acts and omissions of Contractor and each Subcontractor to the same extent as though any such act or omission had been performed or omitted to be performed by Developer directly. In no case shall Developer's engagement of Contractor or any Subcontractor relieve Developer of any of its obligations or Liabilities hereunder and, notwithstanding the use of Contractor or any Subcontractors hereunder, Developer shall remain fully and primarily liable to the PacifiCorp for the full and complete performance of Developer's obligations hereunder.

(c) PacifiCorp shall have no contractual obligation to, and shall not be deemed to be in privity with, Contractor or any Subcontractor; provided, however, that in the event this Agreement is terminated, then PacifiCorp may require Developer to assign one or more of the Project Documents and other Contracts to PacifiCorp in accordance with Section 30.3. Developer shall include in all Contracts with Contractor, any Subcontractors and all other vendors, a consent by such Contractor, Subcontractor(s) and other vendor(s) in advance to such future assignment(s).

Section 7.3 Compliance With Law.

(a) Developer shall comply with all applicable Laws, and shall cause Contractor and each Subcontractor to comply with all applicable Laws with respect to the Work to be performed by such Contractor or Subcontractor. Developer shall be responsible for ascertaining the nature and extent of any applicable Law, which may affect the Work, the Facility or the operation of the Facility prior to Substantial Completion, or the Site as a result of the performance by Developer of its obligations under this Agreement. Developer shall ensure that all of the Work complies with applicable Laws, Prudent Industry Practice and the Developer Permits and the product manuals, copies of which are included in Appendix F.

(b) Subject to the preceding paragraph, Developer shall be responsible for fines and penalties which may arise (including those that PacifiCorp pays or becomes liable to pay) as a direct result of Developer's non-compliance with applicable Law, or as a result of PacifiCorp's inability to operate the Project in compliance with applicable Law due to the inaccuracy of Developer's representations and warranties or the breach by Developer of any of its obligations under this Agreement, other than any fines and penalties arising from any act or omission of PacifiCorp or its employees and agents.

Section 7.4 Permits.

(a) Developer shall obtain and maintain in accordance with applicable Law all Developer Permits required in connection with the design, engineering, development, construction, startup, testing, commissioning, completion, ownership and operation of the Project in accordance with this Agreement and the other Project Documents. PacifiCorp shall be properly included as the permittee, co-permittee or authorized party with respect to all Developer Permits.

(b) Developer shall, and cause Contractor and the Subcontractors to, reasonably support PacifiCorp in obtaining the PacifiCorp Permits, including providing such engineering and environmental data and statistical information as may be reasonably requested by PacifiCorp.

(c) Developer shall, and cause Contractor and any Subcontractor to, at its or their sole cost and expense, obtain and maintain all applicable construction and construction-related Permits which are required by applicable Law in order to undertake and perform the Work and their respective obligations under the Project Documents to which they are a party.

Section 7.5 Opportunities for Other Contractors; Labor Relations.

(a) Developer shall, in accordance with PacifiCorp's reasonable instructions, afford to other contractors identified by PacifiCorp all reasonable opportunities for carrying out their work at the Site, provided that the same shall not materially obstruct or disturb the progress of the Work. Developer shall also afford access to PacifiCorp's employees, including employees who will operate and maintain the Facility, to perform their work at the Site.

(b) Developer shall be responsible for coordinating PacifiCorp's contractors and employees as it relates to mobilization and laydown space requirements, interconnection with Site construction power and temporary storage facilities, water, emergency evacuation requirements, trash/waste disposal, Site access, temporary office space, safety and security and other Site regulations and requirements. Each of PacifiCorp's contractors shall be responsible for any costs with respect to that contractor's work, including mobilization and laydown space requirements, interconnection with Site construction power and temporary storage facilities, water, emergency evacuation requirements, trash/waste disposal, Site access, safety and security and other Site regulations and requirements.

(c) Developer agrees that Claims resulting from the concurrent PacifiCorp contractor activities shall be brought to PacifiCorp's attention within ten (10) Business Days of their occurrence. PacifiCorp and Developer agree to informally resolve Claims as they occur and otherwise in accordance with ARTICLE 32.

Section 7.6 Labor and Employment.

(a) Developer shall, and shall cause Contractor and each Subcontractor to, ensure that all construction Contracts and subcontracts of any tier for the Project be awarded (i) in compliance with [STATE] State and Federal and all other applicable Law and (ii) on a Merit Shop basis or (iii) through a project labor Contract. Contractor and each Subcontractor shall, subject to applicable Law or applicable collective bargaining agreement, and to the fullest extent commercially reasonable, perform the Work using [STATE] labor. Any Contract or subcontract shall be awarded on the basis of the best value to the Project including an evaluation of the Subcontractors' ability to work in harmony with others working on the Project including Contractor, the existing labor force, Governmental Authorities, and without regard to whether or not the successful bidder is signatory or non-signatory to agreements with labor organizations. Developer shall, and shall cause Contractor and each Subcontractor to, refrain from any discrimination against any employee on the basis of such employee's membership in any labor organization, or his or her lack of such membership. All employees working on the Project shall be permitted to exercise their right to engage in protected concerted activity, as defined in Section 7 of the National Labor Relations Act, as amended, or to refrain from doing so, without any discrimination or other adverse consequence. Developer shall, and shall cause Contractor and each Subcontractor to, comply with applicable Law regarding labor relations and employment matters. Any administrative or civil proceedings filed against a Project Party shall be promptly reported to PacifiCorp. Nothing in this provision shall affect any obligation of a Subcontractor under a lawful collective bargaining agreement applicable to some or all of such Person's operations on the Project.

(b) Developer shall be aware of, and familiar with, all collective bargaining agreements, which do or may pertain to or affect the work under this Agreement or other work at the Site. Developer shall plan and conduct its operations so that its employees and subcontractors of any tier will work harmoniously with PacifiCorp employees and other workers employed on the same or related projects to assure that there will be no delays, work stoppages, excessive labor costs, or other labor difficulties. Developer shall ensure that Contractor and each and every Subcontractor comply with all applicable Laws pertaining to such labor.

(c) Scarcity and Quality of Labor. Developer shall have no Claim for an extension of the Time for Completion or a Claim for loss, damage or additional costs and expenses of any kind in respect of any alleged or proved unsuitability, scarcity, inefficiency of the labor it may engage or wish to engage.

(d) Equal Employment Opportunity and Other Non-Discrimination Clauses.

(i) Developer shall, at all times, comply with all applicable Laws applicable to employees, including those governing wages, hours, desegregation, employment discrimination, employment of minors, health and safety. Developer shall comply with equal opportunity applicable Laws to the extent that they are applicable.

(ii) Developer shall indemnify, defend and hold harmless PacifiCorp Indemnified Parties from and against all losses, costs and damages by reason of any violation thereof and from any liability, including fines, penalties and other costs arising out of Developer's failure to so comply.

(iii) Developer shall execute and deliver to PacifiCorp a completed Certificate of Compliance using PacifiCorp's form of Certificate before starting to perform Work under this Agreement.

(e) Workers Compensation. Developer shall comply with all applicable Laws regarding workers' compensation and shall, prior to commencing Work, furnish proof thereof satisfactory to PacifiCorp.

Section 7.7 Authority for Access for Inspection.

Inspection of the Work at the Site and attendance at meetings (whether conducted in-person, telephonically or through similar medium) relating to the Project which are attended by Developer and Contractor or Subcontractor and related to status, progress, quality, scope, schedule and coordination shall at all times be afforded by Developer to PacifiCorp, PacifiCorp's Representative and such other Persons as shall be designated by PacifiCorp or PacifiCorp's Representative. PacifiCorp, in its inspection, shall give due consideration to the needs of Developer to carry out Developer's obligations and strive not to hinder or unduly impede Developer while carrying out such inspection. PacifiCorp, in its inspection, may observe the progress and quality of the Work to determine if the Work is proceeding in accordance with the Project Documents. Inspections under this Section 7.7 are solely for the benefit of PacifiCorp and any inspection or failure to inspect and any objection or failure to object by PacifiCorp shall not (i) relieve Developer, Contractor, or any Subcontractor of its respective obligations under any Project Document or (ii) be used as evidence that PacifiCorp agreed that Developer, Contractor, or any Subcontractor had fulfilled any obligations under any Project Document or that PacifiCorp had waived any of its rights under any Project Document.

Section 7.8 Developer's Use of PacifiCorp's Drawings.

Developer may use PacifiCorp's Drawings only for fulfilling its obligations under this Agreement. PacifiCorp's Drawings, specifications and other information submitted by PacifiCorp to Developer shall remain the property of PacifiCorp. Such materials shall not, without the written consent of PacifiCorp, which consent may be withheld in PacifiCorp's discretion, be used, copied or communicated to a third party, other than Contractor, by Developer unless necessary to fulfill the purposes of this Agreement, and then pursuant to a full reservation of rights in PacifiCorp. PacifiCorp makes no representations or warranties as to the accuracy, completeness or suitability of PacifiCorp's Drawings and Developer shall not rely on such PacifiCorp's Drawings.

Section 7.9 Contractor Drawings and Manuals.

(a) Developer shall at all times keep a copy of the most recent version of the Contractor Drawings and Manuals at Developer's office on the Site to be made available for PacifiCorp's review. In addition, Developer shall provide and make available to PacifiCorp electronic versions of the Contractor Drawings and Manuals accessible by PacifiCorp through a file transfer protocol site to be maintained by Developer.

(b) Developer shall cause to be set forth in the Contractor Drawings and Manuals provided to PacifiCorp such information as is required to operate and maintain the Work, including to the extent applicable, recommended operating and maintenance procedures, system descriptions, product catalogs, drawings, design sheets, specifications, logic diagrams, maintenance and instruction sections, spare parts

lists, any vendor-supplied training documents, and as otherwise set forth in Appendix F and Appendix G. The Contractor Drawings and Manuals shall be (i) prepared in accordance with the Technical Specification, Appendix F and Appendix G and when completed, shall be in sufficient detail to accurately represent the Project as constructed. The Contractor Drawings and Manuals shall be maintained and be available, with up-to-date drawings, specifications and design sheets, for the training of PacifiCorp's personnel as set forth in Section 7.10.

(c) Developer shall prepare initial system descriptions, design basis documents, and operational guidelines for the Project and deliver such to PacifiCorp for its review at least one (1) year prior to the Guaranteed Substantial Completion Date.

(d) At least sixty (60) days prior to the expected Guaranteed Substantial Completion Date, Developer shall provide PacifiCorp with initial drafts of the final Contractor Drawings and Manuals for review (the "Draft Manuals"). The Draft Manuals shall contain such information described in Section 7.9(b), other than the drawings which, in accordance with this Section 7.9, are being maintained so as to be up-to-date. Two (2) complete sets of the Draft Manuals shall be provided to PacifiCorp at least sixty (60) days prior to Substantial Completion and shall be a condition to the achievement of Substantial Completion.

(e) Developer shall provide to PacifiCorp both hard and electronic final copies of the Contractor Drawings and Manuals. Developer shall provide to PacifiCorp five (5) final hard copies of the Contractor Drawings and Manuals within sixty (60) days after achievement of Substantial Completion. PacifiCorp shall not be required to deliver the Notice of Final Acceptance until all such Contractor Drawings and Manuals have been so delivered.

(f) Any modifications to the Contractor Drawings and Manuals made necessary as a consequence of any Final Punch List items or modifications to the Work shall be issued as addenda to the Contractor Drawings and Manuals within sixty (60) days following completion thereof.

Section 7.10 Training.

(a) Training of PacifiCorp's personnel (or other employees or agents of PacifiCorp) shall be given by Developer or Contractor prior to the Substantial Completion Date as required by the Technical Specification, in accordance with the timetable to be agreed upon with PacifiCorp prior to the Substantial Completion Date and shall include training (including on-site and classroom) in connection with the operation and maintenance of the Project. Such training shall be provided directly to PacifiCorp's personnel as specified by PacifiCorp in Appendix A and shall be conducted by a trainer experienced in the operation and maintenance of the Project.

(b) As more fully described in Appendix A, starting at least sixty (60) days prior to the first energization of the Facility at the Site and continuing until Final Acceptance, Developer shall oversee the development of and provide qualified and experienced support for PacifiCorp's execution of a practical and participatory training program at the Site for an adequate number of employees designated by PacifiCorp, which personnel shall be experienced in renewable electric generating facility operations appropriate to their respective job descriptions.

Section 7.11 Safety.

(a) Developer shall be solely responsible for being aware of and initiating, maintaining and supervising compliance with all safety Laws, regulations, precautions, and programs in connection with the performance of this Agreement, including the provisions of Section 9.2, Section 9.6, and Section 9.9. Developer's or Contractor's health and safety plan for the Project is attached hereto as Appendix T (the "Developer Safety Assurance Program"), which Developer acknowledges and agrees is no less stringent than PacifiCorp's form of Safety Assurance Plan attached hereto as Appendix L. Developer is responsible for ensuring that the Developer Safety Assurance Program complies in all material respects with the requirements of PacifiCorp's Safety Assurance Program set forth in Appendix L. Prior to the start of, and throughout the performance of, the Work, Developer shall ensure that each of its employees, together with all employees of its Contractor and each Subcontractor, are fully informed concerning all safety, health, and security regulations pertaining to the Work, and the Developer Safety Assurance Program. Developer shall conduct all operations under this Agreement in such a manner as to avoid the risk of bodily harm to persons or risk of damage to any property.

(b) In the event Developer fails to promptly correct any violation of safety or health regulations, PacifiCorp may suspend all or any part of the Work. Developer shall not be entitled to any extension of time or reimbursement for costs caused by any such suspension order. Failure of PacifiCorp to order discontinuance of any or all of Developer's operations shall not relieve Developer of its responsibility for the safety of personnel and property. Developer shall maintain an accurate record of and shall promptly report to PacifiCorp all cases of property damage in excess of One Hundred Dollars (\$100.00) and of death, occupational diseases, or injury to employees or any other third parties and incident to performance of Work under this Agreement. Developer shall promptly notify PacifiCorp and provide a copy of any safety citation issued by any Governmental Authority. Developer shall perform all Work under this Agreement in strict accordance with the Developer Safety Assurance Program.

Section 7.12 Intellectual Property Rights.

(a) Developer shall not take any action that would violate or infringe any Person's Intellectual Property Rights.

(b) Developer shall, at its sole expense, settle or defend and pay any costs (including attorneys' fees) and damages awarded in connection with, and shall defend, indemnify and hold harmless each PacifiCorp Indemnified Party from and against, any and all Claims, suits or proceedings based on a Claim that any part of the Work or the ownership or operation of the Project infringes or violates any patent or copyright. PacifiCorp shall give Developer notice of any such Claim promptly after PacifiCorp has actual knowledge thereof, provided that the omission of PacifiCorp to give such notice shall not relieve Developer of its obligations hereunder except to the extent that such omission results in a failure of actual notice to Developer and Developer is damaged as a result of such failure. The provisions of ARTICLE 26 and ARTICLE 32 shall also apply to any Claim under this Section 7.12(b).

(c) In case any part of the Work or the ownership or operation of the Project is held to infringe or violate any patent or copyright and the use of the Work, or the operation of the Project is restricted or prohibited as a result thereof, Developer shall, at its sole cost and expense, at Developer's option, either (i) procure for PacifiCorp the right to continue using the Work, (ii) replace the same with non-infringing

comparable substitute Work, or (iii) modify the Work so that it becomes non-infringing; provided that such modification does not adversely affect the Work.

(d) Developer shall obtain and transfer to PacifiCorp perpetual, fully-paid licenses to use all computer programs and any other intellectual property necessary or useful for the operation of the Facility, together with all warranties related thereto.

Section 7.13 Developer's Representatives.

(a) Developer shall employ one or more competent representatives (each, a "Developer's Representative"), whose name or names and details of qualifications and previous experience shall have been provided to PacifiCorp and PacifiCorp's Representative by Developer, to manage the Project and who shall have Developer's authority in respect of all matters arising out of or in connection with this Agreement and the Work.

(b) Key Personnel.

(i) Prior to beginning the Work, Developer shall provide to PacifiCorp, for its approval pursuant to Section 7.13(b)(iii), a list setting forth the name of the proposed natural Person for each Key Personnel position for itself, Contractor and all Subcontractors performing material portions of the Work. All employees assigned by Developer to perform any of Developer's obligations shall be fully qualified to perform the tasks assigned them.

(ii) All Key Personnel shall be present on the Site during working hours and at all times the Work is in progress during the times relevant to the Key Personnel's duties are applicable to the Work, and any orders or instructions which PacifiCorp or PacifiCorp's Representative may give to such Key Personnel shall be deemed to have been given to Developer.

(iii) The appointment of every Key Personnel provided for in Section 7.13(a) shall be subject to the approval of PacifiCorp or PacifiCorp's Representative, such approval to be in the discretion of PacifiCorp or PacifiCorp's Representative. Appendix H shall be amended to list all Key Personnel approved by PacifiCorp or PacifiCorp's Representative pursuant to this Section 7.13(b)(iii).

(iv) Developer shall give PacifiCorp fifteen (15) days advance written notice in the event Developer intends to remove or change any of its Key Personnel assigned to the Project or to reassign any such Key Personnel to another project. PacifiCorp shall give due consideration to any request by Developer and shall respond within fifteen (15) days to any such requests. Developer shall not remove, change or reassign any of its Key Personnel assigned to the Project without the prior written consent of PacifiCorp, such consent to be in its discretion, and then only if a suitable replacement for such representative has been approved by PacifiCorp prior to the removal of such representative.

(v) PacifiCorp shall have the right to approve Developer's senior staff on Site (in addition to its Key Personnel), and may request the removal of any of Contractor's or any Subcontractor's personnel.

(c) Objection to Representatives and Persons Employed by Developer, Contractor or Subcontractors. Developer shall remove or cause to be removed any representative or Person employed directly or indirectly by Developer, Contractor or any Subcontractor in the execution of the Work who, in the opinion of PacifiCorp, misconducts itself, is incompetent or negligent.

Section 7.14 Developer's Personnel/Drugs, Alcohol and Firearms.

With regard to the performance of the Work, Developer shall, and shall ensure that Contractor and any Subcontractor shall, only employ Persons qualified to perform the Work. Developer shall, at all times, enforce strict discipline and good order among its employees and the employees of Contractor and any Subcontractor. Developer shall not permit or allow the introduction or use of any firearms, illegal drugs or intoxicants upon the Work under this Agreement, or upon any of the grounds occupied, controlled, or used by Developer in the performance of the Work. Developer shall immediately remove from the Work, whenever requested by PacifiCorp, any Person considered by PacifiCorp to be incompetent, insubordinate, careless, disorderly, in violation of the above restriction on firearms, illegal drugs or intoxicating liquor, or under the influence of illegal drugs or intoxicants, and such person shall not again be employed in the performance of the Work herein without the consent of PacifiCorp.

Section 7.15 Use of Premises and Trespassing.

Developer shall confine the storage of materials and construction equipment to locations acceptable to PacifiCorp and in accordance with applicable Laws. Developer shall, at all times, prohibit its staff, workers and all other persons employed directly or indirectly by Developer on the Site from poaching or trespassing and any such person found so doing shall be removed from the Work and shall not again be employed in the performance of the Work without the consent of PacifiCorp.

Section 7.16 Temporary Facilities.

Developer shall make provisions, at its cost, for all temporary facilities necessary for the construction of the Project and the installation of the Equipment, including arrangements for the supply of telephone, office equipment, sanitary toilet facilities, compressed air and other services for the Work and shall provide and maintain all pipes, cables and services required for its operation. Developer shall provide and maintain on the Site office accommodations for itself and an office for PacifiCorp and PacifiCorp's Representative. Developer shall also install and maintain, at its own cost and expense, a system of lighting to provide a reasonable degree of illumination over the area of its Work during performance of the Work. Developer shall remove any of such temporary installations pursuant to Section 20.8.

Section 7.17 Decisions and Instruction of PacifiCorp's Representative.

(a) Developer shall proceed with the decisions and instructions given by PacifiCorp's Representative in accordance with this Agreement. Such decisions or instructions may be given orally, but shall be effective only when confirmed in writing unless and only to the extent that such instructions are necessary to remedy an emergency situation that would make the provision of written instructions impractical.

(b) If Developer disputes or questions any decision or instruction by PacifiCorp's Representative, Developer shall give notice to PacifiCorp within five (5) days after receipt thereof,

giving reasons therefor. PacifiCorp shall within a further period of five (5) days by notice to Developer with reasons, confirm, reverse or vary such decision or instruction. If Developer disagrees with PacifiCorp's response, or if PacifiCorp fails to reply to Developer's notice within the stipulated days, the matter shall be resolved in accordance with ARTICLE 32. Notwithstanding the foregoing, to the extent that an instruction by PacifiCorp's Representative is necessary to remedy an emergency situation and Developer disputes the action requested in such instruction, then Developer shall nonetheless comply with PacifiCorp's instruction and the dispute shall be resolved as provided in ARTICLE 32.

Section 7.18 Cooperation Between the Parties.

The Parties are expected to be called upon to make decisions regarding matters not reasonably anticipated in order to meet their respective obligations under this Agreement. In making such decisions, the Parties shall cooperate with the intent to improve the performance of the Work and reduce the likely operating and maintenance impacts. The vehicle for reaching agreement and causing a change to occur in the Work or the schedule for performance or the Guaranteed Substantial Completion Date or additional substantiated costs as a result of errors and omissions in information supplied by PacifiCorp shall be by Change Order in accordance with ARTICLE 13. Additionally, if errors or omissions in information provided by Developer affect PacifiCorp's or its other contractors' work during construction of the Facility, PacifiCorp shall be entitled to make a Claim against Developer for PacifiCorp's costs as the result of errors or omissions.

Section 7.19 Spare Parts Inventory.

(a) Developer shall provide and include in the Contract Price all spare parts and consumables necessary for the installation, startup and commissioning of the Facility and the complete performance of the Work through Final Acceptance. Such spare parts and consumables shall be located at the Site and immediately available to Developer, Contractor and any Subcontractors to ensure that all Work, including testing and commissioning activities continue unimpeded by the absence of such onsite spare parts and consumables. PacifiCorp shall not be liable in any way for Developer's inability to achieve Substantial Completion or Final Acceptance due to lack of any spare parts or consumables and shall not be entitled to Change Order in respect of same as to change in Contract Price or Project Schedule.

(b) Developer shall submit to PacifiCorp not later than one hundred thirty five (135) days prior to the Substantial Completion Date a proposed list of spare parts and associated pricing for the first five (5) years of operation following Final Acceptance in accordance with Appendix O. Within thirty (30) days of receipt of the proposed list, PacifiCorp shall determine, in its discretion, to procure such spare parts or, at PacifiCorp's election pursuant to a PacifiCorp-Initiated Change, request Developer to procure or cause to be procured such spare parts and have such spare parts delivered to the Site prior to the Guaranteed Substantial Completion Date. Upon the request of PacifiCorp, Developer shall meet with PacifiCorp and its designees to discuss the proposed inventory of spare parts.

(c) If available, PacifiCorp shall allow Developer to use any spare parts or consumables owned by PacifiCorp, but in no event shall PacifiCorp be liable or shall Developer be entitled to a Change Order in the event that the absence of any particular spare part or consumable impacts completion of the Work. In the event Developer uses PacifiCorp's spare parts and consumables with PacifiCorp's written consent, such spare parts and consumables shall be expeditiously replaced by Developer at its sole cost and expense. PacifiCorp does not warrant the condition, quality, suitability, absence of defects, fitness

for any purpose or aspect of any PacifiCorp-supplied spare part and if Developer uses any PacifiCorp-supplied spare part, it does so at its own risk.

Section 7.20 Further Assurances.

Developer shall take all such further actions and execute all such further documents and instruments as PacifiCorp may at any time reasonably determine to be necessary to further carry out and consummate the transactions contemplated by the Project Documents.

Section 7.21 Other Liens.

(a) Until after Final Acceptance shall have occurred, Developer shall not create, incur, assume or suffer to exist, directly or indirectly, any Lien on any of its property now owned or hereafter acquired in connection with the Project, other than the following:

(i) Easements or other encumbrances on Real Property affecting the Project required to be granted (x) pursuant to applicable Laws or (y) by order of a Governmental Authority; provided, that such easements or other encumbrances on Real Property would not reasonably be expected to have a Material Adverse Change;

(ii) Mechanics Liens relating to the Work supplied and performed by Contractor or by any Subcontractor that have not yet been paid in the ordinary course of business; and

(iii) Liens filed with respect amounts payable to Contractor or any Subcontractor that are being disputed in good faith, provided that Developer has posted a bond against such Liens with a bonding company or other surety reasonably acceptable to PacifiCorp.

(b) Developer shall, and shall cause Contractor, all Subcontractors, and all Suppliers to deliver Lien releases in the forms attached in Appendix J, for all Liens that arise with respect to the Project.

Section 7.22 Restriction on Fundamental Changes.

(a) Until after Final Acceptance shall have occurred, Developer shall not, without PacifiCorp's prior written consent, enter into any business combination, merger or consolidation, or liquidate, wind-up, dissolve (or suffer any liquidation or dissolution), or discontinue its business.

(b) Until after Final Acceptance shall have occurred, and except in the ordinary course of business (such as the replacement or substitution of items from customary wear and tear), Developer shall not convey, sell, lease, assign, transfer or otherwise dispose of any of Developer's assets, except in connection with the Closing, if such sale, lease, assignment, transfer or other disposition would, individually or in the aggregate, reasonably be expected to result in a Material Adverse Change.

Section 7.23 [Reserved]

Section 7.24 Amendment of Project Documents; Additional Project Documents.

Developer shall not:

(a) without the prior written consent of PacifiCorp (i) assign or permit any Person to assign any of its rights or obligations to or under any Project Document, (ii) terminate any Project Document, or (iii) make any amendment or other modification to any Project Document that would (A) result in a breach of this Agreement or the inaccuracy of any representation or warranty in this Agreement, (B) increase the Contract Price, (C) extend the Guaranteed Substantial Completion Date, or (D) have a Material Adverse Change;

(b) to the extent not covered by Section 7.24(a), amend, modify, grant any Consent with respect to any obligation under, waive timely performance or observance by any Person (other than PacifiCorp) of any obligation under, exercise any options or remedies or issue any change order, notice or make any elections under any Project Document without providing notice thereof and copies of all material documentation related thereto, to PacifiCorp;

(c) without the prior written consent of PacifiCorp, compromise or settle any Claim against any Project Party if to do so would have a Material Adverse Change; or

(d) enter into any Additional Project Document that would have a Material Adverse Change. Developer shall deliver copies of all Additional Project Documents to PacifiCorp within three (3) Business Days of the execution thereof.

Section 7.25 Environmental Matters.

Until Final Acceptance shall have occurred, Developer shall not permit (a) any USTs (other than for water or sewage) to be located on the Site, (b) any asbestos to be contained in or form part of any building, building component, structure or office space on the Site, and (c) any polychlorinated biphenyls to be used or stored at the Site.

Section 7.26 Records and Accounts.

Developer shall maintain all records and accounts in accordance with GAAP consistently applied and in Dollars in order to support any and all invoices, Claims and disputes under this Agreement. Developer shall permit PacifiCorp, upon reasonable prior notice and during business hours, to audit Developer's records and accounts to verify invoice amounts and to confirm any increases or decreases to the Contract Price and any Change Orders, as well as any report or correspondence related to Developer Permits or safety or environmental compliance.

Section 7.27 Condemnation, Eminent Domain, Casualty Events.

(a) In the event that any Governmental Authority or any Person, acting under any Governmental Authority, other than PacifiCorp, takes any action to condemn, seize or appropriate all or any substantial part of the Project (each a "Condemnation Proceeding"), Developer shall promptly notify PacifiCorp of the Condemnation Proceeding and promptly update PacifiCorp on significant events in

connection with the Condemnation Proceeding, including with respect to settlement offers, and provide other information reasonably requested by PacifiCorp as often as may be reasonably requested by PacifiCorp. Any monetary offer to settle a Condemnation Proceeding or compensate Developer with respect thereto shall at all times be subject to PacifiCorp's discretion to accept or reject such offer, and in the event that PacifiCorp directs Developer to accept such offer, and provided that no Developer Default, shall have occurred and be continuing, the proceeds thereof shall be paid to PacifiCorp.

(b) In the event that any casualty event (other than a Force Majeure) shall occur which causes a suspension of all or a substantial portion of the Work for a period greater than (i) forty-five (45) days after the receipt of insurance proceeds in an amount required to successfully restore or repair the Project without having to increase the Contract Price or (ii) ninety (90) days after the occurrence of such casualty event, then, provided that no Developer Default shall have occurred and be continuing, the proceeds of any insurance policies in respect of such casualty event shall be paid to PacifiCorp.

Section 7.28 Import Permits, Licenses and Duties.

Developer shall obtain all import Permits required for any part of the Facility, Equipment, Materials or Work within the time stated in the Project Schedule or, if not so stated, in reasonable time having regard to the time for delivery of the Facility, the Equipment and Materials and the Time for Completion. Developer shall pay all customs and import duties arising upon the importation of the Facility, Equipment and Materials into the applicable port of entry. All such payments shall be deemed to be included in the Contract Price.

Section 7.29 Compliance with Planning Permissions, Consents.

Developer shall comply fully in respect of design and work at the Site and all other obligations under this Agreement, with the terms, conditions and requirements of all applicable Consents and Permits.

Section 7.30 Lay Out.

(a) Developer shall be, and shall ensure that Contractor and any Subcontractor is, responsible for the true and accurate laying out of the Work by reference to original points, lines and levels of reference provided by Developer's Representative and Developer shall provide all necessary instruments, appliances and labor therefor.

(b) If, at any time during the execution of the Work, any error appears in the positions, levels, dimensions or alignment of the Work, Developer shall rectify the error.

(c) Developer shall bear the cost of rectifying any error caused or permitted, directly or indirectly, by Developer.

(d) Developer shall identify and protect bench marks, sight rails, pegs and other monuments or reference points used in laying out the Work.

ARTICLE 8 GENERAL OBLIGATIONS OF PACIFICORP

Section 8.1 PacifiCorp's General Obligations.

PacifiCorp shall:

- (a) keep Developer informed as to the status of any governmental or regulatory or other activities undertaken by PacifiCorp that relates to the Facility and that is likely to materially and adversely affect Developer's ability to perform the Work;
- (b) comply with all applicable Laws, the noncompliance with which are likely to materially and adversely affect the Work, the Facility, the Site or Developer's or PacifiCorp's obligations under this Agreement; and
- (c) maintain its records and accounts in accordance with GAAP consistently applied in order to support any and all invoices, Claims and disputes under this Agreement.

Section 8.2 Operations and Maintenance Staff.

PacifiCorp shall provide Developer reasonable and necessary support personnel during the commissioning and startup of the Facility as set out in this Section 8.2. Developer shall supply a schedule of requested support personnel not less than sixty (60) days prior to commencing commissioning and start-up activities. PacifiCorp's support personnel shall work under the direction of Developer and, subject to the following sentence, shall have acceptable minimum skill levels to perform their work in connection with the commissioning and start-up activities. Participation by PacifiCorp's support personnel shall be considered on the job training.

Section 8.3 PacifiCorp's Representative.

- (a) PacifiCorp's Power to Delegate. PacifiCorp may at any time and from time to time delegate to its representative (the "PacifiCorp's Representative") any of its duties and obligations (other than its payment obligations) under this Agreement. Except as explicitly provided herein, any written decision, instruction or order given by PacifiCorp's Representative to Developer in accordance with such delegation shall have the same effect as though it had been given by PacifiCorp.
- (b) Duties of PacifiCorp's Representative. PacifiCorp's Representative shall carry out such duties as are specified in this Agreement but except as expressly provided in this Agreement neither the performance of or the failure to perform such duties whether properly or at all by PacifiCorp's Representative, nor the fact that a PacifiCorp's Representative has been appointed by PacifiCorp shall in any way relieve Developer of any responsibility or liability for any of its obligations under this Agreement. No approval of, or consent to or failure to approve or consent to any matter by PacifiCorp or PacifiCorp's Representative shall relieve Developer of any liability or any of its obligations under this Agreement.

Section 8.4 Standard of Conduct.

Unless explicitly stated otherwise in this Agreement, whenever the Parties or their representatives are required to exercise their discretion: (a) to make a decision, (b) to give consent or approval, (c) to express satisfaction or approval, (d) to determine value, or (e) otherwise to take action which may affect their respective rights and obligations hereunder, the exercise of such discretion shall be made in a reasonable manner and in good faith consistent with this Agreement so as to reasonably minimize any disruption to the other Party, and having regard to all the circumstances reasonably applicable thereto.

ARTICLE 9 WORKING ARRANGEMENTS

Section 9.1 Site Regulations.

Developer Parties, while performing Work at the Site, shall comply with PacifiCorp's Site regulations, including environmental, wildlife, and cultural resources protection, loss control, dust control, safety, and security, as well as any Site special conditions, copies of which PacifiCorp shall provide to Developer from time to time.

Section 9.2 Site Security.

(a) Developer shall be responsible for Site security, which shall be in accordance with Developer's established security procedures, which, at a minimum, shall ensure compliance with all requirements of applicable Laws, the Developer Permits, the Technical Specification and this ARTICLE 9. All Developer Parties shall strictly adhere to all Site security provisions.

(b) Unless and until care, custody, control and risk of loss transfer to PacifiCorp pursuant to this Agreement, Developer shall be fully responsible for all Materials and Equipment, including any PacifiCorp-furnished Materials and Equipment in the care, custody and control of Developer.

Section 9.3 Preservation of Public and Private Access.

Developer shall not damage, close, or obstruct any highway, road, or other public or private easement, except to the extent allowed by applicable Laws or the Developer Permits. If such facilities are closed, obstructed, damaged, or made unsafe by Developer, Developer shall, at its sole cost and expense, make such repair as necessary and shall also provide such temporary guards, lights, and other signals as may be necessary or required for safety or by applicable Laws or the Developer Permits.

Section 9.4 Avoidance of Noise and Disturbance.

All Work at the Site shall be carried out in such a way as to minimize noise and disturbance and Developer shall defend, indemnify and hold harmless all PacifiCorp Indemnified Parties from and against all third party Claims and Liabilities for injury, including death, and property damage caused by, arising out of, or in connection with noise or other disturbance, falling outside of the limits specified in applicable Laws or the Developer Permits and created by Developer Parties in connection with performing the Work.

Section 9.5 Opening Up of Work.

(a) No major material part of the Work shall be covered up or put out of view without the prior written consent of PacifiCorp's Representative. Developer shall timely inform PacifiCorp's Representative and shall afford full opportunity for PacifiCorp's Representative or its designee to inspect any part of such Work which is about to be covered up or put out of view and to examine foundations before any part of the Work is placed thereon.

(b) Developer shall uncover any part of such Work or make openings in or through the same as PacifiCorp's Representative may from time to time direct and shall reinstate and repair such part. The cost of such uncovering, repair or reinstatement shall be borne by Developer unless: (i) the requirements of Section 13.2(c), if applicable, have been fulfilled with respect to such part; and (ii) such part is found to have been executed in accordance with this Agreement.

(c) Any Defects that are uncovered shall be addressed in accordance with ARTICLE 23.

Section 9.6 Fencing, Protection, Lighting.

Developer shall provide adequate safety barriers, signs, lanterns, and other warning devices and service to properly protect any person having access to or near the Site in accordance with the requirements of applicable Laws and the Technical Specification. Developer shall be solely responsible for any act of trespass or any damage to adjacent property resulting from or in connection with the Work or its operations under this Agreement.

Section 9.7 Site Services.

Developer shall be responsible for obtaining and the cost of any and all electricity, water, fuel, air and other services as the Developer Parties may require for the purposes of the Work.

Section 9.8 Cleanup.

Developer shall keep the Site, including the Work area and storage areas used by Developer, free from accumulation of waste materials or garbage arising out of the Work, and shall, prior to completion of the Work, remove and properly dispose of any such waste materials or garbage from and about the Site in accordance with applicable Laws as well as remove all Non-PacifiCorp Materials. Upon completion of the Work, Developer shall leave the Site in a condition reasonably satisfactory to PacifiCorp.

Section 9.9 Regulated Materials.

Developer shall, at all times, be responsible for preventing Releases of Regulated Materials brought to or generated at the Site by Developer Parties or preexisting at the Site. Prior to the Closing, Developer shall manage and be responsible for any Regulated Materials, whether brought on to or generated at the Site by Developer Parties or pre-existing at the Site, according to applicable Law.

Section 9.10 Wildlife and Cultural Concerns.

(a) In the event that any surveys or studies indicate that wildlife protected by Environmental Laws will be impacted (killed, harassed, harmed, disturbed, or otherwise “taken” as defined under Environmental Laws) as a result of development or construction activities (including due to grading, ground disturbance, tree clearing, nest removal, etc.) or during operation of the Project, Developer shall coordinate with PacifiCorp in developing a plan for minimizing impacts, which may include coordination with federal and state wildlife Governmental Authorities. During development and construction of the Project, any wildlife protected by Environmental Laws discovered on the Site, including wildlife carcasses, shall be immediately reported to PacifiCorp. Live, injured, or deceased wildlife protected by Environmental Laws shall not be harassed or collected without appropriate local, state and/or federal permits or other written authority. All development and construction activities will be in accordance with applicable Laws, including applicable avian, threatened/endangered species, and/or other protected wildlife Contracts or other documents, such as an Avian Protection Plan, Bird and Bat Conservation Plan, Conservation Agreement, and/or an Eagle Conservation Plan for the Project.

(b) In the event that any relics, items or structures with archaeological, geographical or historical value or any articles (including fossils, coins, articles of value or antiquity and any Native American relics) are discovered by Developer Parties or any of their respective representatives or employees, Developer shall leave said items undisturbed and shall immediately notify PacifiCorp and the appropriate federal or state Governmental Authorities and await further direction before proceeding with any Work in the vicinity.

ARTICLE 10 PROJECT SCHEDULE

Section 10.1 Project Schedule.

Attached hereto as Appendix B is a preliminary project schedule setting forth the major tasks that must be completed by Developer (each a “Milestone”) and completion dates for such tasks (“Milestone Completion Dates”) as provided by Developer in accordance with the Technical Specification, including the Critical Milestones and associated Critical Milestone Completion Dates which will be consistent with Appendix M. The preliminary project schedule shall include a Milestone (and a corresponding Milestone Completion Date) for development of a final project schedule (the “Project Schedule”) setting forth in more detail the Milestones and Milestone Completion Dates, including the Critical Milestones and Critical Milestone Completion Dates.

Section 10.2 Form of Project Schedule.

The Project Schedule shall be in the form set forth in Appendix B. The Project Schedule shall specify any tasks, obligations, or responsibilities under this Agreement (each a “PacifiCorp Obligation”) which PacifiCorp must perform or fulfill in order for Developer to achieve the Milestone Completion Dates for each Milestone, and the date by which PacifiCorp is required to fulfill each and every PacifiCorp Obligation in accordance with this Agreement.

Section 10.3 Rejection of the Project Schedule.

(a) No later than sixty (60) days prior to Closing, Developer shall submit a draft Project Schedule to PacifiCorp's Representative for its review and comment. PacifiCorp's Representative may request that the Critical Milestones and associated Critical Milestone Completion Dates are not different from the Critical Milestones and Critical Milestone Completion Dates set forth in Appendix M.

(b) If PacifiCorp's Representative comments on any Project Schedule submitted by Developer, Developer shall, within seven (7) days of such comments, submit four (4) copies of the final form of Project Schedule consistent with the PacifiCorp Representative's comments with respect to same.

(c) PacifiCorp's Representative shall have the right to reasonably request Developer to vary, amend, substitute or otherwise change the Project Schedule after approval thereof. Any such variation, amendment, substitution, or other change (other than as provided in Section 10.5 or caused by Developer's failure to perform any of its obligations in accordance with the terms of this Agreement) shall be considered a PacifiCorp-Initiated Change under Section 13.1.

Section 10.4 Alterations and Updates to Project Schedule.

Developer shall not, without the prior written consent of PacifiCorp's Representative, make any material change to the Project Schedule, including change any Critical Milestone or Critical Milestone Completion Date. Developer shall provide an expanded detailed Project Schedule and any updates thereto on a weekly basis as the Work progresses, including the incorporation of delay and acceleration analyses where appropriate.

Section 10.5 Revision of Project Schedule.

If PacifiCorp determines, in its discretion, that progress of the Work does not or is unlikely to match the Project Schedule, or otherwise is unlikely to allow Substantial Completion to be completed by the Guaranteed Substantial Completion Date, PacifiCorp's Representative may order Developer to revise the Project Schedule. Developer shall thereafter revise the Project Schedule to show the modifications necessary to ensure completion of the Work within the Time for Completion. Developer shall notify PacifiCorp's Representative as soon as possible of any circumstances of which Developer is or becomes aware which might result in progress of the Work not matching the Project Schedule.

Section 10.6 Developer's Responsibility to Comply with Milestone Completion Dates.

Developer shall be responsible to complete and to commit sufficient manpower and resources to insure the completion of each Milestone by the applicable Milestone Completion Date. In the event that Developer is made aware that any Milestone will fail to meet its applicable Milestone Completion Date, Developer shall notify PacifiCorp within five (5) Business Days and provide a statement to PacifiCorp analyzing the effect of such failure on the Project Schedule. Developer shall use best efforts to minimize the impact of the delay.

Section 10.7 Rate of Progress.

(a) PacifiCorp shall notify Developer if PacifiCorp reasonably determines that (i) the rate of progress of the Work is too slow to allow Developer to achieve the Substantial Completion Date by the Guaranteed Substantial Completion Date and (ii) Developer is not entitled to an extension of the Time for Completion under the provisions of this Agreement.

(b) Following receipt of such a notice, Developer shall at its own cost and expense take such steps as may be necessary and as PacifiCorp's Representative may approve to remedy or mitigate the likely delay, including revision of the Project Schedule pursuant to Section 10.4. Developer shall not be entitled to any additional payment, including an increase in the Contract Price, for taking such steps.

Section 10.8 Progress Reports.

(a) Developer shall submit to PacifiCorp's Representative on the third (3rd) working day of each month or such other date as is agreed upon between Developer and PacifiCorp, a progress report ("Progress Report") in compliance with the applicable requirements set forth in the Technical Specification and Appendix N. Developer shall submit two (2) copies of each Progress Report to PacifiCorp's Representative.

(b) In addition to the applicable requirements set forth in the Technical Specification and Appendix N, the Progress Reports submitted by Developer shall specify in detail:

(i) any fact, event or circumstance (each a "Project Problem") encountered by any Developer Party during the preceding month (including the failure of PacifiCorp to perform any PacifiCorp Obligations under this Agreement) which might (A) prevent Developer from completing any Milestone by its respective Milestone Completion Date or (B) cause Developer to incur additional expenses in completing any Milestone;

(ii) the estimated length of any delay and the estimated amount of any additional costs and expenses, if any, which may be chargeable to PacifiCorp hereunder, as a result of any Project Problem identified pursuant to this Agreement; and

(iii) to Developer's Knowledge, the cause of any Project Problem specified pursuant to this Agreement and the specific steps taken or proposed to be taken by Developer to correct such Project Problem.

(c) In the event that Developer fails to specify in writing any Project Problem (an "Unidentified Project Problem") with respect to a given monthly period in the appropriate Progress Report and in such manner and at such time as specified pursuant to this Agreement as a Project Problem, Developer shall not be entitled to rely on any such Unidentified Project Problem as a purported justification for either (i) claiming that it is entitled to receive any additional amounts pursuant to this Agreement (including damages arising out of any alleged failure by PacifiCorp to perform any of PacifiCorp Obligations) or (ii) failing to complete any Milestone by the specified Milestone Completion Date.

(d) The submission by Developer of any Progress Report shall not alter, amend or modify Developer's or PacifiCorp's rights or obligations pursuant to this Agreement, including the Contract

Price. In the event and to the extent any Milestone is not completed by the specified Milestone Completion Date as a direct and unavoidable result of PacifiCorp's failure (other than as a result of Developer's failure to perform any of its obligations under this Agreement on a timely basis) to fulfill any PacifiCorp Obligation by its respective completion date, then Developer shall be entitled to a Required Change to adjust the Milestone Completion Date for such Milestone by one (1) day for each day in which completion of any such PacifiCorp Obligation is delayed beyond its respective completion date and increase the Contract Price for any extra costs or expenses actually incurred by Developer by reason of such delay.

Section 10.9 Progress Meetings.

Progress meetings will be held as deemed necessary by PacifiCorp, but normally shall not be less than once a week. Such meetings shall be at the Site unless PacifiCorp requests to change the location of such meetings. Progress meetings will be utilized to review the progress of the Work and its compliance with the Project Schedule and discuss any delays, unusual conditions or critical items, which have affected or could affect the progress of the Work.

ARTICLE 11 DELIVERY, SHIPPING, AND HANDLING OF FACILITY AND EQUIPMENT

Section 11.1 Delivery Responsibility.

Developer shall be responsible for the safe delivery of all Equipment and Developer's Equipment to the Site. Developer shall abide by the requirements of Appendix A for the delivery of major items of Equipment and of Developer's Equipment to the Site. Developer shall be responsible for the reception and unloading at the Site of all Equipment and Developer's Equipment.

Section 11.2 Packing.

(a) Developer is responsible for assuring that the Equipment is suitably packaged to ensure against damage under normal handling and transportation methods. All Equipment shall be identified with PacifiCorp's equipment number or tag number, if required by the Technical Specification. All shipping shall be in accordance with Appendix A.

(b) The Equipment shall be shipped FOB the Site, Freight Prepaid and Allowed, with Developer retaining risk, liability and responsibility, financial or otherwise, until Substantial Completion, and then only in accordance with this Agreement.

(c) Prior to the shipment of any Equipment to the Site, Developer shall become knowledgeable of transportation conditions, such as clearances and restrictions, height and width, bridge load limits and other limitations affecting such shipment. Notwithstanding any other provision of this Agreement to the contrary, any limitations or the lack of transportation facilities shall not become the basis for Claims or for a Change for increased costs or for an extension of time for completion of Work under this Agreement.

Section 11.3 Transportation.

Developer shall observe all applicable Laws in relation to and obtain all necessary Permits for the transport of Equipment and Developer's Equipment over highways, bridges or culverts.

Section 11.4 Extraordinary Traffic.

Developer shall use best efforts to prevent damage to any of the highways, bridges or culverts on the routes to the Site caused by vehicles used by or on behalf of Developer Parties in the performance of the Work. Developer shall be responsible for the cost of protecting or strengthening any highway, bridge or culvert as necessary to facilitate the moving of Equipment and Developer's Equipment and shall be liable for and indemnify the PacifiCorp Indemnified Parties against any Liabilities arising from or in connection with any injury to persons or damage to highways, bridges or culverts arising out of the execution of the Work.

Section 11.5 Allocation.

In the event of a partial failure of Developer's sources of supply, Developer will first meet all of PacifiCorp's requirements hereunder prior to any allocation of supply among other customers.

ARTICLE 12 DEVELOPER'S EQUIPMENT

Section 12.1 Developer's Equipment.

Developer shall, within thirty (30) days after the Effective Date, provide to PacifiCorp an indicative list of equipment ("Developer's Equipment") that Developer Parties intends to use on the Site, which list shall be updated from time to time by Developer during the execution of the Work and available for inspection by PacifiCorp's Representative. Developer's Equipment shall not be part of the Equipment or otherwise part of the Facility and title to Developer's Equipment shall in no event transfer to PacifiCorp.

Section 12.2 Developer's Equipment on Site.

All of Developer's Equipment shall, when brought on to the Site, be deemed to be exclusively intended for the execution of the Work. Neither Developer nor any other Developer Parties shall remove Developer's Equipment or any part thereof from the Site without the prior consent of PacifiCorp, which consent shall not be unreasonably withheld in the case of Developer's Equipment not currently required for the execution of the Work on Site.

Section 12.3 Loss or Damage to Developer's Equipment.

Developer shall be liable for loss or damage to any of Developer's Equipment, other than loss or damage caused by PacifiCorp in breach of this Agreement.

Section 12.4 Maintenance of Developer's Equipment.

Developer shall be responsible for maintaining Developer's Equipment on the Site in safe working order.

ARTICLE 13 CHANGE ORDERS

Section 13.1 Changes.

(a) No Change shall be effective unless authorized by PacifiCorp by issuance of a Change Order pursuant to the provisions of this ARTICLE 13.

(b) PacifiCorp shall, when reviewing each potential Change and determining the nature and extent of any Change Order which is requested or required in connection with this Agreement, consider the following information:

(i) The nature, scope and extent of the Change, including any additions or deletions from the Scope of Work;

(ii) The effect, if any, of the Change on the Project Schedule, including the Guaranteed Substantial Completion Date;

(iii) The effect, if any, of the Change on the Contract Price; and

(iv) Such other information as may reasonably be necessary for the implementation of the Change Order, including the effect on any other provisions hereof which may be impacted by the Change.

PacifiCorp shall, in the case of a PacifiCorp-Initiated Change or Required Change and may, if it elects to do so, in the case of a Developer-Initiated Change, issue such Change Order having regard to all such circumstances as is just and equitable and in a form substantially similar to the form of Change Order attached hereto as Exhibit D-1 which shall address, to the extent required, all of the issues set out in this Section 13.1(b).

(c) Developer shall make any request for a Change Order which is permitted to be made in accordance with Section 13.2 in the form of a Change Order Request which shall be delivered to PacifiCorp in writing as soon as possible and in any event within ten (10) days after Developer becomes aware of the facts or circumstances giving rise to a Change which it reasonably believes necessitates a Change Order. In no case shall Developer be entitled to recover costs in a Change Order that arise prior to the date of the Change Order Request. Any Change Order Request shall be substantially and in all material respects in the form attached hereto as Exhibit D-2 and include the following information: (i) the facts or circumstances giving rise to the Change; (ii) the impact, if any, which the proposed Change is likely to have on the Contract Price, the Project Schedule, including the Guaranteed Substantial Completion Date, and any other provisions hereof; and (iii) such other information which PacifiCorp may reasonably request in connection with such proposed Change.

(d) The issuance of a Change Order shall not result in invalidation of this Agreement.

(e) Notwithstanding any provision to the contrary in this Agreement, no facts or circumstances will constitute grounds for a Change Order unless and only to the extent that (i) the costs of such Change Order is in excess of Twenty-Five Thousand Dollars (\$25,000), or (ii) the applicable Change delays the achievement of a Critical Milestone by its corresponding Critical Milestone

Completion Date by more than five (5) days. Neither Party shall manipulate the foregoing process, by aggregating or disaggregating cost or facts or circumstances, as the case may be, for the purpose of recovering or avoiding additional cost or time in accordance with the foregoing.

(f) Change Orders shall address the change, if any, in the amount of the Contract Price in one of the following manners:

(i) PacifiCorp and Developer shall agree upon the amount by which the Change will impact the Contract Price; or

(ii) PacifiCorp and Developer shall agree as to the nature and extent of the Change, but in lieu of changing the Contract Price, Developer shall perform the activities associated with the Change on a cost-reimbursement basis, in which event no change shall be made in the amount of the Contract Price and PacifiCorp shall pay Developer in accordance with the provisions of Appendix BB.

Section 13.2 Procedure for Changes.

(a) Changes Initiated by Developer. Developer may, at any time and from time to time, submit a Change Order Request to PacifiCorp pursuant to Section 13.1(c) for improvements, efficiencies, cost savings and other similar Changes to the Work (each a “Developer-Initiated Change”), but no such Change Order Request shall be carried out by Developer except pursuant to a Change Order executed by PacifiCorp, which execution shall be in PacifiCorp’s discretion. Any Change Order Request submitted pursuant to this Section 13.2(a) shall also contain and be supplemented with such information as PacifiCorp may reasonably require in order to determine whether to accept or reject the Change Order Request.

(b) Changes Initiated by PacifiCorp. If PacifiCorp desires to make a Change (each a “PacifiCorp-Initiated Change”) not comprising recovery Work due to the negligence of or breach of this Agreement by Developer, Contractor or any Subcontractor, PacifiCorp will submit a written Change Order Notice to Developer, substantially in the form of Exhibit D-3, comprising the nature and extent of the proposed change to the Scope of Work together with, to the extent available or applicable, PacifiCorp’s opinion as to those matters required to be taken into account in accordance with Section 13.1. Developer will promptly review the Change Order Notice and notify PacifiCorp in writing within a reasonable amount of time of the options for implementing the proposed PacifiCorp-Initiated Change (including, if possible, any option that does not involve an increase in the Contract Price and an extension of the Project Schedule) and the estimated effect(s), if any, that each such option would have on the Contract Price and Project Schedule, and any other affected provision herein, as applicable. Such response shall also contain all those matters required to be set out in a Change Order Request. Based upon such information, PacifiCorp may, in its discretion, issue a Change Order for the PacifiCorp-Initiated Change.

(c) Required Change Orders. Developer shall be entitled to the issuance of a Change Order pursuant to this ARTICLE 13 in connection with any circumstances which constitute a Change and which are attributable to the matters identified in subparagraphs (i) through (iii) below (each a “Required Change”):

(i) Due to Change in Law, Permit or Site Condition. If and to the extent that a change in any Law or Developer Permit after the Effective Date results in an increase in the cost of the Work or an extension of the Project Schedule.

(ii) Change Order Due to Suspension of Work by PacifiCorp. If and to the extent that PacifiCorp suspends the Work and Developer is entitled to a Change Order pursuant to ARTICLE 16.

(iii) Change Order Due to Non-Performance by PacifiCorp. If and to the extent that PacifiCorp fails to perform or is late in performing in any material respect any material obligation of PacifiCorp under this Agreement, provided that such failure is not the result of Developer Parties' negligence or breach of this Agreement.

Developer shall in all cases use or have used commercially reasonable efforts to mitigate potential delays to the Project Schedule or potential increases to the Contract Price (the cost of such mitigation efforts to be addressed in any applicable Change Order).

(d) Except in the circumstances as set out in this Section 13.2 and with respect to which an application is properly made in accordance with this ARTICLE 13, Developer shall not be entitled to seek a Change, a Change Order, extension of the Project Schedule, including the Guaranteed Substantial Completion Date, an increase of the Contract Price, or the receipt of additional remuneration or reimbursement with respect to the Work.

Section 13.3 Continued Performance Pending Resolution of Disputes.

Notwithstanding and pending the resolution of any dispute with respect to a Change or Change Order, Developer must proceed with the Work and the performance of any Change ordered by PacifiCorp as a result of a PacifiCorp-Initiated Change or a Required Change, unless PacifiCorp directs Developer not to so proceed, provided that Developer is being paid on a current basis for all undisputed Work and for all disputed Work which has been ordered to be paid through the dispute resolution provisions of ARTICLE 32.

Section 13.4 Preservation of Schedule and Contract Price.

Where any proposed Change may give rise to an extension of the Project Schedule or an increase in the Contract Price, then PacifiCorp reserves, in its discretion and to the extent possible, the right to require Developer to vary, amend or effect such other Change to the Work in such a manner as will mitigate or avoid the requirement for such extension of the Project Schedule or increase in the Purchase Price.

ARTICLE 14 WORKMANSHIP AND MATERIALS

Section 14.1 Manner of Execution.

The Work to be supplied, including all materials, manufactured components and labor and services to be performed, shall be designed and executed in the manner set out in this Agreement. Except where the manner of design, manufacture and execution is otherwise specifically set out in this

Agreement, the Work shall be designed, manufactured and executed in a proper and workmanlike manner, all in accordance with accepted industry standards, applicable safety standards, and Prudent Industry Practice.

Section 14.2 Condition of Materials.

The Materials and Equipment, including any rented Equipment, fixtures, software, any related items of personal property and other tangible personal property of Developer, Contractor or any Subcontractor constituting the Facility, shall be OEM Certified, and shall be suitable for their current use in the generation of energy in accordance with the Technical Specification. All Equipment and Materials shall be procured solely for use in connection with the Project. Except as agreed to in writing by PacifiCorp, Developer shall not allow any Equipment to be placed into storage for more than one (1) year prior to shipping to the Site, nor utilize any Equipment in the Project that has been so stored.

Section 14.3 Inspection.

(a) In addition to the inspection rights of PacifiCorp under Section 7.7, within ninety (90) days after the Effective Date, Developer shall submit to PacifiCorp a schedule (the “Witness Point Schedule”) of tests and inspections (the “Witness Point Events”) reasonably acceptable to PacifiCorp which shall include locations where the Equipment shall be manufactured or tested and the location at which such tests and inspections can be viewed by PacifiCorp. Developer shall provide no less than ten (10) Business Days’ advance confirmation of the actual date of each Witness Point Event identified on the Witness Point Schedule. PacifiCorp shall be entitled to attend and witness all Witness Point Events. To the extent that any Witness Point Events have been completed prior to the date on which the Witness Point Schedule is submitted to PacifiCorp, at PacifiCorp’s discretion, Developer shall (i) allow PacifiCorp to observe the materials and workmanship of the Project and to review documentation which may be available in lieu of viewing or witnessing the Witness Point Event, or (ii) re-open the affected portion of the Project for inspection by PacifiCorp and repair or correct (if necessary) and restore the affected portion of the Project at no additional cost to PacifiCorp. All inspections shall take place on the Site, on a Contractor’s or a Subcontractor’s premises or such other reasonable site as the Parties may agree, as appropriate, during normal working hours. No such inspection or examination or witnessing of tests shall release Developer from any obligation or liability under this Agreement. Inspections under this Section 14.3 are solely for the benefit of PacifiCorp and any inspection or failure to inspect and any objection or failure to object by PacifiCorp shall not (i) relieve Developer, Contractor or any Subcontractor of any of their obligations under any Project Document or (ii) be used as evidence that PacifiCorp agreed that Developer, Contractor or any Subcontractor had fulfilled any obligations under any Project Document or that PacifiCorp had waived any of its rights under any Project Document.

(b) If, as a result of an inspection or examination referred to in paragraph (a) above, PacifiCorp decides that any portion of the Work is nonconforming or otherwise not in accordance with this Agreement, PacifiCorp shall promptly notify Developer thereof. Such notice shall state PacifiCorp’s objections and its reasons therefor in reasonable detail. Developer shall correct any nonconforming Work to ensure that such Work complies with this Agreement at no additional cost to PacifiCorp. For purposes of this paragraph (b), “nonconforming” means defective or not in conformity with the Technical Specification.

Section 14.4 Comparable Quality.

Appendix A sets forth all major Equipment, including all major systems/sub-systems/equipment/components which will be supplied in performance of the Work. Notwithstanding the foregoing, the Parties recognize that Appendix A is not all inclusive and does not specify all Equipment required for the Facility. Therefore, the Parties agree that for Equipment not specifically set forth in Appendix A, the quality standards of such unspecified Equipment shall be consistent with the requirements of ARTICLE 14.

ARTICLE 15 DRAWINGS

Section 15.1 Drawings.

(a) Following receipt and approval of the Project Schedule, Developer shall prepare a contract documentation and drawing list identifying those key data, calculations (as required for regulatory purposes and consents), drawings, technical specifications and concepts required for review for conformance with this Agreement.

(b) Developer shall, within the time detailed in the Project Schedule or elsewhere in this Agreement, submit to PacifiCorp's Representative in hard copy and electronic form (the specific form of which shall be agreed to by the Parties) such key data, calculations, drawings, technical specifications and concepts.

(c) Developer shall timely submit to PacifiCorp's Representative drawings of temporary and permanent buildings and structures and any other information required under the terms and conditions of consents, licenses and planning permissions obtained by Developer or PacifiCorp.

(d) PacifiCorp's Representative may, in its discretion, disapprove any drawing; provided, however, it shall notify Developer of any such disapproval within twenty (20) days of receipt, except for documents and information (including calculations) which are required by PacifiCorp's Representative for consultation with PacifiCorp's third party contractors for the purposes of the interconnections at terminal points, where the period shall be thirty (30) days. Developer shall supply additional copies of documents or information (including calculations) in the form and numbers stated in this Agreement. Without waiver of or prejudice to any rights of PacifiCorp, Developer shall bear all risk in relation to its performance of work arising from or in relation to all documents or information (including calculations).

Section 15.2 Consequences of Documents not in accordance with Agreement.

Any documents or information (including calculations) which PacifiCorp's Representative identifies as not in compliance with this Agreement shall be modified to be in compliance and resubmitted without delay.

Section 15.3 Drawings Submitted.

Developer shall not deviate from drawings accepted or approved by PacifiCorp or PacifiCorp's Representative or issued by Developer as approved for construction, except with the prior written consent of PacifiCorp or PacifiCorp's Representative.

Section 15.4 Inspection of Drawings.

Developer shall maintain and provide to PacifiCorp's Representative from time to time or upon request of PacifiCorp's Representative a complete list of drawings, identifying which are approved for construction. PacifiCorp and PacifiCorp's Representatives shall have the right at all reasonable times to inspect all drawings of any part of the Work.

Section 15.5 Operating and Maintenance Instructions.

(a) Not less than six (6) months prior to the scheduled Substantial Completion Date, Developer shall deliver to PacifiCorp's Representative one (1) set of preliminary operating and maintenance manuals sufficiently complete that the Facility, including the Equipment, may be safely commissioned and PacifiCorp's personnel properly trained pursuant to Section 7.10. Developer shall, at its sole cost and expense, continuously update such manuals so that, as of three (3) months prior to the scheduled Substantial Completion Date, such operating and maintenance manuals are substantively in their final form with any amendments made as necessary.

(b) Not less than three (3) months prior to the scheduled Substantial Completion Date, Developer shall supply to PacifiCorp three (3) copies of final operation and maintenance manuals, startup and shutdown manuals and the then current drawings of the Work as-built, in accordance with Appendix F and Appendix G.

(c) All operating and maintenance manuals, startup and shutdown manuals and drawings of the Work as-built shall be in such detail as will enable PacifiCorp to operate, maintain, dismantle, reassemble, adjust and repair all parts of the Work, as described in Appendix F and Appendix G. Where this Agreement is terminated before the Substantial Completion Date (other than as a result of a PacifiCorp Default), Developer shall provide to PacifiCorp such information including copy drawings and Draft Manuals as is reasonable and as is necessary for PacifiCorp to complete, use and maintain the Work.

(d) The provision by Developer of the final operation and maintenance manuals and drawings of the Work as-built in accordance with the provisions of this Section 15.5 shall be identified as a Milestone in Appendix B and the provisions of ARTICLE 10 shall apply.

Section 15.6 PacifiCorp's Use of Drawings.

(a) Drawings and information created by Developer for purposes of designing, developing, constructing, commissioning and operating the Project constitute "work made for hire," and Developer hereby transfers and assigns all rights in and to such drawings and information to PacifiCorp.

(b) Drawings and information supplied by Developer that are not created by Developer specifically for or in connection with the Project, but that are necessary or useful for the operation and maintenance of the Project, the Work or any portion of thereof, may be used by PacifiCorp for the purposes of completing, maintaining, operating, improving, adapting, renewing, enlarging, dismantling, re-assembly, adjusting and repairing the Work, and for any other legal purpose, pursuant to the license granted in Section 15.6(c).

(c) Developer grants to PacifiCorp an irrevocable, perpetual, royalty free license to use all drawings and information for the foregoing purposes and Developer shall provide PacifiCorp with copies of such drawings and information.

Section 15.7 Manufacturing Drawings.

In the event of a Defect resulting in outage of the Facility in excess of two (2) days during the applicable Warranty Period, Developer shall immediately give PacifiCorp full, unimpeded, and unqualified access to all information, documents, processes and operations so as to enable PacifiCorp to satisfy itself that the Facility and Equipment shall in all respects be properly and timely repaired or replaced and so as to be in full compliance with the requirements of this Agreement.

Section 15.8 Errors in Drawings Supplied by Developer.

(a) Developer shall be responsible for the accuracy, completeness and suitability of all drawings, samples, patterns, models, calculations or information submitted by Developer Parties in connection with the Work. Notwithstanding PacifiCorp's or PacifiCorp's Representative's inspection or approval of drawings, samples, patterns, models, calculations or information submitted by Developer Parties, Developer shall not be relieved of any responsibility or liability imposed on it by any provisions of this Agreement and shall be responsible for any errors, omissions or discrepancies therein.

(b) Developer shall bear any and all costs Developer or PacifiCorp may incur as a result of delay in providing such drawings, samples, patterns, models, calculations or information or as a result of errors, omissions or discrepancies therein or for the correction thereof.

(c) Developer shall, at its sole cost and expense, carry out or cause to be carried out any alterations or remedial work necessitated by such errors, omissions or discrepancies for which it is responsible and modify the drawings, samples, patterns, models, calculations or information accordingly.

ARTICLE 16 SUSPENSION OF WORKS, DELIVERY OR ERECTION

Section 16.1 Order to Suspend.

(a) PacifiCorp may, in its sole option, upon not less than ten (10) Business Days' prior written notice to Developer, suspend at any time (i) performance of all or any portions of the Work, (ii) delivery of Equipment, Materials or a component of the Work, or (c) erection of any portion of the Work that has been delivered to the Site. Such notice shall specify the anticipated length of the suspension.

(b) If the cumulative days of Work suspension totals one hundred and eighty (180) days, or if the Work is suspended four (4) or more separate times for a period of more than forty-five (45) days in any single instance or one hundred and eighty (180) days in aggregate, then Developer may, upon thirty (30) days' prior written notice to PacifiCorp, terminate this Agreement, unless the suspension is lifted within such 30-day period. If Developer terminates this Agreement pursuant to this Section 16.1(b), then the provisions of Section 30.3(a) shall apply.

(c) Unless otherwise instructed by PacifiCorp, Developer shall during any suspension affecting the progress of the Work on the Site, maintain its staff, labor and equipment on or near the Site ready to proceed with the Work upon receipt of further instructions of PacifiCorp.

(d) If PacifiCorp desires to extend the period of suspension for a longer time than that specified in the original notice given by PacifiCorp, PacifiCorp shall so notify Developer in writing and the provisions of this ARTICLE 16 shall apply to such extended suspension notice.

Section 16.2 Protection of Work.

(a) Developer shall, during any suspension under this ARTICLE 16, store, preserve, protect and otherwise secure each of the Work, Equipment, Materials and the Facility.

(b) If PacifiCorp is unwilling or unable to receive any of the Equipment or Materials as a result of a suspension by PacifiCorp under this ARTICLE 16, Developer shall, upon written notice to PacifiCorp and giving PacifiCorp reasonable opportunity to designate a mutually acceptable destination, place such Equipment or Materials in storage. If any Equipment or Materials are placed into storage pursuant to this provision, delivery thereof to the Site shall not be deemed to occur until such Equipment and Materials are delivered to the Site or PacifiCorp has notified Developer that it is prepared to accept delivery at some other location.

Section 16.3 Resumption of Work.

(a) PacifiCorp shall provide Developer not less than five (5) Business Days' prior written notice to resume progress of the Work, which resumption of progress of the Work may occur before the time such suspension was anticipated to end pursuant to the notice provided by PacifiCorp to Developer pursuant to Section 16.1(a).

(b) Following any suspension by PacifiCorp under this ARTICLE 16, after receipt of notice to resume progress of the Work, Developer shall examine the Work affected by the suspension. Developer shall, within twenty-one (21) days after receipt of notice to resume the suspended Work, submit to PacifiCorp a written report detailing any damages, deterioration, nonconformities and losses to the Project or any portion thereof.

(c) Developer may, at any time prior to thirty (30) days after receipt of notice to resume progress of the Work under Section 16.3(a), notify PacifiCorp of a Change Order Request with respect to the costs to correct, repair or replace any damages, deterioration, nonconformities and losses and any extension of the Project Schedule as a result of suspension by PacifiCorp under this ARTICLE 16.

Section 16.4 Compensation Following Event of Suspension.

(a) Developer shall, within five (5) Business Days following receipt of any notice from PacifiCorp to suspend the performance of all or any portion of the Work under this ARTICLE 16, deliver to PacifiCorp an itemized account of the estimated charges and costs which Developer believes will be incurred by PacifiCorp pursuant to or as a result of such suspension. Developer shall make a good faith estimate of such charges and cost that will be accurate within a range of plus or minus five percent (5%). Following receipt of such estimate, PacifiCorp shall have the right by written notice to Developer at any time prior to the effective date of suspension specified in PacifiCorp's suspension notice, to either (i)

revoke its decision to suspend performance, in which event Developer will not suspend performance of such Work, (ii) instruct Developer to suspend performance in accordance with the terms of PacifiCorp's suspension notice and to confirm that the charges and costs quoted by Developer are acceptable, or (iii) instruct Developer to suspend performance in accordance with the terms of PacifiCorp's suspension notice, with PacifiCorp reserving the right to contest the charges and costs estimated by Developer.

(b) In the event of suspension of the Work under this ARTICLE 16, Developer shall, unless the notice in Section 16.1(b) requires otherwise:

(i) Discontinue the Work on the date and to the extent specified in the suspension notice;

(ii) Place no further orders or subcontracts for Equipment, Materials, or services with respect to the suspended Work, other than to the extent required in the suspension notice;

(iii) Promptly make every reasonable effort to obtain suspension, upon terms reasonably satisfactory to PacifiCorp, of all Project Documents and other orders, subcontracts and rental agreements to the extent they relate to performance of the Work suspended; and

(iv) Unless otherwise specifically stated in the suspension notice, continue to protect and maintain the Work theretofore completed, including the Work suspended hereunder.

(c) As full compensation for any such suspension (and in lieu of the right of Developer to any Change Order pursuant to ARTICLE 13), Developer shall be reimbursed for the following costs, reasonably incurred, without duplication of any item, to the extent that such costs directly result from such suspension of Work, up to a maximum of one hundred and five percent (105%) of the estimate submitted by Developer pursuant to Section 16.4(c):

(i) If determined necessary by PacifiCorp, a standby charge to Developer during the period of suspension of the Work, which standby charge shall be sufficient to compensate Developer for the reasonable costs of keeping, to the extent required in the suspension notice, its personnel and equipment committed to the Work in a standby status;

(ii) Expenses reasonably and necessarily incurred by Developer in connection with storage of Equipment and Materials pursuant to Section 16.2, including preparation for and placement into storage, handling, transportation, storage, inspection, preservation, Taxes and insurance and any necessary rehabilitation prior to installation; and

(iii) Reasonable costs associated with demobilization of Developer's personnel and equipment to the extent such costs are not recovered by Developer in using such personnel and equipment on other projects during the standby period; and an equitable amount to reimburse Developer for the actual cost to Developer, if any, of maintaining and protecting that portion of the Work upon which activities have been suspended.

(d) PacifiCorp shall have the right, in accordance with Section 7.26, to inspect and audit Developer's books and records in order to verify the accuracy of or to determine the amount of any cost-based reimbursement associated with any suspension of the Work.

ARTICLE 17 PROJECT COMPLETION

Section 17.1 Time for Completion.

Developer shall complete the Work in accordance with the Project Schedule and the terms of this Agreement. Without limiting the foregoing, Developer shall cause the Substantial Completion Date to occur no later than the Guaranteed Substantial Completion Date.

Section 17.2 PacifiCorp's Request for Earlier Completion.

PacifiCorp may request completion of the Project earlier than the Guaranteed Substantial Completion Date and Developer shall make all commercially reasonable efforts to comply with such request.

ARTICLE 18 PERFORMANCE TESTING

Section 18.1 Performance Tests.

At PacifiCorp's election, Developer shall conduct or cause to be conducted the Performance Tests as soon as practicable in accordance with the Technical Specification, the procedures and protocols of Appendix AA and the other tests, procedures and protocols as may be developed by the Parties pursuant hereto. If PacifiCorp elects for Developer to conduct the Performance Tests, at least nine (9) months prior to the Guaranteed Substantial Completion Date, Developer shall deliver to PacifiCorp a supplement to Appendix AA further outlining the tests, procedures and protocols to be followed in conducting the Performance Tests. Such supplement shall include, at a minimum, provisions addressing: (a) testing procedures for each item of Equipment; (b) functional performance tests for starting up the Facility under different specified operating conditions; and (c) any other activities that, in accordance with Prudent Industry Practices, should be included. Thereafter, the Parties shall promptly agree on modifications to such supplement so that Appendix AA, as supplemented, is satisfactory to PacifiCorp.

Section 18.2 Cost and Direction.

(a) The Performance Tests shall be conducted by a PacifiCorp-approved third party, under the direction of Developer. PacifiCorp will cooperate with Developer's reasonable requests in connection with the Performance Tests, but shall not be required to provide any materials, electricity, fuel, water or stores.

(b) Developer shall provide all materials, electricity, fuel, water and stores, and all personnel necessary to supervise startup and the conducting of the Performance Tests and shall provide all necessary technical assistance and advice in connection with the Performance Tests. Except as approved by PacifiCorp in writing, Developer shall not use personnel in excess of the normal contingent of Facility operations staff to operate the Facility during the Performance Tests. During training and conducting the Performance Tests PacifiCorp's operating personnel shall be working under the technical direction and instruction of Developer and Developer shall be responsible for the accuracy of its instructions/directions provided to PacifiCorp's operating personnel.

Section 18.3 PacifiCorp's Right to Validate.

PacifiCorp and PacifiCorp's Representative shall have the right and opportunity to be present and observe the Performance Tests and shall have the right and opportunity in advance or during the Performance Tests to inspect and validate all meters, meter readings and other pertinent data necessary to verify the results of the Performance Tests. PacifiCorp shall provide reasonable notice to Developer of any such observation and inspection, including the specific information desired and method of obtaining such information. Developer and PacifiCorp shall coordinate such observation, inspection and validation so as not to interfere with the Performance Tests yet provide for a verifiable result.

Section 18.4 Test Energy.

(a) PacifiCorp shall have the exclusive right to all electric energy generated by the Facility during the testing, start-up and commissioning of the Facility, including in connection with any Performance Tests, and any revenue derived from the sales of such elective energy.

(b) By such time as mutually agreed to by the Parties on the Business Day immediately preceding the day on which test energy from the Facility is to be delivered, Developer shall provide PacifiCorp with an hourly forecast of deliveries for each hour of the next day; provided, however, that a forecast provided on a day before any non-Business Day shall include forecasts for each day to and including the next Business Day. Upon request by PacifiCorp, Developer shall provide a 24 hour telephone number that PacifiCorp may contact to determine the then-current status of the Facility. The forecasts called for above shall be non-binding, good faith estimates only, and PacifiCorp expressly releases and holds harmless Developer from any liability for forecasting errors. Developer shall prepare such forecasts and updates by utilizing a wind speed and direction prediction model or service that is (i) commercially available or proprietary to Developer or an Affiliate of Developer, and (ii) comparable in accuracy to models or services commonly used in the wind energy industry and that reflect turbine availability, so long as such model or service is available at a commercially reasonable cost and is reasonably satisfactory to PacifiCorp.

Section 18.5 Timing.

Developer shall provide PacifiCorp at least ninety (90) days' prior written notice of the anticipated date on which the Performance Tests will begin and at least five (5) days' prior notice of the actual date (or any change to the actual date) on which the Performance Tests will begin.

Section 18.6 Test Reports.

(a) Developer shall deliver to PacifiCorp a preliminary test report, including the test data sheets and calculated results for each Performance Test or retest (the "Preliminary Performance Test Report"), promptly after completion of each Performance Test, together with a notice to PacifiCorp certifying completion of the Performance Tests in accordance with this Agreement and the results of such Performance Tests. Promptly after receipt of such Preliminary Performance Test Report, PacifiCorp and Developer shall consult concerning the results of such Performance Tests, and within three (3) days thereafter, PacifiCorp shall provide Developer written notice that it either accepts or disputes the results of the Performance Tests, including the reasons for any dispute.

(b) Within fifteen (15) Business Days following completion of the Performance Tests, Developer shall provide to PacifiCorp a final test report, including test data sheets and calculated results of each Performance Test or retest (the “Final Performance Test Report”) and a final notice to PacifiCorp certifying completion of the Performance Tests. The Final Performance Test Report shall reflect the Parties’ consultation with one another with respect to the Preliminary Performance Test Report. Within fifteen (15) days of receipt of such documentation from Developer, PacifiCorp shall provide Developer written notice that it either accepts or disputes the results of the Performance Tests, including the reasons for any dispute. If PacifiCorp disputes the results of the Performance Tests in the Final Performance Test Report, then Developer shall re-perform the applicable Performance Tests (or part thereof) in accordance with the procedures set forth in Appendix AA. If the results of the re-test confirm the accuracy of the initial Performance Test, then PacifiCorp shall pay the increased costs directly resulting from the re-test. If the results of the re-test do not confirm the accuracy of the initial Performance Test, then Developer shall pay for the costs of the re-test and any subsequent Performance Tests necessary to confirm compliance with all Performance Guarantees.

Section 18.7 Failure on Tests or Inspection.

If after inspection, examination or witnessing the testing of the Work or the Facility or any Equipment or Materials, PacifiCorp determines, in its discretion, that such Work or the Facility or any such Equipment or Materials or any part thereof is Defective or otherwise not in accordance with this Agreement, it may reject such Work or the Facility or any such Equipment or Materials or any part thereof by giving to Developer, within ten (10) days of such determination, notice of such rejection, stating the grounds upon which such determination is based. Following any such rejection, Developer shall replace or repair the rejected Work, Facility, Equipment or Materials and re-submit the same for test or inspection in accordance with this ARTICLE 18. All expenses reasonably incurred by or on behalf of PacifiCorp in connection with such re-testing or inspection shall be deducted from the Contract Price and the next Progress Payment, if any. PacifiCorp rights pursuant to this Section 18.7 are in addition to its rights pursuant to ARTICLE 19.

Section 18.8 Duty to Advise of Defects, Errors and Omissions in Facility and Equipment.

Developer shall promptly advise PacifiCorp upon it becoming aware of any Defect in any Work performed or Equipment, Materials or the Facility supplied or used by Developer Parties or error or omission that might affect the Work, the Equipment, the Materials or the Facility and its operability, operational life or maintenance.

ARTICLE 19

DEFECTS BEFORE TRANSFER OF POSSESSION AND CONTROL OF WORK

Section 19.1 Identification of Defects.

(a) If at any time prior to the Substantial Completion Date PacifiCorp’s Representative (i) determines, in its discretion, that any Work performed or Equipment, Materials or the Facility supplied or used by Developer Parties is or are defective in design, materials, equipment, manufacture or workmanship or otherwise not in accordance with the requirements of this Agreement, or that any part thereof is defective or does not fulfill the requirements of this Agreement (each a “Defect”) and (ii)

notifies Developer of such determination, including particulars of the Defect, then Developer shall, at its sole cost and expense, promptly remedy the Defects so specified.

(b) If Developer fails to remedy such Defect, then PacifiCorp may elect, at the sole cost and expense of Developer, to take such steps as may be reasonably necessary or convenient to remedy such Defect, and the cost and expense of remedying such Defect may be deducted by PacifiCorp from any payment due Developer under this Agreement.

Section 19.2 Replacement of Defects.

All Equipment or Materials supplied or Work performed by PacifiCorp to replace defective Equipment, Materials or the Facility or Work shall comply with the requirements of this Agreement and shall be obtained at reasonable prices and where reasonably practicable under competitive conditions. Developer shall be entitled, at its own expense, to remove and retain all defective Equipment or Materials that PacifiCorp may have replaced.

ARTICLE 20

NOTICE OF MECHANICAL COMPLETION, NOTICE OF SUBSTANTIAL COMPLETION, NOTICE OF FINAL ACCEPTANCE AND TRANSFER OF CARE, CUSTODY AND CONTROL

Section 20.1 Notice of Mechanical Completion

(a) When the Work meets the Mechanical Completion Criteria set forth in Appendix AA with respect to each turbine, Developer shall so notify PacifiCorp and provide PacifiCorp a certificate of an Authorized Officer of Developer, in the form of Appendix D, certifying that the Mechanical Completion Criteria have been achieved and the date thereof (the “Certificate of Mechanical Completion”).

(b) Within ten (10) Business Days after receipt of each Certificate of Mechanical Completion, PacifiCorp shall either: (i) reject such Certificate of Mechanical Completion and by written notice (the “Notice of Rejection of Mechanical Completion”) specify the Mechanical Completion Criteria Developer failed to achieve; or (ii) accept the Certificate of Mechanical Completion by countersigning the Certificate of Mechanical Completion, in which case, Mechanical Completion shall be deemed to occur with respect to the applicable turbine on the date set forth in the Certificate of Mechanical Completion.

(c) If PacifiCorp rejects a Certificate of Mechanical Completion pursuant to Section 20.1(b)(i), then Developer shall promptly provide to PacifiCorp a plan and schedule for remedying the deficiencies specified in PacifiCorp’s Notice of Rejection of Mechanical Completion, and shall carry out such plan at its own cost and expense. Upon completion of such remedial work and Developer’s belief that the Mechanical Completion Criteria are satisfied, Developer shall issue a new Certificate of Mechanical Completion for the applicable turbine to PacifiCorp pursuant to Section 20.1(a).

(d) The foregoing procedure shall be repeated until PacifiCorp accepts the Certificate of Mechanical Completion pursuant to Section 20.1(b)(ii). Disputes as to whether Developer has achieved Mechanical Completion shall be resolved pursuant to ARTICLE 32.

Section 20.2 Notice of Substantial Completion of Work.

(a) When the Work meets the Substantial Completion Criteria set forth in Appendix AA, Developer shall so notify PacifiCorp and provide PacifiCorp a certificate of an Authorized Officer of Developer, in the form of Appendix D, certifying that the Substantial Completion Criteria have been achieved and the date thereof (the “Certificate of Substantial Completion”).

(b) Within five (5) Business Days after receipt of the Certificate of Substantial Completion, PacifiCorp shall either: (i) reject such Certificate of Substantial Completion and by written notice (the “Notice of Rejection of Substantial Completion”) specify the Substantial Completion Criteria Developer failed to achieve; or (ii) accept the Certificate of Substantial Completion by countersigning the Certificate of Substantial Completion, in which case, Substantial Completion shall be deemed to occur on the date set forth in the Certificate of Substantial Completion.

(c) If PacifiCorp rejects the Certificate of Substantial Completion pursuant to Section 20.2(b)(i), then Developer shall promptly provide to PacifiCorp a plan and schedule for remedying the deficiencies specified in PacifiCorp’s Notice of Rejection of Substantial Completion, and shall carry out such plan at its own cost and expense. Upon completion of such remedial work and Developer’s belief that the Substantial Completion Criteria are satisfied, Developer shall issue a new Certificate of Substantial Completion to PacifiCorp pursuant to Section 20.2(a).

(d) The foregoing procedure shall be repeated until PacifiCorp accepts the Certificate of Substantial Completion pursuant to Section 20.2(b)(ii). Disputes as to whether Developer has achieved Substantial Completion shall be resolved pursuant to ARTICLE 32.

Section 20.3 Care, Custody and Control; Punch List Items.

(a) Developer shall be responsible for care, custody, control and risk of loss of the Work, including all Equipment, Materials and the Facility, and shall make good at Developer’s own cost and expense any loss or damage that may occur to the Work or any part thereof from any cause whatsoever until the Substantial Completion Date. Developer shall also be responsible for any loss or damage to the Work, including all Equipment, Materials and the Facility, caused by the Developer Parties in the course of any work carried out under the Project Documents or in connection with the Project until Final Acceptance. Developer hereby waives any and all Claims or causes of action it might have now or in the future against PacifiCorp, whether by way of affirmative action, offset, cross claim or otherwise, and shall be liable for any loss or damage that may occur to the Work, including all Equipment, Materials and the Facility, or any part thereof, caused by PacifiCorp’s negligent acts in the course of any work carried out by PacifiCorp in connection with the Project.

(b) Care, custody and control of the Work, including all Equipment, Materials and the Facility, shall be transferred to PacifiCorp as of the Substantial Completion Date. PacifiCorp shall begin to compile a preliminary punch list as the Work progresses (with Developer and PacifiCorp in good faith mutually determining the Dollar value of such list). PacifiCorp shall submit to Developer the completed preliminary punch list at least fifteen (15) Business Days prior to the anticipated Substantial Completion Date. At least five (5) Business Days prior to the Substantial Completion Date, Developer and PacifiCorp shall mutually agree on the final punch list of items, the value related thereto and on a schedule for completion of such items (the “Final Punch List”). PacifiCorp shall withhold from its

Progress Payment at the Substantial Completion Date an amount equal to two hundred percent (200%) of the agreed upon value of the Final Punch List (the "Punchlist Holdback Amount"), but shall make periodic pro-rata payments as Developer demonstrates to PacifiCorp completion of the items on the Final Punch List. All of the items on the Final Punch List shall be completed expeditiously after the Substantial Completion Date and in accordance with the schedule for completion provided as part of the Final Punch List. PacifiCorp shall provide to Developer for such purpose reasonable access to the Work.

Section 20.4 Dispatch Coordination.

During the startup, testing and commissioning of the Facility, Developer shall coordinate with PacifiCorp's Representative and PacifiCorp's operating personnel the orderly startup and shut-down of the Facility. Ninety (90) days prior to the initial startup of the Facility, Developer shall provide to PacifiCorp a schedule of dispatch for the Facility during the commissioning period, including expected net Facility output and duration of the commissioning activities. Within thirty (30) days of the initial startup of the Facility, Developer shall provide to PacifiCorp an update to this schedule and thereafter on a weekly basis until the Substantial Completion Date is achieved. Developer shall also provide 72 hours' advance notice to PacifiCorp of the planned Pant dispatch profile including net Facility output, and duration of the commissioning period.

Section 20.5 Use Before Acceptance Date.

PacifiCorp shall not operate or assume control of all or a portion of the Work prior to the Substantial Completion Date.

Section 20.6 Title and Risk of Loss.

(a) Risk of loss with respect to the Work, including all Equipment, Materials and the Facility, shall remain with Developer until Final Acceptance, whereupon the same shall pass to PacifiCorp.

(b) Title to the Equipment, Materials and other Work to be supplied pursuant to this Agreement shall pass to PacifiCorp at the earlier of:

- (i) the Substantial Completion Date;
- (ii) when Developer has received a Progress Payment with respect to such Equipment, Materials or other Work; or
- (iii) when the Equipment, Materials or other Work is delivered to the Site or incorporated into the Facility.

Section 20.7 Marking of Equipment and Facility.

(a) Where, prior to delivery to the Site, title to any Equipment, Materials or Work passes to PacifiCorp, Developer shall, so far as is practicable, set such Equipment, Material or Work aside and mark it as PacifiCorp's property in a manner reasonably required by PacifiCorp. Until such Equipment, Material or Work has been so set aside and marked, PacifiCorp shall be entitled to withhold any Progress Payment to which Developer might otherwise be entitled hereunder.

(b) Developer shall permit PacifiCorp at any time upon reasonable notice to inspect any Equipment, Materials or Work which has become the property of PacifiCorp and shall grant or cause to be granted to PacifiCorp access to Developer's premises for such purposes or any other premises where such Equipment, Materials or Work may be located. Such inspection shall not constitute acceptance of the Equipment, Materials or Work.

(c) No Progress Payment issued by PacifiCorp shall prejudice its right to reject the Facility, Equipment, Materials or Work which is not in accordance with this Agreement.

(d) Developer shall cause Contractor and any Subcontractors to transfer the Equipment, Materials and Work supplied and performed by Contractor or Subcontractor to PacifiCorp: (i) prior to the Substantial Completion Date, free and clear of all Liens other than (A) mechanics liens relating to Equipment, Materials and Work supplied and performed by Contractor or Subcontractors that have not yet been paid and (B) amounts payable to Contractor or Subcontractors that are being disputed in good faith provided that Contractor or Subcontractor has posted a bond against such Liens with a bonding company or other surety reasonably acceptable to PacifiCorp, and (ii) upon the Substantial Completion Date, free and clear of all Liens.

(e) Ownership of the Non-PacifiCorp Materials used in connection with the Work shall remain with the Developer Parties.

Section 20.8 Removal of Equipment.

Prior to Final Acceptance, Developer shall remove from the Site all Developer's Equipment, materials, temporary structures constructed by or on behalf of Developer or other items of any nature required for execution or completion of the Work (collectively, "Surplus Items"), but excluding equipment, materials, appliances or other items intended to form or forming part of the Work, including the Equipment, Materials and the Facility. Prior to removal of the Surplus Items, Developer shall make a written offer to sell the Surplus Items to PacifiCorp which Developer, Contractor or any Subcontractor desire to sell. Developer shall leave the Site in good order and in neat and presentable condition. Any of the Surplus Items left at the Site will become the property of PacifiCorp if not removed by Developer, Contractor or its Subcontractors within thirty (30) days after Final Acceptance (or such later date contemplated in any completion and demobilization procedure mutually agreed to by PacifiCorp and Developer). All costs to dispose of the Surplus Items not removed by Developer within the thirty (30) days following Final Acceptance (or such later date contemplated in any completion and demobilization procedure mutually agreed to by PacifiCorp and Developer) and which PacifiCorp does not wish to keep shall be for the account of Developer. Prior to removing any equipment from the Site Developer shall provide to PacifiCorp a detailed list of Developer's Equipment to be removed. No equipment shall be Developer's Equipment unless it is included in the then-current list approved pursuant to Section 12.1.

Section 20.9 Notice of Final Acceptance of Work.

(a) When Developer believes the Work satisfies the Final Acceptance Criteria set forth in Appendix AA, Developer shall so notify PacifiCorp and provide PacifiCorp a certificate of an Authorized Officer of Developer, in the form of Appendix D, certifying that the Final Acceptance Criteria have been achieved and the date thereof (the "Certificate of Final Acceptance").

(b) Within five (5) Business Days after receipt of the Certificate of Final Acceptance, PacifiCorp shall either: (i) reject such Certificate of Final Acceptance and by written notice (the “Notice of Final Acceptance”) specify the Final Acceptance Criteria Developer failed to achieve; or (ii) accept the Certificate of Final Acceptance by countersigning the Certificate of Final Acceptance, in which case, Final Acceptance shall be deemed to occur on the date set forth in the Certificate of Final Acceptance.

(c) If PacifiCorp rejects the Certificate of Final Acceptance pursuant to Section 20.9(b)(i), then Developer shall promptly provide to PacifiCorp a plan and schedule for remedying the deficiencies specified in PacifiCorp’s Notice of Final Acceptance, and shall carry out such plan at its own cost and expense. Upon completion of such remedial work and Developer’s belief that the Final Acceptance Criteria are satisfied, Developer shall issue a new Certificate of Final Acceptance to PacifiCorp pursuant to Section 20.9(a).

(d) The foregoing procedure shall be repeated until PacifiCorp accepts the Certificate of Final Acceptance pursuant to Section 20.9(b)(ii). Disputes as to whether Developer has achieved Final Acceptance shall be resolved pursuant to ARTICLE 32.

ARTICLE 21 TAX MATTERS

Section 21.1 Tax Indemnification.

(a) Developer shall defend, indemnify and hold harmless the PacifiCorp Indemnified Parties from and against any: (i) income or franchise Taxes of Developer, Contractor or Subcontractors or any of their respective Affiliates; (ii) Pre-Closing Taxes; (iii) Transfer Taxes for which Developer is responsible pursuant to Section 21.2; (iv) any Taxes attributable to a breach by Developer of its representations, warranties or covenants pursuant to Section 4.8 and Section 4.14; and (v) Taxes imposed on PacifiCorp, as a transferee or successor, by contract or pursuant to any Law, which Taxes relate to an event or transaction occurring prior to the close of business on the day immediately preceding the Closing Date.

(b) Developer shall defend, indemnify and hold harmless the PacifiCorp Indemnified Parties from and against any Change in Tax Law Losses suffered by the PacifiCorp Indemnified Parties.

(c) If Developer fails to cause all property (including all PTC Facilities) in the Project to be placed in service within the meaning of Section 45 of the Code no later than the end of the fourth calendar year after the date on which construction began, regardless of whether such failure is caused by or the result of Force Majeure, but not if such failure is solely the result of the acts or omissions of PacifiCorp in breach of this Agreement, then Developer shall defend, indemnify and hold harmless the PacifiCorp Indemnified Parties from and against any and losses suffered by the PacifiCorp Indemnified Parties as a result thereof.

(d) PacifiCorp may set off against the Contract Price and any Progress Payments any amounts due PacifiCorp or any other PacifiCorp Indemnified Parties pursuant to this Section 21.1.

Section 21.2 Transfer Tax.

Developer shall be responsible for any sales, use, value added, gross receipts, excise, registration, stamp duty, transfer or other similar Taxes or governmental fees (including any interest or penalties related thereto) that may be payable in connection with the development, design, engineering, construction and commissioning and transfer to PacifiCorp of the Project, including the Facility and the Work (the “Transfer Tax”). Developer shall prepare and file all Tax Returns for any Transfer Tax and shall remit the Transfer Tax shown as due on each such Tax Return. PacifiCorp and Developer shall, upon request, use their commercially reasonable efforts to obtain any certificate or other document from any Governmental Authority or any other person that may be necessary to mitigate, reduce or eliminate any Transfer Tax.

Section 21.3 Allocation.

Within sixty (60) days after the Closing Date, PacifiCorp shall prepare and provide to Developer an allocation of the Purchase Price and any liabilities properly included for U.S. federal income Tax purposes among the assets of the Project (the “Purchase Price Allocation”). If Developer does not provide any comments within ten (10) days after its receipt of the Purchase Price Allocation from PacifiCorp, the Purchase Price Allocation will be final. If Developer proposes to PacifiCorp in writing any changes to such Purchase Price Allocation within ten (10) days after its receipt of the Purchase Price Allocation, PacifiCorp shall consider in good faith any such comments and shall provide to Developer a final Purchase Price Allocation within ten (10) days after its receipt of Developer’s comments. PacifiCorp and Developer shall file all Tax Returns in a manner consistent with the Purchase Price Allocation as finally determined, and PacifiCorp and Developer shall not take any position on any Tax Return, in any audit, administrative, or judicial proceeding, or otherwise that is inconsistent with the Purchase Price Allocation except as otherwise required applicable Law. If any adjustment is required to be made to the Purchase Price Allocation as a result of the payment of additional Purchase Price or otherwise, this Section 21.3 shall govern the rights and obligations of PacifiCorp and Developer with respect to such revised Purchase Price Allocation.

Section 21.4 Tax Incentives.

(a) Neither Developer nor any Affiliate of Developer will engage in any action or fail to take any action that would jeopardize the receipt by PacifiCorp or any of its Affiliates of any Renewable Energy Incentive, or the eligibility of the Project (or any property in the Project) for any other Tax benefit or incentive made available by a Governmental Authority.

(b) Developer shall cause all property (including all PTC Facilities) in the Project to be placed in service within the meaning of Section 45 of the Code no later than the end of the fourth calendar year after the date on which construction began.

Section 21.5 Cooperation.

PacifiCorp and Developer shall cooperate fully, as and to the extent reasonably requested, in connection with the filing of Tax Returns and any audit, litigation or other proceeding with respect to Taxes. Such cooperation shall include the retention and (upon request) the provision of records and information that are reasonably relevant to the filing of such Tax Returns and any such audit, litigation

or other proceeding and making employees available on a mutually convenient basis to provide additional information and explanation of any material provided hereunder.

Section 21.6 Survival.

The representations, warranties and covenants set forth in Section 4.8, Section 4.14, and this ARTICLE 21 shall remain in effect until ninety (90) days after the expiration of the applicable statute of limitations (giving effect to any extensions or waivers thereof) relating to the Tax or Tax Return in question.

Section 21.7 Coordination with General Indemnification.

The provisions of this ARTICLE 21 shall govern the indemnification rights and obligations of PacifiCorp, Developer and their Affiliates with respect to Tax matters in the event of any conflict between the provisions of ARTICLE 26 and this ARTICLE 21.

**ARTICLE 22
ENVIRONMENTAL MATTERS**

Section 22.1 General.

Not less than ninety (90) days prior to the Closing, Developer shall prepare and submit to PacifiCorp materials management and emergency response procedures in accordance with Environmental Law covering any Regulated Materials Developer expects to be used in the completion and testing of the Work, which procedures shall be satisfactory to PacifiCorp. Developer shall comply, and shall cause all other Developer Parties to comply, at all times with the PacifiCorp-approved materials management and emergency response procedures, all Environmental Laws and all Permits applicable to the Work and the Site. No Regulated Materials shall be Released on the Site.

Section 22.2 Release On-Site.

Developer shall immediately notify PacifiCorp of any Release of Regulated Materials at the Site by the Developer Parties or otherwise. In addition, Developer shall immediately notify any applicable Governmental Authorities of any Release that is reportable to Governmental Authorities under applicable Environmental Laws and take such emergency measures as are prudent and necessary to protect the environment consistent with the PacifiCorp-approved materials management and emergency response procedures and applicable Law. Developer shall take all appropriate steps consistent with the PacifiCorp-approved materials management and emergency response procedures and applicable Law for immediate containment of any such Release and Remediation of the affected area.

Section 22.3 Release Off-Site.

In the event of a Release by any Developer Party of a Regulated Material off the Site but related to the Work which is reportable to Governmental Authorities under applicable Environmental Laws, Developer shall be responsible for notifying all applicable federal, state and local Governmental Authorities in accordance with applicable Law or for causing such notification to occur by the party responsible for such action. Developer shall take all appropriate steps consistent with the PacifiCorp-

approved materials management and emergency response procedures and applicable Law for immediate containment of any such Release and Remediation of the affected area.

Section 22.4 Liability.

Unless a Release referred to in Section 22.2 and Section 22.3 is caused by an act or omission of PacifiCorp or a representative of PacifiCorp, Developer shall be responsible for all Liabilities with respect to such Release and the Remediation of the affected area and the indemnification provisions set forth in Section 26.1 shall apply.

Section 22.5 Pre-existing Regulated Materials.

(a) Developer shall develop a contingency plan to address the presence of Regulated Materials in soils or groundwater that Developer may encounter during construction of the Project. The purpose of the contingency plan is to avoid any delays in construction of the Project by planning in advance how to respond to unexpected pre-existing environmental conditions that could impact the Project Schedule or the Guaranteed Substantial Completion Date. The contingency plan shall, at a minimum, provide for:

(i) a staging area for soil containing Regulated Materials so that construction of the Project can continue without delays. Such soils (that must be removed for construction purposes) can be placed in the staging area while testing and subsequent disposal decisions are made;

(ii) the handling of any groundwater containing Regulated Materials that might be extracted, including the prospective procurement of a [STATE; AGENCY] Permit in the event the contingency plan calls for such extracted water being discharged into an area that is subject to Clean Water Act jurisdiction; and

(iii) the final disposal of all Regulated Materials and associated soil and groundwater encountered on the Site.

(b) Developer shall be responsible for implementing any recommendations relating to pre-existing Regulated Materials contained in any environmental surveys or reports.

Section 22.6 Notice.

Developer shall immediately notify PacifiCorp of the occurrence of any event that would or could reasonably be expected to result in any violation or noncompliance or potential violation or noncompliance of any Environmental Law relating to the Work, the Facility, or the Site, or otherwise constitutes a Material Adverse Change under this Agreement.

ARTICLE 23 WARRANTIES OF WORK

Section 23.1 Warranties.

(a) Developer warrants (the "Warranty"), for the duration of the applicable Warranty Period, as follows:

(i) that the Facility and all Equipment and Materials and other Work furnished by Developer, Contractor or any Subcontractor, including installation, but excluding the wind turbines to which the wind turbine warranty in Appendix E applies (provided, that Work related to wind turbine installation shall not be excluded) shall: (A) be free from improper workmanship and Defects in design, engineering, construction, fabrication, workmanship, materials and operations, (B) be new and unused (except for use as part of the Facility); (C) be of good quality, undamaged and in good condition; and (D) conform to the applicable requirements of this Agreement and the other Project Documents, including the Scope of Work and Technical Specification, in effect as of the Substantial Completion Date;

(ii) that the procurement, design, engineering and construction services included as part of the Work (including for the avoidance of doubt, Work related to installation of the wind turbines) shall be performed with Developer's, Contractor's and Subcontractor's best skill and judgment, in a good and workmanlike manner, and conform to and be designed, engineered and constructed in accordance with the terms and conditions of the Project Documents, including the Scope of Work and Technical Specification, Prudent Industry Practice, applicable Laws, and the Developer Permits, in each case, in effect as of the Substantial Completion Date, and conform with, and be designed and engineered according to professional standards and skill, expertise and diligence of design professionals regularly involved in wind power projects similar to the Project, and contain the Equipment, Materials and supplies described in the Scope of Work;

(iii) that the completed Work shall perform its intended functions as a complete, integrated wind energy generation operating system as explicitly described or implied in the Project Documents;

(iv) that none of the Work, the Facility, the Equipment, the Materials, the final plans and the design, engineering and other services rendered by Seller, Contractor or any Subcontractor hereunder, nor the use or ownership thereof by PacifiCorp in accordance with the licenses granted hereunder, infringes, violates or constitutes a misappropriation of any trade secrets, proprietary rights, intellectual property rights, patents, copyrights or trademarks; and

(v) the individual warranties set forth in Appendix E, other than the wind turbine warranty.

(b) The Warranty shall not extend to Defects or deficiencies to the extent resulting from: (i) operation by PacifiCorp's personnel in a manner inconsistent with or contrary to instructions contained in the operation and maintenance manuals provided by Developer pursuant to Section 15.5; (ii) repairs or alterations by PacifiCorp's personnel in a manner inconsistent with or contrary to instructions provided by Developer or as contained in the operation and maintenance manuals provided by Developer pursuant to Section 15.5; or (iii) normal wear and tear.

Section 23.2 Warranty Period.

Subject to the provisions in this ARTICLE 23, the Warranty: (a) in Section 23.1(a)(i), Section 23.1(a)(ii), Section 23.1(a)(iii) and Section 23.1(a)(iv) shall remain in full force and effect for a period beginning on the Substantial Completion Date and ending on the date twenty-four (24) months thereafter; and (b) in Section 23.1(a)(v), shall remain in full force and effect for the period of time beginning on the

Substantial Completion Date and ending on the date set forth in Appendix E (each period, a “Warranty Period”); provided, however, if ten percent (10%) or more of any type of component of the Project requires repair or replacement within the Warranty Period, then the Warranty for that type of component shall be automatically extended for all such components of that type for an additional two (2) years from the date of the failure that caused the percentage of failures to reach ten percent (10%). Notwithstanding the foregoing, with the exception of the wind turbine warranty set forth in Appendix E, in no event shall any Warranty (including for the avoidance of doubt, any wind turbine pad mounted transformer warranty, high voltage switch gear warranty, step-up transformer warranty or SCADA monitoring system and security system warranty set forth in Appendix E, if applicable) terminate less than twenty-four (24) months following the Substantial Completion Date.

Section 23.3 Repair of Defects.

If PacifiCorp or Developer discovers that the Work, or any portion thereof, fails to meet the Warranty, then it shall notify the other Party of such failure within a reasonable time after discovery, along with the reasonable basis therefore. Upon receipt of such notice, or promptly upon Developer’s own discovery thereof, Developer shall (a) cure such failure in accordance with the Warranty and (b) perform such tests as PacifiCorp may reasonably require demonstrating the cure of such failure. Developer shall coordinate repairing, replacing or re-performing any of the Work with PacifiCorp so as to minimize any adverse effects on the operation of the Project.

Section 23.4 Warranty Period Extension.

(a) Extension for Corrected Work. Any Work re-performed and any part of the Site that is reworked, repaired or replaced in satisfaction of Developer’s obligations in connection with the Warranty will be re-warranted by Developer pursuant to the same Warranty set forth in this ARTICLE 23, and Developer will have the same obligations in relation thereto as set forth in this ARTICLE 23 for a period equal to eighteen (18) months from the date such re-performance, rework, repair or replacement is completed.

(b) Extension for Total Shutdown. If, during the Warranty Period, the Facility is shut down (other than for the purpose of scheduled or routine maintenance) and such shutdown is caused by a defect or failure covered by the Warranty, then the Warranty Period will be extended by a period equal to the duration of the shutdown required to repair such defect or failure.

Section 23.5 Contractor and Subcontractor Warranties.

Developer will procure from Contractor and each Subcontractor warranties with respect to services, Equipment, Materials and Work provided by such entity for a period of no less than twenty-four (24) months after the Substantial Completion Date and for a further twenty-four (24) months after any warranty repair with respect to the subject of the repair. Developer shall obtain and maintain all such warranties in full force and effect.

Section 23.6 Delay in Remediating Defects.

If any such Defect or damage is not remedied by Developer within a reasonable time or requires prompt remediation as a result of an emergency situation existing at the Site, then PacifiCorp may proceed to do the Work or have others perform such Work at Developer’s risk and expense provided that it does so in a reasonable manner and notifies Developer of PacifiCorp’s intention so to do.

Developer reserves the right to investigate and determine the eligibility for such Work to classify as part of a warranty claim. All costs incurred by or on behalf of PacifiCorp in connection with such Work shall be deducted from the Contract Price or be paid by Developer to PacifiCorp within thirty (30) days.

Section 23.7 Removal of Defective Work.

Developer may, with the consent of PacifiCorp, remove from the Site any part of the Work which is Defective or damaged, if the nature of the Defect or damage is such that repairs cannot be expeditiously carried out on the Site.

Section 23.8 Further Tests.

If repairs or replacements are of such a character as may affect the operation of the Facility or any part thereof, PacifiCorp may, within one (1) month after such repair or replacement, give to Developer notice requiring further testing to be conducted, in which case such tests shall be carried out at Developer's cost and as provided in ARTICLE 18.

Section 23.9 Developer to Diagnose.

Developer shall, if required by PacifiCorp's Representative in writing and under the direction of PacifiCorp's Representative, diagnose the cause of any Defect. Unless such Defect or its cause shall be one which Developer would otherwise be responsible for repairing, the costs incurred by Developer in diagnosing such Defect shall, subject to this ARTICLE 23, be borne by PacifiCorp and added to the Contract Price.

Section 23.10 Latent Defects.

(a) Developer's liability for Latent Defects shall remain in full force and effect during all phases of the Work for a period beginning on the Substantial Completion Date and ending five (5) years thereafter (the "Latent Defects Liability Period").

(b) If any Latent Defect shall appear in any part of the Work during the Latent Defects Liability Period, such Latent Defect shall be repaired by Developer with all possible speed and at Developer's sole cost and expense, provided that the Latent Defect existed and would not have been disclosed by a reasonable examination conducted in accordance with Prudent Industry Practice prior to the expiration of the Defects Liability Period.

(c) Developer agrees that any examination of the Work undertaken by PacifiCorp at a relevant time shall, in respect of that part of the Work examined, constitute a reasonable examination conducted in accordance with Prudent Industry Practice within the meaning of this Article.

(d) During the Latent Defects Liability Period, in the event Developer's OEM issues any notice, including Technical Information Letters, service bulletins or similar notices recommending replacement or repair of one or more parts of the Equipment and such repair or replacement is necessary for continued safe operation of the Equipment or is issued to address a defect in material, or workmanship (each a "Latent Defect"), Developer shall repair or replace the affected parts in accordance with and subject to all the terms of the Warranty provided that PacifiCorp shall make the affected Work reasonably available for performance of the repairs or modifications and Developer shall cooperate with PacifiCorp in scheduling such modifications or repairs in order to avoid disruption to PacifiCorp's operations.

Section 23.11 Significant Defects.

Developer warrants and guarantees to PacifiCorp that there will be no Significant Defects. In the event that a Significant Defect occurs, Developer shall cure or otherwise make good the Significant Defect.

Section 23.12 Assignment of Warranties.

On or before the date that is twenty four (24) months following the Substantial Completion Date, Developer shall enter into a partial assignment agreement, in form and substance acceptable to PacifiCorp, pursuant to which Developer shall assign to PacifiCorp all of Developer's rights with respect to the warranties set forth in Appendix E and such other existing Contractor and Subcontractor warranties as exist with respect to Section 23.5 (the "Other Warranty Assignment"), provided on and as a condition precedent to the Substantial Completion Date, Developer shall enter into a partial assignment agreement, in form and substance acceptable to PacifiCorp, pursuant to which Developer shall assign to PacifiCorp all of Developer's rights with respect to the turbine warranties set forth in Appendix E (the "Turbine Warranty Assignment").

Section 23.13 Wind Turbine Warranty Obligations.

PacifiCorp's exclusive remedy with respect to the wind turbine warranty obligations shall be against the wind turbine supplier under the wind turbine warranty so assigned.

ARTICLE 24 LIQUIDATED DAMAGES

Section 24.1 General.

The Parties agree that it is difficult or impossible to determine with precision the amount of damages that would be incurred by PacifiCorp as a result of Developer's failure to timely achieve the Substantial Completion Date by the Guaranteed Substantial Completion Date or meet the Performance Guarantees, if applicable. Accordingly, the Parties expressly agree that if Developer fails to timely achieve the Substantial Completion Date by the Guaranteed Substantial Completion Date or meet the Performance Guarantees, if applicable, any sums which would be payable under this ARTICLE 24 because of such failures are liquidated damages and not a penalty, and are fair and reasonable and any such sums represent a reasonable estimate of fair compensation for the losses that may reasonably be anticipated from such failures. Notwithstanding anything to the contrary herein: (a) provisions of this Agreement providing for liquidated damages only relate to damages arising out of Developer's performance under this Agreement, and do not limit damages payable to PacifiCorp related to or arising from the termination of this Agreement, by PacifiCorp or otherwise; and (b) in no event are liquidated damages PacifiCorp's exclusive remedy for any breach or failure to perform by Developer.

Section 24.2 Liquidated Damages for Delay in Substantial Completion.

If the Project fails to achieve the Substantial Completion Date on or prior to close of business on the Substantial Completion Guaranteed Date, then Developer shall pay to PacifiCorp liquidated damages for each day until the Project achieves the Substantial Completion Date, in an amount equal to [_____] (\$_____) per day for the first thirty-one (31) days following the Substantial

Completion Guaranteed Date and [_____] (\$_____) per day thereafter (collectively, the “Delay Liquidated Damages”).

Section 24.3 Liquidated Damages for Performance Guarantees.

If PacifiCorp elects for Developer to perform the Performance Tests and the Project fails to achieve the Performance Guaranty by the Guaranteed Substantial Completion Date, then Developer shall pay to PacifiCorp liquidated damages in an amount and on such terms and conditions as are set forth in Appendix AA (collectively, the “Performance Liquidated Damages”).

Section 24.4 Calculations and Payments of Liquidated Damages.

(a) All amounts payable as liquidated damages under this ARTICLE 24 shall be made by Developer to PacifiCorp as follows: (i) in the case of Delay Liquidated Damages, thirty (30) days after the final day of each month during which liquidated damages became payable pursuant to Section 24.3; and (ii) in the case of Performance Liquidated Damages, if applicable, thirty (30) days after PacifiCorp’s receipt of the Final Performance Test Report or as otherwise provided in Appendix AA. PacifiCorp shall have the right to audit Developer’s calculations of all liquidated damages. Developer shall itemize such calculations and such calculations shall include such supporting documentation as PacifiCorp may reasonably request and shall be in sufficient detail to permit PacifiCorp to verify each calculation. PacifiCorp shall notify Developer, as soon as reasonably possible, of any portion of the calculations with which PacifiCorp disagrees.

(b) Liquidated damages shall bear interest at the Late Payment Rate, compounded daily from the date such amount was due, but not to exceed the maximum rate of interest permitted by applicable Law.

ARTICLE 25 LIMITATION OF LIABILITY

Section 25.1 Duty to Mitigate.

In all cases, but subject to any right or remedy which the Party may have under or by virtue of this Agreement, the Party establishing or alleging a breach or default of this Agreement or a right to recover damages or to be indemnified in accordance with this Agreement shall be under a duty to take all commercially reasonable actions necessary to mitigate any loss which has occurred.

Section 25.2 Limitation of Liability.

SUBJECT TO THE OBLIGATION OF DEVELOPER TO PAY LIQUIDATED DAMAGES TO PACIFICORP UNDER THIS AGREEMENT AND OTHERWISE AS PROVIDED IN SECTION 2.9 AND SECTION 25.3, NEITHER DEVELOPER NOR PACIFICORP SHALL BE LIABLE TO THE OTHER BY WAY OF INDEMNITY OR BY REASON OF ANY BREACH OR DEFAULT OF THIS AGREEMENT OR ANY STATUTORY DUTY OR TORT (INCLUDING NEGLIGENCE BUT EXCLUDING ANY DAMAGES PAYABLE TO A THIRD PARTY CAUSED BY A TRESPASS OR NUISANCE FOR WHICH DEVELOPER IS RESPONSIBLE PURSUANT TO THIS AGREEMENT) FOR ANY LOSS OF PROFIT OR INCOME, LOSS OF USE, LOSS OF PRODUCTION, LOSS OF

CONTRACTS OR FOR ANY INDIRECT OR CONSEQUENTIAL, MULTIPLE, PUNITIVE OR EXEMPLARY DAMAGES THAT MAY BE SUFFERED BY THE OTHER.

Section 25.3 Enforceability of Liquidated Damages.

The Parties explicitly agree and intend that the provisions of ARTICLE 24 shall be fully enforceable by any court exercising jurisdiction over any dispute between the Parties arising under this Agreement. Each Party hereby irrevocably waives any defenses available to it under law or equity relating to the enforceability of the liquidated damages provisions set forth in ARTICLE 24.

Section 25.4 Limitations on Liabilities.

Notwithstanding any other provision of this Agreement to the contrary, the cumulative maximum liability of a Party to the other Party under this Agreement shall not exceed one hundred percent (100%) of the sum of the Contract Price and the Purchase Price. The foregoing limitation of liability shall not apply with respect to (a) Developer's indemnification obligations in Section 21.1 and (b) claims made by, damages incurred by, or amounts payable to third parties pursuant to an indemnity given hereunder or claims arising out of such Party's fraud, willful misconduct or gross negligence. To the extent any provision of this Agreement establishes a lower limit of liability of a Party with respect to a particular component or type of liability, such lower limit of liability shall control with respect to the relevant component or type of liability. Notwithstanding anything herein to the contrary, no liabilities of Developer to PacifiCorp that are covered by insurance carried by Developer pursuant to ARTICLE 27 (except deductibles paid by Developer) shall count towards Developer's cumulative maximum liability to PacifiCorp pursuant to this Agreement.

**ARTICLE 26
INDEMNIFICATION**

Section 26.1 Indemnification for Third Party Claims.

(a) Developer shall defend, indemnify and hold harmless PacifiCorp and the other PacifiCorp Indemnified Parties from and against all third party Claims and Liabilities for injury, including death, and property damage caused by, arising out of, or in connection with the performance by any Project Party of the Project Documents to the extent any of such Claims or Liabilities were caused by breach of any representation, warranty or obligation under this Agreement or any Project Document by or the negligence, gross negligence or willful misconduct of any Developer Parties.

(b) PacifiCorp shall defend, indemnify and hold harmless Developer and its directors, officers, employees and agents, from and against all third party Claims and Liabilities for injury, including death, and property damage caused by, arising out of, or in connection with the performance by PacifiCorp of the Project Documents to which it is a Party to the extent any of such Claims or Liabilities were caused by the breach of any representation, warranty or obligation under this Agreement or any other Project Document to which it is a party by or the negligence, gross negligence or willful misconduct of PacifiCorp, its employees or agents.

(c) Either Party seeking indemnification under this Agreement (the "Indemnified Party") shall give notice to the Party required to provide indemnification hereunder (the "Indemnifying Party") promptly after the Indemnified Party has actual knowledge of any Claim as to which indemnity may be

sought hereunder, and the Indemnified Party shall permit the Indemnifying Party (at the expense of the Indemnifying Party) to assume the defense of any Claim resulting therefrom; provided that:

- (i) counsel for the Indemnifying Party who shall conduct the defense of such Claim shall be reasonably satisfactory to the Indemnified Party;
- (ii) the Indemnified Party may participate in such defense at its own expense, except the Indemnifying Party shall reimburse the Indemnified Party for its participation in such defense to the extent that the Indemnifying Party requests the Indemnified Party to participate in its own defense; and
- (iii) the omission by the Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its indemnification obligations hereunder except to the extent that such omission results in a failure of actual notice to the Indemnifying Party and the Indemnifying Party is damaged as a result of such failure to give notice.

Notwithstanding the foregoing, the Indemnifying Party may not settle any Claim related to the indemnity being provided hereunder without the consent of the Indemnified Party, such consent not to be unreasonably withheld or delayed.

(d) With regard to any Claim or Liability which is the result of the joint or concurrent fault or negligence of Developer and PacifiCorp, the Parties agree to jointly defend any Claim with respect thereto that is based on such joint or concurrent fault or negligence of PacifiCorp and Developer. Any Claim of contribution or indemnification between PacifiCorp and Developer relating to such Claims shall be resolved on the basis of the percentage of fault or negligence and the Parties agree to reserve the determination of such percentage until after resolution of such Claim. Such pro rata share shall be based upon a final judicial determination of the Parties' comparative fault or negligence or, in the absence of such determination, by mutual agreement of the Parties.

(e) Nothing in this Section 26.1 is intended to allow any Indemnified Party to be indemnified from and against any third party Claims and Liabilities caused by, arising out of, or in connection with the performance of this Agreement or any other Project Document to the extent any of such Claims or Liabilities were caused by, arose out of, or were in any way incidental to or in connection with its own breach of any representation, warranty or obligation under this Agreement or any other Project Document to which it is a party or its negligence, gross negligence or willful misconduct.

Section 26.2 Title Indemnity and Liens.

(a) Developer shall promptly pay or cause to be paid when due all obligations for labor and material in connection with the Work. Developer shall discharge at once, or bond with a bonding company or surety acceptable to PacifiCorp or otherwise secure against all Liens and attachments which are filed in connection with the Work.

(b) Developer shall keep the Work and the Site free and clear of and shall promptly release or cause the release of all Liens and Claims, including recorded notices, Claims for nonpayment and *lis pendens*, arising from the performance of any Work covered by this Agreement or any other Project Document by the Developer Parties and all laborers, materialmen, mechanics and other such persons. Developer shall have the right to contest any such Lien or Claim, provided that Developer first provide

to PacifiCorp financial assurances in amount, form and substance satisfactory to PacifiCorp and otherwise complies with applicable Law with respect to removal of such Lien or Claim.

(c) Developer shall indemnify, defend, and hold harmless all PacifiCorp Indemnified Parties from and against (i) all laborers', material men's and mechanics' Liens, or Claims made or filed upon the Work or the Site on account of any labor performed or labor, services, equipment, and materials furnished by the Developer Parties and all laborers, materialmen, mechanics, and other persons in connection with the Work and (ii) any defect in title upon any of Work, including the Equipment, Materials and the Facility, supplied pursuant to this Agreement.

(d) If any Lien or Claim arising out of this Agreement or any other Project Document is filed before or after Work is completed, Developer, within ten (10) days after receiving from PacifiCorp written notice of such Lien or Claim, shall obtain release or provide financial assurance satisfactory to PacifiCorp to protect PacifiCorp from or otherwise satisfy such Lien or Claim. If Developer fails to do so, PacifiCorp may take such steps and make such expenditures as in its discretion it deems advisable to obtain release of or otherwise satisfy any such Lien or Claim, and Developer shall upon demand reimburse PacifiCorp for all costs incurred and expenditures made by PacifiCorp in obtaining such release or satisfaction including administrative costs, attorneys' fees and other expenses or PacifiCorp shall have the right to deduct the amount of such costs from the amount payable to Developer.

(e) Developer's obligation to indemnify, defend and hold harmless PacifiCorp Indemnified Parties from Liens and Claims shall not in any way be rendered unenforceable, or altered, amended, eliminated or otherwise conditioned by any applicable Laws related to processing such Liens or Claims. PacifiCorp shall have no obligation to deliver a copy of any notice of Claim or right to a Lien to Developer or any other person or entity.

(f) Developer shall at its own expense defend any suit or proceeding based on any Claim for which Developer is responsible under this Section 26.2. PacifiCorp shall give Developer such assistance as Developer may reasonably require in the defense of such Claim, and PacifiCorp shall have the right to be represented therein by counsel of its own choosing at its own expense. If Developer fails to defend diligently any such Claim, PacifiCorp may, in its reasonable discretion, either defend or settle the Claim without the consent of Developer and without relieving Developer of the obligation to indemnify as provided herein. In such a case Developer's obligation to defend shall include reimbursement of PacifiCorp's reasonable legal fees and related costs incurred in defending or settling the Claim.

Section 26.3 Indemnity Period.

The Parties' obligation to indemnify one another consistent with the provisions of this ARTICLE 26 shall continue after the Substantial Completion Date as follows (collectively, the "Indemnity Period"):

(a) With respect to Claims and Liabilities brought by third parties against PacifiCorp Indemnified Parties, Developer's obligation to indemnify PacifiCorp Indemnified Parties pursuant to Section 26.1(a) shall continue for a period of five (5) years following the Substantial Completion Date.

(b) With respect to Claims and Liabilities brought by third parties against Developer and its directors, officers, employees and agents, PacifiCorp's obligation to indemnify pursuant to Section 26.1(b) shall continue for a period of five (5) years following the Substantial Completion Date.

(c) With respect to Claims and Liabilities relating to the title of the Site, the Project, the Facility or the Work, Developer's obligation to indemnify PacifiCorp pursuant to Section 26.2 shall continue indefinitely.

(d) With respect to any other Claims and Liabilities relating to the Site, the Project, the Facility or the Work, Developer's obligation to indemnify PacifiCorp pursuant to Section 26.2 shall continue for a period of five (5) years following the Substantial Completion Date.

ARTICLE 27 INSURANCE

Section 27.1 Contractor's and Subcontractors' Insurance Coverage.

Developer shall maintain and shall require and cause Contractor and all Subcontractors, while performing work on the Site, to provide, pay for and continuously maintain in full force and effect insurance coverage in accordance with the requirements of Appendix Q-1 and Appendix Q-3.

Section 27.2 PacifiCorp's Insurance.

PacifiCorp shall during the term of this Agreement maintain in full force and effect insurance coverage in accordance with the requirements of Appendix Q-2 and Appendix Q-3.

Section 27.3 Developer's Cooperation with PacifiCorp.

Developer agrees to provide such assistance and documentation as PacifiCorp may request in connection with Claims PacifiCorp may make under its insurance policies purchased in connection with the Project for damage or events that occur after the Effective Date and prior to the expiration of the applicable Warranty Period.

ARTICLE 28 FORCE MAJEURE

Section 28.1 Effect of Force Majeure.

Neither Party shall be in default or in breach of its obligations under this Agreement or otherwise be liable to the other Party for any delay or failure in the performance of any of its obligations under this Agreement if and to the extent such delay or failure is a result of Force Majeure arising after the Effective Date. The protections afforded under this Section 28.1 to a Party shall be of no greater scope and no longer duration, than is required by the Force Majeure. Notwithstanding anything to the contrary contained in this Section 28.1, no Force Majeure shall relieve, suspend or otherwise excuse any Party from performing any obligation to make any payment owed to another Party or to indemnify, defend or hold harmless another Party pursuant to this Agreement. In no event may Developer claim a Force Majeure for economic reasons or for changes in Developer's costs or the costs of Contractor or Subcontractors, including commodity price changes, changes in labor markets, increased cost of labor or transportation, or due to changes in scope due to changes in engineering, design or applied engineering not requested by PacifiCorp.

Section 28.2 Notice of Occurrence.

If either Party considers that any event of Force Majeure has occurred which may affect performance of its obligations under this Agreement, it shall promptly notify the other Party thereof stating the full particulars, including the obligations that are affected thereby, the estimated period during which performance may be delayed or prevented, and the particulars of the program to be implemented

to resume normal performance hereunder. If a force majeure under any of the Project Documents occurs with respect to Contractor or any Subcontractor, then Developer shall promptly provide notice thereof to PacifiCorp describing: (i) the obligations of Contractor or Subcontractor that are affected; (ii) the estimated period during which performance may be delayed or prevented; and (iii) the particulars of the program to be implemented by Contractor or Subcontractor in order to resume normal performance thereunder, provided that in no event shall Developer be relieved of any of its obligations under this Agreement as a result thereof unless such force majeure qualifies as an event of Force Majeure under this Agreement.

Section 28.3 Performance to Continue.

Upon the occurrence of any event of Force Majeure, the affected Party shall use reasonable efforts to mitigate the effects of Force Majeure, resume normal performance of this Agreement within the shortest time practicable and continue to perform its obligations under this Agreement insofar as they are not affected by the Force Majeure.

Section 28.4 Termination in Consequence of Force Majeure.

If an event of Force Majeure continues for a period of forty-five (45) days in the aggregate that materially affects the ability of Developer to perform the Work, and as a result thereof there is a corresponding delay in the schedule for performance of the Work and the Guaranteed Substantial Completion Date of at least forty-five (45) days, then, notwithstanding that Developer may by reason thereof have been granted an extension of the schedule for performance of the Work and the Guaranteed Substantial Completion Date, by Change Order, PacifiCorp shall be entitled to terminate this Agreement upon thirty (30) days advance written notice to Developer. If at the expiration of such thirty (30)-day period such Force Majeure shall still continue, this Agreement shall automatically terminate without any further action on the part of either Party and the provisions of Section 30.3(a) shall apply.

Section 28.5 Risk of Loss.

Prior to termination of this Agreement, nothing in this ARTICLE 28 shall change the allocation to Developer of the risk of loss or damage prior to the Substantial Completion Date, and any Change Order resulting from a Force Majeure shall take into account such allocation of the risk of loss or damage.

ARTICLE 29 DEFAULT

Section 29.1 Developer Default.

Developer shall be in default (a "Developer Default") hereunder if:

(a) Developer fails to pay PacifiCorp any undisputed amount due PacifiCorp under this Agreement, and such failure continues for fifteen (15) Business Days after Developer receives notice thereof from PacifiCorp;

(b) Developer fails to deliver and maintain Credit Support as required by ARTICLE 6, and such failure continues for five (5) days after Developer receives notice thereof from PacifiCorp;

(c) Developer fails to achieve the Substantial Completion Date by the Guaranteed Substantial Completion Date;

(d) Developer makes a false or unsubstantiated claim of Force Majeure;

(e) A Project Party: (i) fails to comply with the approved Developer Safety Assurance Program set forth in Appendix T, and such failure continues for fifteen (15) Business Days after Developer receives notice thereof from PacifiCorp; or (ii) assigns a Project Document to which it is a party or all or a portion of its rights and obligations thereunder other than as permitted both hereunder and thereunder;

(f) Developer fails in any material respect to comply with any of its other material obligations under this Agreement (not otherwise described in this Section 29.1); provided, however, that if such failure can be cured or remedied by Developer within a period of thirty (30) Business Days and Developer is diligently pursuing such cure or remedy, then such failure shall not become a Developer Default until thirty (30) Business Days after Developer receives notice thereof from PacifiCorp (unless such failure is cured or remedied prior thereto);

(g) A Project Party shall (i) commence a voluntary case under the Bankruptcy Code; (ii) file a petition seeking to take advantage of any Bankruptcy Laws; (iii) consent to or fail to contest in a timely and appropriate manner any petition filed against it in an insolvency case under Bankruptcy Laws; (iv) apply for, or consent to or fail to contest in a timely and appropriate manner, the appointment of, or the taking of possession by, a receiver, custodian, trustee, liquidator or the like of itself or of a substantial part of its assets; (v) admit in writing its inability to pay, or generally not be paying, its debts (other than those that are the subject of bona fide disputes) as they become due; (vi) make a general assignment for the benefit of creditors; (vii) take any action for the purpose of effecting any of the foregoing; or (viii) have a case or other proceeding commenced by a third party against it seeking (A) relief under the Bankruptcy Code or under any other Bankruptcy Laws or (B) the appointment of a trustee, receiver, custodian, liquidator or the like of such Project Party of all or any substantial part of its assets, and such case or proceeding shall continue undismissed or unstayed for a period of sixty (60) days;

(h) any representation or warranty made by Developer for which an express remedy is not provided shall prove to have been false in any material respect as of the date made or deemed made; provided, however, that if the circumstances which make such representation or warranty false are subject to cure or remedy by Developer within a period of thirty (30) Business Days and Developer is diligently pursuing such cure or remedy, then such representation or warranty being false in any material respect shall not become a Developer Default until thirty (30) Business Days after Developer receives notice thereof from PacifiCorp (unless such representation and warranty is no longer false in any material respect prior thereto); or

(i) a Material Adverse Change shall have occurred and be continuing, unless such Material Adverse Change is a result of an act or omission of PacifiCorp in violation of the terms of this Agreement.

Section 29.2 PacifiCorp Default.

PacifiCorp shall be in default (a “PacifiCorp Default”) hereunder if:

(a) PacifiCorp fails to pay Developer any undisputed amount due Developer under this Agreement, and such failure continues for fifteen (15) Business Days after PacifiCorp receives notice thereof from Developer;

(b) PacifiCorp fails in any material respect to comply with any of its other material obligations under this Agreement (not otherwise described in this Section 29.2); provided, however, that if such failure can be cured or remedied by PacifiCorp within a period of thirty (30) Business Days and PacifiCorp is diligently pursuing such cure or remedy, then such failure shall not become a PacifiCorp Default until thirty (30) Business Days after PacifiCorp receives notice thereof from Developer (unless such failure is cured or remedied prior thereto);

(c) PacifiCorp shall (i) commence a voluntary case under the Bankruptcy Code; (ii) file a petition seeking to take advantage of any other Laws, domestic or foreign, relating to bankruptcy, insolvency, reorganization, winding up or composition or adjustment of debts (collectively, “Bankruptcy Laws”); (iii) consent to or fail to contest in a timely and appropriate manner any petition filed against it in an insolvency case under the Bankruptcy Laws; (iv) apply for, or consent to or fail to contest in a timely and appropriate manner, the appointment of, or the taking of possession by, a receiver, custodian, trustee, liquidator or the like of itself or of a substantial part of its assets; (v) admit in writing its inability to pay, or generally not be paying, its debts (other than those that are the subject of bona fide disputes) as they become due; (vi) make a general assignment for the benefit of creditors; (vii) take any action for the purpose of effecting any of the foregoing; or (viii) have a case or other proceeding commenced by a third party against it seeking (A) relief under the Bankruptcy Code or under any other Bankruptcy Laws or (B) the appointment of a trustee, receiver, custodian, liquidator or the like of PacifiCorp of all or any substantial part of its assets, and such case or proceeding shall continue undismissed or unstayed for a period of sixty (60) days; or

(d) any representation or warranty made by PacifiCorp in this Agreement for which an express remedy is not provided shall have been false in any material respect as of the date made; provided, however, that if the circumstances which make such representation or warranty false are subject to cure or remedy by PacifiCorp within a period of thirty (30) Business Days and PacifiCorp is diligently pursuing such cure or remedy, then such representation or warranty being false in any material respect shall not become a PacifiCorp Default until thirty (30) Business Days after PacifiCorp receives notice thereof from Developer (unless such representation and warranty is no longer false in any material respect prior thereto).

Section 29.3 Remedies on Default.

(a) Step-In Rights. During the occurrence and continuance of any Developer Default, and in addition to any other rights PacifiCorp may have hereunder or at law or in equity, PacifiCorp shall have the right, but not the obligation, to take all actions necessary to perform or cause to be performed any and all work and labor it deems necessary to construct, complete, operate or maintain the Project in accordance with the terms of this Agreement, including causing Developer to vacate the Site and surrender possession of the Project and all proprietary information, Equipment, Materials, spare parts

and other supplies located at the Site to PacifiCorp. If PacifiCorp at any time exercises its rights under this Section 29.3(a), PacifiCorp shall be relieved of its obligations of payment during such time as it is exercising its right under this Section 29.3(a), and shall be entitled to recover all costs incurred by PacifiCorp, plus twenty percent (20%) for general and administrative costs in connection with work performed during that time.

(b) Cure Rights. During the occurrence and continuance of any Developer Default and upon receipt of any notice that Developer is in default of any of its obligations under this or any of the Project Documents, and in addition to any other rights PacifiCorp may have hereunder or at law or in equity, PacifiCorp shall have the right, but not the obligation, to cure any Developer Default under this or any Project Document. If PacifiCorp at any time exercises its right under this Section 29.3(b), PacifiCorp shall be relieved of its obligations of payment during such time as it is exercising its right under this Section 29.3(b).

(c) No Excuse. Notwithstanding the exercise by PacifiCorp of any of its rights under this Section 29.3, nothing set forth in this Section 29.3 shall excuse Developer of its obligations to remedy a Developer Default and perform its obligations hereunder.

ARTICLE 30 TERMINATION

Section 30.1 Termination by PacifiCorp.

(a) Upon the occurrence and continuation of a Developer Default, this Agreement shall terminate as follows:

(i) with respect to a Developer Default described in Section 29.1(c), immediately;
and

(ii) with respect to a Developer Default described in Section 29.1 (other than Section 29.1(c)), upon delivery to Developer of written notice of termination after the end of the applicable cure period provided for in Section 29.1, and if no such cure period is provided for in Section 29.1, then fourteen (14) days after delivery to Developer of such written notice of termination.

(b) Notwithstanding anything to the contrary in this Agreement, PacifiCorp's right to collect damages from Developer will not be limited or foreclosed by any termination by PacifiCorp under this Section 30.1 or otherwise.

Section 30.2 Termination by Developer.

(a) Upon the occurrence and continuation of a PacifiCorp Default, this Agreement shall terminate as follows:

(i) with respect to a PacifiCorp Default described in Section 29.2(c), immediately;
and

(ii) with respect to a PacifiCorp Default described in Section 29.2 (other than Section 29.2(c)), upon delivery to Developer of written notice of termination after the end of the applicable cure period provided for in Section 29.1, and if no such cure period is provided for in Section 29.1, then fourteen (14) days after delivery to Developer of such written notice of termination.

(b) Developer may elect to terminate this Agreement due to suspension of the Work as provided in Section 16.1(b).

Section 30.3 Procedures Following Termination.

(a) Upon termination of this Agreement pursuant to Section 16.1(b), Section 28.4 or Section 30.2, the following provisions shall apply: (i) PacifiCorp shall pay to Developer such portion of the Progress Payment as shall be applicable to any Work performed by Developer prior to the effective date of termination of this Agreement consistent with Appendix R; (ii) at PacifiCorp's option, title (to the extent not already transferred) and risk of loss to some or all of the Site, Equipment, Materials and the Facility shall transfer to PacifiCorp; (iii) PacifiCorp shall be responsible for, as applicable, any transportation, storage and insurance of and for the Equipment, Materials and the Facility for which PacifiCorp has elected to take title; and (iv) Developer shall be entitled to remove during normal working hours all of the Developer's Equipment that is on the Site, provided that prior to removing any Developer's Equipment from the Site, Developer shall provide to PacifiCorp a detailed list of Developer's Equipment to be removed; provided, further, that no equipment shall be Developer's Equipment unless it is included in the then-current list of Developer's Equipment approved pursuant to Section 12.1.

(b) Upon termination of this Agreement pursuant to Section 30.1, PacifiCorp may elect one or more of the following remedies: (i) require, at no cost to PacifiCorp, that Developer take all steps necessary or requested by PacifiCorp to assign to PacifiCorp its rights and obligations under the Project Documents and the Developer Permits identified by PacifiCorp and to transfer to PacifiCorp all Work and other property, whether tangible or intangible, in which Developer or its Affiliates has rights which is necessary or desirable for the development, construction, ownership or operation of the Project; (ii) enter onto the Site and remove, at Developer's cost, all Equipment and Materials for which PacifiCorp has elected to take title pursuant to Section 30.3(b)(i); (iii) Developer shall pay to PacifiCorp within five (5) Business Days of receipt of an invoice from PacifiCorp: (A) the positive difference, if any, obtained by subtracting from the Contract Price PacifiCorp's cost to replace or otherwise have performed, as determined and calculated by PacifiCorp in its discretion, any Work that Developer was otherwise obligated to provide during the remaining term of this Agreement; (B) compensation for additional managerial and administrative services incurred by or on behalf of PacifiCorp; and (C) such other costs and expenses and damages as PacifiCorp may suffer as a result of the Developer Default; and (iv) exercise all of PacifiCorp's other rights and remedies under this Agreement or otherwise available at law or in equity.

(c) If this Agreement is terminated pursuant to Section 30.1 or Section 30.2 or otherwise in accordance with its terms, then all further obligations of the Parties under this Agreement (other than the provisions which by their terms are intended to survive the expiration or termination of this Agreement) shall be terminated without further liability of any Party to the other Party; provided, however, that

nothing herein shall relieve any Party from liability provided for herein for its breach or default of this Agreement.

Section 30.4 Exclusive Remedy.

THE RIGHTS AND REMEDIES OF DEVELOPER SET FORTH HEREIN FOR A BREACH OR DEFAULT BY PACIFICORP AND TERMINATION OF THIS AGREEMENT BY DEVELOPER ARE EXCLUSIVE AND NO OTHER REMEDIES OF ANY KIND WHATSOEVER SHALL APPLY IN THE EVENT OF SUCH BREACH OR DEFAULT BY PACIFICORP OR TERMINATION OF THIS AGREEMENT BY DEVELOPER.

**ARTICLE 31
TAXES**

Section 31.1 PacifiCorp's Obligation.

In addition to the Contract Price, PacifiCorp shall be obligated to pay the amount of any property, privilege, license, sales, use, excise, gross receipts, value added, privilege or similar Taxes or assessments applicable to the sale of the Work or to the use of the Work after the Substantial Completion Date. Developer shall use all reasonable efforts to minimize the amount of such Taxes and assessments payable by PacifiCorp. All real or personal property Taxes related to the Project shall be paid by PacifiCorp and shall not be apportioned at the Closing.

Section 31.2 Developer's Obligation.

Developer has included in the Contract Price the amount of any customs duties, and related customs broker fees and charges or similar charges, for delivery of any components to the United States from countries outside of the United States and transportation to the Site. Developer shall be liable for all payroll and other employee related Taxes and costs, for all property Taxes related to the Site prior to Closing and for all Taxes based on its income. Contractor shall cooperate with PacifiCorp's reasonable requests with respect to any challenge that PacifiCorp elects to make with respect to any Taxes imposed in connection with the Project.

**ARTICLE 32
CLAIMS, CLAIM NOTICE AND DISPUTE RESOLUTION**

Section 32.1 Claims.

(a) Submission of Claims.

(i) In the event Developer has a Claim or request for a time extension, additional compensation, any other adjustment to the terms and conditions of this Agreement, or any dispute with PacifiCorp arising out of the Work or this Agreement (each a "Developer Claim"), Developer shall notify PacifiCorp in writing within five (5) Business Days following the occurrence of the event giving rise to the Developer Claim. Developer's failure timely to give notice as required herein will constitute a waiver of all of Developer's rights and remedies with respect to the Developer Claim.

(ii) As soon as practicable, but in no event longer than sixty (60) days after notification of the Developer Claim, Developer shall submit the Developer Claim to PacifiCorp with all supporting information and documentation. Developer shall also respond promptly to all PacifiCorp inquiries about the Developer Claim and its basis.

(iii) Any Developer Claim which is not disposed of by mutual agreement between the Parties within sixty (60) days after submission of the Developer Claim to PacifiCorp pursuant to Section 32.1(a)(ii) shall be decided by PacifiCorp, which decision shall be in writing and delivered to Developer. Such decision shall be final unless Developer, within thirty (30) days after receipt of PacifiCorp's decision, provides to PacifiCorp a written protest, stating clearly and in detail the basis thereof, and such protest shall be resolved in accordance with Section 32.2. Developer's failure timely to protest PacifiCorp's decision as required herein shall constitute a waiver by Developer of its Developer Claim.

(iv) Developer shall continue its performance of this Agreement and the Project Documents notwithstanding the submission of any Developer Claim.

(b) Notification Prior to Incurring Costs. Developer shall, before incurring any cost or expense in connection with a Developer Claim, first give PacifiCorp every opportunity to determine whether the cost or expense should be incurred or whether any act or forbearance shall or might mitigate the cost or expense of any such Developer Claim.

(c) PacifiCorp's Liability to Pay Developer Claims. PacifiCorp shall not be liable to make payment in respect of any Developer Claim for an additional payment unless Developer has complied with each and all of the requirements of this ARTICLE 32, whether as to the time within which Developer Claims must be made or information provided or otherwise, it being acknowledged and agreed by the Parties that the absence of complete compliance herewith will involve significant prejudice to PacifiCorp.

Section 32.2 Dispute Resolution.

Following written notice from either Party to the other Party setting forth a dispute arising from, relating to or otherwise in connection with or arising out of this Agreement (including any Developer Claim, but only if it has not been resolved in accordance with the requirements of Section 32.1), the Parties shall use good faith efforts to settle such dispute through negotiation between PacifiCorp's Representative and Developer's Representative. If the dispute is not resolved by such negotiations within fifteen (15) days after delivery of such initial notice, either Party may, by delivering a subsequent written notice to the other Party, cause the matter to be referred to a meeting of appropriate senior management representatives of the Parties with the power and authority to resolve such dispute. Such meeting shall be held within thirty (30) days following the delivery of the subsequent notice. If the matter is not resolved within thirty (30) days after the first such meeting of the senior management representatives or such later date as may be mutually agreed upon by the Parties, either Party may then, subject to the terms of this Agreement, commence legal action in a court of competent jurisdiction in order to resolve the dispute.

ARTICLE 33 ASSIGNMENT

Section 33.1 Assignment of Developer's Interests.

Developer shall not sell, transfer or otherwise assign, in whole or in part, this Agreement or any Product Document to which it is a party or any of its rights or obligations hereunder or thereunder, except with PacifiCorp's prior written consent, which consent shall be in PacifiCorp's discretion.

ARTICLE 34 CONFIDENTIALITY

Section 34.1 Confidentiality.

(a) It is understood that certain information may be exchanged among PacifiCorp and Developer that the disclosing Party considers proprietary and confidential. Each Party agrees that it shall and shall cause its Affiliates and its and their respective officers, directors, consultants, employees, legal counsel, agents and representatives (together with the Affiliates, the "Confidentiality Affiliates") to: (i) hold confidential and not disclose (other than to its Confidentiality Affiliates having a reasonable need to know in connection with the permitted purposes hereunder), without the prior consent of the other Party, all confidential or proprietary written information which is marked confidential or proprietary or oral information or data which is reduced to writing within five (5) days of such disclosure and marked as confidential or proprietary (including sources of equity or other financing, development strategy, competitor information, cost and pricing data, warranties, technical information, research, developmental, engineering, manufacturing, marketing, sales, financial, operating, performance, business and process information or data, knowhow and computer programming and other software techniques) provided or developed by the other Party or its Confidentiality Affiliates in connection herewith or the Work ("Confidential Information"); and (ii) use such Confidential Information only for the purposes of performing its obligations or exercising its rights hereunder. In no event shall any Confidential Information be disclosed to any competitor of Developer or PacifiCorp. As to Confidential Information that is not a trade secret under applicable Law, the foregoing obligations shall expire three (3) years after the Substantial Completion Date.

(b) The obligations contained in the preceding paragraph shall not apply, or shall cease to apply, to Confidential Information if or when, and to the extent that, such Confidential Information (i) was known to the receiving Party or its Confidentiality Affiliates prior to receipt from the disclosing Party or its Confidentiality Affiliates; (ii) was, or becomes through no breach of the receiving Party's obligations hereunder, known to the public; (iii) becomes known to the receiving Party or its Confidentiality Affiliates from other sources under circumstances not involving any breach of any confidentiality obligation between such source and the disclosing Party's or disclosing Party's Confidentiality Affiliates or a third party; (iv) is independently developed by the receiving Party or its Confidentiality Affiliates; or (v) is required to be disclosed by applicable Law or Governmental Authority or applicable legal process. Developer acknowledges that PacifiCorp is subject to regulation as a public utility, and as such may be required to disclose all or substantially all information provided by Developer pursuant to this Agreement, including the terms of this Agreement and any Project Document, by order of state and federal Governmental Authorities, and that such disclosure shall in no event be deemed a violation of this Section 34.1.

(c) When required by a Governmental Authority, a Party may disclose the Confidential Information of the other Party to such Governmental Authority; provided, however, that prior to making any such disclosure, such Party shall (unless prohibited from doing so by applicable Law or the Governmental Authority): (i) provide the other Party with timely advance notice of the Confidential Information requested by such Governmental Authority and the intent of such Party to so disclose; (ii) minimize to the extent possible (consistent with applicable Law and the requirements of the Governmental Authority involved) the amount of Confidential Information to be provided to the Governmental Authority involved ; and (iii) make every reasonable effort (which shall include participation by the other Party in discussions with the Governmental Authority involved) to secure confidential treatment and to minimize the Confidential Information to be provided. In the event that efforts to secure confidential treatment are unsuccessful, the other Party shall have the prior right to revise such information to minimize the disclosure of such Confidential Information in a manner consistent with applicable Laws and the requirements of the Governmental Authority involved.

(d) PacifiCorp's disclosure of drawings and manuals received from Developer Parties to third parties in accordance with PacifiCorp's rights and obligations hereunder shall not be a breach of this ARTICLE 34.

ARTICLE 35 MISCELLANEOUS PROVISIONS

Section 35.1 Notices, Consents and Approvals.

Contact information for notices, requests, demands and other communications required or permitted hereunder is as follows:

(a) if to Developer, to:

with copies to:

or to such other person(s) or address(es) as Developer shall provide to PacifiCorp from time to time in accordance with this Section 35.1;

(b) if to PacifiCorp, to:

PacifiCorp

825 NE Multnomah, Suite [____]
Portland, Oregon 97232-2315
Attn: _____

Tel: _____
Fax: _____

with copies to:

PacifiCorp
825 NE Multnomah, Suite [____]
Portland, Oregon 97232-2315
Attn: Law Department

Tel: _____
Fax: _____

or to such other person(s) or address(es) as PacifiCorp shall provide to Developer from time to time in accordance with this Section 35.1.

(c) All notices (including acceptances, consents, approvals, agreements, deliveries of information, designations), requests, demands and other communications required or permitted hereunder shall be in writing, properly addressed as provided in paragraphs (a) and (b) above, and given by (i) hand delivery, (ii) a national overnight courier service, (iii) confirmed facsimile transmission, followed by a hard copy, or (iv) certified or registered mail, return receipt requested, and postage prepaid. Any such notice, request, demand or other communication shall be deemed to have been duly given as of the date delivered if by hand delivery, national overnight courier service or confirmed facsimile transmission (provided a hard copy promptly follows by other means provided herein), or five (5) calendar days after mailing if by certified or registered mail.

Section 35.2 Entire Agreement.

This Agreement, together with the Appendices, Schedules and Exhibits attached hereto, contains the entire agreement and understanding of the Parties with respect to the subject matter hereof and supersedes all prior agreements and understandings, whether written or oral, of the Parties relating to the subject matter hereof. Any oral or written representation, warranty, course of dealing or trade usage not contained or referenced herein shall not be binding on either Party.

Section 35.3 Amendment; Waiver.

No amendment or other modification of any provision of this Agreement shall be valid or binding unless it is signed by each of the Parties. No waiver of any provision of this Agreement shall be valid or binding unless it signed by the Party waiving compliance with such provision. No delay on the part of either Party in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any waiver or any partial exercise of any such right, power or privilege preclude any further exercise thereof or the exercise of any other such right, power or privilege. No waiver of any breach,

term or condition of this Agreement by any Party shall constitute a subsequent waiver of the same or any other breach, term or condition of this Agreement.

Section 35.4 Successors and Assigns.

Each and all of the rights, obligations, covenants, terms, provisions and agreements herein contained shall be binding upon and inure to the benefit of the Parties hereto and, to the extent permitted by this Agreement, their respective successors and assigns.

Section 35.5 Third Party Beneficiaries.

The provisions of this Agreement shall only be for the benefit of, and enforceable by, the Parties hereto and shall not inure to the benefit of or be enforceable by any third party.

Section 35.6 Severability.

In the event any one or more of the provisions contained in this Agreement should be held invalid, illegal or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

Section 35.7 Further Assurances.

Each Party shall execute and deliver or cause to be executed and delivered such documents and instruments not otherwise specified herein, and take or cause to be taken all such other actions, as the other Party may reasonably request to more fully and effectively carry out the intent and purposes of this Agreement.

Section 35.8 Publicity.

Except as required by applicable Law, Developer agrees that Developer will not issue or release for external publication any press release, article, advertising or other publicity matter in any form (including print, electronic, or interview) relating to the Project, or to this Agreement without first consulting with and obtaining the prior written consent of PacifiCorp, which consent shall not be unreasonably withheld or delayed.

Section 35.9 Independent Contractor.

Developer is an independent contractor with respect to the Work, and each part thereof, and in respect of all work to be performed hereunder. Neither Developer nor any of the other Developer Parties shall be deemed to be agents, representatives, joint ventures, employees or servants of PacifiCorp by reason of their performance hereunder or in any manner dealt with herein. Neither Party shall perform any act or make any representation to any Person to the effect that Developer or any other Developer Parties is the agent of PacifiCorp.

Section 35.10 Survival.

The provisions of ARTICLE 4 (Representations and Warranties of Developer), ARTICLE 12 (Developer's Equipment), ARTICLE 23 (Warranties of Work), ARTICLE 24 (Liquidated Damages),

ARTICLE 25 (Limitation of Liability), ARTICLE 26 (Indemnification), ARTICLE 27 (Insurance), ARTICLE 32 (Claims, Claim Notice and Dispute Resolution), ARTICLE 34 (Confidentiality), Section 7.9 (Contractor Drawings and Manuals), Section 7.12 (Intellectual Property Rights), Section 7.21 (Other Liens), Section 7.25 (Environmental Matters), Section 7.26 (Records and Accounts), Section 9.1 (Site Regulations), Section 9.2 (Site Security), Section 9.8 (Cleanup), Section 15.6 (PacifiCorp's Use of Drawings), Section 15.7 (Manufacturing Drawings), Section 22.4 (Liability), and Section 35.11 (Governing Law; Waiver of Jury Trial) of this Agreement shall survive the expiration or earlier termination of this Agreement indefinitely, provided that the foregoing enumeration shall not be interpreted to bar survival of any other provision hereof which by its express terms or by operation of Law would otherwise be deemed to survive.

Section 35.11 Governing Law; Waiver of Jury Trial.

(a) THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF WYOMING (WITHOUT GIVING EFFECT TO THE PRINCIPLES THEREOF RELATING TO CONFLICTS OF LAW).

(b) EACH PARTY HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER PROJECT DOCUMENT OR ANY MATTER ARISING HEREUNDER OR THEREUNDER. EACH PARTY HEREBY WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR ANY OTHER PROJECT DOCUMENT OR ANY MATTER ARISING HEREUNDER OR THEREUNDER IN WHICH A JURY TRIAL HAS NOT OR CANNOT BE WAIVED.

Section 35.12 Counterparts.

This Agreement may be executed by the Parties in two or more separate counterparts (including by facsimile transmission), each of which shall be deemed an original, and all of said counterparts taken together shall be deemed to constitute one and the same instrument.

Section 35.13 Captions.

The captions for Articles and Sections contained in this Agreement, including the Appendices, Schedules and Exhibits attached hereto, are for convenience and reference only and in no way define, describe, extend or limit the scope or intent of this Agreement or the intent of any provision contained herein.

Section 35.14 Consent Agreements.

Developer agrees to cooperate with PacifiCorp's efforts to obtain on a timely basis such direct agreements, consents, opinions and related documents from Project Parties or any of Developer's counterparties to any Additional Project Document as may be reasonably requested by PacifiCorp or its Affiliates or financing parties.

Section 35.15 Offset

Notwithstanding any other provision of this Agreement to the contrary, any and all amounts owing or to be paid by PacifiCorp or Developer to the other hereunder for the Work, shall be subject to offset and reduction in an amount equal to any amounts that may be owing at any time. Further, for the avoidance of doubt, with respect to any provision of this Agreement that allows PacifiCorp to offset, set-off or draw against a bond or other credit support any amount then owed to Developer, PacifiCorp shall have the express right to include in the amount offset, set-off or drawn under a bond or other credit support all of the reasonable costs and expenses it incurs in connection with enforcing such provision (including attorneys' and other consultants' fees).

Section 35.16 Time of the Essence

Time is of the essence in the performance of the Work by Contractor hereunder.

Section 35.17 Recitals.

The Recitals in this Agreement are true and correct and hereby incorporated into this Agreement by reference.

[Signature page follows.]

IN WITNESS WHEREOF, each of the authorized representatives of the Parties have executed this Agreement as of the first date set forth above.

PACIFICORP:

PACIFICORP,
an Oregon corporation

By: _____

Name: _____

Title: _____

DEVELOPER:

[_____] ,
a [_____]

By: _____

Name: _____

Title: _____

EXHIBITS

EXHIBIT A
Form of Notice of Request for Progress Payment

[_____, 20__]*

PacifiCorp
825 NE Multnomah, Suite 600
Portland, Oregon 97232-2315
Attention: Director of Contract Administration

Ladies and Gentlemen:

Reference is made to the Build Transfer Agreement, dated as of [_____] (as amended, modified or supplemented from time to time, the “Agreement”), by and between PacifiCorp, an Oregon corporation (“PacifiCorp”), and [_____] a [_____] (“Developer” and together with the PacifiCorp, collectively, the “Parties”). Capitalized terms used herein but not otherwise defined herein shall have the meanings given to them in the Agreement.

1. Developer hereby irrevocably requests payment of a Progress Payment on the date (the “Requested Progress Payment Date”) (which is a Business Day) and in the aggregate amount (the “Requested Progress Payment Amount”) indicated below (the “Requested Progress Payment”):

Requested Progress Payment Date:	_____
Requested Progress Payment Number [†]	_____
Requested Progress Payment Amount: [‡]	\$_____

2. The undersigned, an Authorized Officer of Developer, hereby certifies on behalf of Developer that, in accordance with Section 3.3:

(a) As of the Requested Progress Payment Date, Developer has achieved (i) the Milestones for which the Requested Progress Payment is requested and (ii) all of the Milestones with Milestone Dates prior to the Requested Progress Payment Date.

(b) The representations and warranties made by Developer in this Agreement and each Project Document to which it is a party that are qualified with respect

* Must be submitted not less than 30 days prior to the date Developer expects to be paid (*i.e.*, payment, net 30 days). See Agreement, § 3.2(a) (Procedures).

† Must correspond with Progress Payment Number identified on Appendix R of the Agreement.

‡ Must correspond with Progress Payment Amount identified opposite Progress Payment Number on Appendix R.

to materiality are true and accurate in all respects, and the representations and warranties made by Developer in this Agreement and each Project Document to which it is a party that are not so qualified are true and accurate in all material respects, on and as of such Requested Progress Payment Date (or on the date when made in the case of any representation and warranty which specifically relates to an earlier date), both before and after giving effect to the making of such Progress Payment , (ii) the representations and warranties made by each Project Party (other than Developer) in the Project Documents that are qualified with respect to materiality are true and accurate in all respects, and the representations and warranties made by each Project Party (other than Developer) in this Agreement and each Project Document to which it is a party that are not so qualified are true and accurate in all material respects, on and as of such Requested Progress Payment Date (or on the date when made in the case of any representation and warranty which specifically relates to an earlier date), in each case such representations and warranties shall be deemed renewed and restated as of the date of such Progress Payment.

(c) As of the Requested Progress Payment Date (i) no circumstance, event or condition exists which either immediately or with the passage of time or the giving of notice, or both, (A) permits Developer to withhold payment under any Project Document, (B) permits any Project Party to terminate or suspend performance under any Project Document, or (C) is reasonably expected to result in a Material Adverse Change; and (ii) no breach, violation or default has occurred and is continuing under any Project Document to which a Project Party is a party.

(d) As of the Requested Progress Payment Date, no action, suit, proceeding or investigation by or before any Governmental Authority or any arbitrator is pending or to Developer's Knowledge threatened against or affecting a Project Party or the Project which is reasonably expected to result in a Material Adverse Change [other than _____].[§]

(e) Since the Effective Date of the Agreement, no Material Adverse Change has occurred and is continuing [other than _____].^{**}

(f) As of the Requested Progress Payment Date, all Developer Permits have been obtained and are in full force and effect.

(g) As of the Requested Progress Payment Date, PacifiCorp has not determined that it is necessary to withhold payment to protect PacifiCorp from loss relating to, (i) Work not in accordance with the requirements of the Project Documents, (ii) Claims filed against PacifiCorp or the Project as a result of the actions or inactions of Developer, Contractor or any Subcontractor in connection with the performance of the Work (and not otherwise covered by insurance) [other than _____]***** or (iii) failure of Developer to make payments in respect of Equipment, Material and supplies, or labor or

[§] Insert if any action, suit, proceeding or investigation has been threatened by the PacifiCorp. See Section 3.3(e) of the Agreement.

^{**} Insert if any Material Adverse Change is the result of an act or omission by PacifiCorp. See Section 3.3(f) of the Agreement.

other obligations incurred as a result of activities covered by the Agreement [other than _____]#####

3. In accordance with Section 3.4(b)(i) of the Agreement, the commercial invoice of Developer (in the form of Appendix Y) substantiating the amounts payable by PacifiCorp in connection with the Requested Progress Payment and the Work covered thereunder (in accordance with Appendix R) and certifying as to the other matters provided therein is attached hereto as Annex 1.

4. In accordance with Section 3.4(b)(ii) of the Agreement, the monthly Progress Report (in the form of Appendix N) is attached hereto as Annex 2.^{††}

5. In accordance with Section 3.4(b)(iii) of the Agreement, an officer's certificate signed by an Authorized Officer of Developer certifying that the conditions in Section 3.3(b), c, d, e, f, and h of the Agreement has been and is satisfied as of the Requested Progress Payment Date.

6. In accordance with Section 3.4(b)(iv) of the Agreement, a bill of sale transferring title to all Work relating to this Notice of Request for Progress Payment, in form and substance reasonably satisfactory to PacifiCorp is attached hereto as Annex 5.

7. In accordance with Section 3.4(b)(v) of the Agreement, Lien releases from Developer, Contractor and all Subcontractors, in the forms attached in Appendix J, with respect to all Liens that arise with respect to the Project, including the Work are attached hereto as Annex 6.

8. Developer hereby requests that the Requested Progress Payment be paid in the amounts and to the payees, in each case as set forth on Annex 4.

[THE NEXT PAGE IS THE SIGNATURE PAGE]

^{††} Progress Reports to be prepared monthly.

***** Insert if Developer, Contractor or any Subcontractor is disputing such Claims in good faith and if reasonably requested by PacifiCorp, has bonded the Claim with a bonding company or other surety reasonably acceptable to PacifiCorp, and if any Lien is imposed with respect to such Claims, Developer, Contractor or any Subcontractor has discharged such Lien.

Insert if Developer has, in good faith, disputed such payments and, if any Lien is filed with respect thereto, Developer has posted a bond against such Lien with a bonding company or other surety reasonably acceptable to PacifiCorp.

Very truly yours,

By: _____
Name:
Title:

Annex 1 to Exhibit A

COMMERCIAL INVOICE

[To be attached]

Annex 2 to Exhibit A

PROGRESS REPORT

[To be attached]

Annex 3 to Exhibit A

OFFICER'S CERTIFICATE

[To be attached]

Annex 4 to Exhibit A

PAYMENT INSTRUCTIONS

Payee

Amount

Wire Instructions

Annex 5 to Exhibit A

BILL OF SALE

[To be attached]

EXHIBIT B
Form of Notice to Proceed

[Date]

DEVELOPER
Street
City, State Zip Code

Attention: _____

This Notice to Proceed is delivered pursuant to that certain Build Transfer Agreement, dated as of [_____] (as amended, modified or supplemented from time to time, the “Agreement”), by and between PacifiCorp, an Oregon corporation (“PacifiCorp”), and [_____] a [_____] (“Developer”). Capitalized terms used herein but not otherwise defined herein shall have the meanings given to them in the Agreement.

Pursuant to, and in accordance with, terms of the Agreement, PacifiCorp hereby issues this Notice to Proceed to Developer.

Very truly yours,

PacifiCorp,
an Oregon corporation

By: _____
Name: _____
Title: _____

cc:

EXHIBIT C
Credit Matrix

[Credit Matrix from RFP to be attached]

EXHIBIT D-1
Form of Change Order

Change Order

Change Order No.: _____ Date Issued: _____

Description (Attach Appropriate Documentation): _____

Cost of Change:

- I. Non-Manual Labor Man-hours Cost: _____
- II. Non-Manual Labor Expenses: _____
- III. Manual Labor Man-hours Cost: _____
- IV. Material Cost: _____
- V. Subcontracts Cost: _____
- VI. Mobilization/Demobilization Cost: _____
- VII. Equipment Cost: _____
- VIII. Other Cost (if any) _____
- IX. Mark-up (Profit and Overhead): _____
- X. **Total Cost of Change:** _____

Impact on Project Schedule, including all Milestone Dates: _____

Impact on Progress Payment Schedule: _____

Impact on the Warranties: _____

Anticipated Differences in the Costs of O & M Following Substantial Completion: _____

Other Impacts on Agreement: _____

Revised Contract Price (Including Change): _____

PacifiCorp Approval:

Developer Approval:

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

EXHIBIT D-2
Form of Change Order Request

CHANGE ORDER REQUEST

Developer: [_____]

Change Request No.: [_____]

Agreement No. (if applicable): [_____]

Date: [_____]

Date of Agreement: [_____]

Reference is made to that certain Build Transfer Agreement, dated as of [_____] (as amended, modified or supplemented from time to time, the "Agreement"), by and between PacifiCorp, an Oregon corporation ("PacifiCorp"), and [_____] a [_____] ("Developer"). Capitalized terms used herein but not otherwise defined herein shall have the meanings given to them in the Agreement.

Pursuant to Article 13 of the Agreement, the following Change is requested and modifies the Agreement as follows:

Adjustment to Scope of Work:

Adjustment to Project Schedule:

Adjustment to Pricing:

DEVELOPER

PACIFICORP

By _____

By _____

Name

Name

Title

Title

Date

Date

EXHIBIT D-3
Form of Change Order Notice

CHANGE ORDER NOTICE

Developer:
[_____]

Change Notice No.: [_____]

Agreement No. (if applicable) : [_____]

Date: [_____]

Date of Agreement: [_____]

Reference is made to that certain Build Transfer Agreement, dated as of [_____] (as amended, modified or supplemented from time to time, the "Agreement"), by and between PacifiCorp, an Oregon corporation ("PacifiCorp"), and [_____] a [_____] ("Developer"). Capitalized terms used herein but not otherwise defined herein shall have the meanings given to them in the Agreement.

Pursuant to Article 13 of the Agreement, we are issuing this form to notify you of a Change to the Agreement as follows:

Adjustment to Scope of Work:

Adjustment to Project Schedule:

Adjustment to Pricing:

[DEVELOPER/CONTRACTOR]

PACIFICORP

By _____

By _____

Name

Name

Title

Title

Date

Date

REDACTED

Rocky Mountain Power
Exhibit RMP____(CAT-5SS)
Docket No. 17-035-40
Witness: Chad A. Teply

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Chad A. Teply

New Wind Initial Capital Cost Details

February 2018

**THIS EXHIBIT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER
SEPARATE COVER**

REDACTED

Rocky Mountain Power

Docket No. 17-035-40

Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Second Supplemental Direct Testimony of Rick A. Vail

February 2018

1 **Q. Are you the same Rick A. Vail who previously provided testimony in this case on**
2 **behalf of PacifiCorp dba Rocky Mountain Power (the “Company”)?**

3 A. Yes.

4 **PURPOSE AND SUMMARY OF SECOND SUPPLEMENTAL DIRECT TESTIMONY**

5 **Q. What is the purpose of your second supplemental direct testimony in this**
6 **proceeding?**

7 A. My testimony provides an update on the network upgrade costs associated with the TB
8 Flats I and II, Cedar Springs, and Uinta projects, which are three of the four new wind
9 resources (“Wind Projects”) included on the updated final shortlist of the 2017R
10 Request for Proposals (“RFP”). My testimony also contains the information required
11 under the voluntary request for approval of a resource decision to construct the Aeolus-
12 to-Bridger/Anticline line and network upgrades (“Transmission Projects”).

13 **Q. Please summarize your testimony.**

14 A. Since filing supplemental direct testimony on January 16, 2018, the Company's
15 transmission function finalized a broader open access transmission tariff (“OATT”)
16 restudy process, which included producing system impact restudy (“SISs”) reports for
17 the following three Wind Projects: TB Flats I and II, Cedar Springs, and Uinta. Based
18 on the completed SISs, the network upgrade costs have increased to [REDACTED]. In
19 addition, the Company’s updated studies indicate that with the construction of the
20 Aeolus-to-Bridger/Anticline transmission line, the Company can interconnect 1,510
21 MW of new wind capacity behind the transmission constraint in southeastern
22 Wyoming. Thus, the Company has confirmed that there is sufficient stiffness factor and
23 transfer capability to interconnect the three Wind Projects located in southeast

24 Wyoming (*i.e.*, TB Flats I and II, Cedar Springs, and Ekola Flats), as well as the fourth
25 Wind Project located in western Wyoming (*i.e.*, Uinta).

26 **UPDATE ON NETWORK UPGRADE COSTS**

27 **Q. Why has the Company updated the network upgrade costs associated with the**
28 **Wind Projects?**

29 A. The Company's transmission function updated the interconnection network upgrade
30 costs associated with three of the four Wind Projects as part of a broader OATT restudy
31 process. More specifically, after the Company announced its plan to construct the
32 Energy Gateway Aeolus-to-Bridger/Anticline D.2 segment to come online by 2020, the
33 Company's transmission function initiated an interconnection restudy process to ensure
34 its interconnection studies reflected the most current long-term transmission plan
35 assumptions. In accordance with its OATT, the Company's transmission function
36 performed restudies in serial queue order to determine whether the acceleration of
37 Energy Gateway segment D.2 would impact the cost or timing of interconnection of
38 projects that had not yet executed interconnection agreements and that had previous
39 studies depending on Energy Gateway West in its entirety. The Company's
40 transmission function posted the SIS reports to OASIS on January 29, 2018, as well as
41 certain updated reports on February 9, 2018, after the Company filed its January 16,
42 2018, supplemental direct testimony. Three of the four Wind Projects (TB Flats I and
43 II, Cedar Springs, and Uinta) were among the interconnection projects to receive
44 restudies.

45 **Q. Did the Company restudy the McFadden Ridge II project's interconnection?**

46 A. No. Because of its position in the queue, the McFadden Ridge II project had not yet

47 received even an initial SIS; therefore, it was not included in the projects that were
48 restudied. McFadden Ridge II's queue position and location in the constrained area of
49 PacifiCorp's transmission system in eastern Wyoming indicate that its future SIS will
50 require the construction of additional Energy Gateway segments beyond just the D.2
51 segment to allow the project to interconnect, which Mr. Rick T. Link explains
52 contributed to its removal from the final shortlist.

53 **Q. How does McFadden Ridge II's queue position and location indicate its future SIS**
54 **will require construction of additional Energy Gateway segments?**

55 A. PacifiCorp transmission can never guarantee the result of a future SIS because of the
56 many factors that can affect it (*e.g.*, changes to the queue, as I discussed above). Here,
57 however, there is a specific point in the interconnection queue where projects located
58 in the constrained area of PacifiCorp's eastern Wyoming transmission system will
59 require more than just the D.2 segment to interconnect, and that point in the queue is
60 before McFadden Ridge II's queue position. More specifically, the restudy reports
61 incorporating the updated assumption regarding the staging of Energy Gateway West
62 showed that interconnection projects located in eastern Wyoming with an
63 interconnection-queue position greater than Q0712 trigger the need for Energy
64 Gateway South, which is not planned to be placed in service by the end of 2020. All
65 other bids originally selected to the final shortlist can secure interconnection either
66 because they hold an interconnection queue position that does not require Energy
67 Gateway South (Ekola Flats, TB Flats I and II, and Cedar Springs); or because their
68 project location is not in the constrained area of the Company's eastern Wyoming
69 transmission system (Uinta).

70 **Q. Why can Uinta interconnect with just the D.2 segment even though it has an**
71 **interconnection-queue position higher than Q0712?**

72 A. Uinta is located in western Wyoming where it (and other projects in the same area) can
73 secure interconnection without triggering additional Energy Gateway segments.

74 **Q. Why did the Company not restudy the interconnection for the Ekola Flats**
75 **project?**

76 A. Ekola Flats executed a Large Generator Interconnection Agreement (“LGIA”) in
77 November 2017 and therefore did not require restudy.

78 **Q. Why didn't the Company complete these interconnection studies earlier so they**
79 **could be analyzed earlier in the 2017R RFP process?**

80 A. The Company’s transmission function did not perform the restudies in conjunction with
81 the 2017R RFP process. Rather, as noted above, the Company’s transmission function
82 followed its OATT process to perform a broader restudy of the interconnection queue
83 to assess whether and to what extent the cost or timing of certain interconnection
84 projects was impacted by the Company’s change to its long-term transmission plan,
85 *i.e.*, the staging of the Energy Gateway West project.

86 In addition, and as discussed by Mr. Link, at the request of the Utah independent
87 evaluator, the 2017R RFP did not require that bidders have a completed SIS when bids
88 were submitted. This allowed bidders to participate in the 2017R RFP regardless of
89 their position in the interconnection queue--a queue that can change over time as
90 generator-interconnection customers change project details, request commercial
91 operation date extensions or suspension, or withdraw from the queue altogether. As a
92 result, while the restudies were performed independent of the 2017R RFP process,

performing restudies to reflect an updated long-term transmission plan assumption close-in-time to the selection of the final shortlist allowed the Company's transmission function to incorporate the most current queue-based assumptions into restudies as well.

Q. Based on the SISs, what are the updated costs for the network upgrades?

A. Confidential Table 1 summarizes the updated costs for the network upgrades:

CONFIDENTIAL TABLE 1

230kV & 138kV Network Upgrades	
ITEM	VALUE
Transmission Line	
Substation	
Engineering	
Right of Way Acquisition	
PM/Environmental/Support	
Indirects	
TOTAL	

In addition, Exhibit RMP____(RAV-1SS) provides greater detail on the network upgrades required for each of the Wind Projects and the SIS for each Wind Project is included as Exhibit RMP____(RAV-2SS), Exhibit RMP____(RAV-3SS), Exhibit RMP____(RAV-4SS), Exhibit RMP____(RAV-5SS).

Q. How do the updated network upgrade costs compare to the estimate included in your supplemental direct testimony of January 16, 2018?

A. Network upgrade costs have increased by approximately [REDACTED]. This increase is due primarily to the fact that the completed SISs indicate additional facilities are required to interconnect some of the Wind Projects.

109 **Q. How have the network upgrades changed since those identified in your**
110 **supplemental direct testimony of January 16, 2018?**

111 A. The Cedar Springs project no longer requires the rebuild of a 56-mile portion of the
112 Dave Johnston-Amasa-Difficulty-Shirley Basin 230-kV line. The rebuild can be
113 deferred because another interconnection project (Q0409) will not be online by 2020.
114 The Cedar Springs project will require a rebuild of the Standpipe-Freezeout-Aeolus
115 230 kV line with a larger conductor, approximately 15 miles, and a rebuild of the
116 existing Aeolus-Shirley Basin #1 line, approximately 16 miles. Both of these upgrades
117 were identified as network upgrades in previous testimony.

118 In addition, the Uinta project no longer requires the reconductoring of
119 approximately 13.7 miles of the Q0715-Railroad 138-kV line because the most recent
120 line ratings, which are continually upgraded as new information is available, does not
121 indicate exceedance of the emergency rating on the line. The Uinta project will,
122 however, need to eliminate the credible N-2 outage of the Ben Lomond-Birch Creek
123 and Ben Lomond-Naughton 230 kV transmission lines, which share common structures
124 for approximately eight miles as they exit Ben Lomond substation. This will require
125 the construction of a 230 kV single circuit transmission line beginning approximately
126 one mile outside of Ben Lomond substation and continuing to structure 525 for the Ben
127 Lomond-Naughton #1 line. This line segment will replace the current Ben Lomond-
128 Naughton #1 circuit, which resides on the north side of the 7-mile-long lattice tower
129 double circuit with the Ben Lomond-Birch Creek 230 kV transmission line.

130 The facilities identified for TB Flats I and II remain the same.

131 **Q. Has the Company performed any additional technical studies since the filing of**
132 **supplemental direct testimony on January 16, 2018?**

133 A. Yes. The Company's updated studies indicate that it can interconnect 1,510 MW of
134 incremental wind generation behind the TOT4A/TOT4B constraint. With the addition
135 of the Ekola Flats project to the final shortlist, the Wind Projects will utilize 1,150 MW
136 of the incremental capacity, which will leave 360 MW for other projects, including a
137 240 MW qualifying facility ("QF") that has an executed interconnection agreement that
138 does not require the construction of Energy Gateway West and South to accommodate
139 the QF's interconnection.

140 **Q. In your supplemental direct testimony, you testified that the Company was in the**
141 **process of testing a new tower design for the Transmission Projects (Vail**
142 **Supplemental Direct, lines 114-123). Is that process ongoing?**

143 A. Yes, although the results of that testing will not impact the decision on the tower design.
144 As described in my supplemental direct and rebuttal testimony, the Company will use
145 the new tower. The tower testing will verify the tower design and will not impact the
146 cost of the project.

147 **COMPLIANCE WITH UTAH ADMIN. CODE RULE R746-440-1**

148 **Q. Does your testimony and exhibits contain the information that must be included**
149 **with a voluntary request for approval of a resource decision to construct the**
150 **Transmission Projects?**

151 A. Yes. It is my understanding Utah Admin. Code Rule R746-440-1(1) sets forth the filing
152 requirements for a voluntary request for approval of a resource decision. As described
153 in my direct testimony (Vail Direct, lines 547-868), the Company provided the

154 information required by Utah Admin. Code Rule R746-440-1(1). In addition, my
155 supplemental direct and rebuttal testimony and my second supplemental direct
156 testimony provide additional information required by Utah Admin. Code Rule R746-
157 440-1(1)(a), (c), (d), (f), (i), and (j). Updated information related to the requirement in
158 Utah Admin. Code Rule R746-440-1(1)(e) is provided by Mr. Link, and updated
159 information related to Utah Admin. Code Rule R746-440-1(1)(g) is provided by Ms.
160 Joelle R. Steward.

161 **Q. Have you provided additional information that describes the proposed resource**
162 **decision, as required by Utah Admin. Code Rule R746-440-1(a)?**

163 A. Yes. My supplemental direct and rebuttal testimony and my second supplemental direct
164 testimony provide an updated description of the network upgrades required to
165 interconnect the Wind Projects. Exhibit RMP____(RAV-1SD), Exhibit RMP____(RAV-
166 2SD), Exhibit RMP____(RAV-1SS), Exhibit RMP____(RAV-2SS), Exhibit
167 RMP____(RAV-3SS), Exhibit RMP____(RAV-4SS), and Exhibit RMP____(RAV-5SS)
168 provide additional descriptions of the network upgrade facilities. Because the Aeolus-
169 to-Bridger/Anticline transmission line has remained the same throughout this
170 proceeding, the information included in my direct testimony fully describes that
171 component of the Transmission Projects.

172 **Q. Has the Company explained the “purposes and reasons for the Resource**
173 **decision,” as required by Utah Admin. Code Rule R746-440-1(c)?**

174 A. Yes. My direct, supplemental direct and rebuttal, and second supplemental direct
175 testimony, and the exhibits that accompany each, describe in detail why the Company
176 requires the construction of the Transmission Projects.

177 **Q. Has the Company provided an “analysis of the estimated or projected costs of the**
178 **Resource decision, including the engineering studies, data, information and**
179 **models used in the [Company’s] analysis,” as required by Utah Admin. Code Rule**
180 **R746-440-1(d)?**

181 A. The estimated Transmission Project costs for the Aeolus-to-Bridger/Anticline 500-kV
182 transmission line are described in my direct testimony (Vail Direct, line 284) and the
183 costs for the network upgrades are described above in Confidential Table 1. Analysis
184 supporting the project costs is provided in Exhibit RMP__(RAV-2), Exhibit
185 RMP__(RAV-3), Exhibit RMP__(RAV-4), Exhibit RMP__(RAV-5), Exhibit
186 RMP__(RAV-6), Exhibit RMP__(RAV-7), Exhibit RMP__(RAV-7), Exhibit
187 RMP__(RAV-9), Exhibit RMP__(RAV-1SD), Exhibit RMP__(RAV-2SD), Exhibit
188 RMP__(RAV-3SD), Exhibit RMP__(RAV-4SD), Exhibit RMP__(RAV-1SS),
189 Exhibit RMP__(RAV-2SS), Exhibit RMP__(RAV-3SS), Exhibit RMP__(RAV-
190 4SS), and Exhibit RMP__(RAV-5SS).

191 **Q. Has the Company provided “[s]ufficient data, information, spreadsheets, and**
192 **models to permit an analysis and verification of the conclusions reached and**
193 **models used by the [Company],” as required by Utah Admin. Code Rule R746-**
194 **440-1(f)?**

195 A. Yes. The same testimony and exhibits that demonstrate compliance with Utah Admin.
196 Code Rule R746-440-1(d), described in the preceding answer, meet the requirements
197 for Utah Admin. Code Rule R746-440-1(f).

198 **Q. Has the Company provided the “[m]ajor contracts, if any, proposed for execution**
199 **or use in connection with the Resource decision,” as required by Utah Admin.**
200 **Code Rule R746-440-1(i)?**

201 A. I describe the contracts that will be executed in my supplemental direct and rebuttal
202 testimony (Vail Supplemental Direct and Rebuttal, lines 153-182) the pro-forma
203 contracts are attached as Exhibit RMP____(RAV-6SS). The Company has not executed
204 the final contracts for the Transmission Projects.

205 **Q. Has the Company provided “[i]nformation to show that the [Company] has or will**
206 **obtain any required authorization from the appropriate governmental bodies for**
207 **the Resource decision,” as required by Utah Admin. Code Rule R746-440-1(j)?**

208 A. Yes. This information was provided in my direct testimony (Vail Direct, lines 656-855)
209 and in Exhibit RMP____(RAV-18).

210 **Q. Does this conclude your second supplemental direct testimony?**

211 A. Yes.

Rocky Mountain Power
Exhibit RMP____(RAV-1SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

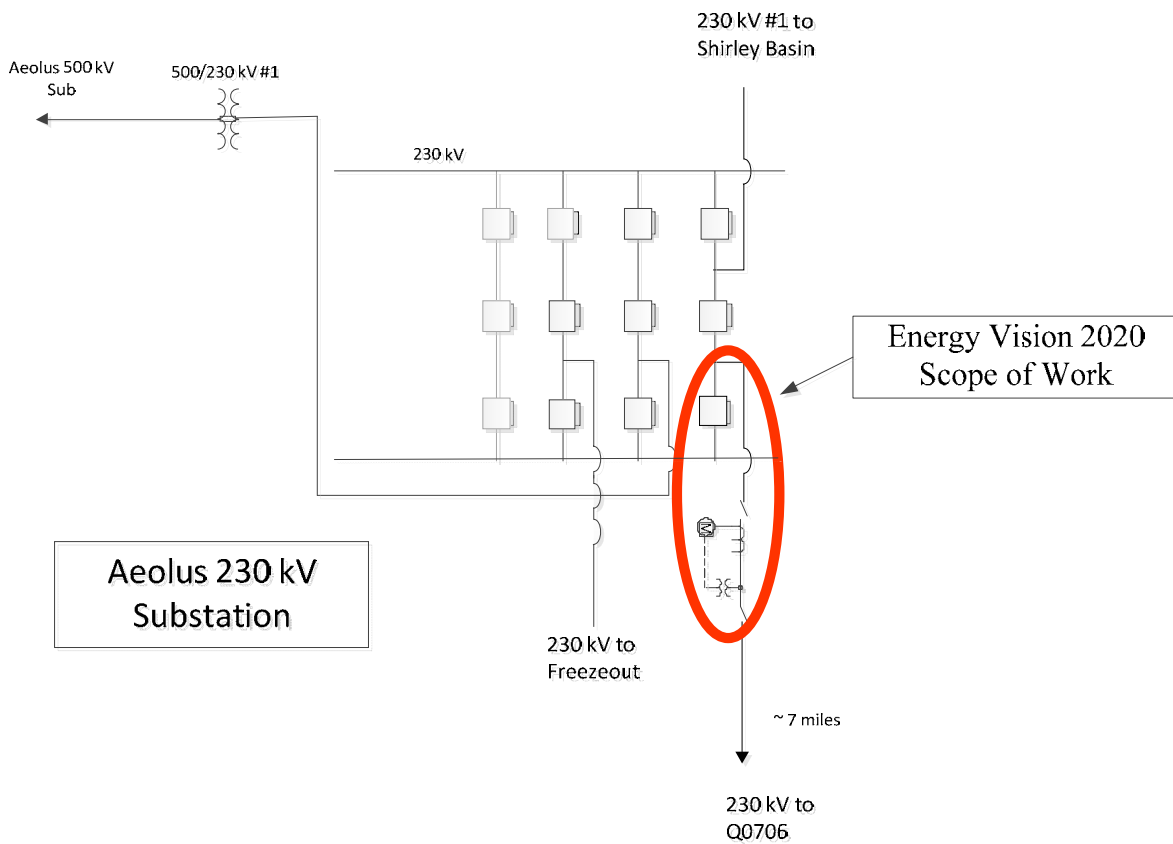
Interconnection Network Upgrades

February 2018

February 9, 2018_V4

At the Aeolus Substation, to support the Ekola Flats Wind project the following network upgrades area required.

- One (1) 230 kV 3000 ampere breaker and line position with associated switches at Aeolus substation

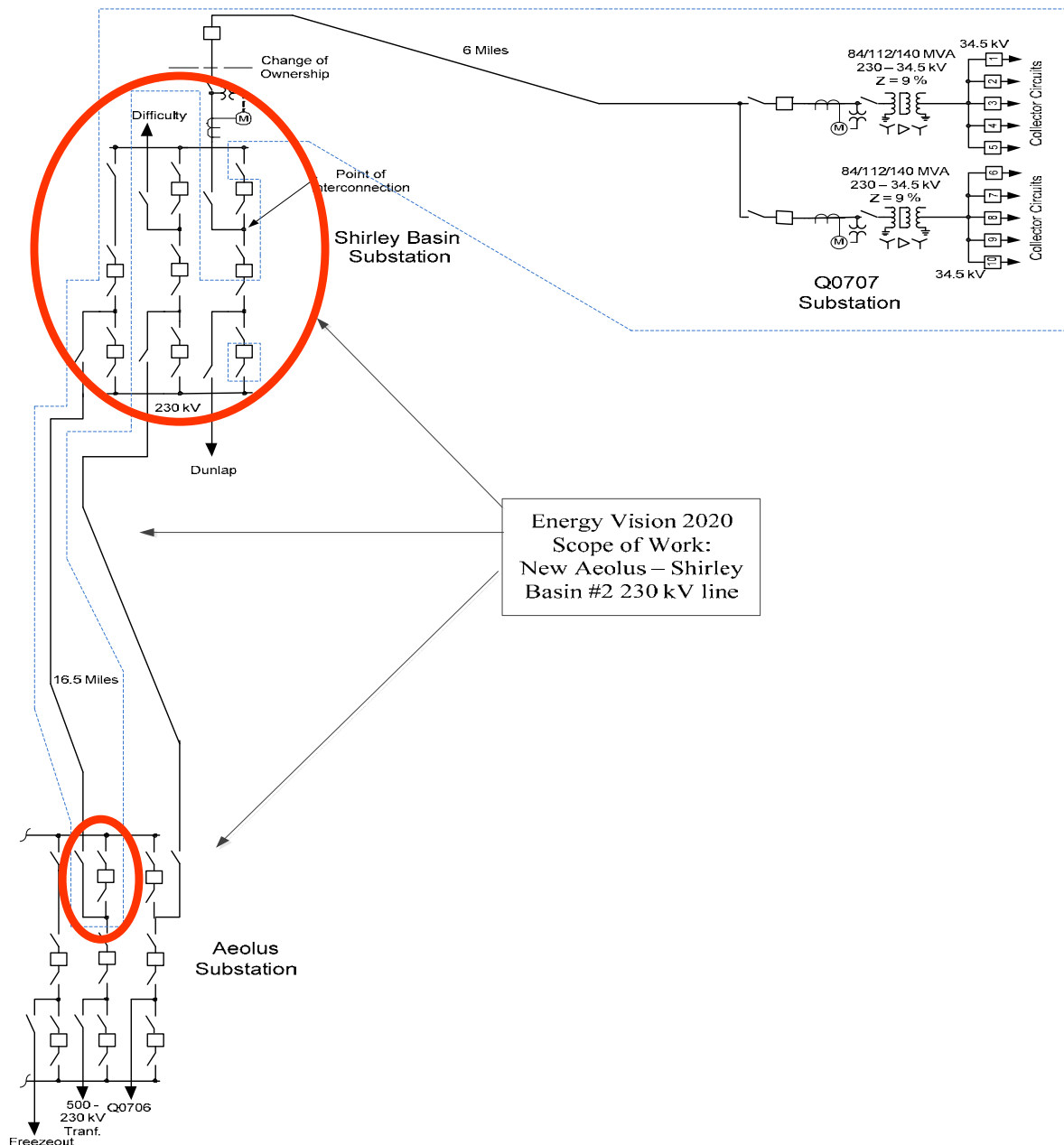


At the Shirley Basin Substation, to support the inclusion of TB Flats I wind project the following network upgrades are required:

- A new bay, five (5) new 3000 ampere 230 kV breakers, two line terminations with associated switches
- Construction of a new approximately 16.5-mile Shirley Basin – Aeolus 230 kV #2 line

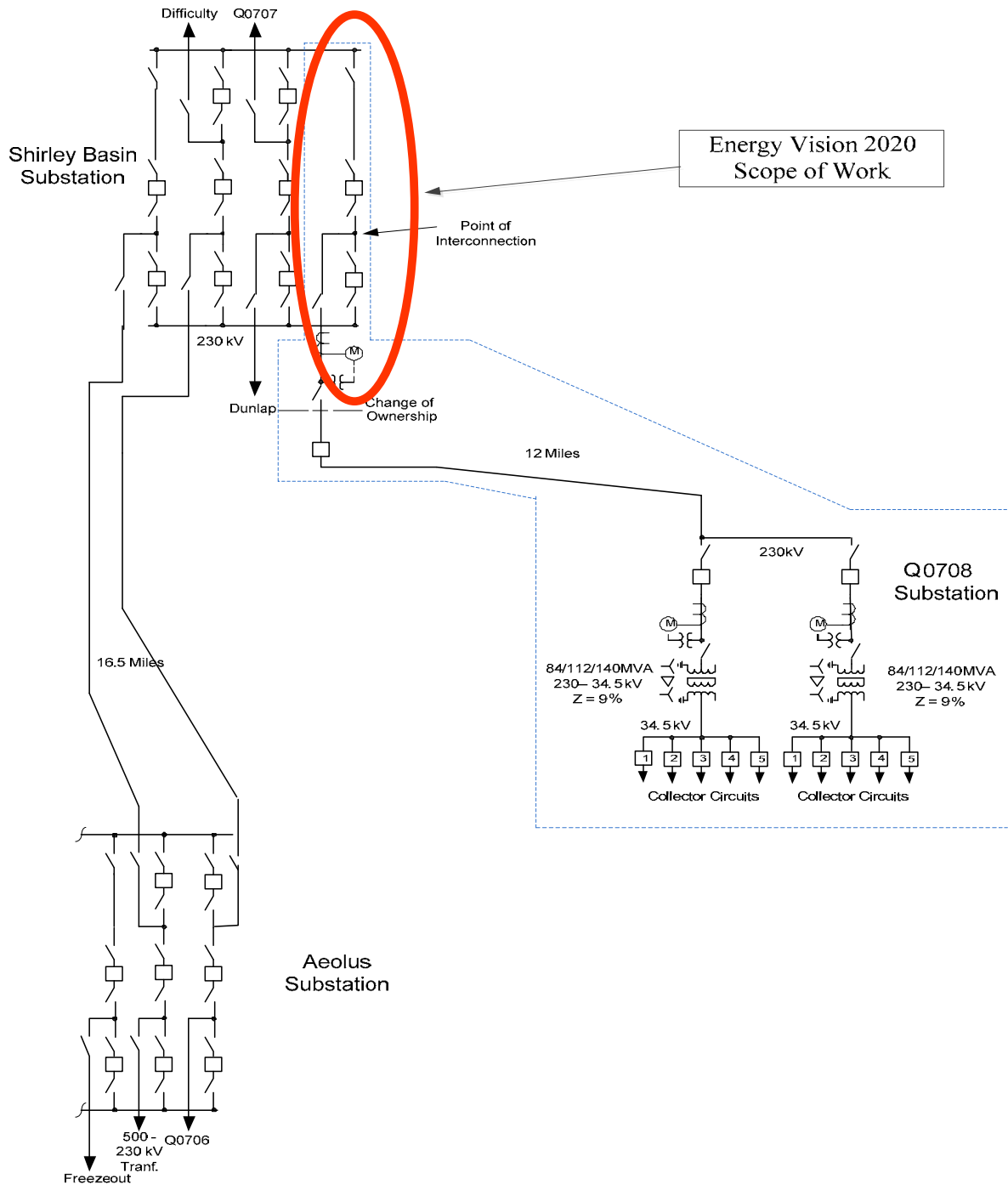
At the Aeolus substation the following network improvements are required:

- Addition of one (1) new 230 kV breaker, line termination and associated switches
- Inclusion of the project in the Aeolus RAS generation dropping scheme



At the Shirley Basin Substation, to support the inclusion of TB Flats II wind project the following network upgrades are required:

- Expansion of the Shirley Basin 230 kV switchyard on the east side of the substation with a new bay.
- Two (2) 230 kV 3000 ampere breakers, line termination and associated switches
- Inclusion of the project in the Aeolus RAS generation dropping scheme



At Windstar substation, to support the inclusion of Cedar Springs I wind project the following network upgrades are required:

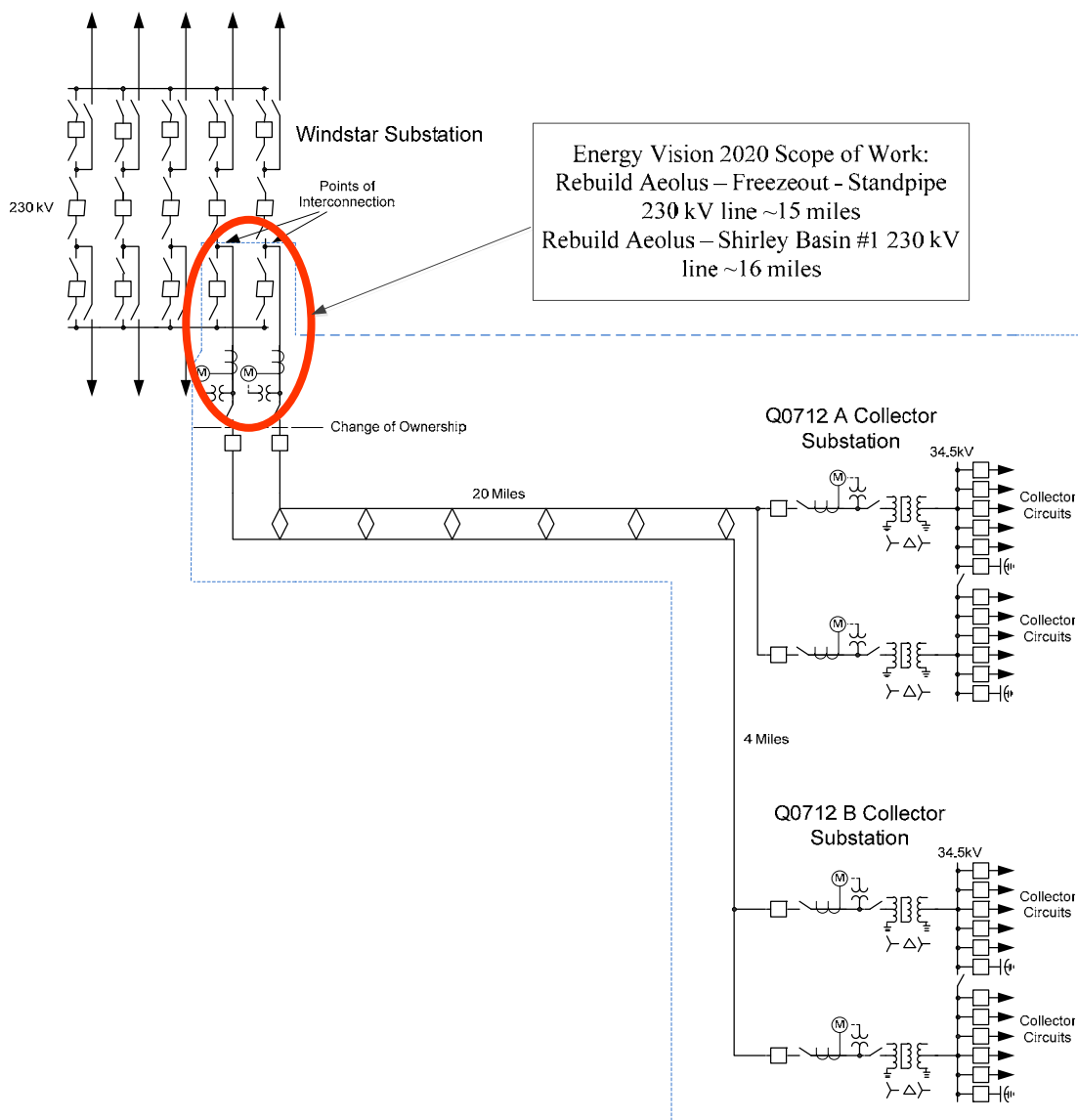
- Two (2) 230 kV 3000 ampere breakers and two line terminations with associated switches

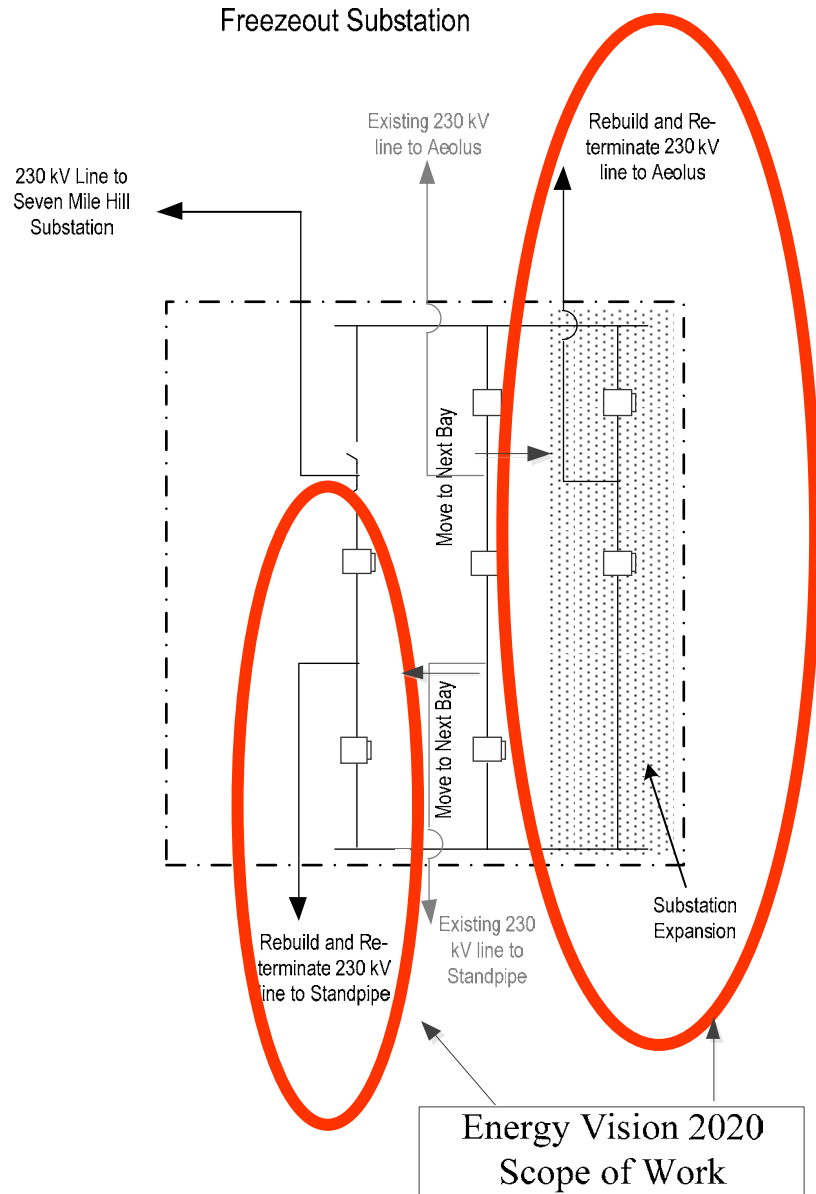
At Freezeout substation to support the inclusion of the Cedar Springs I wind project the following network upgrades are required:

- Add one new bay and four (4) 230 kV (3000 ampere) breakers along with associated switches (staged in two bays) for re-termination of lines associated with the Aeolus – Freezeout – Standpipe 230 kV line rebuild.

Rebuild the Aeolus – Freezeout – Standpipe 230 kV line ~ 15 miles

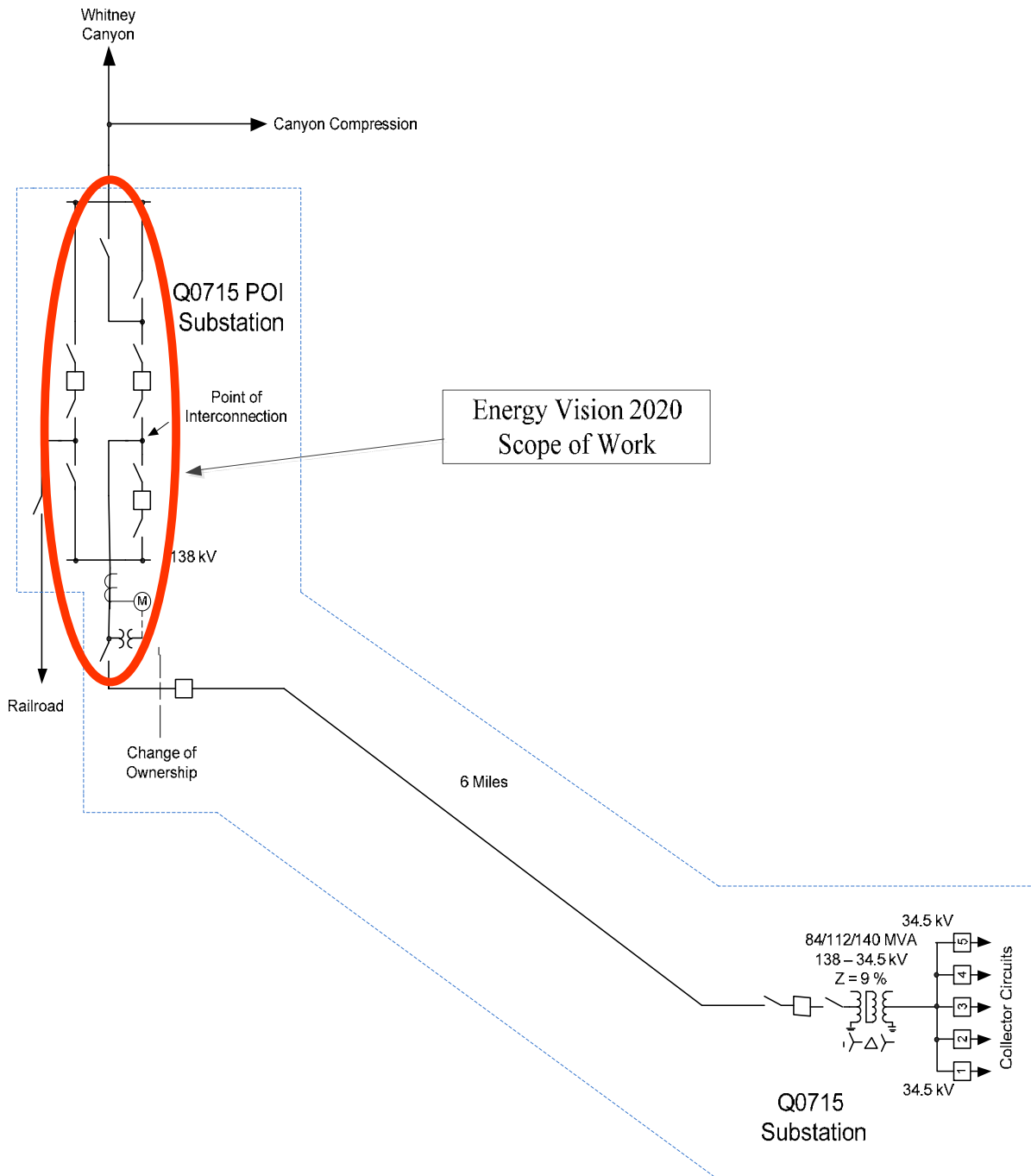
Rebuild the Shirley Basin - Aeolus 230 kV #1 line ~ 16 miles





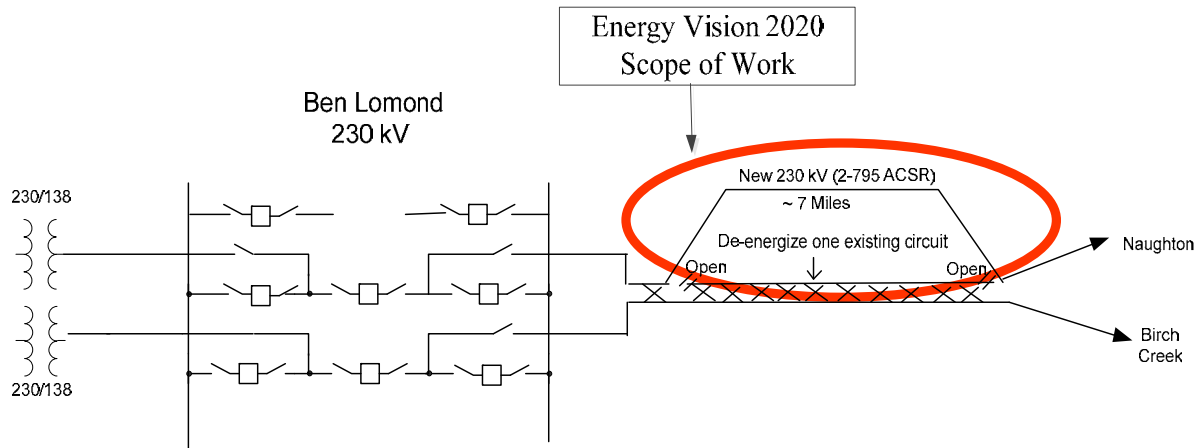
To support the addition of the Uinta wind project the following system improvements are required.

- Construct a new three (3) breaker 230 kV ring bus
- Inclusion of the project into Naughton RAS

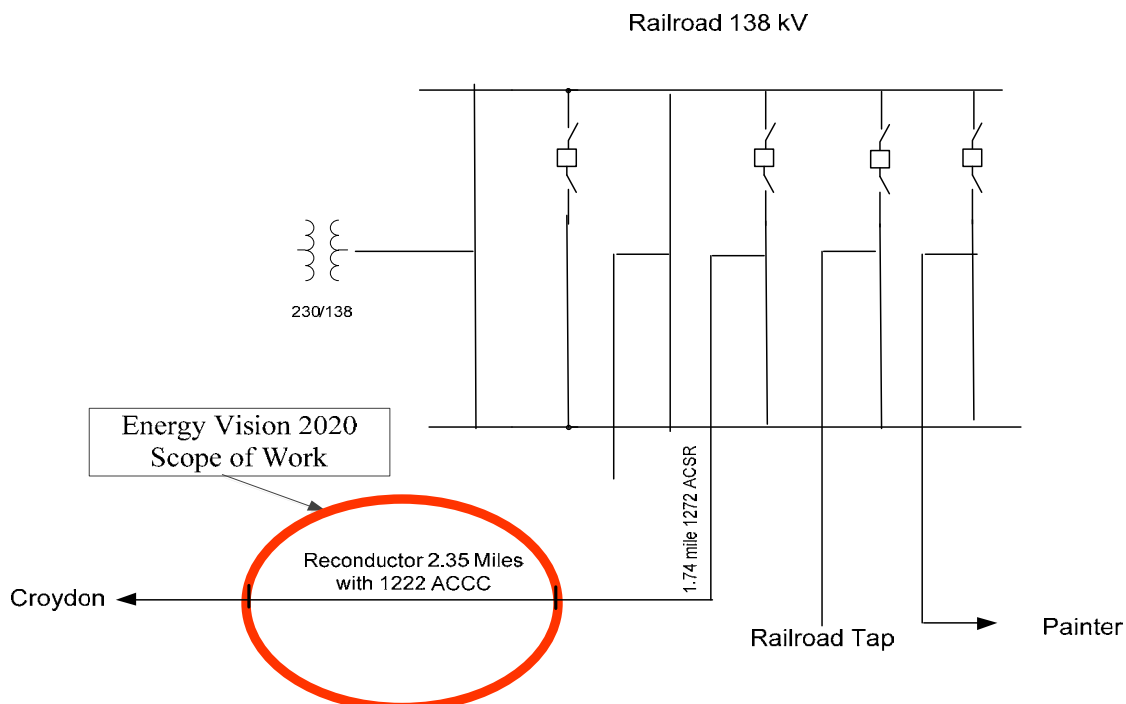


To support the addition of the Uinta II wind project the following system improvements are required.

- Construct a 230 kV single circuit transmission line beginning approximately one mile outside of the Ben Lomond substation to replace the Ben Lomond – Naughton 230 kV #1 circuit which resides on the north side of the 7-mile long lattice tower double circuit with the Ben Lomond – Birch Creek 230 kV line



- Reconductor 2.35 miles of 795 ACSR 138 kV line between Railroad and Croydon with 1222 ACCC high temperature conductor. The portion of the line to reconductor is on one side of a double-circuit tower.



D.2 Project Facilities:

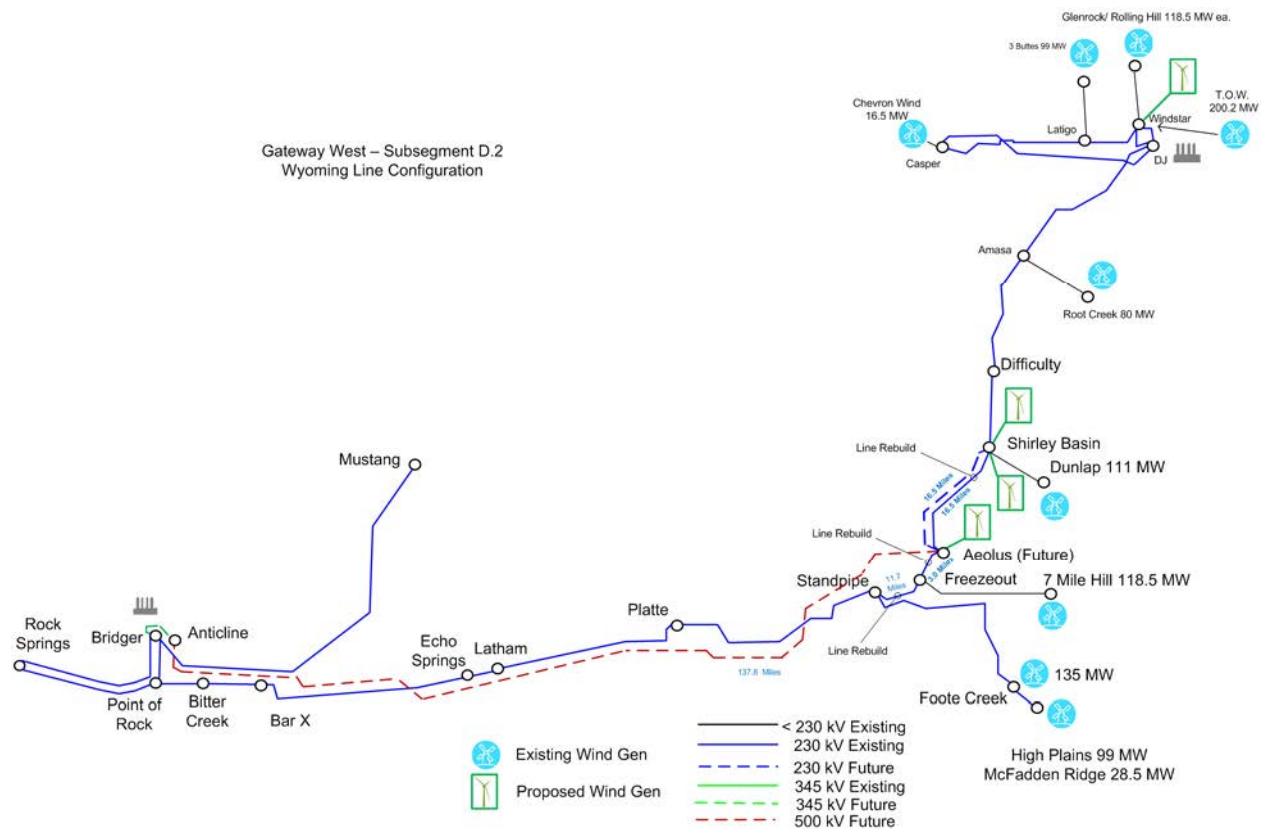
D.2 Project Transmission Facilities:

- Addition of the Aeolus 500/230 kV autotransformer
- Addition of the Aeolus – Anticline 500 kV line (~138 miles)
- Addition of the Anticline 500/345 kV autotransformer
- Addition of the Anticline – Bridger 345 kV line (5 miles)

Southeast Wyoming – Network Upgrades

- Loop the Shirley Basin – Freezeout 230 kV line into Aeolus 230 kV
- Add the Aeolus – Shirley Basin 230 kV #2 line (~16 miles) [Q0707]
- Rebuild the Aeolus – Shirley Basin 230 kV #1 line (~16 miles) [Q0712]
- Rebuild the Aeolus – Freezeout - Standpipe 230 kV line (~15 miles) [Q0712]
- Add Latham SVC

A drawing depicting all new D.2 Project network transmission facilities east of Jim Bridger Power Plant is provided below:



Rocky Mountain Power
Exhibit RMP____(RAV-2SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

Q0715 SIS Report and Q0810 SIS Report

February 2018

**Large Generator Interconnection
System Impact Restudy Report**

Completed for
Invenergy Wind Development LLC
(“Interconnection Customer”)
Q0715
Uinta County

Proposed Point of Interconnection

Canyon Compression–Railroad 138 kV transmission line
(Near Whitney Canyon Inlet, near to Structure # 116)

February 8, 2018

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1.0 DESCRIPTION OF THE GENERATING FACILITY

Invenergy Wind Development LLC (“Interconnection Customer”) proposed interconnecting 120 MW of new generation to PacifiCorp’s (“Transmission Provider”) Canyon Compression-Railroad 138 kV transmission line near Whitney Canyon Inlet (near to structure # 116) located in Uinta County, Wyoming. The Uinta County (“Project”) will consist of 60 GE 2.0-116 turbines for a total output of 120 MW. The requested commercial operation date is October 1, 2020.

This restudy is being performed due to a change in the ratings of certain facilities that were used in the evaluation of this Project in the original system impact study.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the Project “Q0715.”

2.0 SCOPE OF THE STUDY

The interconnection system impact restudy shall evaluate the impact of the proposed interconnection on the reliability of the transmission system. The interconnection system impact study will consider Base Case as well as all generating facilities (and with respect to (iii) below, any identified network upgrades associated with such higher queued interconnections) that, on the date the interconnection system impact study is commenced:

- (i) are directly interconnected to the transmission system;
- (ii) are interconnected to Affected Systems and may have an impact on the interconnection request;
- (iii) have a pending higher queued interconnection request to interconnect to the transmission system; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

This interconnection system impact restudy will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The study will also provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of the cost responsibility and a non-binding good faith estimated time to construct.

Based on the engineering judgement, the stability results for this project are not expected to change and hence the restudy of stability analysis was not performed.

System Impact Study Report

3.0 TYPE OF INTERCONNECTION SERVICE

The Interconnection Customer has selected *Energy Resource (ER)* interconnection service.

4.0 DESCRIPTION OF PROPOSED INTERCONNECTION

The Interconnection Customer's proposed Generating Facility is to be interconnected through a new substation southwest of the Whitney Canyon Inlet point in Uinta County on the Canyon Compression – Railroad 138 kV transmission line. Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's system.

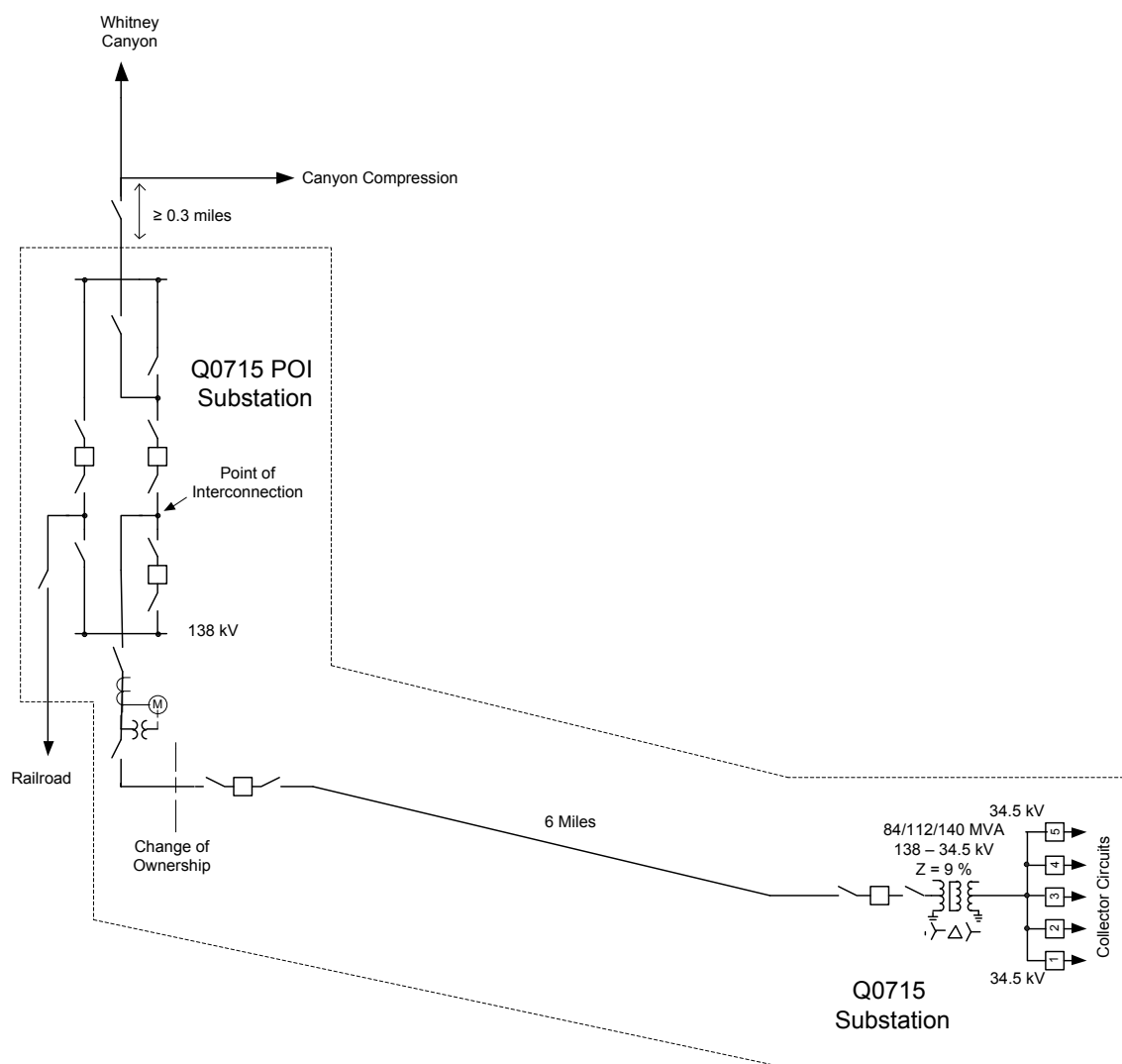


Figure 1: Simplified System One Line Diagram

4.1 Other Options Considered

The following alternative options were considered as potential Points of Interconnection ("POI") for this Project: None.

5.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are listed in Appendix 1. If any of these requests are materially modified or withdrawn, the Transmission Provider reserves the right to restudy this request, and the Results and conclusions could significantly change.
- For study purposes there are two separate queues:
 - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with higher queue interconnection requests with an in-service date of December 2020 or earlier will be modeled in this study.
- The Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. The provision of transmission service may require additional studies and the construction of additional upgrades.
- Under normal conditions, the Transmission Provider does not dispatch or otherwise directly control or regulate the output of generating facilities. Therefore, the need for transmission modifications, if any, which are required to provide Network Resource Interconnection Service will be evaluated on the basis of 100 percent deliverability (i.e., no displacement of other resources in the same area).
- This study assumes the Project will be integrated into the Transmission Provider's system at agreed upon and/or proposed POI.
- The Interconnection Customer will construct and own any facilities required between the Point of Change of Ownership and the Project unless specifically identified by the Transmission Provider.
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and the Transmission Provider's performance and design standards.
- The Energy Gateway West, Aeolus-Bridger/Anticline D.2, is assumed to be in-service by year end 2020.
- All system improvements associated with relevant prior queued projects are in service before Q0715.
- The Midway – Jordanelle 138 kV line is assumed to be in service (2019).
- The Point of Interconnection for this Project is assumed to be approximately 0.3 miles from the Transmission Provider's Whitney Canyon Inlet point. Moving the Point of Interconnection further away from this point must be approved by the Transmission Provider as the study results could change.
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission System updates at <http://www.pacificorp.com/tran.html>

5.1 Energy Resource (ER) Interconnection Service

Energy Resource Interconnection Service allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System and to be eligible to deliver electric output using firm or non-firm transmission capacity on an as-available basis.

5.1.1 Requirements

5.1.1.1 Generating Facility Modifications

Transmission Provider will require the facility to operate in voltage control mode with the ability to deliver power output to the POI within the range of +/- 0.95 power factor. (Please see Standard Large Generator Interconnection Agreement, article 9.6.1 and 9.6.2 in OATT.) Any additional reactive compensation must be designed such that the discrete switching of the reactive device, if required, does not cause step voltage changes greater than $\pm 3\%$ at any load serving bus on the Transmission Provider's system.

As required by NERC standard VAR-001-1a, the Transmission Provider will provide a voltage schedule for the POI. In general, Generating Facilities should be operated so as to maintain the voltage at the POI, or other designated point as deemed appropriated by Transmission Provider. The Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap changers. At the Transmission Provider's discretion, these values might be adjusted depending on operating conditions. The voltage control settings of the Generating Facility must be coordinated with the Transmission Provider prior to energization (or interconnection).

At low output levels, the Q0715 Project needs to ensure that it maintains the power factor within +/- 0.95 at the POI and minimize the reactive power flow towards the transmission system to prevent high voltages. PacifiCorp has experienced high voltages in the Wyoming area when the transmission system is lightly loaded with low wind conditions in the area. With low wind conditions the wind farms tend to supply reactive power into the transmission system increasing the voltage.

Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among generation facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be the Interconnection Customer's responsibility to ensure that a voltage coordination study is performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.

For areas with multiple Generating Facilities, additional studies may be required to determine whether critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of the Interconnection Customer.

To facilitate collection and validation of accurate modeling data to meet NERC modeling standards, PacifiCorp, as the Planning Coordinator, requires Phasor Measurement Units (PMUs) at all new Generating Facilities with an individual or aggregate nameplate capacity of 75 MVA or greater. In addition to owning and maintaining the PMU, the Generating Facility will be responsible for collecting, storing and retrieving data as requested by the Planning Coordinator. Data must be collected and be able to stream to Planning Coordinator for each of the Generator Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 30 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:

- Three phase voltage and voltage angle (analog)
- Three phase current (analog)

Data requirements are subject to change as deemed necessary to comply with local and federal regulations.

All wind turbines must meet the Federal Energy Regulatory Committee (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement. Each of the Interconnection Customer's step-up transformers will need to be switched with a 138 kV circuit breaker.

As the Transmission Provider cannot submit a user written model to WECC for inclusion in base cases, a standard model from the WECC Approved Dynamic Model Library is required 180 days prior to trial operation. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.

The Interconnection Customer is responsible for the protection of the transmission line between the Generating Facility and the Point of Interconnection substation. In order to provide this protection the Interconnection Customer shall construct and own a tie-line substation to be located at the change of ownership (separate fenced facility adjacent to the Transmission Provider's Point of Interconnection substation) and include an Interconnection Customer owned protective device and associated transmission line relaying/communications. The ground grids of the Transmission Provider's Point of Interconnection substation and the Interconnection Customer's tie-line substation will be connected to support the use of a bus differential protection scheme which will protect the overhead bus connection between the two facilities.

5.1.1.2 Transmission System Modifications

- Construct a new three breaker 138 kV POI ring bus substation southwest of the Whitney Canyon Inlet (near to structure 116), with associated switches and line terminations. An additional 138 kV breaker (customer-owned) will be required at the Point of Change of Ownership (see Figure 1).
- Modify the existing Naughton West RAS to integrate the Q0715 Project. If the average of the flows on West of Naughton & West of Evanston is above 900 MW,

System Impact Study Report

Q0715 will be armed to trip for the N-2 outages of either Ben Lomond – Birch Creek 230 kV line + Ben Lomond – Naughton or Naughton – Birch Creek 230 kV line + Ben Lomond – Naughton 230 kV line.

- Capability to trip the Q0715 Project if necessary under N-2 outages described above.
- Redundant communication from the RAS controller to the Project.

5.1.1.3 Transmission Requirements

Construct 300 ft Loop-In of the Canyon Compression- Railroad 138 kV Line to the Railroad side of the Q0715 POI sub near structure 116.

Replace one shield wire with OPGW between Canyon Compression and the Q0715 POI substation for a distance of 1.38 miles.

The Interconnection Customer shall construct the tie line from the collector substations to the tie-line substations.

The Interconnection Customer is required to build tie-line substations adjacent to the POI substation which will house the tie-line breaker. The Transmission Provider shall review the design of the tie-line span between the tie-line substation deadend tower and the POI substation deadend tower. The Interconnection Customer shall coil conductor, OPGW, shield wire, and line hardware with sufficient quantities to span between the tie-line substation tower and the POI substation tower.

The Transmission Provider will construct the span between the tie-line substation tower and the POI substation tower.

If any Transmission Provider lines are crossed by Interconnection Customer tie-line, the Interconnection Customer line will cross under Transmission Provider's line with at least NESC plus 3 foot clearance under all sag conditions of both lines.

5.1.1.4 Existing Circuit Breaker Upgrades – Short Circuit

The increase in the fault duty on the system as a result of the addition of the Generating Facility with 125 – GE 2.0-116 2 MW wind turbine generators fed through 60 – 2,222 kVA 34.5 kV – 690 V transformers with 5.75% impedance then fed through one 138 – 34.5kV 83/112/140 MVA step-up transformer with 9% impedance will not push the fault duty above the interrupting rating of any of the Transmission Provider's existing fault interrupting equipment. There is concern that the equipment of other customers of the Transmission Provider at Canyon Compression substation may need to be replaced due to the increase in fault duty at that location. Further analysis will be performed during detailed design if this Project moves forward.

5.1.1.5 Protection Requirements

The Interconnection Customer's tie line substation (having a sole 138kV circuit breaker and associated equipment) will be adjacent to the Q0715 POI substation with a common

System Impact Study Report

fence between the two facilities. With this configuration the ground mats of the two substations will be tied together. The short line segment between the tie line substation and the Q0715 POI substation will be considered a bus section and will be protected with redundant bus differential relay systems. The bus differential relays will be located in the Q0715 POI substation. The Interconnection Customer will need to provide the output from two sets of current transformers to be fed into the bus differential relays with a maximum current transformer ratio matching the maximum CT ratio of the breakers at the Q0715 POI substation. If a fault is detected in the short conductor connection, both the 138kV breakers in the Q0715 POI substation and the 138kV breaker in the Interconnection Customer's tie line substation will be tripped.

The detection and clearing of faults on the tie line between the tie line and the collector substation will be the responsibility of the Interconnection Customer. Facilities must be installed to detect and isolate the line if it is faulted in five cycles or less.

A relay at the Q0715 POI substation will monitor the voltage magnitude and frequency. If the magnitude or frequency of the voltage is outside of normal range of operation a signal will be sent over the communication system to the collector substation. At the collector substation this signal is to trip open all of the 34.5 kV feeder breakers to disconnect the wind turbine generators. By tripping the 34.5 kV breakers instead of the 138kV breakers the station service to the plant is maintained to facilitate the restoration of the generation. This relay will also have phase and ground directional overcurrent elements set to operate for faults in the line between the Q0715 POI substation and the collector substation and serve as a backup to the main protection installed by the Interconnection Customer as indicated in the previous paragraph.

The installation of protective relays for line fault detection will be required at the Transmission Provider's Q0715 138kV POI substation for the protection of the lines to the Interconnection Customer's collector substation and the line to Railroad substation, where a two-terminal transmission line current differential will be implemented. The lines from the Q0715 POI substation to Compression substation will also be protected with a two-terminal transmission line current differential relay system. The connection to Whitney Canyon substation will be treated as a load for this line differential.

5.1.1.6 Data (RTU) Requirements

In addition to the need for operational data and control at the Q0715 POI substation, data for the operation of the power system will be needed from the collector substation. This data will be acquired by installing an Interconnection Customer owned data concentrator at the collector substation. The data will be transferred to the RTU in POI substation via Interconnection Customer owned fiber on the tie line from the collector substation.

Listed below is the data that will be acquired from the collector substation, tie line substation and Q0715 POI substation.

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From the Q0715 POI substation:

Analogs:

- Net Generation real power
- Net Generator reactive power
- Interchange energy register

From tie line substation:

Status:

- 138kV breaker

From the Q0715 collector substation:

Analogs:

- Transformer # 1 real power
- Transformer # 1 reactive power
- Real power flow through 34.5 kV line feeder breaker 1
- Reactive power flow through 34.5 kV line feeder breaker 1
- Real power flow through 34.5 kV line feeder breaker 2
- Reactive power flow through 34.5 kV line feeder breaker 2
- Real power flow through 34.5 kV line feeder breaker 3
- Reactive power flow through 34.5 kV line feeder breaker 3
- Real power flow through 34.5 kV line feeder breaker 4
- Reactive power flow through 34.5 kV line feeder breaker 4
- Real power flow through 34.5 kV line feeder breaker 5
- Reactive power flow through 34.5 kV line feeder breaker 5
- A phase 138kV transmission voltage
- B phase 138kV transmission voltage
- C phase 138kV transmission voltage
- Average Wind speed
- Average Plant Atmospheric Pressure (Bar)
- Average Plant Temperature (Celsius)

Status:

- 138 kV breaker T1
- 34.5 kV collector circuit breaker 1
- 34.5 kV collector circuit breaker 2
- 34.5 kV collector circuit breaker 3
- 34.5 kV collector circuit breaker 4
- 34.5 kV collector circuit breaker 5

5.1.1.7 Substation Requirements

Q0715 POI Substation

System Impact Study Report

The Project will require a new 138 kV three breaker ring bus POI substation. The substation will be approximately 170' x 300' (fence dimensions) based on the Interconnection Customer provided facility requirements. The POI substation will be located adjacent to the Interconnection Customer's tie line substation with a common fence between the facilities. The ground grids for the substations will be tied together and conduit will be installed between the substation to facilitate installation of protection, control, and indication cables. The following is a list of the major equipment required for this project:

- 3 – 138 kV Power Circuit Breakers
- 6 – 138 kV CCVTs
- 3 – 138 kV CT/VT Metering Units
- 11 – 138 kV Switches
- 9 – 138 kV Lightning Arresters
- 1 – 138 kV SSVT
- 1 – Control House

5.1.1.8 Communication Requirements

Installation of fiber is required on the existing line from Canyon Compression substation to the new Q0715 POI substation. The Interconnection Customer will need to install OPGW fiber on the line from Q0715 collector substation to the tie line substation where it will then connect to the Transmission Provider's communication equipment. Fiber nodes, multiplex and fiber termination panels are required at all three locations. At the Q0715 POI substation a 48 volt communication battery and charger is required for protection circuits. At Canyon Compression substation the communications are connected to the backbone via existing fiber and microwave. Substation network is to be installed at all three locations for metering and status.

With the Naughton RAS requirements for redundant communications, a leased T1 circuit is to be installed at the POI substation with the other end terminated at Naughton substation.

5.1.1.9 Metering Requirements

Interchange Metering

The interchange metering will be designed bidirectional and rated for the total net generation of the project including metering the retail load (per tariff) delivered to the customer. The Transmission Provider will specify and order all interconnection revenue metering, including the instrument transformers, metering panels, junction box and secondary metering wire. The primary metering transformers shall be combination 138 kV, 500/5, RF =2, CT/VT extended range for high accuracy metering.

The metering design package will include two revenue quality meters, test switch, with DNP real-time digital data terminated at a metering interposition block. One meter will be designated a primary SCADA meter and a second meter will be used designated as

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backup with metering DNP data delivered to the alternate control center. The metering data will include bidirectional KWH KVARH, revenue quantities including instantaneous PF, MW, MVAR including per phase voltage and amps data.

An Ethernet connection is required for retail sales and generation accounting via the MV-90 translation system.

Station Service/Construction Power

Prior to construction, Interconnection Customer must arrange construction power with the Transmission Provider. The metering shall conform to the Six State Electric Service Requirements manual as the site is within the Transmission Provider's service territory.

For permanent station service load, bidirectional metering is required. Please note, prior to back feed Interconnection Customer must arrange distribution voltage retail meter service for electricity consumed by the Project and arrange backup station service for power that will be drawn from the transmission or distribution line when the Project is not generating. Interconnection Customer must call the PCCC Solution Center 1-800-640-2212 to arrange this service. Approval for back feed is contingent upon obtaining station service.

5.1.2 Cost Estimate

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

Direct Assigned

Q0715 Tie Line Substation – Coordinate Relaying and Communications	\$364,000
--	-----------

Q0715 Naughton substation – Modify RAS	\$105,000
--	-----------

Q0715 POI Substation – Metering, Protection & Control and Line Termination	\$1,414,000
--	-------------

<u>Total Direct Assignment</u>	<u>\$1,883,000</u>
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Network Upgrades

Q0715 POI substation – Add 138 kV three-breaker ring bus	\$6,187,000
--	-------------

Railroad substation – Add line relays	\$62,000
---------------------------------------	----------

Canyon Compression substation – Add line relays	\$93,000
---	----------

Canyon Compression-Railroad Loop In/Out	\$515,000
---	-----------

<u>Total Network Upgrade</u>	<u>\$6,857,000</u>
-------------------------------------	---------------------------

System Impact Study Report**Total Cost****\$8,740,000**

*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. A more detailed estimate will be calculated during the Facilities Study. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

5.1.3 Schedule

The Transmission Provider estimates it will require approximately 24 months to design, procure and construct the facilities described in the Energy Resource sections of this report following the execution of an Interconnection Agreement. The schedule will be further developed and optimized during the Facilities Study.

Please note, the time required to perform the scope of work identified in this report appears to result in a timeframe that does support the Interconnection Customer's requested commercial operation date of October 1, 2020.

5.1.4 Maximum Amount of Power that can be delivered into Network Load, with No Transmission Modifications (for informational purposes only)

Zero (0) MW can be delivered on a firm basis to the Transmission Provider's network loads without system improvements.

5.1.5 Additional Transmission Modifications Required to Deliver 100% of the Power into Network Load (for informational purposes only)

In order to deliver 100% of the power into Network Load all improvements identified in this report must be in service.

6.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: None

7.0 APPENDICES

Appendix 1: Higher Priority Requests



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Appendix 2: Property Requirements

Appendix 3: Study Results

7.1 Appendix 1: Higher Priority Requests

All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are identified below. If any of these requests are withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Q0720* (TSR – Q2060)

*This project has been designated a network resource.

7.2 Appendix 2: Property Requirements

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements

Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a POI substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or permittable use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing

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mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.

System Impact Study Report**7.3 Appendix 3: Study Results**

A Western Electricity Coordinating Council (WECC) approved 2021-22 Heavy winter case was used to perform the power flow studies using PSS/E version 33.7. Power flow studies were performed on both peak and off-peak load cases. The off-peak load case was chosen to demonstrate the stress on the higher kV transmission system under light load conditions.

The local 345 kV, 230 kV, 138 kV and 115 kV transmission system outages were considered during the study. Some of the local area contingencies considered for this study are listed below.

- (1) N-1: Outage of the Q0715 – Railroad 138 kV line
- (2) N-1: Outage of Q0715 – Canyon Compression 138 kV line
- (3) N-1: Outage of Canyon Compression – Muddy Creek 138 kV line
- (4) N-1: Outage of the Long Hollow – Painter 138 kV line
- (5) N-1: Outage of the Painter – Railroad 138 kV line
- (6) N-1: Outage of the Railroad 230/138 kV auto transformer
- (7) N-1: Outage of the Birch Creek – Ben Lomond 230 kV line
- (8) N-1: Outage of the Ben Lomond – Naughton 230 kV line
- (9) N-1: Outage of the Naughton – Birch Creek 230 kV line
- (10) N-2: Outage of the Ben Lomond – Birch Creek 230 kV line & Ben Lomond – Naughton 230 kV line
- (11) N-2: Outage of the Ben Lomond – Syracuse 345 kV line & Populus – Terminal 345 kV line
- (12) N-2: Outage of the Ben Lomond – Terminal 345 kV # 2 line & Ben Lomond – Syracuse 345 kV line

N-0 Results: No N-0 thermal or voltage issues were observed in the studies.

N-1 Results: No N-1 thermal or voltage issues were observed in the studies.

N-2 Results: The following N-2 issue was observed in the studies.

The Evanston West path consists of three 230 kV lines:

Naughton – Treasureton
Naughton – Ben Lomond
Naughton – Birch Creek – Ben Lomond

For the N-2 outage of the Ben Lomond – Birch Creek 230 kV line and Ben Lomond – Naughton 230 kV line, and dependent on flow levels on the Evanston West path, an overload on the remaining Naughton – Treasureton 230 kV line can occur. There is an existing remedial action scheme (RAS), Naughton RAS, to drop generation for this N-2. The Q0715 Project must be incorporated into the Naughton RAS as it will affect area flows.

**Large Generator Interconnection
System Impact Study Report**

Completed for
Invenergy Wind Development, LLC
(“Interconnection Customer”)
Q0810
Uinta II

Proposed Point of Interconnection

**Q0715 Point of Interconnection Substation (on Canyon Compression –
Railroad 138 kV line)**

February 8, 2018

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1.0 DESCRIPTION OF THE GENERATING FACILITY

Invenergy Wind Development, LLC (“Interconnection Customer”) proposed interconnecting 101 MW of new generation to PacifiCorp’s (“Transmission Provider”) Canyon Compression – Railroad 138 kV line located in Uinta County, Wyoming. The Uinta project (“Project”) will consist of 44 GE 2.3 inverters for a total output of 101 MW. The requested commercial operation date is July 1, 2019.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the Project “Q0810.”

2.0 SCOPE OF THE STUDY

The interconnection system impact study shall evaluate the impact of the proposed interconnection on the reliability of the transmission system. The interconnection system impact study will consider Base Case as well as all generating facilities (and with respect to (iii) below, any identified network upgrades associated with such prior queued interconnections) that, on the date the interconnection system impact study is commenced:

- (i) are directly interconnected to the transmission system;
- (ii) are interconnected to Affected Systems and may have an impact on the interconnection request;
- (iii) have a pending prior queued interconnection request to interconnect to the transmission system; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

This interconnection system impact study will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The study will also provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of the cost responsibility and a non-binding good faith estimated time to construct.

3.0 TYPE OF INTERCONNECTION SERVICE

The Interconnection Customer has selected *Network Resource (NR)* Interconnection Service, but has also elected to have the interconnection studied as an *Energy Resource (ER)*. The Interconnection Customer will select NR or ER prior to the facilities study.

4.0 DESCRIPTION OF PROPOSED INTERCONNECTION

The Interconnection Customer’s proposed Generating Facility is to be interconnected through the Interconnection Customer Interconnection Facilities to be constructed for the Q0715 project.

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Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's system.

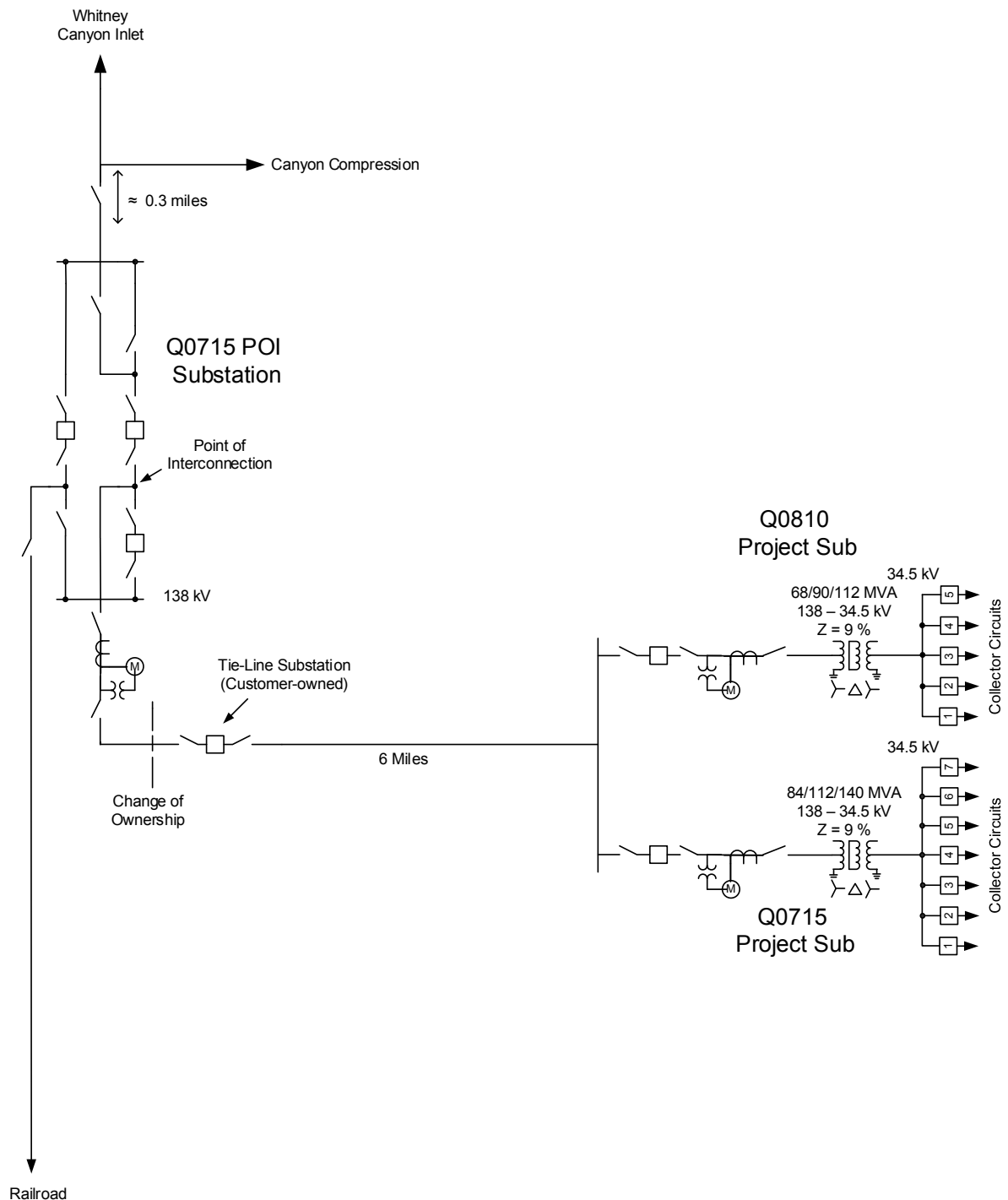


Figure 1: Simplified System One Line Diagram – Point of Interconnection

5.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are listed in Appendix 1. If any of these requests are materially modified or withdrawn, the Transmission Provider reserves the right to restudy this request, and the Results and conclusions could significantly change.
- For study purposes there are two separate queues:
 - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with prior queued interconnection requests will be modeled in this study.
- The Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. The provision of transmission service may require additional studies and the construction of additional upgrades.
- Under normal conditions, the Transmission Provider does not dispatch or otherwise directly control or regulate the output of generating facilities. Therefore, the need for transmission modifications, if any, which are required to provide Network Resource Interconnection Service will be evaluated on the basis of 100 percent deliverability (i.e., no displacement of other resources in the same area).
- This study assumes the Project will be integrated into the Transmission Provider's system at agreed upon and/or proposed Point of Interconnection.
- The Interconnection Customer will construct and own any facilities required between the Point of Change of Ownership and the Project unless specifically identified by the Transmission Provider.
- Line reconductor or fiber underbuild required on existing poles will be assumed to follow the most direct path on the Transmission Provider's system. If during detailed design the path must be modified it may result in additional cost and timing delays for the Interconnection Customer's project.
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and the Transmission Provider's performance and design standards.
- The Q0715 project must be complete before or simultaneously with this Project.
- The Jordanelle – Midway 138 kV line is assumed to be in service (2019).
- The Energy Gateway West, Aeolus-Bridger/Anticline sub-segment D.2, is assumed to be in-service by year end 2020.
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission System updates at <http://www.pacifiCorp.com/tran.html>

6.0 ENERGY RESOURCE (ER) INTERCONNECTION SERVICE

Energy Resource Interconnection Service allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System and to be eligible to deliver electric output using firm or non-firm transmission capacity on an as available basis.

6.1.1 Requirements

6.1.1.1 Generating Facility Modifications

All interconnecting synchronous and non-synchronous generators are required to design their Generating Facilities with reactive power capabilities necessary to operate within the full power factor range of 0.95 leading to 0.95 lagging. This power factor range shall be dynamic and can be met using a combination of the inherent dynamic reactive power capability of the generator or inverter, dynamic reactive power devices and static reactive power devices to make up for losses.

For synchronous generators, the power factor requirement is to be measured at the Point of Interconnection. For non-synchronous generators, the power factor requirement is to be measured at the high-side of the generator substation.

The generating facility must provide dynamic reactive power to the system in support of both voltage scheduling and contingency events that require transient voltage support, and must be able to provide reactive capability over the full range of real power output.

If the generating facility is not capable of providing positive reactive support (i.e., supplying reactive power to the system) immediately following the removal of a fault or other transient low voltage perturbations, the facility must be required to add dynamic voltage support equipment. These additional dynamic reactive devices shall have correct protection settings such that the devices will remain on line and active during and immediately following a fault event.

Generators shall be equipped with automatic voltage-control equipment and normally operated with the voltage regulation control mode enabled unless written authorization (or directive) from the Grid Operator is given to operate in another control mode (e.g. constant power factor control). The control mode of generating units shall be accurately represented in operating studies. The generators shall be capable of operating continuously at their maximum power output at its rated field current within +/- 5% of its rated terminal voltage.

As required by NERC standard VAR-001-1a, the Transmission Provider will provide a voltage schedule for the Point of Interconnection. In general, Generating Facilities should be operated so as to maintain the voltage at the Point of Interconnection, or other designated point as deemed appropriated by Transmission Provider. The Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap changers. At the Transmission Provider's discretion, these values might be adjusted depending on operating conditions.

Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among generation facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be the Interconnection Customer's responsibility to ensure that a voltage coordination study is

System Impact Study Report

performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.

For areas with multiple generating facilities additional studies may be required to determine whether or not critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of the Interconnection Customer. If the need for a master controller is identified, the cost and all related installation requirements will be the responsibility of the Interconnection Customer. Participation by the generation facility in subsequent interaction/coordination studies will be required pre- and post-commercial operation in order ensure system reliability.

To facilitate collection and validation of accurate modeling data to meet NERC modeling standards, PacifiCorp, as the Planning Coordinator, requires Phasor Measurement Units (PMUs) at all new Generating Facilities with an individual or aggregate nameplate capacity of 75 MVA or greater. In addition to owning and maintaining the PMU, the Generating Facility will be responsible for collecting, storing and retrieving data as requested by the Planning Coordinator. Data must be collected and be able to stream to Planning Coordinator for each of the Generator Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 30 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:

- Three phase voltage and voltage angle (analog)
- Three phase current (analog)

Data requirements are subject to change as deemed necessary to comply with local and federal regulations.

All generators must meet the Federal Energy Regulatory Committee (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement.

As the Transmission Provider cannot submit a user written model to WECC for inclusion in base cases, a standard model from the WECC Approved Dynamic Model Library is required 180 days prior to trial operation. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.

6.1.1.2 Transmission System Modifications

Q0810 is responsible to eliminate the credible N-2 outage of the Transmission Provider's Ben Lomond-Birch Creek and Ben Lomond-Naughton 230 kV transmission lines, which share common structures for approximately eight miles as they exit Ben Lomond substation. This will require construction of a new approximately seven-mile 230 kV line (2-795 ACSR) in a separate right of way, in order for both 230 kV circuits to be on separate structures.

6.1.1.3 Transmission/Distribution Line Modifications

Construct a 230 kV single circuit transmission line beginning approximately one mile outside of Ben Lomond substation to structure 525 for the Ben Lomond-Naughton #1 line.

This line segment will replace the current Ben Lomond-Naughton #1 circuit which resides on the north side of the 7 mile long lattice tower double circuit with the Ben Lomond-Birch Creek 230

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kV transmission line. This new line will require the procurement of additional rights-of-ways which the Interconnection Customer will be responsible to obtain on behalf of the Transmission Provider. The corridor near Ben Lomond substation where the new transmission line must be constructed is congested. The Transmission Provider anticipates that the procurement of the necessary rights-of-way could be difficult and may add significant cost and potential delays to the Project.

6.1.1.4 Existing Circuit Breaker Upgrades – Short Circuit

The increase in the fault duty on the system as a result of the addition of the Generating Facility with 44 – GE 2.3 MW wind turbine generators fed through 44 – 2.5 MVA 34.5 kV – 690 V transformers with 5.75% impedance then fed through one 138 – 34.5kV 68/90/112 MVA step-up transformer with 9% impedance will not push the fault duty above the interrupting rating of any of the Transmission Provider's existing fault interrupting equipment.

6.1.1.5 Protection Requirements

The Interconnection Customer's line relays at the collector substation will need to respond to the combination of the 138 kV fault current being contributed from both the Q0715 and the Q0810 generation projects for faults on the 138 kV tie line and trip both 138 kV breakers for the two projects.

As this Project will be interconnected through the same facilities planned to be constructed for the Q0715 project it will be included in the bus differential relay system that will trip the 138 kV breaker in the tie line substation to be installed as part of the Q0715 project.

The relay to be installed at the Q0715 POI substation as part of the Q0715 project will monitor the voltage magnitude and frequency of the Q0810 Project. If the magnitude or frequency of the voltage is outside of normal range of operation a signal will be sent to trip the tie line 138 kV breakers.

New line relay settings will be developed for the Naughton – Ben Lomond and Birch Creek – Ben Lomond 230 kV lines due to the rebuilding of the seven mile section of those lines.

6.1.1.6 Data (RTU) Requirements

Data for the operation of the power system will be needed from the Interconnection Customer's collector substation. Listed is the data that will be acquired from the collector substations.

From the Q0715 collector substation:

Analogs:

- § Net Generation MW
- § Net Generator MVAR
- § Interchange metering kWh

From the Q0810 collector substation:

Analogs:

- § Net Generation MW
- § Net Generator MVAR

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- § Interchange metering kWH
- § 34.5 kV Real power F1
- § 34.5 kV Reactive power F1
- § 34.5 kV Real power F2
- § 34.5 kV Reactive power F2
- § 34.5 kV Real power F3
- § 34.5 kV Reactive power F3
- § 34.5 kV Real power F4
- § 34.5 kV Reactive power F4
- § 34.5 kV Real power F5
- § 34.5 kV Reactive power F5
- § Average Wind Speed
- § Average Plant Atmospheric Pressure (Bar)
- § Average Plant Temperature (Celsius)

Status:

- § 138 kV line breaker
- § 34.5 kV breaker F1
- § 34.5 kV breaker F2
- § 34.5 kV breaker F3
- § 34.5 kV breaker F4
- § 34.5 kV breaker F5

6.1.1.7 Substation Requirements**Q810 Collector Station**

The following major equipment has been identified as being required and may change during detailed design:

- 3 – 138 kV CT/VT combination metering units
- 1 – Control house

The Interconnection Customer will provide a separate graded, grounded and fenced area along the perimeter of the Interconnection Customer's Generating Facility for the Transmission Provider to install a control house for metering equipment. This area will share a fence and ground grid with the Generating Facility and have separate, unencumbered access for the Transmission Provider. DC power for the control house will be supplied by the Transmission Provider. AC station service for the control house will be provided by the Interconnection Customer.

Q715 Collector Station

The following major equipment has been identified as being required and may change during detailed design:

- 3 – 138 kV CT/VT combination metering units

System Impact Study Report**6.1.1.8 Communication Requirements**

The Transmission Provider will need to make minor modifications at its primary and secondary control centers to account for the additional generation of this phase in addition to the Q0715 project.

6.1.1.9 Metering Requirements**Interchange Metering - Q0715 POI substation:**

The Q0715 generation metering to be located at the Q0715 POI substation will be reassigned as an interconnection customer intertie with the Transmission provider for the combined Q0715 and Q0810 generation projects

Q0715 and Q0810 collector substations:

The generation and backfeed metering for both Q0715 and Q0810 projects will be located at the Interconnection Customers' respective collector substations. The generation metering will be located at the 138 kV high side of the Interconnection Customer's transformers and will be loss adjusted to the Transmission Provider's Q0715 POI substation.

The Transmission Provider will specify and order all interconnection revenue metering equipment, including the 138 kV instrument transformers, metering panels, junction boxes, and secondary metering wire. The current transformers shall be extended range for high accuracy metering with current ratio of 500/5 (0.15% extended range accuracy). The voltage transformers will have a voltage ratio of 700/1 (0.3% accuracy).

The metering design package will include four revenue quality meters and supporting hardware. The meters will output DNP real-time digital data terminated at a metering interposition block. The metering design package will include all SCADA metering data terminated at a metering interposition block. The metering data will include bidirectional KWH and KVARH revenue quantities. The metering data will also include PF, MW, MVAR, MVA, per phase voltages, and per phase amps. The interconnection customer may request data outputs from the meters, but the request must be made prior to final design.

An Ethernet phone line is required for retail sales and generation accounting via the MV-90 meter data management system.

Station Service/Construction Power

Prior to construction, Interconnection Customer must arrange construction power with the Transmission Provider. The metering shall conform to the Six State Electric Service Requirements manual as the site is within the Transmission Provider's service territory.

Please note that prior to back feed, Interconnection Customer must arrange transmission retail meter service for electricity consumed by the Project and arrange back-up station service for power that will be drawn from the transmission or distribution line when the Project is not generating.

System Impact Study Report

Interconnection Customer must call the PCCC Solution Center at 1-800-625-6078 to arrange this service. Approval for back feed is contingent upon obtaining station service

6.1.2 Cost Estimate

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

Direct Assigned

Q0810 Collector Substation	\$413,000
<i>Metering and Control House</i>	

Q0715 Collector Substation	\$413,000
<i>Metering and Control House</i>	

Q0715 Point of Interconnection Substation	\$30,000
<i>Relay and Communication Modifications</i>	

Transmission Provider Control Centers	\$13,000
<i>Communication Modifications</i>	

Total Direct Assigned	\$869,000
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Network Upgrades

Ben Lomond-Naughton #1 Transmission Line	\$25,785,000
<i>Remove from existing double circuit and construct new 7 mile line</i>	

Grand Total \$26,654,000

*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. A more detailed estimate will be calculated during the Facilities Study. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

6.1.3 Schedule

The Transmission Provider estimates it will require approximately 24-30 months to permit, design, procure and construct the facilities described in the Energy Resource sections of this report following the execution of an Interconnection Agreement. The schedule will be further developed and optimized during the Facilities Study.

Please note, the time required to perform the scope of work identified in this report appears to result in a timeframe that does not support the Interconnection Customer's requested Commercial Operation date of July 1, 2019.

6.1.4 Maximum Amount of Power that can be delivered into Network Load, with No Transmission Modifications (for informational purposes only)

One hundred one (101) MW can be delivered on a firm basis to the Transmission Provider's network loads assuming all requirements outlined in this report are complete and all requirements of Q0786 are complete.

6.1.5 Additional Transmission Modifications Required to Deliver 100% of the Power into Network Load (for informational purposes only)

See section 6.1.1.2.

7.0 NETWORK RESOURCE (NR) INTERCONNECTION SERVICE

Network Resource Interconnection Service allows the Interconnection Customer to integrate its Generating Facility with the Transmission Provider's Transmission System in a manner comparable to that in which the Transmission Provider integrates its generating facilities to serve native load customers. The transmission system is studied under a variety of severely stressed conditions in order to determine the transmission modifications which are necessary in order to deliver the aggregate generation in the area of the Point of Interconnection to the Transmission Provider's aggregate load. Network Resource Interconnection Service in and of itself does not convey transmission service.

7.1.1 Requirements

7.1.1.1 Generating Facility Modifications

See Section 6.1.1.1

7.1.1.2 Transmission System Modifications

See Section 6.1.1.2

7.1.2 Cost Estimate

No additional costs are anticipated other than those listed in section 6.1.2.

7.1.3 Schedule

See section 6.1.3.

8.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: None.

9.0 APPENDICES

Appendix 1: Higher Priority (Prior Queued) Requests

Appendix 2: Property Requirements

Appendix 3: Study Results

9.1 Appendix 1: Higher Priority (Prior Queued) Requests

All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are identified below. If any of these requests are materially modified or withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Q0715 (120 MW)

Q0720 (80 MW) – QF

Q0786 (100 MW) – ER/NR

9.2 Appendix 2: Property Requirements

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements

Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a point of interconnection substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or permittable use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A

System Impact Study Report

phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.

9.3 Appendix 3: Study Results

Power Flow Study Results

A Western Electricity Coordinating Council (WECC) approved 2021-22 Heavy winter and 2022 Heavy summer cases were used to perform the power flow studies using PSS/E version 33.7. Power flow studies were performed on both peak and off-peak load cases. The off-peak load case was chosen to demonstrate the stress on the higher kV transmission system under light load conditions. The Rock Springs/Firehole West path was stressed to 640 MW. The local 230 kV and 138 kV transmission system outages were considered during the study.

N-0 Results: No N-0 thermal or voltage issues were observed in the studies.

N-1 Results: Assuming the 2.35 miles of the Railroad – Croydon 138 kV line is rebuilt and the jumpers at Canyon Creek and Carter Creek are upgraded by the prior Q0786 project, no additional issues were observed.

N-2 Results:

The credible N-2 of the Ben Lomond – Birch Creek and Ben Lomond – Naughton 230 kV lines can overload the Naughton – Treasureton 230 kV line and/or the Railroad – Croydon – Coalville – Silver Creek – Synderville – Cottonwood 138 kV lines. The Ben Lomond – Birch Creek and Ben Lomond – Naughton 230 kV circuits share common structures for approximately eight miles. The project cannot be integrated into the Naughton Remedial Action Scheme (RAS) as it exceeds the maximum amount of generation tripping (600-700 MW) to be dropped as a part of RAS. Therefore, elimination of the specific 230 kV N-2 is required. As there is a double circuit 138 line that runs parallel to the 230 kV double circuit in the area, one of the 230 kV circuits can be swapped with one of the 138 kV circuits, reducing the impact of this outage. Approximately seven miles of structures on the 138 kV segment would need to be replaced to accommodate the weight of the 230 kV circuit.

Rocky Mountain Power
Exhibit RMP____(RAV-3SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

Q0707 SIS Report and Q0708 SIS Report

February 2018

Large Generator Interconnection
System Impact Restudy Report

Completed for
Invenergy Wind Development LLC
(“Interconnection Customer”)
Q0707
Carbon County 2

Proposed Point of Interconnection
Existing Shirley Basin 230 kV Substation

February 8, 2018

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1.0 DESCRIPTION OF THE GENERATING FACILITY

Invenergy Wind Development LLC (“Interconnection Customer”) proposed interconnecting 250 MW of new generation to PacifiCorp’s (“Transmission Provider”) Shirley Basin 230 kV substation located in Carbon County, WY. The Carbon County 2 project (“Project”) will consist of 14 Vestas V110 2.0 and 53 Vestas V136 4.2 turbines for a total output of 250 MW at the Point of Interconnection. The requested commercial operation date is November 1, 2020.

The restudy of this Project is performed due to the staging of the Energy Gateway West project. Specifically, while the entire Gateway West project has a longer development timeline, the Aeolus-Bridger/Anticline D.2 segment of the project (500 kV segment from the planned Aeolus substation to the planned Anticline substation) now has an expected 2020 in-service date. The earlier availability of the D.2 segment materially changes certain modeling assumptions that could impact the cost or timing of the interconnection of certain projects whose previous studies depended on Gateway West in its entirety.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the Project “Q0707.”

2.0 SCOPE OF THE STUDY

The interconnection system impact restudy shall evaluate the impact of the proposed interconnection on the reliability of the transmission system. The study will consider Base Case as well as all generating facilities (and with respect to (iii) below, any identified network upgrades associated with such higher-queued interconnections) that, on the date the interconnection system impact study is commenced:

- (i) are directly interconnected to the transmission system;
- (ii) are interconnected to Affected Systems and may have an impact on the interconnection request;
- (iii) have a pending higher queued interconnection request to interconnect to the transmission system and have a planned in-service date of December 2020 or earlier; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

This interconnection system impact study will consist of a short circuit analysis and a power flow analysis. The study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The study will also provide a list of facilities that are required as a result of the

Interconnection Request and a non-binding good faith estimate of the cost responsibility and a non-binding good faith estimated time to construct.

Based on the engineering judgement, the stability results for this project are not expected to change and hence the restudy of stability analysis was not performed.

3.0 TYPE OF INTERCONNECTION SERVICE

The Interconnection Customer has elected to have the interconnection studied as an *Energy Resource (ER)*.

4.0 DESCRIPTION OF PROPOSED INTERCONNECTION

The Interconnection Customer's proposed Generating Facility is to be interconnected to the existing Shirley Basin 230 kV substation. Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's Shirley Basin substation.

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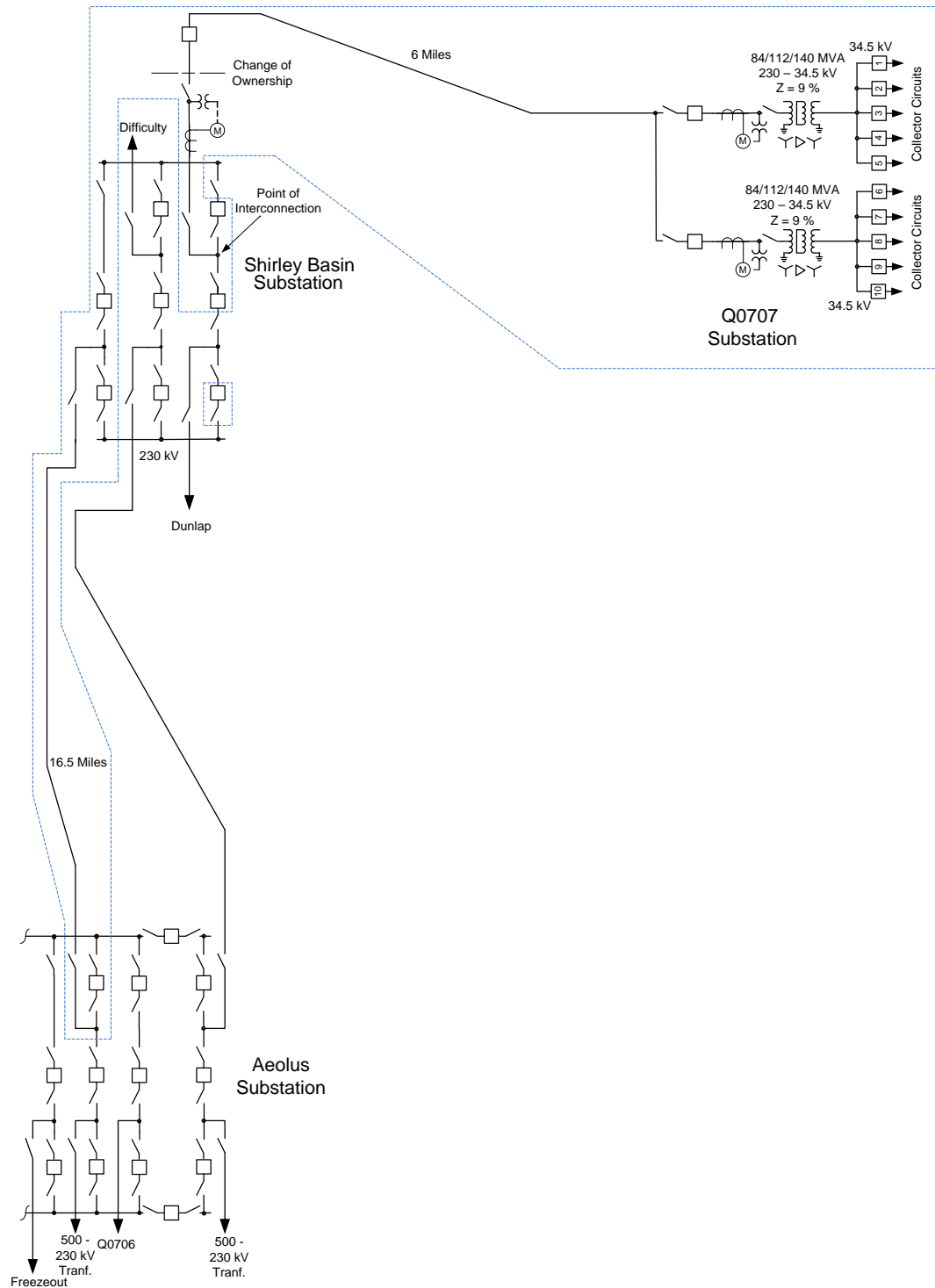


Figure 1: Simplified System One Line Diagram

4.1 Other Options Considered

The following alternative options were considered as potential points of interconnection for this Project: None per Interconnection Customer.

5.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests with an in-service date as of December 2020 or earlier will be considered in this study and are listed in Appendix 1. If any of these requests are materially modified or withdrawn, the Transmission Provider reserves the right to restudy this request, and the results and conclusions could significantly change.
- For study purposes there are two separate queues:
 - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with higher queued interconnection requests with an in-service date of December 2020 or earlier will be modeled in this study.
- The Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. The provision of transmission service may require additional studies and the construction of additional upgrades.
- This study assumes the Project will be integrated into the Transmission Provider's system at the Shirley Basin point of interconnection.
- The Interconnection Customer will construct and own any facilities required between the Point of Change of Ownership and the Project unless specifically identified by the Transmission Provider.
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and the Transmission Provider's performance and design standards.
- The Energy Gateway West, Aeolus-Bridger/Anticline D.2 500 kV line from the proposed Aeolus substation to the proposed Anticline substation and ancillary projects are assumed in service in 2020.
- Remedial Action Scheme (RAS) that will arm approximately 640 MW of generation for the following outages is assumed to be in-service.
 - Aeolus – Bridger/Anticline 500 kV line
 - Aeolus 230/500 kV transformer
 - Anticline 345/500 kV transformer
 - Future Anticline – Populus 500 kV line
 - Future Populus 500/345 kV auto transformer
 - Future Aeolus – Clover 500 kV line

- Future Clover 500/345 kV auto transformer
- PacifiCorp reserves the right to restudy the Project if any of the mentioned assumptions are changed or any of the required mitigations are not in-service at the time of interconnection.
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission System updates at <http://www.pacificorp.com/tran.html>

5.1 Energy Resource (ER) Interconnection Service

Energy Resource Interconnection Service allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System and to be eligible to deliver electric output using firm or non-firm transmission capacity on an as available basis.

5.1.1 Requirements

5.1.1.1 Generating Facility Modifications

Transmission Provider will require the facility to operate in voltage control mode with the ability to deliver power output to the Point of Interconnection within the range of +/- 0.95 power factor. (Please see Standard Large Generator Interconnection Agreement, article 9.6.1 and 9.6.2 in OATT). Any additional reactive compensation must be designed such that the discrete switching of the reactive device, if required, does not cause step voltage changes greater than $\pm 3\%$ at any load serving bus on the Transmission Provider's system.

As required by NERC standard VAR-001-1a, the Transmission Provider will provide a voltage schedule for the Point of Interconnection. In general, Generating Facilities should be operated so as to maintain the voltage at the Point of Interconnection, or other designated point as deemed appropriated by Transmission Provider. The Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap changers. At the Transmission Provider's discretion, these values might be adjusted depending on operating conditions.

Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among generation facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be the Interconnection Customer's responsibility to ensure that a voltage coordination study is performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.

For areas with multiple generating facilities additional studies may be required to determine whether or not critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of the Interconnection Customer. If the need for a master controller is identified, the cost and all related installation requirements will be the responsibility of the Interconnection Customer. While study

costs of subsequent interconnection projects nearby will be the responsibility of the new project, participation by the Q0707 Project may be required post commercial operation to ensure Bulk Electric System reliability is maintained.

To facilitate collection and validation of accurate modeling data to meet NERC modeling standards, PacifiCorp, as the Planning Coordinator, requires Phasor Measurement Units (PMUs) at all new Generating Facilities with an individual or aggregate nameplate capacity of 75 MVA or greater. In addition to owning and maintaining the PMU, the Generating Facility will be responsible for collecting, storing and retrieving data as requested by the Planning Coordinator. Data must be collected and be able to stream to Planning Coordinator for each of the Generating Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 30 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:

- Three phase voltage and voltage angle (analog)
- Three phase current (analog)

Data requirements are subject to change as deemed necessary to comply with local and federal regulations.

All generators must meet the Federal Energy Regulatory Committee (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement. At low or zero output levels, the Project must not have reactive power interchange outside of the +/- 0.95 power factor requirement at the POI. PacifiCorp has experienced high voltages in the Wyoming area when the transmission system is lightly loaded with low wind conditions in the area. With low wind conditions the wind farms tend to supply reactive power into the transmission system increasing the voltage.

As the Transmission Provider cannot submit a user written model to WECC for inclusion in base cases, a standard model from the WECC Approved Dynamic Model Library is required 180 days prior to trial operation. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.

5.1.1.2 Transmission System Modifications

Figure 1 above is a one-line diagram that illustrates the interconnection of the proposed generating facility and the system improvements required.

- A new bay and three new breakers along with associated switches at the existing Shirley Basin 230 kV substation.
- Two new line terminations at Shirley Basin substation, one to interconnect the this Project and the other to connect the new Shirley Basin – Aeolus 230 kV line required by the Project.
- Addition of two new breakers along with associated switches on the existing bay that connects Dunlap wind farm to Shirley Basin in order to convert Shirley Basin to full breaker and half scheme.

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- Construction of a new approximately 16.5-mile Shirley Basin – Aeolus 230 kV line with 2-1557 ACSR Potomac. It is noted that the requirement for this Project is a 2-1272 ACSR conductor; however, the Transmission Provider's master plan identifies 2-1557 ACSR and therefore the Transmission Provider will be responsible for the incremental betterment cost of the larger conductor.
- Addition of one new 230 kV circuit breaker at the proposed Aeolus substation
- New line termination at Aeolus substation.
- A RAS that will drop the Q0707 Project for the 500 kV outages related to Gateway West, Segment D.2:
 - Aeolus – Bridger/Anticline 500 kV line
 - Aeolus 230/500 kV transformer
 - Anticline 345/500 kV transformer
 - Future Anticline – Populus 500 kV line
 - Future Populus 500/345 kV auto transformer
 - Future Aeolus – Clover 500 kV line
 - Future Clover 500/345 kV auto transformer

5.1.1.3 Transmission/Distribution Line Modifications

Construct a new 230 kV transmission line from Aeolus to Shirley Basin. The line will be constructed using double bundled 1557 ACSR conductor and will be approximately 16.5 miles long. There will be an additional 0.12 miles of line constructed to allow a swap of line positions at Aeolus substation.

Install ½" OPGW in place of one of the shield wire positions on H-frame and Three Pole structures for the entire 16.5 mile line length.

The Transmission Provider shall review the design of the span between the Interconnection Customer's tie line substation deadend tower and the Shirley Basin substation deadend tower. The Interconnection Customer shall coil conductor, OPGW and shield wire and line hardware with sufficient quantities to span between the tie line substation tower and the Shirley Basin substation tower. The Transmission Provider will construct the span between the tie line substation tower and the Shirley Basin tower.

5.1.1.4 Existing Circuit Breaker Upgrades – Short Circuit

The increase in the fault duty on the system as a result of the addition of the generation facility with 14 Vestas V110 2.0 and 53 Vestas V136 4.2 wind turbine generators fed through 14 – 2,222 kVA and 53 4,700 kVA 34.5 kV – 690 V transformers with 5.75 % impedance then fed through two 230 – 34.5kV 83/112/140 MVA step up transformers with 9 % impedance will not push the fault duty above the interrupting rating of any of the existing fault interrupting equipment.

5.1.1.5 Protection Requirements

The ground mats of the tie line substation and Shirley Basin substation must be tied together so that metallic control cables can be used between the two facilities. Bus differential relays will be applied to detect faults on this connection. With this arrangement the Interconnection Customer must install line relays systems that will detect and clear all faults on the tie lines in 5 cycles or less. A set of non-pilot step distance line relays that will detect faults on the tie line will also be applied at Shirley Basin substation. The Interconnection Customer will need to supply and maintain sets of line relays to be installed at Q0707 collector substation that will detect faults on the 230 kV line back to Shirley Basin substation. These line relays can be time coordinated with the relays detecting faults on the transmission network and will not communicate with the line relays to be installed at Shirley Basin substation for the tie line.

Should the Interconnection Customer desire a potential alternative to the tie line substation in order to provide adequate protection to its tie line, the Interconnection Customer may petition the Transmission Provider for an exemption to this arrangement. The Transmission Provider must review and approve the Interconnection Customer's proposed alternative. Without approval of the proposed alternative the tie line substation configuration will be required.

Protective relay elements in the line relays at Shirley Basin substation will monitor voltage and frequency. If the voltage, magnitude or frequency is outside of the normal operation range, this relay will trip the 230 kV breaker in the tie line substation.

The existing line relays installed for the Dunlap line will continued to be used for that line. The relays will be reconnected to the new 230 kV breakers.

This Generating Facility will need to be controlled by the Aeolus RAS. For the loss of any one of a number of electrical elements that will be part of the Gateway Transmission projects this Project will need to be tripped. The Aeolus RAS master will be located at Aeolus Substation. The trip signal will need to be communicated from Aeolus to Shirley Basin substation.

Line current differential relays will be installed at Shirley Basin and Aeolus substations for the new Shirley Basin – Aeolus transmission line.

5.1.1.6 Data (RTU) Requirements

In addition to the need for operational data and control at Shirley Basin substation, data for the operation of the power system will be needed from the collector substation and tie line substation. This data can be acquired by installing an Interconnection Customer owned data concentrator at the collector substation. The data will be transferred to the RTU in Shirley Basin substation via Interconnection Customer owned fiber on the tie from the collector substation. Listed below is the data that will be acquired from the collector substation and at Shirley Basin substation.

From Shirley Basin Substation:

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Analogs:

- Net Generation real power
- Net Generator reactive power
- Interchange energy register

From the Q0707 Collector substation:

Analogs:

- Transformer # 1 real power
- Transformer # 1 reactive power
- Real power flow through 34.5 kV line feeder breaker T1-1
- Reactive power flow through 34.5 kV line feeder breaker T1-1
- Real power flow through 34.5 kV line feeder breaker T1-2
- Reactive power flow through 34.5 kV line feeder breaker T1-2
- Real power flow through 34.5 kV line feeder breaker T1-3
- Reactive power flow through 34.5 kV line feeder breaker T1-3
- Real power flow through 34.5 kV line feeder breaker T1-4
- Reactive power flow through 34.5 kV line feeder breaker T1-4
- Real power flow through 34.5 kV line feeder breaker T1-5
- Reactive power flow through 34.5 kV line feeder breaker T1-5
- Transformer # 2 real power
- Transformer # 2 reactive power
- Real power flow through 34.5 kV line feeder breaker T2-1
- Reactive power flow through 34.5 kV line feeder breaker T2-1
- Real power flow through 34.5 kV line feeder breaker T2-2
- Reactive power flow through 34.5 kV line feeder breaker T2-2
- Real power flow through 34.5 kV line feeder breaker T2-3
- Reactive power flow through 34.5 kV line feeder breaker T2-3
- Real power flow through 34.5 kV line feeder breaker T2-4
- Reactive power flow through 34.5 kV line feeder breaker T2-4
- Real power flow through 34.5 kV line feeder breaker T2-5
- Reactive power flow through 34.5 kV line feeder breaker T2-5
- Average Plant Wind speed
- Average Plant Atmospheric Pressure (Bar)
- Average Plant Temperature (Celsius)

Status:

- 230 kV breaker T1
- 34.5 kV collector circuit breaker T1-1
- 34.5 kV collector circuit breaker T1-2
- 34.5 kV collector circuit breaker T1-3
- 34.5 kV collector circuit breaker T1-4
- 34.5 kV collector circuit breaker T1-5
- 230 kV breaker T2

- 34.5 kV collector circuit breaker T2-1
- 34.5 kV collector circuit breaker T2-2
- 34.5 kV collector circuit breaker T2-3
- 34.5 kV collector circuit breaker T2-4
- 34.5 kV collector circuit breaker T2-5

From the tie line substation:

Status:

- 230 kV breaker

5.1.1.7 Substation Requirements

The Project will require new 230kV breaker-and-a-half bays at Shirley Basin substation, a Transmission Provider owned control house at the Interconnection Customer's collector substation, and a new 230kV line position at Aeolus substation. The ground grids of the tie line substation and Shirley Basin substation must be connected. The following major equipment has been preliminarily identified for this Project:

Shirley Basin Substation:

- 5 – 230kV circuit breakers
- 8 – 230kV CCVT's
- 13 – 230kV disconnect switches
- 9 – 230kV surge arresters

Aeolus Substation:

- 1 – 230kV circuit breaker
- 3 – 230kV CCVT's
- 3 – 230kV disconnect switches
- 3 – 230kV surge arresters

Collector Station:

- 1 – Control house
- 1 – 125 VDC battery system

The Interconnection Customer will provide a separate graded, grounded and fenced area along the perimeter of the Interconnection Customer's collector substation for the Transmission Provider to install a control house for metering equipment. This area will share a fence and ground grid with the Generating Facility and have separate, unencumbered access for the Transmission Provider. AC station service shall be provided by the Interconnection Customer. DC power for the control house will be supplied by the Transmission Provider.

5.1.1.8 Communication Requirements

OPGW fiber will need to be installed on the new transmission line from Aeolus substation to Shirley Basin substation. This is a redundant path for the Aeolus RAS. The existing line contains OPGW which is the primary communication feed. At both Shirley Basin substation and Aeolus substation a second DMX fiber node and channel bank will be installed for redundancy. At Shirley Basin substation the existing network router needs to be upgraded with additional ports. The router at Shirley Basin substation will have ports for the commercial meters.

From Shirley Basin substation, single mode fiber is to be run to the tie line substation. All communications at the tie line substation and collector substation including the OPGW fiber on the line between the two is the responsibility of the Interconnection Customer. The Interconnection Customer is to supply 1 DNP3 SCADA circuit from the collector substation to the Shirley Basin substation with all the required SCADA points. Four Mirrored bit channels will be installed on the two fiber paths to Aeolus substation and feed the Aeolus RAS controller.

The Interconnection Customer shall install a data concentrator (SEL-2411 or Transmission Provider approved device) to transfer data between the collector substation and the Transmission Provider's RTU located in Shirley Basin substation. The Transmission Provider will input and hold the second level passwords for the SEL-2411 or Transmission Provider approved device. Password control ensures the Transmission Provider is aware of and is accepting of the changes being requested by the Interconnection Customer.

5.1.1.9 Metering Requirements

Interchange Metering - Shirley Basin substation:

The Point of Interconnection metering will be located at Shirley Basin substation and rated for the total net generation of the Project. The metering will be designed to include back-feed metering. The Transmission Provider will specify and order all interconnection revenue metering, including the instrument transformers, metering panels, junction box and secondary metering wire. The primary metering transformers shall be combination 230kV, 1000/5, CT/VT extended range for high accuracy metering.

The metering design package will include two revenue quality meters, test switch, with DNP real time digital data terminated at a metering interposition block. One meter will be designated a primary SCADA meter and a second meter will be used designated as backup with metering DNP data delivered to the alternate control center. The metering data will include bidirectional KWH KVARH, revenue quantities including instantaneous PF, MW, MVAR, MVA, including per phase voltage and amps data.

An Ethernet connection is required for retail sales and generation accounting via the MV-90 translation system.

Collector Substation Q0707:

Revenue metering is required for each of the two customer power transformers and will be located on the high side of each of the step-up transformers. The primary metering transformers shall be combination 230kV, 500/5, CT/VT extended range for high accuracy metering.

The Transmission Provider will design and procure the collector revenue metering panels. The panels shall be located inside the collector substation control house. The collector substation metering panel shall include two revenue quality meters, test switches, and all SCADA metering data terminated at a metering interposition block.

An Ethernet phone line is required for retail sales and generation accounting via the MV-90 translation system.

Station Service/Construction Power

The Project is outside the Transmission Provider retail service territory. Prior to construction the Interconnection Customer must arrange with Carbon Power & Light permanent station service load. The Interconnection Customer will need to coordinate with Carbon Power & Light to submit a transmission service request to the Transmission Provider for power that will backfeed through the Transmission Provider's system when the Project is not generating. The Transmission Provider shall provide a Modbus or DNP output from the bidirectional meters to Carbon Power & Light for back-feed metering. At Shirley Basin substation the data output shall be trenched from the meter panel to outside the substation fence. Obtaining all necessary retail service arrangements are contingent for backfeed approval of the Project.

5.1.2 Cost Estimate

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

Energy Resource

Interconnection – Direct Assignment Facilities

Q0707 Collector Substation – Metering and Control House	\$952,000
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Q0707 Tie Line and Collector Substation – Coordinate Communications and Protection & Control	\$142,000
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Shirley Basin Substation – Q0707 Line Position and Metering	\$784,000
---	-----------

<u>Sub-total Direct Assignment Costs</u>	<u>\$1,878,000</u>
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Interconnection – Network Upgrade Costs

Shirley Basin Substation – Expand to Breaker and a Half	\$5,472,000
---	-------------

Shirley Basin-Aeolus – Construct 16.5 Mile 230 kV Transmission Line	\$19,764,000
---	--------------

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Aeolus Substation – New Line Position	\$2,330,000
<u>Sub-total Network Upgrade Costs</u>	<u>\$25,236,000</u>
<u>Total Cost – ER Interconnection Service – Interconnection Only</u>	<u>\$27,114,000</u>

*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. A more detailed estimate will be calculated during the Facilities Study. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

5.1.3 Schedule

The Transmission Provider estimates it will require approximately 24-30 months to design, procure and construct the facilities described in the Energy Resource sections of this report following the execution of an Interconnection Agreement. The schedule will be further developed and optimized during the Facilities Study.

Please note, the Transmission Provider's estimated time to perform the scope of work outlined in this report may support the Interconnection Customer's requested Commercial Operation date of November 1, 2020.

5.1.4 Maximum Amount of Power that can be delivered into Network Load, with No Transmission Modifications (for informational purposes only)

Zero (0) MW can be delivered on a firm basis to the Transmission Provider's network loads with additional transmission modifications.

5.1.5 Additional Transmission Modifications Required to Deliver 100% of the Power into Network Load (for informational purposes only)

In order to deliver 100% of the power into Network Load, in addition to the mitigation identified in section 5.1.1.2, the completion of additional Transmission Provider Energy Gateway projects and other system improvements would also be required.

6.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: Tri-State Generation and Transmission, WAPA

A copy of this report will be shared the each Affected System.

7.0 APPENDICES

Appendix 1: Higher Priority Requests

Appendix 2: Property Requirements

Appendix 3: Study Results

7.1 Appendix 1: Higher Priority Requests

All active higher priority transmission service and/or generator interconnection requests with an in-service date of December 2020 or earlier were considered in this study and are identified below. If any of these requests are materially modified, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Q0542 (240 MW) – QF/NR

Q0706 (250 MW) – ER

Q0720* (80 MW – TSR Q2060)

*This project has been designated a network resource

7.2 Appendix 2: Property Requirements

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements

Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a point of interconnection substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or permittable use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of

System Impact Study Report

any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.

7.3 Appendix 3: Study Results

Power Flow Study Results

A Western Electricity Coordinating Council (WECC) approved 2021-22 Heavy Winter case was used to perform the power flow studies using PSS/E version 33.7. The study was performed assuming the Energy Gateway, D.2 500 kV segment from the planned Aeolus substation to the planned Anticline substation was in-service. The local 500 kV, 345 kV, 230 kV, and 115 kV transmission system outages were considered during the study.

N-0 Results: Assuming the Energy Gateway West D.2 segment is in service the following N-0 thermal or voltage issues were observed in the studies.

The Aeolus – Shirley Basin 230 kV line is overloaded to 102% of its continuous rating under normal condition. As a result a new 230 kV line from Aeolus – Shirley Basin constructed with 2-1557 ACSR Potomac/TW is required. (Note: the Q0707 Project identified the need for 2-1272 ACSR; however, the master plan for this area requires 2-1557 ACSR. Therefore, the incremental betterment cost will be borne by Transmission Provider. The existing 230 kV line cannot be rebuilt as the existing transmission line cannot be taken out of service.

Injection of approximately 9.0 MVar into the transmission system was observed if the collector system was connected with no generation from the Project. The Project shall control the voltage at the POI within the required voltage range provided by the Transmission Operator.

N-1 Results: Assuming Energy Gateway, Segment D.2 and associated system improvements are in service, the Platte – Latham 230 kV line overloads above its emergency rating for loss of the following elements:

- Aeolus – Bridger/Anticline 500 kV line
- Aeolus 230/500 kV transformer
- Anticline 345/500 kV transformer
- Future Anticline – Populus 500 kV line
- Future Populus 500/345 kV auto transformer
- Future Aeolus – Clover 500 kV line
- Future Clover 500/345 kV auto transformer

As such, the Q0707 Project will need to be incorporated into the Aeolus RAS and may be tripped for the outage of the elements indicated.

N-2 Results: Assuming Energy Gateway, Segment D.2 and associated improvements are in service, no N-2 thermal or voltage issues were observed in the studies.

Large Generator Interconnection
System Impact Restudy Report

Completed for
Invenergy Wind Development, LLC
(“Interconnection Customer”)
Q0708
Carbon County 3

Proposed Point of Interconnection

Shirley Basin substation at 230 kV

February 8, 2018

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1.0 DESCRIPTION OF THE GENERATING FACILITY

Invenergy Wind Development, LLC (“Interconnection Customer”) proposed interconnecting 250 MW of new generation to PacifiCorp’s (“Transmission Provider”) Shirley Basin substation at 230 kV located in Carbon County, Wyoming. The Carbon County 3 project (“Project”) will consist of 14 Vestas V110 2.0 and 53 Vestas V136 4.2 turbines for a total output of 250 MW at the Point of Interconnection. The requested commercial operation date is November 1, 2020.

The restudy of this Project is performed due to the staging of the Energy Gateway West project. Specifically, while the entire Gateway West project has a longer development timeline, the Aeolus-Bridger/Anticline D.2 segment of the project (500 kV segment from the planned Aeolus substation to the planned Anticline substation) now has an expected 2020 in-service date. The earlier availability of the D.2 segment materially changes certain modeling assumptions that could impact the cost or timing of the interconnection of certain projects whose previous studies depended on Gateway West in its entirety.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the Project “Q0708.”

2.0 SCOPE OF THE STUDY

The interconnection system impact restudy shall evaluate the impact of the proposed interconnection on the reliability of the transmission system. The interconnection system impact study will consider Base Case as well as all generating facilities (and with respect to (iii) below, any identified network upgrades associated with such higher-queued interconnections) that, on the date the interconnection system impact study is commenced:

- (i) are directly interconnected to the transmission system;
- (ii) are interconnected to Affected Systems and may have an impact on the interconnection request;
- (iii) have a pending higher queued interconnection request to interconnect to the transmission system; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

This interconnection system impact restudy will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The study will also provide a list of facilities that are required as a

result of the Interconnection Request and a non-binding good faith estimate of the cost responsibility and a non-binding good faith estimated time to construct.

Based on the engineering judgement, the stability results for this project are not expected to change and hence the restudy of stability analysis was not performed.

3.0 TYPE OF INTERCONNECTION SERVICE

The Interconnection Customer has elected to have the interconnection studied as an *Energy Resource (ER)*.

4.0 DESCRIPTION OF PROPOSED INTERCONNECTION

The Interconnection Customer's proposed Generating Facility is to be interconnected through the existing Shirley Basin 230 kV substation. Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's system.

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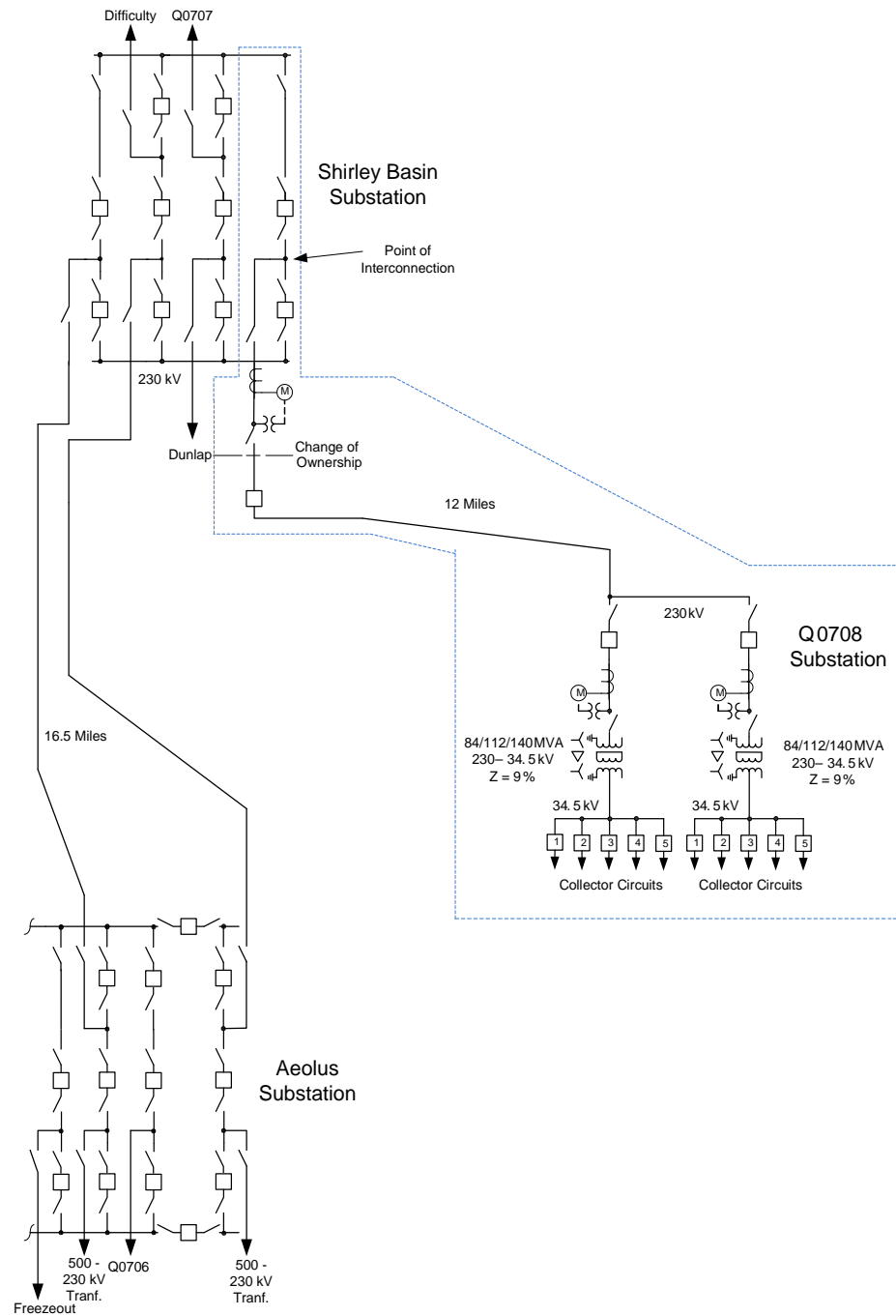


Figure 1: Simplified System One Line Diagram

4.1 Other Options Considered

The following alternative options were considered as potential points of interconnection for this Project: None per Interconnection Customer.

5.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests with an in-service date of December 2020 or earlier will be considered in this study and are listed in Appendix 1. If any of these requests are materially modified or withdrawn, the Transmission Provider reserves the right to restudy this request, and the results and conclusions could significantly change.
- For study purposes there are two separate queues:
 - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with higher queued interconnection requests with an in-service date of December 2020 or earlier will be modeled in this study.
- The Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. The provision of transmission service may require additional studies and the construction of additional upgrades.
- Under normal conditions, the Transmission Provider does not dispatch or otherwise directly control or regulate the output of generating facilities. Therefore, the need for transmission modifications, if any, which are required to provide Network Resource Interconnection Service will be evaluated on the basis of 100 percent deliverability (i.e., no displacement of other resources in the same area).
- This study assumes the Project will be integrated into the Transmission Provider's system at the Shirley Basin Point of Interconnection.
- The Interconnection Customer will construct and own any facilities required between the Point of Change of Ownership and the Project unless specifically identified by the Transmission Provider.
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and the Transmission Provider's performance and design standards.
- The Energy Gateway West, Aeolus-Bridger/Anticline D.2 500 kV line from the proposed Aeolus substation to the proposed Anticline substation and ancillary projects are assumed in service in 2020.
- It is assumed that a new 230 kV line from Shirley Basin – Aeolus with 2*1557 ACSR, as identified as mitigation for the Q0707 Project is in-service.
- A Remedial Action Scheme (RAS) that will arm approximately 640 MW of generation for

the following outages is assumed to be in-service:

- Aeolus – Bridger/Anticline 500 kV line
 - Aeolus 230/500 kV transformer
 - Anticline 345/500 kV transformer
 - Future Anticline – Populus 500 kV line
 - Future Populus 500/345 kV auto transformer
 - Future Aeolus – Clover 500 kV line
 - Future Clover 500/345 kV auto transformer
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission System updates at <http://www.pacifiCorp.com/tran.html>

5.1 Energy Resource (ER) Interconnection Service

Energy Resource Interconnection Service allows the Interconnection Customer to connect its Generating Facility to the Transmission Provider's Transmission System and to be eligible to deliver electric output using firm or non-firm transmission capacity on an as available basis.

5.1.1 Requirements

5.1.1.1 Generating Facility Modifications

Transmission Provider will require the facility to operate in voltage control mode with the ability to deliver power output to the Point of Interconnection within the range of +/- 0.95 power factor. (Please see Standard Large Generator Interconnection Agreement, article 9.6.1 and 9.6.2 in OATT). Any additional reactive compensation must be designed such that the discrete switching of the reactive device, if required, does not cause step voltage changes greater than $\pm 3\%$ at any load serving bus on the Transmission Provider's system.

As required by NERC standard VAR-001-1a, the Transmission Provider will provide a voltage schedule for the Point of Interconnection. In general, Generating Facilities should be operated so as to maintain the voltage at the Point of Interconnection, or other designated point as deemed appropriated by Transmission Provider. The Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap changers. At the Transmission Provider's discretion, these values might be adjusted depending on operating conditions.

Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among generation facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be the Interconnection Customer's responsibility to ensure that a voltage coordination study is performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.

For areas with multiple generating facilities additional studies may be required to determine whether or not critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of the Interconnection Customer. If the need for a master controller is identified, the cost and all related installation requirements will be the responsibility of the Interconnection Customer. While study costs of subsequent interconnection projects nearby will be the responsibility of the new project, participation by the Q708 project may be required post commercial operation to ensure Bulk Electric System reliability is maintained.

To facilitate collection and validation of accurate modeling data to meet NERC modeling standards, PacifiCorp, as the Planning Coordinator, requires Phasor Measurement Units (PMUs) at all new Generating Facilities with an individual or aggregate nameplate capacity of 75 MVA or greater. In addition to owning and maintaining the PMU, the Generating Facility will be responsible for collecting, storing and retrieving data as requested by the Planning Coordinator. Data must be collected and be able to stream to Planning Coordinator for each of the Generating Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 30 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:

- Three phase voltage and voltage angle (analog)
- Three phase current (analog)

Data requirements are subject to change as deemed necessary to comply with local and federal regulations.

All generators must meet the Federal Energy Regulatory Committee (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement. At low or zero output levels, the Project must not have reactive power interchange outside of the +/- 0.95 power factor requirement at the POI. PacifiCorp has experienced high voltages in the Wyoming area when the transmission system is lightly loaded with low wind conditions in the area. With low wind conditions the wind farms tend to supply reactive power into the transmission system increasing the voltage.

As the Transmission Provider cannot submit a user written model to WECC for inclusion in base cases, a standard model from the WECC Approved Dynamic Model Library is required 180 days prior to trial operation. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.

The Interconnection Customer is responsible for the protection of the transmission line between the Generating Facility and the Point of Interconnection substation. In order to provide this protection the Interconnection Customer shall construct and own a tie-line substation to be located at the change of ownership (separate fenced facility adjacent to the Transmission Provider's Point of Interconnection substation) and include an Interconnection Customer owned protective device and associated transmission line relaying/communications. The ground grids of the Transmission Provider's Point of Interconnection substation and the Interconnection Customer's tie-line

substation will be connected to support the use of a bus differential protection scheme which will protect the overhead bus connection between the two facilities.

5.1.1.2 Transmission System Modifications

Figure 1 above is a one-line diagram that illustrates the interconnection of the proposed generating facility and the system improvement required.

- Expansion of the Shirley Basin 230 kV switchyard on the east side of the substation.
- Two new 230 kV breakers and associated switches and a line termination to interconnect the Q0708 Project.
- A RAS to drop the Q0708 Project for the following outages:
 - Aeolus – Bridger/Anticline 500 kV line
 - Aeolus 230/500 kV transformer
 - Anticline 345/500 kV transformer
 - Future Anticline – Populus 500 kV line
 - Future Populus 500/345 kV auto transformer
 - Future Aeolus – Clover 500 kV line
 - Future Clover 500/345 kV auto transformer
- A RAS to drop the Q0708 Project for the outage of new Aeolus – Shirley Basin #2 230 kV line.

5.1.1.3 Transmission/Distribution Line Modifications

The Interconnection Customer shall construct the tie line from the collector substations to the tie-line substations.

The Interconnection Customer is required to build tie-line substations adjacent to the Windstar substation which will house the tie-line breakers. The Transmission Provider shall review the design of the tie-line spans between the tie-line substation deadend towers and the Windstar substation deadend towers. The Interconnection Customer shall coil conductor, OPGW, shield wire, and line hardware with sufficient quantities to span between the tie-line substation towers and the Windstar substation towers.

The Transmission Provider will construct the span between the tie-line substation towers and the Windstar substation towers.

If any Transmission Provider lines are crossed by Interconnection Customer tie-line, the Interconnection Customer line will cross under Transmission Provider's line with at least NESC plus 3 foot clearance under all sag conditions of both lines.

5.1.1.4 Existing Circuit Breaker Upgrades – Short Circuit

The increase in the fault duty on the system as a result of the addition of the Generating Facility with 14 Vestas V110 2.0 and 53 Vestas V136 4.2 wind turbine generators fed through 14 – 2,222 kVA and 53 4,700 kVA 34.5 kV – 690 V transformers with 5.75 % impedance then fed through

two 230 – 34.5kV 83/112/140 MVA step up transformers with 9 % impedance will not push the fault duty above the interrupting rating of any of the existing fault interrupting equipment.

5.1.1.5 Protection Requirements

The ground mats of the tie line substation and Shirley Basin substation must be tied together so that metallic control cables can be used between the two facilities. A bus differential relay will be applied to detect faults on this connection. With this arrangement the Interconnection Customer must install line relay systems that will detect and clear all faults on the tie line in 5 cycles or less. A set of non-pilot step distance line relays that will detect faults on the tie line will also be applied at Shirley Basin substation. The step distance line relays can be set to operate with no delay for most potential faults on the tie line. These relays will be set to time coordinate with the transformer relays for fault conditions in the transformers at the Q0708 collector substation.

The Interconnection Customer will need to supply and maintain a set of line relays to be installed at Q0708 collector substation that will detect faults on the 230 kV line back to Shirley Basin substation. These line relays can be time coordinated with the relays detecting faults on the transmission network and will not communicate with the line relays to be installed at Shirley Basin substation for the tie line.

Should the Interconnection Customer desire a potential alternative to the tie line substation in order to provide adequate protection to its tie line, the Interconnection Customer may petition the Transmission Provider for an exemption to this arrangement. The Transmission Provider must review and approve the Interconnection Customer's proposed alternative. Without approval of the proposed alternative the tie line substation configuration will be required.

Protective relay elements in the line relays at Shirley Basin substation will monitor voltage and frequency. If the voltage, magnitude or frequency is outside of the normal operation range, this relay will trip the 230 kV breaker at the tie line substation.

This Generating Facility will need to be controlled by the Wyoming RAS. For the loss of any one of a number of electrical elements that will be part of the Gateway Transmission projects or for the loss of the Aeolus – Shirley Basin line the project will be disconnected. The Wyoming RAS master will be located at Aeolus substation. The trip signal will need to be communicated from Aeolus substation to Shirley Basin substation.

5.1.1.6 Data (RTU) Requirements

In addition to the need for operational data and control at Shirley Basin substation, data for the operation of the power system will be needed from the collector substation and tie line substation. This data can be acquired by installing an Interconnection Customer owned data concentrator at the collector substation. The data will be transferred to the RTU in Shirley Basin substation via Interconnection Customer owned fiber on the tie from the collector substation. Listed below is the data that will be acquired from the collector substation and at Shirley Basin substation.

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From Shirley Basin Substation:

Analogs:

- Net Generation real power
- Net Generator reactive power
- Interchange energy register

From the Q0708 Collector substation:

Analogs:

- Transformer # 1 real power
- Transformer # 1 reactive power
- Real power flow through 34.5 kV line feeder breaker T1-1
- Reactive power flow through 34.5 kV line feeder breaker T1-1
- Real power flow through 34.5 kV line feeder breaker T1-2
- Reactive power flow through 34.5 kV line feeder breaker T1-2
- Real power flow through 34.5 kV line feeder breaker T1-3
- Reactive power flow through 34.5 kV line feeder breaker T1-3
- Real power flow through 34.5 kV line feeder breaker T1-4
- Reactive power flow through 34.5 kV line feeder breaker T1-4
- Real power flow through 34.5 kV line feeder breaker T1-5
- Reactive power flow through 34.5 kV line feeder breaker T1-5
- Transformer # 2 real power
- Transformer # 2 reactive power
- Real power flow through 34.5 kV line feeder breaker T2-1
- Reactive power flow through 34.5 kV line feeder breaker T2-1
- Real power flow through 34.5 kV line feeder breaker T2-2
- Reactive power flow through 34.5 kV line feeder breaker T2-2
- Real power flow through 34.5 kV line feeder breaker T2-3
- Reactive power flow through 34.5 kV line feeder breaker T2-3
- Real power flow through 34.5 kV line feeder breaker T2-4
- Reactive power flow through 34.5 kV line feeder breaker T2-4
- Real power flow through 34.5 kV line feeder breaker T2-5
- Reactive power flow through 34.5 kV line feeder breaker T2-5
- A phase 230 kV transmission voltage
- B phase 230 kV transmission voltage
- C phase 230 kV transmission voltage
- Average Wind speed
- Average Plant Atmospheric Pressure (Bar)
- Average Plant Temperature (Celsius)

Status:

- 230 kV breaker T1

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- 34.5 kV collector circuit breaker T1-1
- 34.5 kV collector circuit breaker T1-2
- 34.5 kV collector circuit breaker T1-3
- 34.5 kV collector circuit breaker T1-4
- 34.5 kV collector circuit breaker T1-5
- 230 kV breaker T2
- 34.5 kV collector circuit breaker T2-1
- 34.5 kV collector circuit breaker T2-2
- 34.5 kV collector circuit breaker T2-3
- 34.5 kV collector circuit breaker T2-4
- 34.5 kV collector circuit breaker T2-5

From the tie line substation:

Status:

- 230 kV breaker

5.1.1.7 Substation Requirements

This project will require a new 230 kV bay position at Shirley Basin substation and a Transmission Provider owned control house at the Interconnection Customer's collector substation.

The following major equipment has been preliminarily identified as necessary for this Project.

Shirley Basin:

- 2 – 230kV circuit breaker
- 5 – 230kV bay switches
- 1 – 230 kV meter isolation switch
- 1 – 230 kV motor operated line disconnect switch
- 3 – 230 kV CTVT combo units
- 3 – 230 kV lightning arresters

Collector Station:

- 1 – Control House
- 1 – 125VDC battery system

The Interconnection Customer will provide a separate graded, grounded and fenced area along the perimeter of the Interconnection Customer's collector substation for the Transmission Provider to install a control house for metering equipment. This area will share a fence and ground grid with the collector substation and have separate, unencumbered access for the Transmission Provider. AC station service shall be provided by the Interconnection Customer. DC power for the control house will be supplied by the Transmission Provider.

5.1.1.8 Communication Requirements

Installation of OPGW fiber on the new line from Aeolus substation to Shirley Basin substation assigned to Q0707 is required to be in service. This is a redundant path for the Wyoming RAS.

From Shirley Basin substation, single mode fiber is to be run to the tie line substation. All communications at the tie line substation and collector substation including the OPGW fiber on the line between the two is the responsibility of the Interconnection Customer. The customer is to supply 1 DNP3 SCADA circuit from the collector to the Shirley Basin substation with all the required SCADA points.

The Interconnection Customer shall install a data concentrator (SEL-2411 or Transmission Provider approved device) to transfer data between the collector substation and the Transmission Provider's RTU located in Shirley Basin substation. The Transmission Provider will input and hold the second level passwords for the SEL-2411 or Transmission Provider approved device. Password control ensures the Transmission Provider is aware of and is accepting of the changes being requested by the Interconnection Customer.

5.1.1.9 Metering Requirements

Interchange Metering

Shirley Basin substation:

The Point of Interconnection metering will be located at Shirley Basin substation and rated for the total net generation of the Project. The metering will be designed to include back-feed metering. The Transmission Provider will specify and order all interconnection revenue metering, including the instrument transformers, metering panels, junction box and secondary metering wire. The primary metering transformers shall be combination 230 kV, 1000/5, CT/VT extended range for high accuracy metering.

The metering design package will include two revenue quality meters, test switch, with DNP real time digital data terminated at a metering interposition block. One meter will be designated a primary SCADA meter and a second meter will be used designated as backup with metering DNP data delivered to the alternate control center. The metering data will include bidirectional KWH KVARH, revenue quantities including instantaneous PF, MW, MVAR, MVA, including per phase voltage and amps data.

An Ethernet connection is required for retail sales and generation accounting via the MV-90 translation system.

Collector Substation Q0708:

Revenue metering is required for each of the two customer power transformers and will be located on the high side of each of the step-up transformers. The primary metering transformers shall be combination 230kV, 500/5, CT/VT extended range for high accuracy metering.

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The Transmission Provider will design and procure the collector revenue metering panels. The panels shall be located inside the collector control house. The collector substation metering panel shall include two revenue quality meters, test switches, and all SCADA metering data terminated at a metering interposition block.

An Ethernet phone line is required for retail sales and generation accounting via the MV-90 translation system.

Station Service/Construction Power

The Project is outside the Transmission Provider service territory. Prior to construction the Interconnection Customer must arrange with Carbon Power & Light permanent station service load. The Transmission Provider shall provide a Modbus or DNP output from the bidirectional meters to Carbon Power & Light for back-feed metering. At Shirley Basin substation the data output shall be trenched from the meter panel to outside the substation fence.

5.1.2 Cost Estimate

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

Energy Resource**Interconnection – Direct Assignment Facilities**

Q0708 Collector Substation – Metering and Control House	\$889,000
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Q0708 Collector and Tie Line Substations – Coordinate Communications and Protection & Control	\$6,000
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Shirley Basin Substation – Q0708 Line Position and Metering	\$810,000
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Aeolus Substation – Modify Communications for RAS	\$13,000
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<u>Sub-total Direct Assignment Costs</u>	<u>\$1,718,000</u>
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Interconnection – Network Upgrade Costs

Shirley Basin – Expand substation	\$3,340,000
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<u>Total Cost – ER Interconnection Service – Interconnection Only</u>	<u>\$5,058,000</u>
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*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission

Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. A more detailed estimate will be calculated during the Facilities Study. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

5.1.3 Schedule

The Transmission Provider estimates it will require approximately 24 months to design, procure and construct the facilities described in the Energy Resource sections of this report following the execution of an Interconnection Agreement. The schedule will be further developed and optimized during the Facilities Study.

Please note, the Transmission Provider's estimated time to perform the scope of work outlined in this report as well as contingent requirements by higher queued projects may support the Interconnection Customer's requested Commercial Operation date of November 1, 2020.

5.1.4 Maximum Amount of Power that can be delivered into Network Load, with No Transmission Modifications (for informational purposes only)

Zero (0) MW can be delivered on a firm basis to the Transmission Provider's network loads with additional transmission modifications.

5.1.5 Additional Transmission Modifications Required to Deliver 100% of the Power into Network Load (for informational purposes only)

In order to deliver 100% of the power into Network Load, in addition to the mitigation identified in section 5.1.1.2, the completion of additional Transmission Provider Energy Gateway projects and other system improvements would also be required.

6.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: WAPA & Tri State

A copy of this report will be shared the each Affected System.

7.0 APPENDICES

Appendix 1: Higher Priority Requests

Appendix 2: Property Requirements

Appendix 3: Study Results



System Impact Study Report

7.1 Appendix 1: Higher Priority Requests

All active higher priority transmission service and/or generator interconnection requests with an in-service date of December 2020 or earlier were considered in this study and are identified below. If any of these requests are materially modified, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Generation Interconnection Queue Requests considered:

Q0542 (240 MW) – QF/NR

Q0706 (250 MW) – ER/NR

Q0707 (250 MW) – ER/NR

Q0720* (80 MW TSR – Q2060)

* This project has been designated a network resource.

7.2 Appendix 2: Property Requirements

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements

Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a point of interconnection substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or permittable use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of

any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.

7.3 Appendix 3: Study Results

Power Flow Study Results

A Western Electricity Coordinating Council (WECC) approved 2021-22 Heavy Winter case was used to perform the power flow studies using PSS/E version 33.7. The study was performed assuming the Energy Gateway, D.2 500 kV segment from the planned Aeolus substation to the planned Anticline substation was in-service. The local 500 kV, 345 kV, 230 kV, and 115 kV transmission system outages were considered during the study.

N-0 Results:

Assuming the Energy Gateway West D.2 segment is in service and the improvements identified in the Q0707 study, no N-0 thermal or voltage issues were observed. Injection of approximately 9.0 MVar into the transmission system was observed if the collector system was connected with no generation from the Project.

N-1 Results:

Assuming the Energy Gateway West Aeolus-Bridger/Anticline D.2 segment is in service and the improvements identified in the Q0707 study, the addition of the Q0708 Project identified several Wyoming 230 kV line overloads for the following outages:

- Aeolus – Bridger/Anticline 500 kV line
- Aeolus 230/500 kV transformer
- Anticline 345/500 kV transformer
- Future Anticline – Populus 500 kV line
- Future Populus 500/345 kV auto transformer
- Future Aeolus – Clover 500 kV line
- Future Clover 500/345 kV auto transformer

As such, the Q0708 Project will need to be incorporated into the Aeolus RAS and may be tripped for the outage of the elements indicated.

In addition, the outage of the new larger conductor Aeolus – Shirley Basin #2 230 kV line causes thermal overload on the existing smaller conductor Aeolus – Shirley Basin #1 230 kV line (114% of its emergency rating). A RAS that will trip the Q0708 Project for the outage of the new Aeolus – Shirley Basin #2 230 kV line will be required.

N-2 Results:

Assuming the Energy Gateway West D.2 segment is in service and the improvements identified in the Q0707 study, no N-2 thermal or voltage issues were observed in the studies.

Rocky Mountain Power
Exhibit RMP____(RAV-4SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

Q0712 SIS Report

February 2018

**Large Generator Interconnection
System Impact Restudy Report**

Completed for
Orion Wind Resources, LLC
(“Interconnection Customer”)
Q0712
Cedar Springs 1

Proposed Point of Interconnection
Windstar substation at 230 kV

February 8, 2018

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1.0 DESCRIPTION OF THE GENERATING FACILITY

Orion Wind Resources, LLC (“Interconnection Customer”) proposed interconnecting 520 MW of new generation to PacifiCorp’s (“Transmission Provider”) Windstar substation at 230 kV located in Converse County, Wyoming. The Cedar Springs 1 project (“Project”) will consist of two hundred eight (208) GE 127 2.5 MW wind turbines for a total output of 520 MW. The requested commercial operation date is December 31, 2020.

The restudy of this Project is performed due to the staging of the Energy Gateway West project. Specifically, while the entire Gateway West project has a longer development timeline, the Aeolus-Bridger/Anticline D.2 segment of the project (500 kV segment from the planned Aeolus substation to the planned Anticline substation) now has an expected 2020 in-service date. The earlier availability of the D.2 segment materially changes certain modeling assumptions that could impact the cost or timing of the interconnection of certain projects whose previous studies depended on Gateway West in its entirety.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

Transmission Provider has assigned the Project “Q0712.”

2.0 SCOPE OF THE STUDY

The interconnection system impact study shall evaluate the impact of the proposed interconnection on the reliability of the transmission system. The interconnection system impact study will consider Base Case as well as all generating facilities (and with respect to (iii) below, any identified network upgrades associated with such higher queued interconnections) that, on the date the interconnection system impact study is commenced:

- (i) are directly interconnected to the transmission system;
- (ii) are interconnected to Affected Systems and may have an impact on the interconnection request;
- (iii) have a pending higher queued interconnection request to interconnect to the transmission system; and
- (iv) have no Queue Position but have executed an LGIA or requested that an unexecuted LGIA be filed with FERC.

This interconnection system impact restudy will consist of a short circuit analysis, a stability analysis, and a power flow analysis. The study will state the assumptions upon which it is based; state the results of the analyses; and provide the requirements or potential impediments to providing the requested interconnection service, including preliminary indication of the cost and length of time that would be necessary to correct any problems identified in those analyses and implement the interconnection. The study will also provide a list of facilities that are required as a result of the Interconnection Request and a non-binding good faith estimate of the cost responsibility and a non-binding good faith estimated time to construct.

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Based on the engineering judgement, the stability results for this project are not expected to change and hence the restudy of stability analysis was not performed.

3.0 TYPE OF INTERCONNECTION SERVICE

Interconnection Customer has elected to have the interconnection studied as an *Energy Resource (ER)*.

4.0 DESCRIPTION OF PROPOSED INTERCONNECTION

Interconnection Customer's proposed Generating Facility is to be interconnected through two new bay positions on the southeast corner of the existing Windstar substation. Figure 1 below, is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to Transmission Provider's system.

Interconnection Customer will be responsible for the installation of two (2) new 230 kV circuit breakers and associated switches at the Windstar 230 kV substation to interconnect the Generating Facility. Based on the data provided by Interconnection Customer, the Project consists of two different phases, Phase A and Phase B. The Project's Phase A will interconnect to Windstar substation through one of the 20-mile 230 kV double circuit line. Phase B of the Project will connect to Windstar substation through the second 230 kV line on the double circuit tie-line. Phase B of the Project is four additional miles farther than Phase A, making that 230 kV line 24 miles long. Each 230 kV circuit will be constructed using 954 kcmil ACSR (aluminum conductor steel reinforced) conductor.

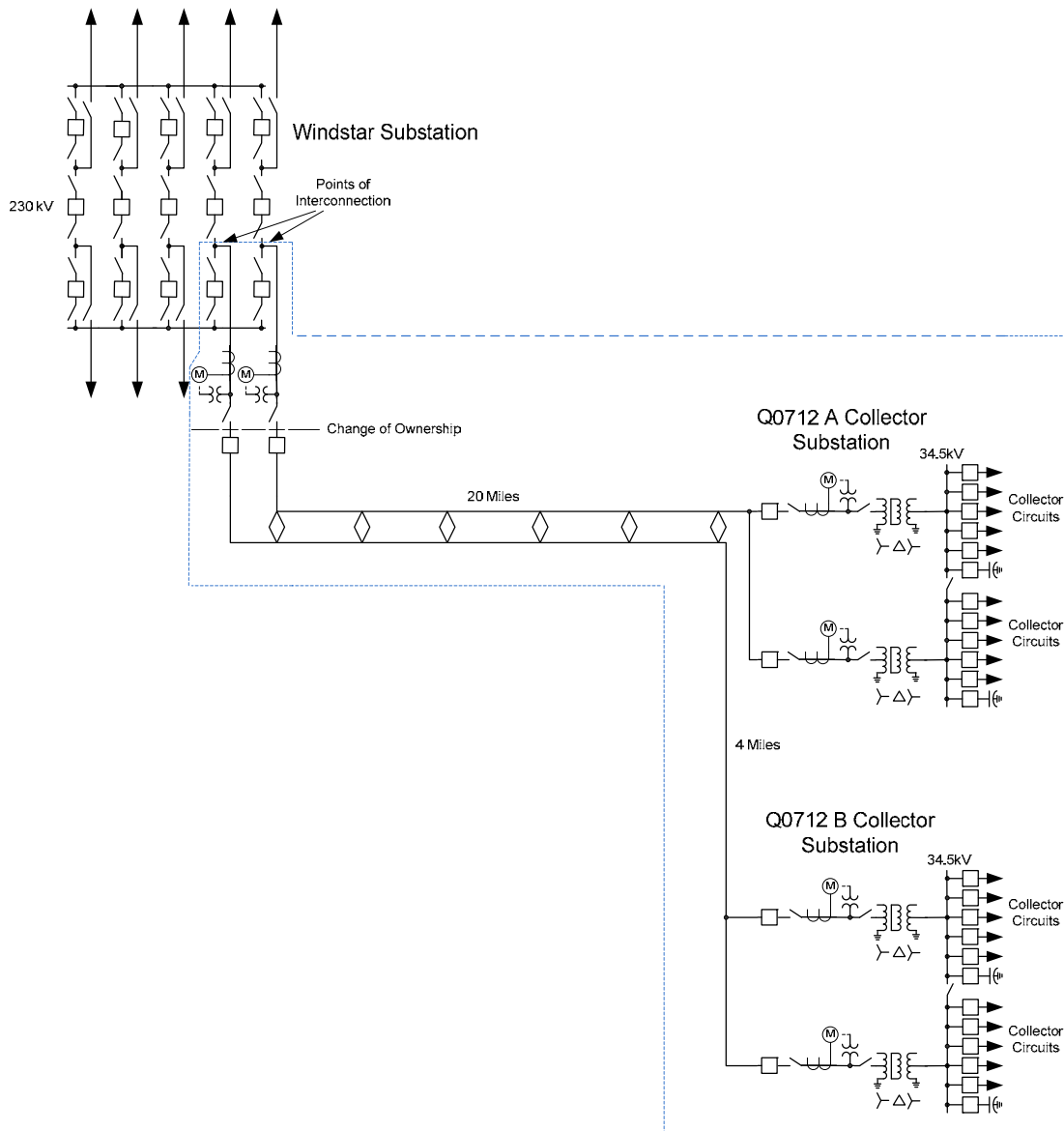


Figure 1: Simplified System One Line Diagram

4.1 Other Options Considered

The following alternative options were considered as potential Points of Interconnection for this Project: None per Interconnection Customer.

5.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests with an in-service date of December 2020 or earlier will be considered in this study and are listed in Appendix 1. If any of these requests are materially modified or withdrawn, Transmission Provider reserves the right to restudy this request, and the results and conclusions could significantly change.

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- Transmission Provider reserves the right to restudy this Project should Interconnection Customer request a change in status to a Qualifying Facility, there is a change in system topology, or assumed facility improvements are not in-service.
- For study purposes there are two separate queues:
 - Transmission Service Queue: to the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with higher queued interconnection requests with an in-service date of December 2020 or earlier will be modeled in this study.
- Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. The provision of transmission service may require additional studies and the construction of additional upgrades.
- Under normal conditions, Transmission Provider does not dispatch or otherwise directly control or regulate the output of generating facilities. Therefore, the need for transmission modifications, if any, which are required to provide Network Resource Interconnection Service will be evaluated on the basis of 100 percent deliverability (i.e., no displacement of other resources in the same area).
- This study assumes the Project will be integrated into Transmission Provider's system at the Windstar substation (Point of Interconnection, or "POI").
- Interconnection Customer will construct and own any facilities required between the Point of Change of Ownership and the Project unless specifically identified by Transmission Provider.
- Generator tripping will be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and Transmission Provider's performance and design standards (Policy 139).
- The Energy Gateway West, Aeolus-Bridger/Anticline D.2 500 kV line from the proposed Aeolus substation to the proposed Anticline substation and ancillary projects are assumed in service in 2020
 - All existing and proposed Remedial Action Schemes ("RAS") associated with prior queue generation facilities are assumed to be in service for this study.
- A RAS that will arm approximately 640 MW of generation for the Energy Gateway D.2 outages was assumed to be in-service.
- It is assumed that a new 230 kV line from Shirley Basin – Aeolus constructed with 2-1557 Potomac ACSR/TW as identified as mitigation for the Q0707 Project is in-service.
- This report is based on information available at the time of the study. It is Interconnection Customer's responsibility to check Transmission Provider's web site regularly for Transmission System updates at <http://www.pacificorp.com/tran.html>

6.0 ENERGY RESOURCE (ER) INTERCONNECTION SERVICE

Energy Resource Interconnection Service allows Interconnection Customer to connect its Generating Facility to Transmission Provider's Transmission System and to be eligible to deliver electric output using firm or non-firm transmission capacity on an as available basis. Energy resource interconnection service in and of itself does not convey transmission service.

6.1 Requirements

6.1.1 Generating Facility Modifications

All interconnecting synchronous and non-synchronous generators are required to design their generating facilities with reactive power capabilities necessary to operate within the full power factor range of 0.95 leading to 0.95 lagging. This power factor range shall be dynamic and can be met using a combination of the inherent dynamic reactive power capability of the generator or inverter, dynamic reactive power devices and static reactive power devices to make up for losses. For synchronous generators, the power factor requirement is to be measured at the POI. For asynchronous generators, the power factor requirement is to be measured at the high-side of the generator substation.

The Generating Facility must provide dynamic reactive power to the system in support of both voltage scheduling and contingency events that require transient voltage support, and must be able to provide reactive capability over the full range of real power output. If the Generating Facility is not capable of providing positive reactive support (i.e., supplying reactive power to the system) immediately following the removal of a fault or other transient low voltage perturbations, the Generating Facility must be required to add dynamic voltage support equipment. These additional dynamic reactive devices shall have correct protection settings such that the devices will remain on line and active during and immediately following a fault event. Generators shall be equipped with automatic voltage-control equipment and normally operated with the voltage regulation control mode enabled unless written authorization from the Grid Operator is given to operate in other control mode (e.g. constant power factor control). The control mode of the generating units shall be accurately represented in operating studies. The generators shall be capable of operating continuously at their maximum power output at its rated field current within +/- 5% of its rated terminal voltage.

As required by NERC standard VAR-001-1a, Transmission Provider will provide a voltage schedule for the POI. In general, Generating Facilities should be operated so as to maintain the voltage at the POI, or other designated point as deemed appropriated by Transmission Provider, between 1.00 per unit to 1.04 per unit. Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap changers. At Transmission Provider's discretion, these values might be adjusted depending on operating conditions. Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among generating facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be Interconnection Customer's responsibility to ensure that a voltage coordination study is performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.

For areas with multiple generating facilities additional studies may be required to determine whether or not critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of Interconnection Customer. If the need for a master controller is identified, the cost and all related installation requirements will be the responsibility of

System Impact Study Report

Interconnection Customer. Participation by the Generating Facility in subsequent interaction/coordination studies will be required pre- and post-commercial operation in order ensure system reliability.

To facilitate collection and validation of accurate modeling data to meet NERC modeling standards, PacifiCorp, as the Planning Coordinator, requires Phasor Measurement Units (PMUs) at all new Generating Facilities with an individual or aggregate nameplate capacity of 75 MVA or greater. In addition to owning and maintaining the PMU, the Generating Facility will be responsible for collecting, storing and retrieving data as requested by the Planning Coordinator. Data must be collected and be able to stream to Planning Coordinator for each of the Generator Facility's step-up transformers measured on the low side of the GSU at a sample rate of at least 30 samples per second and synchronized within +/- 2 milliseconds of the Coordinated Universal Time (UTC). Initially, the following data must be collected:

- Three phase voltage and voltage angle (analog)
- Three phase current (analog)

Data requirements are subject to change as deemed necessary to comply with local and federal regulations.

All generators must meet the Federal Energy Regulatory Committee ("FERC") and WECC low voltage ride-through requirements as specified in the interconnection agreement. As Transmission Provider cannot submit a user written model to WECC for inclusion in base cases, a standard model from the WECC Approved Dynamic Model Library is required 180 days prior to trial operation. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.

Based on the data provided by Interconnection Customer, the wind turbines do not have the capability to deliver 100% of the power to the POI within the range of +/- 0.95 power factor. The data provided indicates that the wind turbines have the power factor capability of 0.98 capacitive and 0.96 inductive at rated power. The study showed that the collector system injects approximately 31.8 MVar (see Figure 2 in Appendix 3) when it is connected to the transmission system without the wind turbines being online. Interconnection Customer will be required to ensure that there is minimum reactive interchange under these conditions and that the collector system of the Project is not contributing excessive MVARS into the system increasing voltage under light load conditions. Failure of the Project to minimize the reactive interchange under these conditions may result in the opening of the POI breakers for the Project by Transmission Provider.

At low or zero output levels, the Project must not have reactive power interchange outside of the +/- 0.95 power factor requirement at the POI. Transmission Provider has experienced high voltages in this area of its system when the transmission system is lightly loaded with low wind conditions. With low wind conditions the wind farms tend to supply reactive power into the transmission system increasing the voltage.

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The Interconnection Customer is responsible for the protection of the transmission line between the Generating Facility and the POI substation. In order to provide this protection the Interconnection Customer shall construct and own a tie-line substation to be located at the change of ownership (separate fenced facility adjacent to the Transmission Provider's POI substation) and include an Interconnection Customer owned protective device and associated transmission line relaying/communications. The ground grids of the Transmission Provider's POI substation and the Interconnection Customer's tie-line substation will be connected to support the use of a bus differential protection scheme which will protect the overhead bus connection between the two facilities.

6.1.2 Transmission System Modifications

The following transmission system modifications are required:

- Rebuild the Standpipe-Freezeout-Aeolus 230 kV line with bundled 2-1272 ACSR conductor, approximately 15 miles.
- Two (2) 230 kV 3000 ampere breakers and line positions with associated switches at Windstar substation.
- Rebuild the existing Aeolus-Shirley Basin #1 line with 2-1557 ACSR, approximately 16 miles.

6.1.3 Transmission/Distribution Line Modifications

Rebuild the existing 230 kV transmission line from Aeolis to Shirley Basin using double bundled 1557 ACSR conductor. The line will be approximately 16.23 miles long. Of this mileage, 1.88 miles (Loop-in to Shirley Basin) is existing double bundled 1272 ACSR Conductor which will be re-conducted with 1557.4 ACSS/TW Conductor.

Rebuild the approximately 15 miles of 230 kV transmission line between Standpipe, Freezeout and proposed Aeolus substation with bundled 2-1272 ACSR conductor.

The Interconnection Customer shall construct the tie line from the collector substations to the tie-line substations.

The Interconnection Customer is required to build tie-line substations adjacent to the Windstar substation which will house the tie-line breakers. The Transmission Provider shall review the design of the tie-line spans between the tie-line substation deadend towers and the Windstar substation deadend towers. The Interconnection Customer shall coil conductor, OPGW, shield wire, and line hardware with sufficient quantities to span between the tie-line substation towers and the Windstar substation towers.

The Transmission Provider will construct the span between the tie-line substation towers and the Windstar substation towers.

If any Transmission Provider lines are crossed by Interconnection Customer tie-line, the Interconnection Customer line will cross under Transmission Provider's line with at least NESC plus 3 foot clearance under all sag conditions of both lines.

System Impact Study Report**6.1.4 Existing Circuit Breaker Upgrades – Short Circuit**

The increase in the fault duty on the system as a result of the addition of the Generating Facility with 208 GE 127 2.5 MW wind turbine generators fed through 208 – 2600 kVA 34.5 kV – 690 V transformers with 9.0% impedance then fed through four 230 – 34.5kV 90/120/150 MVA step up transformers with 8.0% impedance will not push the fault duty above the interrupting rating of any of the existing fault interrupting equipment.

6.1.5 Protection Requirements

The ground mats of the tie-line substations and Windstar substation must be tied together so that metallic control cables can be used between the two facilities. Bus differential relays will be applied to detect faults on these connections. With this arrangement the Interconnection Customer must install line relays systems that will detect and clear all faults on the tie lines in 5 cycles or less. Sets of non-pilot step distance line relays that will detect faults on the tie lines will also be applied at Windstar substation. Should the Interconnection Customer desire a potential alternative to the tie-line substations in order to provide adequate protection to its tie lines, the Interconnection Customer may petition the Transmission Provider for an exemption to this arrangement. The Transmission Provider must review and approve the Interconnection Customer's proposed alternative. Without approval of the proposed alternative the tie-line substation configuration will be required. The Interconnection Customer will need to supply and maintain sets of line relays to be installed at Q0712 collector substations that will detect faults on the 230 kV line back to Windstar substation. These line relays can be time coordinated with the relays detecting faults on the transmission network and will not communicate with the line relays to be installed at Windstar substation for the tie line.

Protective relay elements in the line relays at Windstar substation will monitor voltage and frequency. If the voltage, magnitude, or frequency is outside of the normal operation range, this relay will trip the 230 kV breakers at the tie line substations.

New line relay settings will need to be developed for the Standpipe – Freezeout 230 kV line to adjust for the new phase conductor.

6.1.6 Data (RTU) Requirements

Data for the operation of the power system will be needed from the Generating Facility. This data can be acquired by installing an Interconnection Customer owned data concentrator at the collector substations. The data will be transferred to the RTU in Windstar substation via Interconnection Customer owned fiber on the tie from the collector substations.

In addition to the control and indication of the new 230 kV breaker in Windstar substation, the following data will be acquired through the substation RTU. Also listed is the data that will be acquired from the collector substations and tie line substations.

From Windstar substation:

Analog:

System Impact Study Report

- Q0712 A Net Generation MW
- Q0712 A Net Generator MVAr
- Q0712 A Energy Register
- Q0712 B Net Generation MW
- Q0712 B Net Generator MVAr
- Q0712 B Energy Register

From the Q0712 A collector substation:

Analogs:

- Transformer 1 Real power
- Transformer 1 Reactive power
- Transformer 2 Real power
- Transformer 2 Reactive power
- 34.5 kV Real power 52 AA1 & AA2 & AB1
- 34.5 kV Reactive power 52 AA1 & AA2 & AB1
- 34.5 kV Real power 52 AE
- 34.5 kV Reactive power 52 AE
- 34.5 kV Real power 52 AF
- 34.5 kV Reactive power 52 AF
- 34.5 kV Real power 52 AG
- 34.5 kV Reactive power 52 AG
- 34.5 kV Real power 52 AI
- 34.5 kV Reactive power 52 AI
- 34.5 kV Real power 52 AJ
- 34.5 kV Reactive power 52 AJ
- 34.5 kV Real power 52 AK
- 34.5 kV Reactive power 52 AK
- 34.5 kV Real power 52 AL
- 34.5 kV Reactive power 52 AL
- 34.5 kV Real power 52 AM
- 34.5 kV Reactive power 52 AM
- 34.5 kV Real power 52 AN2 & AB2
- 34.5 kV Reactive power 52 AN2 & AB2
- 34.5 kV Reactive power 52 CAP 1
- 34.5 kV Reactive power 52 CAP 2
- A phase 230 kV transmission voltage
- B phase 230 kV transmission voltage
- C phase 230 kV transmission voltage
- Average Wind speed
- Average Plant Atmospheric Pressure (Bar)
- Average Plant Temperature (Celsius)

Status:

- 230 kV Transformer Breaker 1
- 230 kV Transformer Breaker 2
- 34.5 kV breaker 52 AA1 & AA2 & AB1

System Impact Study Report

- 34.5 kV breaker 52 AE
- 34.5 kV breaker 52 AF
- 34.5 kV breaker 52 AG
- 34.5 kV breaker 52 AI
- 34.5 kV breaker 52 AJ
- 34.5 kV breaker 52 AK
- 34.5 kV breaker 52 AL
- 34.5 kV breaker 52 AM
- 34.5 kV breaker 52 AN2 & AB2
- 34.5 kV breaker 52 CAP 1
- 34.5 kV breaker 52 CAP 2
- 34.5 kV breaker Bus Tie

From the Q0712 B collector substation:

Analogs:

- Transformer 1 Real power
- Transformer 1 Reactive power
- Transformer 2 Real power
- Transformer 2 Reactive power
- 34.5 kV Real power 52 AA1 & AA2 & AB1
- 34.5 kV Reactive power 52 AA1 & AA2 & AB1
- 34.5 kV Real power 52 AE
- 34.5 kV Reactive power 52 AE
- 34.5 kV Real power 52 AF
- 34.5 kV Reactive power 52 AF
- 34.5 kV Real power 52 AG
- 34.5 kV Reactive power 52 AG
- 34.5 kV Real power 52 AI
- 34.5 kV Reactive power 52 AI
- 34.5 kV Real power 52 AJ
- 34.5 kV Reactive power 52 AJ
- 34.5 kV Real power 52 AK
- 34.5 kV Reactive power 52 AK
- 34.5 kV Real power 52 AL
- 34.5 kV Reactive power 52 AL
- 34.5 kV Real power 52 AM
- 34.5 kV Reactive power 52 AM
- 34.5 kV Real power 52 AN2 & AB2
- 34.5 kV Reactive power 52 AN2 & AB2
- 34.5 kV Reactive power 52 CAP 1
- 34.5 kV Reactive power 52 CAP 2
- A phase 230 kV transmission voltage
- B phase 230 kV transmission voltage
- C phase 230 kV transmission voltage
- Average Wind speed
- Average Plant Atmospheric Pressure (Bar)

System Impact Study Report

- Average Plant Temperature (Celsius)

Status:

- 230 kV Transformer Breaker 1
- 230 kV Transformer Breaker 2
- 34.5 kV breaker 52 AA1 & AA2 & AB1
- 34.5 kV breaker 52 AE
- 34.5 kV breaker 52 AF
- 34.5 kV breaker 52 AG
- 34.5 kV breaker 52 AI
- 34.5 kV breaker 52 AJ
- 34.5 kV breaker 52 AK
- 34.5 kV breaker 52 AL
- 34.5 kV breaker 52 AM
- 34.5 kV breaker 52 AN2 & AB2
- 34.5 kV breaker 52 CAP 1
- 34.5 kV breaker 52 CAP 2
- 34.5 kV breaker Bus Tie

Tie Line SubstationsStatus:

- 230 kV Breaker 1
- 230 kV Breaker 2

6.1.7 Substation RequirementsQ0712 Collector Station A

Interconnection Customer will provide a separate graded, grounded and fenced area along the perimeter of Interconnection Customer's Generating Facility for Transmission Provider to install a control house for any required metering, protection or communication equipment. This area will share a fence and ground grid with the Generating Facility and have separate, unencumbered access for Transmission Provider. DC power for the control house will be supplied by Transmission Provider. AC station service power for the control house will be provided by Interconnection Customer. A CDEGS grounding analysis is required by Interconnection Customer. Six 230 kV CT/VT combined metering units and four 230 kV group operated switches will be installed.

Q0712 Collector Station B

Interconnection Customer will provide a separate graded, grounded and fenced area along the perimeter of Interconnection Customer's Generating Facility for Transmission Provider to install a control house for any required metering, protection or communication equipment. This area will share a fence and ground grid with the Generating Facility and have separate, unencumbered access for Transmission Provider. DC power for the control house will be supplied by Transmission Provider. AC station service power for the control house will be provided by Interconnection Customer. A CDEGS grounding analysis is required by Interconnection Customer. Six 230 kV CT/VT combined metering units and four 230 kV group operated switches will be installed.

Windstar substation

The substation yard and fence will need to be expanded to allow for an additional 230 kV bay to be constructed. New ground grid and conduit will be installed. The ground grid at Windstar will be connected to the ground grids at the Interconnection Customer owned tie line substations. A CDEGS grounding analysis will be required. New relay panels will be installed in the control house. The following station equipment will be installed:

- (2) – 230 kV circuit breaker
- (6) – 230 kV combined CT/VT metering unit
- (2) – 230 kV group operated switch, breaker disconnect
- (2) – 230 kV group operated switch, line disconnect, with motor operator, with ground blade
- (2) – 230 kV group operated switch, meter disconnect
- (6) – 144 kV MCOV surge arrester

6.1.8 Communication Requirements**6.1.8.1 Interconnection of Q0712 (A-B) substations**

Interconnection Customer is to install OPGW fiber on the new 20 mile line from the tie line substation near Windstar to the Q0712A and Q0715B collector substations. ADSS fiber is to be installed from the tie line substation into Windstar substation's building. Interconnection Customer is to supply 2 SCADA circuits with the required points using DNP3 protocol over the fiber to the Windstar substation control building where it will be routed over the Transmission Provider's existing network to the control centers.

6.1.9 Metering Requirements**6.1.9.1 Interchange Metering**

The POI will be at Transmission Provider's Windstar substation: Revenue metering will be located at Windstar substation on each of the two transmission lines between Windstar and the Q0712 tie line substations. Metering will be designed bidirectional and rated for the total net generation of the Project. The bidirectional metering will also include the retail load (per tariff) delivered to Interconnection Customer. Transmission Provider will specify and order all interconnection revenue metering, including the instrument transformers, metering panels, junction box and secondary metering wire. The primary metering transformers shall be combination 2000:5 CT/VT extended range for high accuracy metering.

The metering design package will include two revenue quality meters, test switch, with DNP real time digital data terminated at a metering interposition block. One meter will be designated a primary SCADA meter and a second meter will be used designated as backup with metering DNP data delivered to the alternate control center. The metering data will include bidirectional KWH KVARH, revenue quantities including instantaneous PF, MW, MVAR, MVA, including per phase voltage and amps data.

System Impact Study Report

An Ethernet connection is required for retail sales and generation accounting via the MV-90 translation system.

6.1.9.2 Q0712 Substation A metering:

Revenue metering is required for each of the two customer power transformers and will be located on the high side of each of the step-up transformers. The primary metering transformers shall be combination 230kV, 1000:5 CT/VT extended range for high accuracy metering.

Transmission Provider will design and procure the collector revenue metering panels. The panels shall be located inside the collector control house. The collector substation metering panel shall include two revenue quality meters, test switches, and all SCADA metering data terminated at a metering interposition block.

A second, independent communication path from that used for the Q0712 substation A is required for retail sales and generation accounting via the MV-90 translation system.

6.1.9.3 Q0712 Substation B metering:

Revenue metering is required for each of the two customer power transformers and will be located on the high side of each of the step-up transformers. The primary metering transformers shall be combination 230kV, 1000:5 current ratio, CT/VT extended range for high accuracy metering.

Transmission Provider will design and procure the collector revenue metering panels. The panels shall be located inside the collector control house. The collector substation metering panel shall include two revenue quality meters, test switches, and all SCADA metering data terminated at a metering interposition block.

An Ethernet phone line is required for retail sales and generation accounting via the MV-90 translation system.

6.1.9.4 Station Service/Construction Power

The Project is within the Transmission Provider's service territory. Please note that prior to back feed, Interconnection Customer must arrange transmission retail meter service for electricity consumed by the Project and arrange back-up station service for power that will be drawn from the transmission or distribution line when the Project is not generating. Interconnection Customer must call the PCCC Solution Center 1-800-625-6078 to arrange this service. Approval for back feed is contingent upon obtaining station service.

7.0 COST ESTIMATE (ER)

The following estimate represents only scopes of work that will be performed by Transmission Provider. Costs for any work being performed by Interconnection Customer are not included.

System Impact Study Report**Direct Assigned**

Q0712 Collector substation A \$1,012,000
Add metering and control house

Q0712 Collector substation B \$1,085,000
Add metering and control house

Windstar substation \$840,000
Project Line Termination & Metering

Tie line substations \$124,000
Add communications

Total Direct Assigned \$3,061,000

Network Upgrades

Windstar substation \$4,193,000
Expand yard, add line positions and breakers

Shirley Basin substation \$250,000
Update protection & control and communications

Aeolus substation \$250,000
Update protection & control and communications

Aeolus Shirley Basin #1 Transmission Line \$19,501,000
Reconductor 16 miles of 230 kV line

Standpipe-Freezeout-Aeolus Transmission Line \$19,788,000
Rebuild 16 miles of 230 kV line

Freezeout Substation \$4,758,000
Rebuild substation

Total Network Upgrade \$48,740,000

Grand Total \$51,801,000

*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed Transmission Provider must develop the Project schedule using conservative assumptions. Interconnection Customer may request that Transmission Provider perform this field analysis, at Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the

System Impact Study Report

level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generating Facility to Transmission Provider's electrical distribution or transmission system. A more detailed estimate will be calculated during the Facilities Study. Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by Interconnection Customer.

8.0 SCHEDULE

Transmission Provider estimates it will require approximately 24-36 months to design, procure and construct the facilities described in the Energy Resource sections of this report following the execution of an Interconnection Agreement. The schedule will be further developed and optimized during the Facilities Study.

Please note, the time required to perform the scope of work identified in this report as well as the contingent requirements for higher queued projects results in a timeframe that may support Interconnection Customer's requested Commercial Operation date of December 31, 2020.

8.1.1 Maximum Amount of Power that can be delivered into Network Load, with No Transmission Modifications (for informational purposes only)

Zero (0) MW can be delivered on a firm basis to the Transmission Provider's network loads with additional transmission modifications.

8.1.2 Additional Transmission Modifications Required to Deliver 100% of the Power into Network Load (for informational purposes only)

In order to deliver 100% of the power into Network Load, in addition to the mitigation identified in section 6.1.2, the completion of additional Transmission Provider Energy Gateway projects and other system improvements would also be required.

9.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: WAPA, Black Hills, Tri-state, Basin Electric

A copy of this report will be shared the each Affected System.

10.0 APPENDICES

Appendix 1: Higher Priority Requests
Appendix 2: Property Requirements
Appendix 3: Study Results

10.1 Appendix 1: Higher Priority Requests

All active higher priority transmission service and/or generator interconnection requests with an in-service date of December 2020 or earlier were considered in this study and are identified below. If any of these requests are materially modified, Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Q0720 (80 MW TSR –Q2060)

Q0542 (240 MW)

Q0706 (250 MW)

Q0707 (250 MW)

Q0708 (250 MW)

10.2 Appendix 2: Property Requirements**Property Requirements for Point of Interconnection Substation****Requirements for rights of way easements**

Rights of way easements will be acquired by Interconnection Customer in Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the Project and will obtain rights of way easements for the Project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a POI substation will be acquired by an Interconnection Customer to accommodate Interconnection Customer's Project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to Transmission Provider's approval.

Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the Project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or able to be permitted use in all zoning districts. Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of any governmental entities having jurisdiction over the property; underground or above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A

System Impact Study Report

phase I environmental study is required for land being acquired in fee by Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to Transmission Provider.

10.3 Appendix 3: Study Results

A Western Electricity Coordinating Council (WECC) approved 2021-22 Heavy Winter case was used to perform the power flow studies using PSS/E version 33.7. The study was performed assuming the Energy Gateway, D.2 500 kV segment from the planned Aeolus substation to the planned Anticline substation was in-service. The local 500 kV, 345 kV, 230 kV, and 115 kV transmission system outages were considered during the study.

N-0 Results: Assuming the Energy Gateway, Segment D.2 projects are in service, along with the mitigation required by Q0707 and Q0708, the study did not indicate any thermal overload or voltage issues.

The data provided by Interconnection Customer indicated that the generator does not have adequate reactive capability to deliver 100% of its power output at +/- 0.95 power factor. Hence, external shunt compensation which is dynamic in nature will be required in order to control the voltage and provide adequate reactive capability to maintain the voltage at the POI with a +/- 0.95 power factor on the high side of the step-up transformer.

As shown in Figure 2, the study indicated that if the collector system is connected to the transmission system without the generator being online, the collector system contributes approximately 31.8 MVAR to the transmission system. The addition of 31.8 MVAR on the transmission system under light load conditions could cause high voltages. The Interconnection Customer will have to minimize the reactive interchange under these conditions.

Q0712 Phase A and Phase B Interconnection to Windstar 230 kV Substation

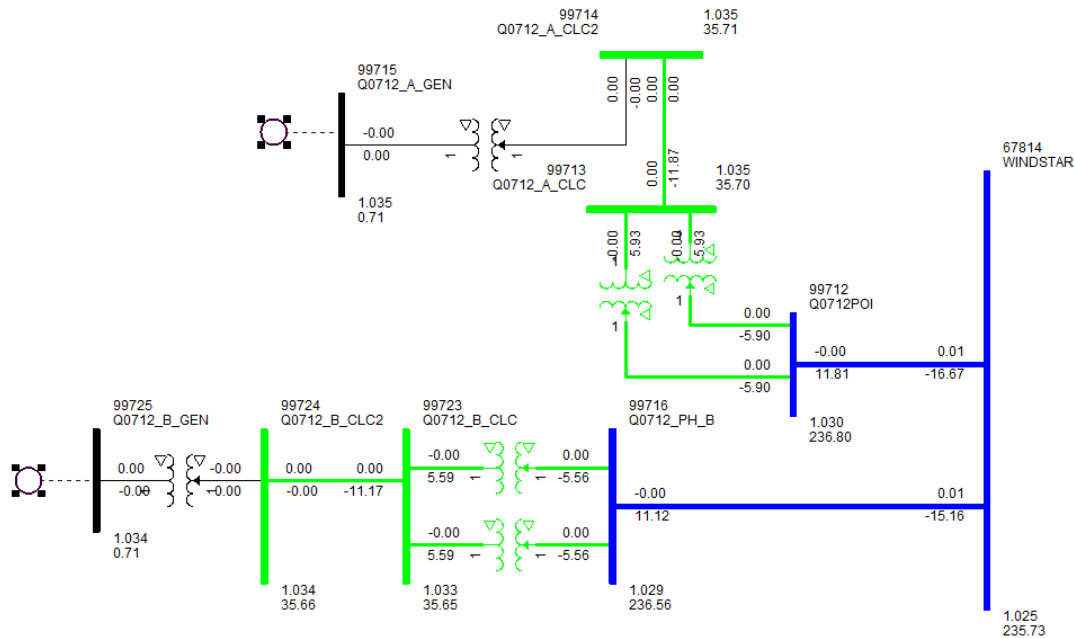


Figure 2: Charging from Q0712 Collector System

N-1 Results:

Assuming the Energy Gateway D.2 projects are in service, along with the mitigation identified for senior queue projects, an outage of the Aeolus – Shirley Basin #2 230 kV line resulted in an overload on the Aeolus – Shirley Basin 230 kV #1 line of 152%. The mitigation for this issue is to rebuild the existing Shirley Basin #1 230 kV line, approximately 16 miles, with 2-1272 ACSR.

An outage of the Aeolus – Anticline 500 kV line, Aeolus 230/500 kV transformer or Anticline 345/500 kV transformer results in an overload on the Standpipe-Freezeout 230 kV line (109%), the Freezeout -Aeolus 230 kV line (102%) 230 kV and the Standpipe-Platte 230 kV line (106%). The mitigation for this overload is to rebuild the existing lines, approximately 15 miles, from Standpipe to Freezeout to Aeolus with bundled 2x1272 ACSR.

N-1-1 Results:

Based on operating conditions in real time, generation curtailment may be required for certain N-1-1 conditions that may limit the transmission capacity in the Wyoming area. No mitigation is identified for N-1-1 outages as manual curtailment of the Project would be performed post first contingency such that no thermal overload would occur for the second contingency.

N-2 Results:

Assuming Energy Gateway, Segment D.2 and mitigation required by Q0707 and Q0708 Projects are in service, no N-2 thermal overloads or voltage issues were observed in the study.

Rocky Mountain Power
Exhibit RMP____(RAV-5SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

Q706 Facility Study

February 2018

Large Generator Interconnection
Facilities Study Report

Final

Completed for

(“Interconnection Customer”)
Q0706

Proposed Point of Interconnection

PacifiCorp’s proposed Aeolus substation at 230 kV

March 3, 2017

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1.0 DESCRIPTION OF THE PROJECT

("Interconnection Customer") proposed interconnecting 250 MW of new generation to PacifiCorp's ("Transmission Provider") proposed Aeolus substation at 230 kV located in Carbon County, Wyoming. The project ("Project") will consist of 125 GE 2.0-116 turbines for a total output of 250 MW. The requested commercial operation date is November 1, 2018.

Interconnection Customer will NOT operate this generator as a Qualified Facility as defined by the Public Utility Regulatory Policies Act of 1978 (PURPA).

The Transmission Provider has assigned the Project "Q0706."

2.0 STUDY SCOPE AND OBJECTIVES

The objective of the Facilities Study is to:

- Complete a facilities analysis, which shall specify and estimate the cost of equipment, engineering, procurement, and construction required to address issues as outlined in the system impact study, and
- Provide a scope of work and an estimated cost and schedule for completing the scope of work.

3.0 TYPE OF INTERCONNECTION SERVICE

The Interconnection Customer has selected Energy Resource (ER) Interconnection Service.

4.0 STUDY ASSUMPTIONS

- All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are listed in Appendix 1. If any of these requests are withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.
- For study purposes there are two separate queues:
 - Transmission Service Queue: To the extent practical, all network upgrades that are required to accommodate active transmission service requests will be modeled in this study.
 - Generation Interconnection Queue: Interconnection Facilities associated with higher queue interconnection requests will be modeled in this study.
- The Interconnection Customer's request for energy or network resource interconnection service in and of itself does not convey transmission service. Only a Network Customer may make a request to designate a generating resource as a Network Resource. Because the queue of higher priority transmission service requests may be different when a Network Customer requests network resource designation for this Generating Facility, the available capacity or transmission modifications, if any, necessary to provide network resource interconnection

Final Facilities Study Report

service may be significantly different. Therefore, the Interconnection Customer should regard the results of this study as informational rather than final.

- This study assumes the Project will be integrated into Transmission Provider's system at the proposed Aeolus 230 kV substation.
- The Interconnection Customer will construct and own any facilities required between the Point of Interconnection and the Project.
- Generator tripping may be required for certain outages.
- All facilities will meet or exceed the minimum Western Electricity Coordinating Council ("WECC"), North American Electric Reliability Corporation ("NERC"), and Transmission Provider performance and design standards.
- The most current transmission facility ratings were used for the analysis.
- All existing and proposed Remedial Action Schemes (RAS) are assumed to be in service for this study.
- The Energy Gateway West (2024) and Energy Gateway South (2024) projects are assumed to be in service; the Dave Johnston to Amasa (future) to Heward (future) to Aeolus (future) 230 kV line is assumed to be rebuilt as part of the Gateway projects. Note that these dates are inconsistent with the Q0706 Project's planned in-service date. A RAS that will drop up to 600 MW of generation for the following outages is assumed to be in-service:
 - Aeolus – Anticline 500 kV line
 - Anticline – Populus 500 kV line
 - Aeolus – Clover 500 kV line
 - Clover 500/345 kV auto transformer
- All system improvements associated with the prior queued projects are assumed to be in service before Q0706.
- Based on the Federal Energy Regulatory Commission's proposed revisions to the Pro Forma Large Generator Interconnection Agreement (Docket No RM16-1-000), the following power factor requirement was assumed for the Project:
 - "9.6.1 Power Factor Design Criteria. Interconnection Customer shall design the Large Generating Facility to maintain a composite power delivery at continuous rated power output at the POI at a power factor within the range of 0.95 leading to 0.95 lagging, unless Transmission Provider has established different requirements that apply to all generators in the Control Area on a comparable basis. Non-synchronous generators shall only be required to maintain the above power factor when their output is above 10 percent of the Generating Facility Capacity."
- The 2.0 MW GE wind turbines for Q0706 were assumed to have a +/- 0.9 power factor at turbine terminals.
- Transmission Provider reserves the right to restudy the Project if any of the above mentioned assumptions are changed or if any of the required mitigations are not in service at the time of interconnection.
- This report is based on information available at the time of the study. It is the Interconnection Customer's responsibility to check the Transmission Provider's web site regularly for Transmission System updates at <http://www.pacificorp.com/tran.html>

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5.0 PROPOSED POINT OF INTERCONNECTION

The Interconnection Customer's proposed Generating Facility is to be interconnected through a new 230 kV bay at the proposed Aeolus substation. The Interconnection Customer will construct a seven- to eight-mile 230 kV transmission line into the Aeolus substation from their 230 kV collector substation. Based on the data provided by the Interconnection Customer, the Project consists of two 230 - 34.5 kV transformers with the rating of 84/112/140 MVA each. Each one of the 230 - 34.5 kV transformers is connected to two separate 34.5 collector systems. The first collector system has sixty-two (62) 2.0 MW GE turbines connected to it totaling 124 MW and the second collector system has sixty-three (63) 2.0 MW GE turbines connected to it totaling 126 MW. The total maximum output of the Project shall not exceed 250 MW.

Figure 1 below is a one-line diagram that illustrates the interconnection of the proposed Generating Facility to the Transmission Provider's system.

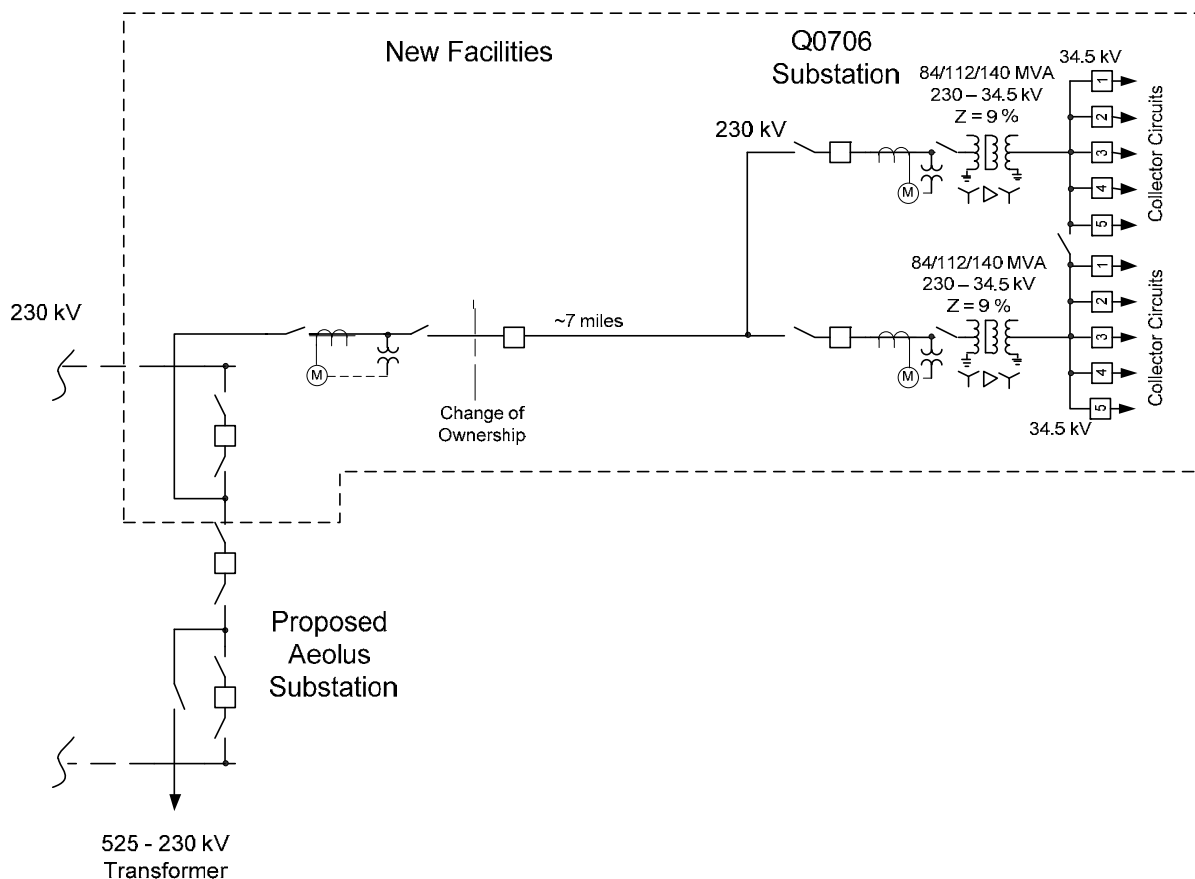


Figure 1: System One Line Diagram

Final Facilities Study Report**6.0 SCOPE OF WORK****6.1 Generating Facility Modifications**

The following outlines the design, procurement, construction, installation, and ownership of equipment at the Interconnection Customer's Generation Facility.

6.1.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Design, procure, install, and own all equipment required for the Large Generating Facility.
- Obtain all necessary permits, lands, rights of way and easements required for the construction and continued maintenance of the facilities required for the Q0706 Project. All easements and permits shall be recorded in the name of the Transmission Provider and shall be on forms acceptable to the Transmission Provider. All easements and rights of way will be obtained for durations acceptable to the Transmission Provider; this includes all permits/easements for ingress and egress prior to the start of construction.
 - Provide a separate fenced area along the perimeter of the Interconnection Customer's Generating Facility in which the Transmission Provider can install a control house for any protection and communication equipment. This area will share a fence and ground grid with the Generating Facility and have separate access. AC station service for the control house will be supplied by the Interconnection Customer.
- Provide a CDEGS grounding analysis.
- Design and install conduits, per Transmission Provider's standards, to the demarcation point.
- The collector substation batteries will be sized to carry the communication equipment with DC to DC converters.
- Demonstrate the reactive capability of the facility and the voltage control system prior to commercial operation. Conditions of operations include:
 - Operate in voltage control mode with the ability to deliver power output to the POI within the range of +/- 0.95 power factor. (Please see Standard Large Generator Interconnection Agreement, article 9.6.1 and 9.6.2 in OATT.) Any additional reactive compensation must be designed such that the discrete switching of the reactive device, if required, does not cause step voltage changes greater than $\pm 3\%$ at any load serving bus on the Transmission Provider's system.
 - As required by NERC standard VAR-001-1a, the Transmission Provider will provide a voltage schedule for the POI. Generating Facilities should be operated so as to maintain the voltage at the POI, or other designated point as deemed appropriate by Transmission Provider, between 1.00 per unit to 1.04 per unit. The Transmission Provider may also specify a voltage and/or reactive power bandwidth as needed to coordinate with upstream voltage control devices such as on-load tap

Final Facilities Study Report

changers. At the Transmission Provider's discretion, these values might be adjusted depending on operating conditions.

- At low output levels, the Project needs to ensure that it maintains the power factor within ± 0.95 at the POI and minimize the reactive power flow towards the transmission system to prevent high voltages.
- Generating Facilities capable of operating with a voltage droop are required to do so. Voltage droop control enables proportionate reactive power sharing among Generating Facilities. Studies will be required to coordinate voltage droop settings if there are other facilities in the area. It will be the Interconnection Customer's responsibility to ensure that a voltage coordination study is performed, in coordination with Transmission Provider, and implemented with appropriate coordination settings prior to unit testing.
- For areas with multiple Generating Facilities, additional studies may be required to determine whether or not critical interactions, including but not limited to control systems, exist. These studies, to be coordinated with Transmission Provider, will be the responsibility of the Interconnection Customer. If the need for a master controller is identified, the cost and all related installation requirements will be the responsibility of the Interconnection Customer.
- Design, procure, install, and own Phasor Measurement Units (PMUs).
- Provide a standard model from the WECC Approved Dynamic Model Library prior to interconnection, since the Transmission Provider cannot submit a user written model to WECC for inclusion in base cases. The list of approved generator models is continually updated and is available on the <http://www.WECC.biz> website.
- All generators must meet the Federal Energy Regulatory Committee (FERC) and WECC low voltage ride-through requirements as specified in the interconnection agreement.
- Prior to construction, arrange construction power with the Transmission Provider. The Project is within the Transmission Provider's service territory and both station service and temporary construction power metering shall conform to the Six State Electric Service Requirements manual.
- Prior to back feed, arrange distribution voltage retail meter service for electricity consumed by the Project and arrange back up station service for power that will be drawn from the transmission or distribution line when the Project is not generating. Interconnection Customer must call the PCCC Solution Center 1-800-640-2212 to arrange this service. Approval for back feed is contingent upon obtaining station service.
- Provide the following data points from the Q0706 collector substation:
 - Analogs:
 - Transformer # 1 real power

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- Transformer # 1 reactive power
- Real power flow through 34.5 kV line feeder breaker T1-1
- Reactive power flow through 34.5 kV line feeder breaker T1-1
- Real power flow through 34.5 kV line feeder breaker T1-2
- Reactive power flow through 34.5 kV line feeder breaker T1-2
- Real power flow through 34.5 kV line feeder breaker T1-3
- Reactive power flow through 34.5 kV line feeder breaker T1-3
- Real power flow through 34.5 kV line feeder breaker T1-4
- Reactive power flow through 34.5 kV line feeder breaker T1-4
- Real power flow through 34.5 kV line feeder breaker T1-5
- Reactive power flow through 34.5 kV line feeder breaker T1-5
- Transformer # 2 real power
- Transformer # 2 reactive power
- Real power flow through 34.5 kV line feeder breaker T2-1
- Reactive power flow through 34.5 kV line feeder breaker T2-1
- Real power flow through 34.5 kV line feeder breaker T2-2
- Reactive power flow through 34.5 kV line feeder breaker T2-2
- Real power flow through 34.5 kV line feeder breaker T2-3
- Reactive power flow through 34.5 kV line feeder breaker T2-3
- Real power flow through 34.5 kV line feeder breaker T2-4
- Reactive power flow through 34.5 kV line feeder breaker T2-4
- Real power flow through 34.5 kV line feeder breaker T2-5
- Reactive power flow through 34.5 kV line feeder breaker T2-5
- A phase 230 kV transmission voltage
- B phase 230 kV transmission voltage
- C phase 230 kV transmission voltage
- Average Wind speed
- Average Plant Atmospheric Pressure (Bar)
- Average Plant Temperature (Celsius)
- Status
 - 230 kV breaker T1
 - 34.5 kV collector circuit breaker T1-1
 - 34.5 kV collector circuit breaker T1-2
 - 34.5 kV collector circuit breaker T1-3
 - 34.5 kV collector circuit breaker T1-4
 - 34.5 kV collector circuit breaker T1-5
 - 230 kV breaker T2
 - 34.5 kV collector circuit breaker T2-1
 - 34.5 kV collector circuit breaker T2-2
 - 34.5 kV collector circuit breaker T2-3

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- 34.5 kV collector circuit breaker T2-4
- 34.5 kV collector circuit breaker T2-5

6.1.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- Design, procure and install a small control building at a location provided and prepared by the Interconnection Customer inside the Generating Facility fence line.
- The list of major equipment identified for this portion of the Project is as follows:
 - (1) small control building AC and DC panels and temperature controlled
 - (1) 125VDC, 100Ah battery bank
 - (1) 130VDC, 12A battery charger
 - (1) GE D20 RTU
 - (1) 24" open frame rack (DNP 3.0 protocol with hard wired connections)
- Revenue metering is required for each of the two Interconnection Customer power transformers and will be located on the high side of each of the step-up transformers. The primary metering transformers shall be combination CT/VT extended range high accuracy metering with ratios to be determined during the design phase of the project.
- The Transmission Provider will design and procure the collector revenue metering panels. The panels shall be located inside the collector control house. The collector substation metering panel shall include two revenue quality meters, test switches, and all SCADA metering data terminated at a metering interposition block.
- An Ethernet or phone line is required for retail sales and generation accounting via the MV-90 translation system.

6.2 Tie Line Requirements and Point of Interconnection (Aeolus)

The following outlines the design, procurement, construction, installation, and ownership of equipment associated with the radial line connecting the Interconnection Customer's Generating Facility to the Transmission Provider's Point of Interconnection substation.

6.2.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Obtain all necessary permits, lands, rights of way and easements required for the construction and continued maintenance of the facilities required for the Q0706 Project.
- Design and install approximately seven miles of 230kV transmission line between the Q0706 Generation Facility and the Aeolus substation. The Transmission Provider requires that the bus is built to the Transmission Provider's 230kV standard.
- Design and install ½" OPGW and attachment hardware per the Transmission Provider's standards with nodes and channel banks at both ends. The OPGW cable will be coiled on the above structure such that there is enough cable and conductor to reach the POI substation tower with normal sags. Also, provide all hardware for stringing of the last span of conductor and OPGW into the POI sub tower.

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- This fiber is to be installed by the Interconnection Customer and upon acceptance will be owned and maintained by Transmission Provider. Channels will be crossed at Aeolus substation to the back bone communication system.
- Design and construct a single 230kV circuit breaker and associated equipment tie line substation adjacent to Aeolus substation with a common fence between the two facilities.
 - The ground mats between the Aeolus and the tie line substation will be tied together. Therefore, the Interconnection Customer must match the standards of the Aeolus substation.
- Conduit will be required to be installed between the Interconnection Customer's tie line substation and Aeolus substation. The Interconnection Customer will provide their conduit drawings and install the necessary conduit to demarcation point at the Point of Interconnection. The Transmission Provider will install the connecting conduit in the Aeolus substation.
- Design (per the Transmission Provider's standards) and install a dead-end structure with sufficient bus to allow for proper attachment to a 230kV disconnect switch inside the Transmission Provider's substation. The switch will be the Point of Change of Ownership.
- Provide the output from two sets of current transformers to be fed into the bus differential relays with a maximum current transformer ratio matching the maximum CT ratio of the breakers at Aeolus substation. The detection and clearing of faults on the tie line between the tie line and the collector substations will be the responsibility of the Interconnection Customer. Facilities must be installed to detect and isolate the line if it is faulted in five cycles or less.

6.2.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- Review the Interconnection Customer's design of the proposed new transmission line, OPGW and connection to the Aeolus substation structure for general conformance with Transmission Provider's construction standards.
- Provide a CDEGS grounding analysis of the Aeolus substation.
- Provide the Transmission Provider's construction standards and review the Interconnection Customer's design for the last bus support structure located outside the POI substation fence line to ensure compatibility with the termination switch.
- Connect the Interconnection Customer's last span of bus to the 230kV, disconnect switch at the change of ownership location including the OPGW cable. The Transmission Provider will maintain this last bus span at the Interconnection Customer's expense.
 - This short span of bus will be protected with a redundant bus differential relay systems. The bus differential relays will be located in Aeolus substation. The

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Interconnection Customer will need to provide the output from two sets of current transformers to be fed into the bus differential relays with a maximum current transformer ratio matching the maximum CT ratio of the breakers at Aeolus substation. If a fault is detected, both the 230 kV breakers in Aeolus substation and the 230 kV breaker in the Interconnection Customer's tie line substation will be tripped.

- A relay at Aeolus substation will monitor the voltage magnitude and frequency. If the magnitude or frequency of the voltage is outside of normal range of operation a signal will be sent over the communication system to the collector substation. At the collector substation this signal is to trip open all of the 34.5 kV feeder breakers to disconnect the wind turbine generators. By tripping the 34.5 kV breakers instead of the 230 kV breakers the station service to the Generating Facility is maintained to facilitate the restoration of the generation. This relay will also have phase and ground directional overcurrent elements set to operate for faults in the line between Shirley Basin substation and the Interconnection Customer's collector substation and serve as a back-up to the main protection installed by the Interconnection Customer.

6.3 Point of Interconnection (Aeolus substation)

The following outlines the design, procurement, construction, installation, and ownership of equipment at the Point of Interconnection.

6.3.1 INTERCONNECTION CUSTOMER TO BE RESPONSIBLE FOR

- Obtain all necessary permits, rights of way and easements required for the construction at Aeolus substation.

6.3.2 TRANSMISSION PROVIDER TO BE RESPONSIBLE FOR

- Complete design and construction of one transformer bay at Aeolus to terminate the tie line in. Three (3) feet of panel space will be required in the 230 kV control house. The following equipment will be installed:
 - (1) – 230 kV circuit breaker
 - (3) – 230 kV CCVT
 - (2) – 230 kV group operated breaker disconnect switch
 - (1) – 230 kV group operated line disconnect switch, with ground blade, with motor operator
 - (3) – 144 kV MCOV surge arrester
 - (1) – RTAC
- The interchange metering will be designed bidirectional and rated for the total net generation of the Project including metering the retail load (per tariff) delivered to the Interconnection Customer. The Transmission Provider will specify and order all

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- interconnection revenue metering, including the instrument transformers, metering panels, junction box and secondary metering wire. The primary metering transformers shall be combination CT/VT extended range for high accuracy metering with ratios to be determined during the design phase of the Project.
- The metering design package will include two revenue quality meters, test switch, with DNP real time digital data terminated at a metering interposition block. One meter will be designated a primary SCADA meter and a second meter will be used designated as backup with metering DNP data delivered to the alternate control center. The metering data will include bidirectional KWH KVARH, revenue quantities including instantaneous PF, MW, MVAR, MVA, including per phase voltage and amps data.
 - An Ethernet connection is required for retail sales and generation accounting via the MV-90 translation system.
 - Listed below is the data that will be supplied by the Aeolus substation.
 - Analogs:
 - Net Generation real power
 - Net Generator reactive power
 - Interchange energy register
 - From Tie Substation Adjacent to Aeolus
 - Status:
 - 230 kV breaker

7.0 COST ESTIMATE (+/- 20%)

The following estimate represents only scopes of work that will be performed by the Transmission Provider. Costs for any work being performed by the Interconnection Customer are not included.

Interconnection – Direct Assignment Facilities

Q0706 collector substation – Add RTU	\$450,000
Q0706 collector substation – Add metering	\$434,000
Aeolus substation – Add metering	\$230,000
Aeolus substation – Add 230 kV line position	\$1,584,000
Tie line substation – Add relay settings and grounding	\$62,000

Total Cost**\$2,760,000**

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*Any distribution line modifications identified in this report will require a field visit analysis in order to obtain a more thorough understanding of the specific requirements. The estimate provided above for this work could change substantially based on the results of this analysis. Until this field analysis is performed the Transmission Provider must develop the project schedule using conservative assumptions. The Interconnection Customer may request that the Transmission Provider perform this field analysis, at the Interconnection Customer's expense, prior to the execution of an Interconnection Agreement in order to obtain more cost and schedule certainty.

Note: Costs for any excavation, duct installation and easements shall be borne by the Interconnection Customer and are not included in this estimate. This estimate is as accurate as possibly given the level of detailed study that has been completed to date and approximates the costs incurred by Transmission Provider to interconnect this Generator Facility to Transmission Provider's electrical distribution or transmission system. The Interconnection Customer will be responsible for all actual costs, regardless of the estimated costs communicated to or approved by the Interconnection Customer.

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8.0 SCHEDULE

Execute Interconnection Agreement	April 28, 2017
Provision of Financial Security	May 2, 2023
Interconnection Customer Design Information Provided	June 27, 2023
*Transmission Provider Engineering & Procurement Commences	August 7, 2023
**Energy Imbalance Market Modeling Data Submittal	August 7, 2023
Transmission Provider Engineering Design Complete	February 27, 2024
Interconnection Customer Property/Permits/ROW Procured	February 6, 2024
Construction Begins	May 1, 2024
Interconnection Customer's Facilities Receive Backfeed Power	January 31, 2025
Initial Synchronization/Generation Testing	February 28, 2025
Commercial Operation	March 28, 2025

*As applicable and determined by the Transmission Provider, within 60 days of the Interconnection Customer's authorization for the Transmission Provider to begin engineering, the Interconnection Customer shall provide a detailed short circuit model of its generation system. This model must be constructed using the ASPEN OneLine short circuit simulation program and contain all individual electrical components of the Interconnection Customer's generation system.

**Any design modifications to the Interconnection Customer's Generating Facility after this date requiring updates to the Transmission Provider's network model will result in a minimum of 3 months added to all future milestones including Commercial Operation.

Please note, the time required to perform the scope of work identified in this report appears to result in a timeframe that does not support the Interconnection Customer's requested Commercial Operation date of November 1, 2018.

9.0 PARTICIPATION BY AFFECTED SYSTEMS

Transmission Provider has identified the following affected systems: None.

10.0 APPENDICES

Appendix 1: Higher Priority Requests

Appendix 2: Property Requirements

10.1 Appendix 1: Higher Priority Request

All active higher priority transmission service and/or generator interconnection requests will be considered in this study and are identified below. If any of these requests are withdrawn, the Transmission Provider reserves the right to restudy this request, as the results and conclusions contained within this study could significantly change.

Transmission/Generation Interconnection Queue Requests considered:

Q0199 (200 MW)
Q0200 (100 MW)
Q0201 (100 MW)
Q0267 (88 MW)
Q0290 (252 MW)
Q0306/335 (80 MW)
Q0375 (230 MW)
Q0409 (320 MW)
Q0542 (240 MW)

10.2 Appendix 2: Property Requirements

Property Requirements for Point of Interconnection Substation

Requirements for rights of way easements

Rights of way easements will be acquired by the Interconnection Customer in the Transmission Provider's name for the construction, reconstruction, operation, maintenance, repair, replacement and removal of Transmission Provider's Interconnection Facilities that will be owned and operated by PacifiCorp. Interconnection Customer will acquire all necessary permits for the project and will obtain rights of way easements for the project on Transmission Provider's easement form.

Real Property Requirements for Point of Interconnection Substation

Real property for a point of interconnection substation will be acquired by an Interconnection Customer to accommodate the Interconnection Customer's project. The real property must be acceptable to Transmission Provider. Interconnection Customer will acquire fee ownership for interconnection substation unless Transmission Provider determines that other than fee ownership is acceptable; however, the form and instrument of such rights will be at Transmission Provider's sole discretion. Any land rights that Interconnection Customer is planning to retain as part of a fee property conveyance will be identified in advance to Transmission Provider and are subject to the Transmission Provider's approval.

The Interconnection Customer must obtain all permits required by all relevant jurisdictions for the planned use including but not limited to conditional use permits, Certificates of Public Convenience and Necessity, California Environmental Quality Act, as well as all construction permits for the project.

Interconnection Customer will not be reimbursed through network upgrades for more than the market value of the property.

As a minimum, real property must be environmentally, physically, and operationally acceptable to Transmission Provider. The real property shall be a permitted or permissible use in all zoning districts. The Interconnection Customer shall provide Transmission Provider with a title report and shall transfer property without any material defects of title or other encumbrances that are not acceptable to Transmission Provider. Property lines shall be surveyed and show all encumbrances, encroachments, and roads.

Examples of potentially unacceptable environmental, physical, or operational conditions could include but are not limited to:

1. Environmental: known contamination of site; evidence of environmental contamination by any dangerous, hazardous or toxic materials as defined by any governmental agency; violation of building, health, safety, environmental, fire, land use, zoning or other such regulation; violation of ordinances or statutes of any governmental entities having jurisdiction over the property; underground or

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above ground storage tanks in area; known remediation sites on property; ongoing mitigation activities or monitoring activities; asbestos; lead-based paint, etc. A phase I environmental study is required for land being acquired in fee by the Transmission Provider unless waived by Transmission Provider.

2. Physical: inadequate site drainage; proximity to flood zone; erosion issues; wetland overlays; threatened and endangered species; archeological or culturally sensitive areas; inadequate sub-surface elements, etc. Transmission Provider may require Interconnection Customer to procure various studies and surveys as determined necessary by Transmission Provider.

Operational: inadequate access for Transmission Provider's equipment and vehicles; existing structures on land that require removal prior to building of substation; ongoing maintenance for landscaping or extensive landscape requirements; ongoing homeowner's or other requirements or restrictions (e.g., Covenants, Codes and Restrictions, deed restrictions, etc.) on property which are not acceptable to the Transmission Provider.

Rocky Mountain Power
Exhibit RMP____(RAV-6SS)
Docket No. 17-035-40
Witness: Rick A. Vail

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick A. Vail

EPC and LSA Contract Forms

February 2018

TURNKEY CONTRACT
FOR

ENGINEERING, PROCUREMENT
AND CONSTRUCTION SERVICES

BETWEEN

[_____]

AEOLUS, ANTICLINE, JIM BRIDGER SUBSTATION PROJECTS

Dated as of

[_____]

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[To Be Updated]

- i -

Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

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THIS TURNKEY CONTRACT FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION SERVICES (the "Contract") is made and entered into as of _____ [201_], (the "Effective Date") by and between, PacifiCorp, an Oregon Corporation ("Owner"), and _____, ("Contractor"). Each entity is sometimes individually referred to herein as a "Party" and both entities are sometimes collectively referred to herein as the "Parties."

RECITALS

A. Owner desires to engage Contractor to design, engineer, procure, construct, test and commission (as to testing and commissioning, only to the extent expressly provided in this Contract, including Exhibit "A") the Project all on a turnkey, guaranteed fixed price, guaranteed completion date basis, and Contractor desires to provide such services, all as further defined by the terms and conditions set forth in this Contract

B.

C. Contractor has:

- (1) been provided and reviewed the preliminary drawings and certain specifications for the Project and other documents relating to the Project which Contractor has deemed necessary in connection with this Contract;
- (2) inspected the real property on which the Project shall be constructed; and
- (3) performed or reviewed such other investigations, studies, and analyses which Contractor has determined to be necessary or prudent in connection with entering into this Contract.

D. Contractor agrees to guarantee the timely completion of the Project.

AGREEMENT

NOW, THEREFORE, in consideration of any sums to be paid to Contractor by Owner and of the covenants and agreements set forth herein, the Parties agree as follows:

1. DEFINITIONS

For purposes of this Contract, except as otherwise expressly provided or unless the context otherwise requires, the following terms shall have the following meanings. The meanings specified are applicable to both the singular and plural.

1.1. Affiliate. With respect to any Person, another Person that is controlled by, that controls or is under common control with, such Person; and, for this purpose, “control” with respect to any Person shall mean the ability to effectively control, directly or indirectly, the operations and business decisions of such Person whether by voting of securities or partnership interests or any other method.

1.2. Applicable Laws. The term means and includes all of the following:

- (a) any statute, law, rule, regulation, code, ordinance, judgment, decree, writ, order or the like, of any Governmental Authority, and the interpretations thereof, including any statute, law, rule, regulation, code, ordinance, judgment, decree, writ, order or the like, regulating, relating to or imposing liability or standards of conduct concerning:
 - (i) Owner, Contractor, the Site, the Contractor Yard Site or the performance of any portion of the Work or the Work taken as a whole, or the operation of the Project; or
 - (ii) safety and the prevention of injury to Persons and damage to property on, about or adjacent to the Site or any other location where any other portion of the Work shall be performed (including the Contractor Yard Sites) or
 - (iii) protection of human health or the environment or emissions, discharges, releases or threatened releases of pollutants, contaminants, chemicals or industrial, toxic or hazardous substances or wastes into the environment including ambient air, surface water, ground water, or land, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of pollutants, contaminants, chemicals, Hazardous Materials or other industrial, toxic materials or wastes; as now or may at any time hereafter be in effect; and
- (b) Any requirements or conditions on or with respect to the issuance, maintenance or renewal of any Applicable Permit or any application therefor.

1.3. Applicable Permits. Each and every national, state and local license, authorization, certification, filing, recording, permit, waiver, exception, variance, franchise, order or other approval with or of any Governmental Authority, including each and every environmental, construction, operating or occupancy permit and any agreement, consent or approval that is required by any Applicable Laws.

1.4. BES Cyber System Information (BCSI) shall mean information concerning CIPS

Covered Assets that: (i) relates to the production, generation or transmission of energy; (ii) could be useful to a person planning an attack on critical infrastructure; and (iii) provides strategic information beyond the geographic location of the critical asset, and which is identified as BCSI by Owner. BCSI also includes any information concerning CIPS Covered Assets that has been identified by Owner as Critical Infrastructure Information (or CII).

1.5. Business Day. A Day, other than a Saturday or Sunday or holiday, on which banks are generally open for business in Salt Lake City, UT.

1.6. Cancellation Schedule. The cancellation payment schedule shall mean as set forth in Exhibit "D".

1.7. Change in Law. The enactment, adoption, promulgation, modification, or repeal after the Effective Date of any Applicable Law of any Governmental Authority of the United States or the modification after the Effective Date of any Applicable Permit issued or promulgated by any Governmental Authority of the United States (that could not be reasonably anticipated on the Effective Date) that establishes requirements that have a materially adverse effect on Contractor's costs or schedule for performing the Work; provided, however, neither (a) a change in any national, federal, or any other income tax law or any other law imposing a tax, duty, levy, impost, fee, royalty, or charge for which Contractor is responsible hereunder nor (b) a Change in Law that affects Contractor's or Subcontractor's costs of employment, shall constitute a Change in Law pursuant to this Contract. Section 4.15 sets out Contractor's rights in the event that an Owner Acquired Permit has not been issued or an application therefore has not been made on or prior to the Effective Date.

1.8. Change in Work. A change in the Work as defined in Section 17.1.

1.9. Change in Work Form. The form documenting a Change in Work as attached hereto as Exhibit "E".

1.10. CIPS Covered Assets. Any assets identified by Owner as "critical assets," "critical cyber assets," "BES assets," "BES cyber assets," or "BES cyber systems," as those terms are defined in the North American Electric Reliability Corporation (NERC) Glossary of Terms. "BES" refers to the "Bulk Electric System" as defined by NERC.

- 1.11. Company. The term as used in the Exhibits hereto has the same meaning as the term Owner.
- 1.12. Confidential Information. Information, ideas or materials now or hereafter owned by or otherwise in the possession or control of, or otherwise relating to, one Party and/or any of its Affiliates, including inventions, business or trade secrets, know-how, techniques, data, reports, drawings, specifications, blueprints, flow sheets, designs, engineering, construction, environmental, operations, marketing, transmission line, substation and generating station outage schedules and other operating restrictions and conditions, or other information, together with all copies, summaries, analyses, or extracts thereof, based thereon or derived therefrom, disclosed by one Party (the “transferor”) to the other Party or any of its Affiliates or any of their respective directors, employees or agents (the “transferee”); provided, however, Confidential Information of Owner shall also mean all BES Cyber System Information and any information, ideas or materials related to the Work or the Project obtained, developed or created by or for Contractor in connection with the Work, or delivered or disclosed to Owner in connection with the Work, together with all copies, reproductions, summaries, analyses, or extracts thereof, based thereon or derived therefrom; and provided, further, Confidential Information of Owner shall also mean information, ideas, or materials disclosed by Owner or any of its Affiliates, or deduced by Contractor, any Subcontractor or any of their Affiliates or any of their respective directors, employees or agents from information supplied by Owner or its Affiliates or agents, or as a result of visits by Contractor, any Subcontractor, or any of their Affiliates or any of their respective directors, employees or agents to the premises of Owner or any of its Affiliates or the Site, which relate to the Project. The terms of this Contract shall also be considered Confidential Information of the Owner.
- 1.13. Construction Manager. The permanent, on-Site construction manager designated by Contractor and approved by Owner in accordance with Section 4.5.
- 1.14. Contract. This Turnkey Contract for Engineering, Procurement and Construction Services, including all Exhibits hereto, as the same may be modified, amended, or supplemented from time to time in accordance with Article 17 and Section 37.4.
- 1.15. Contract Price. Shall mean the fixed amount for performing the Work that is payable to Contractor as set forth in Section 6.1, as the same may be modified from time to time in accordance with the terms hereof.
- 1.16. Contractor. The term has the meaning as set forth in the first paragraph of this Contract. [The JV partners shall undertake the duties and obligations of the Contractor under this Contract severally and jointly. Even though the joint venture partners have assumed the duties and obligations of Contractor under this Contract on a joint and several basis, the Contractor is referred to throughout the Contract Documents as if singular in number.] [If applicable.]

- 1.17. Contract Acquired Permits. The Applicable Permits defined in Exhibit “A”, Section 17 attached to a particular Release as Contractor Acquired Permits, and any other Applicable Permits required in connection with the Project or the Work except those Applicable Permits specified in Exhibit “A”, Section 17 attached to a particular Release as Owner Acquired Permits.
- 1.18. Contract Term. Shall mean the period commencing upon the execution of this Contract by Owner and continuing thereafter until December 31, 2020, unless earlier terminated as provided herein.
- 1.19. Contractor Cause. The term shall mean any of the following: (a) Contractor’s unexcused delay in achieving a Project Guaranteed Date or other breach by Contractor of its obligations under this Contract, or (b) a Defect.
- 1.20. Contractor Deliverables. Each of the material documents relating to each particular Release to be delivered to Owner for review and comment in accordance with the requirements of this Contract, including Article 12; which shall include the documents set forth on the Deliverables Schedule.
- 1.21. Contractor Environmental Assurance Program. The accepted material documents provided in compliance with the requirements of Exhibit A, Section 22.
- 1.22. Contractor Event of Default. The term has the meaning set forth in Section 20.1.
- 1.23. Contractor Safety Program. The term has the meaning set forth in Section 4.11.
- 1.24. Contractor Schedule Milestones. The Contractor schedule milestones set forth on Exhibit “G” as related to each particular Release.
- 1.25. Contractor’s Invoice. An invoice from Contractor to Owner in accordance with Section 7.1 and in the form of Exhibit “F” hereto.
- 1.26. Contractor Yard Sites. A site(s) in the vicinity of the Site acquired by the Contractor at its cost and used by the Contractor as a construction equipment or Equipment storage yard, a site for construction office trailers, a worker reporting location and/or other Project-related uses.
- 1.27. CPCN. The final certificate of public convenience and necessity for a particular project as issued by the relevant Governmental Authority.

1.28. Critical Path Item(s). With respect to each Project, any items demonstrated (with satisfactory evidence provided in accordance with Exhibit "G") to be on the critical path for the Critical Path Method Schedule prepared by Contractor in accordance with Section 4.26.

1.29. Critical Path Method Schedule. With respect to each Project a critical path method schedule prepared by Contractor describing the time of completion of the Work (including Critical Path Items) by Contractor, setting forth the dependencies among all Critical Path Items that affect the achievement of the Project Guaranteed Dates, meeting the requirements set forth in Exhibit "G", and developed and agreed by the Parties in accordance with Section 4.26.

1.30. Day or day. A calendar day, unless otherwise specified.

1.31. Defect. Unless otherwise specifically defined elsewhere herein, the term Defect includes any designs, engineering, materials, workmanship, Equipment, tools, supplies, installation or other Work, which:

- (a) Do not conform to the requirements of this Contract;
- (b) Are of defective or inferior manufacture, workmanship or materials;
- (c) Are inconsistent with Industry Standards; or
- (d) Are not suitable for a project of this type.

1.32. Delay Liquidated Damages. Liquidated damages for delay and for the amounts as set forth in Section 16.1.

1.33. Delay Notice. A Notice of a Force Majeure event, and the estimated delays associated with such event, as set forth in Section 9.2.

1.34. Deliverables Schedule. With respect to the schedule as described and to be agreed upon by the Parties in accordance with Section 12.4 that identifies the Contractor Deliverables to be delivered by Contractor, and Owner's period for review thereof, as such schedule may be updated from time to time in accordance with Section 12.4 of this Contract.

1.35. Dollars or \$. The lawful currency of the United States of America.

1.36. Drawings and Specifications. Drawings, specifications and documents that are part of the Scope of Work will be prepared by Contractor or any Subcontractor with respect to the

Work and submitted under this Contract (including those drawings, specifications and documents identified in the Deliverables Schedule and Exhibit "A", Section 23).

- 1.37. Effective Date. The term has the meaning as set forth in the first paragraph of this Contract.
- 1.38. Equipment. With respect to each Project, all materials, supplies, apparatus, machinery, equipment, parts, tools, components, instruments, appliances and appurtenances thereto that are: (a) required for prudent operation of the Project in accordance with Industry Standards; or (b) described in or required by this Contract, including Exhibit "A" and the Drawings and Specifications.
- 1.39. Exhibits. Each exhibit listed in Section 2.1 and attached hereto and incorporated herein in its entirety by this reference.
- 1.40. Final Completion. Satisfaction by Contractor or waiver by Owner of all of the conditions for Final Completion as set forth in Section 15.5.
- 1.41. Final Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.
- 1.42. Final Completion Date. The date on which Final Completion of each Project occurs.
- 1.43. Final Completion Guaranteed Date. The date that is ninety (90) calendar days after the Project Substantial Completion Date as such date may be modified in accordance with Article 17.
- 1.44. Final Contractor's Invoice. With respect to each Project, the final invoice submitted by Contractor in accordance with Section 7.6.
- 1.45. Final Payment. With respect to each Project, the final payment made by Owner to Contractor in accordance with Section 7.6.
- 1.46. Final Release and Waiver of Liens and Claims. With respect to each Project, a sworn statement and waiver of liens prepared by Contractor and each Major Subcontractor, as applicable, which provides that such Person unconditionally waives and releases all mechanic's liens, stop notices and bond rights with respect to all Work for which Contractor requested Final Payment in the applicable form set forth in Exhibit "Z".
- 1.47. Force Majeure.

- (a) Any war (whether declared or not), hostilities, blockade, revolution, insurrection, riot or terrorist act; expropriation, requisition, confiscation, or nationalization; closing of harbors, docks, canals, or other assistances to or adjuncts of the shipping or navigation of or within any place; rationing or allocation as imposed by law, decree, or regulation, or by any Governmental Authorities; actions of a Governmental Authority (other than with respect to a Party's compliance with Applicable Laws and Applicable Permits required in connection with a Party's performance under this Contract); fire or explosion; unusually severe storms and unusually severe weather conditions occurring in the vicinity of the Site, including flood, lightning strikes, tornado or hurricane; unusually severe tide, tidal wave or volcano; accidents of navigation or breakdown or damage of shipping vessels, or accidents to harbors, docks or canals; epidemic or quarantine; general labor disturbances not specific to Contractor's or Subcontractor's personnel; or any other event, matter, or thing, wherever occurring and whether similar or dissimilar to any of the foregoing; provided, however, that, in each case: (i) such event, matter or circumstance is not within the reasonable control and is without the fault or negligence of, or willful misconduct of, or breach of this Contract by the Party whose performance is affected thereby; (ii) such event, despite the exercise of commercially reasonable efforts, cannot be or be caused to be prevented, avoided or removed by such Party; and (iii) to the extent commercially reasonable, the Party affected has taken precautions and measures to avoid the effect of such event on such Party and mitigate the consequences thereof.
- (b) In relation to any labor strikes, disputes, disturbances, or other matters, the following shall not constitute Force Majeure: (i) any labor shortages involving the employees or workers of Contractor or a Subcontractor; or (ii) any labor disturbance or dispute of Contractor's and/or any Subcontractor's personnel taking place at the Site or a facility of Contractor or Subcontractor (except if such action is part of a national action).
- (c) In addition, and notwithstanding anything in this definition to the contrary, the following shall not constitute Force Majeure: (i) mechanical or Equipment failures (so long as such failure was not itself caused by an event included in part (a) of this definition); (ii) any Site Condition (so long as the delay was not itself caused by an event included in part (a) of this definition); (iii) road embargos by Governmental Entities as a result of seasonal or other weather conditions; (iv) winds of any speed (except this shall not mean a tornado or hurricane) or any seasonal or climatic weather conditions (unless such condition is unusually severe); (v) any condition described in (a) above that results in increased costs of performance but does not otherwise affect a Party's ability to perform; (vi) delays in customs clearance (so long as the delay was not itself caused by an event included in part (a) of this definition); (vii) delays, breakdowns and accident in transportation other than delays in transportation due to an event included in part (a) of this definition; and (viii) inability of employees or workers of Contractor or a Subcontractor to gain physical access to the Site or a Contractor Yard Site (so long as such inability was not itself caused by an event included in part (a) of this definition).

- 1.48. Foundation Completion. The term has the meaning set forth in Section 13.1.
- 1.49. Foundation Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.
- 1.50. Full Notice to Proceed. The term has the meaning set forth in Section 8.2.
- 1.51. Full Notice to Proceed Date. The term has the meaning set forth in Section 8.2.
- 1.52. Governmental Authorities. All United States and other national, federal, state, provincial and local governments and all agencies, authorities, departments, instrumentalities, courts, corporations, or other subdivisions of each having or claiming a regulatory interest in or jurisdiction over the Site, the Contractor Yard Site, the Project, the Work or the Parties to this Contract.
- 1.53. Hazardous Materials. Any chemical, material or substance in any form, whether solid, liquid, gaseous, semisolid, or any combination thereof, whether waste material, raw material, chemical, finished product, byproduct, or any other material or article, that is defined, listed or regulated or as to which liability could be imposed, under Applicable Laws as a "hazardous" or "toxic" substance or waste or material, or as a "pollutant" or "contaminant," (or words of similar meaning or import) or is otherwise listed or regulated under Applicable Laws, or as to which liability could be imposed, under Applicable Laws including, without limitation, petroleum products, petroleum derived substances, radioactive materials, asbestos, asbestos containing materials, polychlorinated biphenyls, urea formaldehyde foam insulation, and lead-containing paints or coatings.
- 1.54. Industry Standards. Those standards of engineering, construction, operation, workmanship, Equipment and components specified in Exhibit "A", provided, however, that if the relevant standard is not so specified or is ambiguous therein, then Industry Standards shall mean those standards of construction, workmanship, operation, care and diligence normally practiced in the United States by nationally recognized engineering and construction firms in performing services of a similar nature and in accordance with: (a) Applicable Laws and Applicable Permits; (b) other standards and codes established for such work; and (c) those standards (including of operation) established and/or recognized as prudent utility practice in the Western United States. Industry Standards are not necessarily defined as the optimal standard, practice or method to the exclusion of others, but rather refer to a range of actions reasonable under the circumstances. For purposes of this definition: (i) the Contractor Deliverables must comply with Industry Standards at the time that they are submitted to Owner; and (iii) the Work performed must comply with the Industry Standards at the time that it is performed.
- 1.55. Interconnection. The connection of each applicable part of the Project to the Transmission Grid such that the applicable part of the Project is energized at the nominal

system operating voltage for which such part of the Project is designed as further described in Exhibit "A" and/or such that the Project delivers power and energy to energize the Project for Tests.

1.56. Key Personnel. The natural persons named in Exhibit "J" Land Rights Agreements. Those agreements and other documents or instruments with respect to the Site identified and set forth in Exhibit "A", Section 18

1.57. Letter of Credit. The term shall mean the Performance LOC, the Retainage LOC (if applicable) and the Warranty LOC.

1.58. Lien Indemnitees. The term has the meaning set forth in Article 32.

1.59. Limited Notice to Proceed. A Notice provided by Owner directing Contractor to perform a specified range of services or deliverables as described within Exhibit A, G or I, pursuant to the provisions of Section 8.1.

1.60. Loss(es). Any and all liabilities (including liabilities arising out of the application of the doctrine of strict liability), obligations, losses, damages, penalties, fines, claims, actions, suits, judgments, costs, expenses and disbursements, whether any of the foregoing be founded or unfounded, (including reasonable legal fees and expenses and reasonable third party costs of investigation), of whatsoever kind and nature and whether or not involving damages to the Project or the Site.

1.61. Major Subcontractor. Any Subcontractor where the aggregate value of the applicable subcontracts and purchase orders between it and the Contractor (or other Subcontractor as applicable) with respect to the Project exceeds (or is reasonably expected by Contractor to exceed) \$500,000.

1.62. .

1.63. Materials Warranty. The warranty of Contractor under Section 18.2.

1.64. Maximum Aggregate Liquidated Damages. Ten percent (10%) of the Contract Price as the Contract Price may be adjusted from time to time in accordance with the terms hereof.

1.65. Mechanical Completion Test Procedures. The written procedures for the Mechanical Completion Tests produced by Contractor and agreed to by Owner in accordance with Article 14 and Exhibit "A".

- 1.66. Mechanical Completion Tests. Those tests identified to be performed by the Contractor in connection with the construction and commissioning of the Project in accordance with Exhibit “A” and Article 14.
- 1.67. Monthly Progress Report. A written monthly progress report prepared by Contractor in form and content generally in accordance with Exhibit “A”, Section 19 Notice. A written communication between the Parties required or permitted by this Contract and conforming to the requirements of Article 33.
- 1.68. Owner. PacifiCorp, an Oregon Corporation or as Owner may assign to an Affiliate per Article 29.
- 1.69. Owner Acquired Permits. The Applicable Permits defined as Owner Acquired Permits in Exhibit “A”, Section 17.
- 1.70. Owner Caused Delay. Owner’s unexcused delay in performing or failure to perform any obligation of Owner under this Contract (other than as a result of Force Majeure or by Owner’s exercise of rights under this Contract, including the exercise by Owner of the right to have defective or nonconforming Work corrected or re-executed).
- 1.71. Owner’s Engineer. The engineering firm or other engineer or engineers (which may be employees of Owner) selected and designated by Owner.
- 1.72. Owner’s Facilities. The term shall mean any facilities owned, operated or otherwise controlled by Owner, which requires Owner authorization to obtain access.
- 1.73. Owner’s Scope. The work associated with the Project for which Owner is responsible and which is expressly identified as such in Exhibit A.
- 1.74. Owner Event of Default. The term has the meaning set forth in Section 20.4.
- 1.75. Owner Milestones. The term has the meaning set forth in Section 3.2.
- 1.76. Parent Guarantor. The Parent Guarantor is [_____].
- 1.77. Parent Guaranty. The guarantee of the Parent Guarantor referred to in Section 35.2 in the form set forth in Exhibit “M”.
- 1.78. Parent Legal Opinion. A legal opinion of legal counsel to the Parent Guarantor reasonably acceptable to Owner in the form set forth in Exhibit “M”.

- 1.79. Partial Release and Waiver of Liens and Claims. A sworn statement and waiver of liens prepared by Contractor and each Major Subcontractor, as applicable, which provides that such Person waives and releases all mechanic's liens, stop notices and bond rights with respect to that portion of Work for which Contractor requested payment in the current Contractor's Invoice conditioned upon payment by Owner of the amount of such Contractor's Invoice in the applicable form set forth in Exhibit "Z".
- 1.80. Party and Parties. The terms have the meanings set forth in the first paragraph of this Contract.
- 1.81. Performance LOC. An irrevocable transferable letter of credit that is (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner's sole discretion; (b) is in the stated amount equal to ten percent (10%) of the Contract Price; and (c) is substantially in the form of Exhibit "O-1". The Performance LOC terminates in accordance with Section 35.2.
- 1.82. Person. Any individual, corporation, company, voluntary association, partnership, incorporated organization, trust, limited liability company, or any other entity or organization, including any Governmental Authority.
- 1.83. Prime Rate. The interest rate per annum published in The Wall Street Journal as the "prime rate" from time to time (or if more than one rate is published, the arithmetic mean of such rates), determined as of the date the obligation to pay interest arises.
- 1.84. Progress Payment(s). A discrete portion of the Contract Price, payable pursuant to the Progress Payment Schedule, as a progress payment for completion of discrete portions of Work, in accordance with Section 7.1.
- 1.85. Progress Payment Schedule. A schedule of payments attached as Exhibit "D" Attachment 1, setting forth payments, calculated based upon a forecast earned value basis from the Critical Path Schedule, payable to the Contractor, in accordance with Section 7.1, pursuant to the Progress Payment Schedule, as a payment for maintaining the Interim Progress Milestones in accordance with the Interim Progress Milestones and Exhibit "G".
- 1.86. Project. The complete electric substations to be designed, procured, constructed, tested and commissioned under this Contract, together with all ancillary Equipment and subsystems, together with all supporting improvements and connections, as generally described in, and including all items described in, the Scope of Work. The Project generally consists of the Work related the engineering, procurement and construction of three (3) substations 345 kV substations and associated transmission structures known Dixie Deer, Red Butte, and Sigurd substations. The term Project shall mean three (3) substations; a) Aeolus 500/230kV, Anticline 500/345kV, Jim Bridger 345kV Bay Expansion., The Project generally consists of the Work.

- 1.87. Project Guaranteed Dates. The Project Mechanical Completion Guaranteed Date, the Project Substantial Completion Guaranteed Date and the Final Completion Date (provided, however, that the Final Completion Date does not have any Delay Liquidated Damages related thereto).
- 1.88. Project Manager. The Project Manager designated by Contractor and approved by Owner pursuant to Section 4.5.
- 1.89. Project Mechanical Completion. Satisfactory completion by Contractor of all conditions necessary to achieve Project Mechanical Completion for the entire Project, as set forth in Section 13.2.
- 1.90. Project Mechanical Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto, which Contractor shall submit upon completion of the entire Scope of Work as described in Exhibit "A", in accordance with the definition within Article 1.89.
- 1.91. Project Mechanical Completion Date. The date on which Project Mechanical Completion actually occurs and the entire Scope of Work described in Exhibit "A" is completed in accordance with the definition within Article 1.894.
- 1.92. Project Mechanical Completion Guaranteed Dates. The Project Mechanical Completion milestone date(as such date may be modified in accordance with Article 17), as set forth in Exhibit G, Attachment G.1.1.
- 1.93. Project Representative. The Project Representative designated by Owner pursuant to Section 3.1.
- 1.94. Project Warranties. The warranties of Contractor as set forth in Article 18.
- 1.95. Punchlist. A schedule of Punchlist Items developed pursuant to Section 15.1(h), which list must be reasonably satisfactory to Owner.
- 1.96. Punchlist Items. Each item of Work that: (a) Owner or Contractor identifies as requiring completion or containing Defects; (b) does not impede the ability of Owner to safely operate the Project in accordance with Industry Standards; (c) does not affect the operability (including the capacity, efficiency, reliability, or cost effectiveness), safety or mechanical or electrical integrity of the Project or the Transmission Grid; and (d) the completion or repair of which will neither interfere with, nor adversely affect, the performance of the Project or the Transmission Grid.
- 1.97. Qualified Bank. A United States branch of any United States bank whose secured debt

obligations or long-term deposits are rated at least “A-” by Standard & Poors (or the equivalent rating thereof by Moody’s) as at the date of issuance, and during the term, of any Letter of Credit.

- 1.98. Quality Assurance Program. The Contractor’s quality assurance program for the Work as defined in Section 4.17.
- 1.99. Required Manuals. All manufacturers’ operating data and manuals, Equipment and parts manuals, integrated and coordinated operation and maintenance manuals and instructions, and training aids reasonably necessary to safely, effectively and efficiently commission, test, start up, operate, maintain and shut down the Project, including those set out in the Deliverables Schedule.
- 1.100. Retainage. The amount withheld from payments to Contractor pursuant to Section 7.5.
- 1.101. Retainage LOC. An irrevocable transferable letter of credit that is (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner’s sole discretion; (b) is in the amount not less than the amount as required by Section 7.5; and (c) is substantially in the form of Exhibit “O-2”. The Retainage LOC terminates in accordance with Section 7.6.
- 1.102. Schedule Recovery Plan. The term has the meaning set forth in Section 8.3.
- 1.103. Scope of Work. The requirements and specifications regarding the Work set forth under a particular Release, including Exhibit “A”.
- 1.104. Sensitive Personnel. The term shall mean all Personnel with authorized unescorted physical access or authorized cyber access to Owner’s CIPS Covered Assets.
- 1.105. Site. Those areas of real estate described in Exhibit “A”, Section 18 for the performance of Work which may consist of existing or new substation sites, including any additional areas as may, from time to time, be designated in writing by Owner (in Owner’s sole discretion) for Contractor’s use hereunder. The term Site shall mean all three (3) substation sites collectively, and each individual substation Site, as the context requires.
- 1.106. Site Conditions. The term has the meaning set forth in Section 4.38.
- 1.107. Spare Parts. The term has the meaning set forth in Section 4.32.
- 1.108. Subcontractor. Any Person, other than Contractor, performing any portion of the

Work (including any Subcontractor of any tier and any Vendor) in furtherance of Contractor's obligations under this Contract.

- 1.109. Substantial Completion. Satisfaction by Contractor or waiver by Owner of all of the conditions for Substantial Completion as set forth in Section 15.1.
- 1.110. Substantial Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.
- 1.111. Substantial Completion Date. The date, on which Substantial Completion actually occurs.
- 1.112. Substantial Completion Guaranteed Date. The Substantial Completion milestone date (as such date may be modified in accordance with Article 17), as set forth in Exhibit G, Attachment G.1.1.
- 1.113. Transmission Grid. The electric transmission and distribution system of Owner, or any other affected transmission owner or operator, and the electric transmission and distribution systems interconnecting to or adjacent to Owner's or other affected transmission owner or operator, electric transmission and distribution system.
- 1.114. Unescorted Personnel. The term shall mean all Personnel with authorized unescorted physical access to Owner's Facilities.
- 1.115. U.S. Customary System. The primary system of weights and measures (other than the metric system) used in the U.S. today inherited from, but now different from, the British Imperial System of weights and measures.
- 1.116. Vendor(s). Persons that supply Equipment to Contractor or any Subcontractor in connection with the performance of the Work.
- 1.117. Warranty LOC. An irrevocable transferable letter of credit that is: (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner's sole discretion; (b) is in the stated amount equal to five percent (5%) of the Contract Price; and (c) is substantially in the form of Exhibit "O-3". The Warranty LOC shall terminate in accordance with Section 35.2.
- 1.118. Warranty Period. The term has the meaning as set forth in Section 18.3.
- 1.119. Warranty Procedures. The term has the meaning as set forth in Section 18.8.

1.120. Work. All work and services required or appropriate in connection with the engineering, procurement, manufacturing, construction, erection, installation, training, commissioning (including inspection), testing and completion and all Equipment, and as further described in Section 4.1, including the Pre-Construction Services.

1.121. Workers' Compensation Laws. The term has the meaning as set forth in Section 4.24.

2. EXHIBITS, INTERPRETATION, CONFLICTS

2.1 Exhibits. This Contract includes the following Exhibits annexed hereto (and incorporates all attachments to such Exhibits, if any) and any reference in this Contract to an Exhibit by letter designation, Exhibit or title shall mean one of the following so indicated and such reference shall indicate such Exhibit herein.

EXHIBITS

A	Scope of Work and Specifications
B	Pre-Construction Services
C-1	
D	Progress Payment Schedule and Schedule of Values
E	Change in Work Form
F	Form of Contractor's Invoice
G	Critical Path Method Schedule
H	Deliverables Schedule I Owner Milestones
J	Key Personnel
K	Not Used
L	Not Used
M	Form of Parent Guarantee and Legal Opinion
N	Not Used
O	Form of Letters of Credit
P	Form of Assignment Clause for Subcontractors
Q	Insurance
R	Detailed Pricing Schedules, Change in Work Rates and Unit Price Change in Work Rates
S	Background Check Criteria / NERC-CIPS Standards
T	Contractor's Safety Assurance Program
U	Contractor's Quality Assurance Programs
V	Forms of Completion Certificates
W	Owner's Site Access and Safety Requirements
X	Not Used
Y	Property Retirement Unit Reporting Requirements
Z	Forms of Partial and Final Release and Waiver of Liens and Claims

2.2 Interpretation. Except as otherwise expressly noted:

- (a) Terms defined in a given number, tense or form shall have the corresponding meaning when used in this Contract with initial capitals in another number, tense or form;
- (b) Except as otherwise expressly noted, reference to specific Sections, Subsections and Exhibits are references to such provisions of or attachments to this Contract;
- (c) References containing terms such as “hereof,” “herein,” “hereto,” “hereinafter,” and other terms of like import are not limited in applicability to the specific provision within which such references are set forth but instead refer to this Contract taken as a whole;
- (d) “Includes” or “including” shall not be deemed limited by the specific enumeration of items, but shall be deemed without limitation;
- (e) References to agreements, certificates and other legal instruments include all subsequent amendments thereto, and changes to, and restatements or replacements of, such agreements, certificates or instruments that are duly entered into and effective against the parties thereto or their permitted successors and assigns;
- (f) References to Persons include their permitted successors and assigns;
- (g) A reference to a statute or to a regulation issued by a Governmental Authority includes the statute or regulation in force as of the date hereof, together with all amendments and supplements thereto and any statute or regulation substituted for such statute or regulations;
- (h) A reference to a governmental agency, department, board, commission or other public body or to a public officer includes an entity or officer that or who succeeds to substantially the same functions as those performed by such public body or officer as of the Effective Date;
- (i) Unless the context clearly intends to the contrary, words singular or plural in number shall be deemed to include the other and pronouns having a masculine or feminine gender shall be deemed to include the other;

- (j) Unless otherwise stated, words which have well known technical or construction industry meanings are used in this Contract in accordance with such recognized meanings; and
- (k) The words “acceptable to”, “approved by,” “satisfactory to,” “determine that,” “consent of” or other phrases of like effect or import shall mean that, unless expressly stated otherwise (including where the Contract provides a time period for such action), the Party exercising such right of acceptance, approval or judgment shall be reasonable under the circumstances and shall not unduly delay or withhold such acceptance, approval, consent or judgment.

2.3 Conflicts in Documentation.

- (a) In the event of any conflict between this document and any of the Exhibits hereto, the terms and provisions of this document, as amended from time to time, shall control, unless expressly stated otherwise in this document.
- (b) Should there be any conflict between or within the Exhibit(s) (including the attachments to the Exhibits) hereto, the Contractor shall promptly give Notice to Owner and shall secure written instructions from the Project Representative before proceeding with the Work affected thereby. Upon receiving written instructions from the Project Representative, Contractor shall proceed as instructed.

2.4 Documentation Format. This Contract and all documentation to be supplied hereunder shall be in the English language.

3. **RESPONSIBILITIES OF OWNER.**

Owner shall:

- 3.1 Project Representative. Designate (by a Notice delivered to Contractor) a Project Representative, who shall act as a single point of contact for Contractor with respect to the prosecution of the Work but who shall not be authorized to execute or approve any Change in Work or any amendments to this Contract.
- 3.2 Owner Milestones. Owner shall commence or complete, as the case may be, the Owner’s Scope in accordance with the milestones set forth on Exhibit “I” (“Owner Milestones”) in accordance with the schedule, terms and conditions set forth in Exhibit “I” with respect to each applicable Owner Milestone. Owner and Contractor agree that

the timely completion of the Contractor Schedule Milestones by Contractor is an important aspect of this Contract. In the event Contractor's failure to timely complete a Contractor Schedule Milestone by the date provided in Exhibit G.1.1 or a Contractor Cause results in Owner's failure to complete an Owner Milestone by the applicable date provided in Exhibit "I" or otherwise causes Owner to incur additional costs and expenses in connection with the performance of its work related to any Owner Milestones, then: (a) the Owner Milestone date shall be adjusted to reflect any delays to the extent caused by Contractor; and (b) Contractor shall pay Owner for any additional costs and expenses reasonably incurred by Owner as a result of any such delay.

3.3 Ministerial Assistance. In a reasonably prompt manner after Notice from Contractor, execute applications as Contractor may reasonably request in connection with obtaining any Contractor Acquired Permits. Contractor shall indemnify, defend, and hold harmless Owner from and against any and all Losses that Owner may incur as a result of signing any such applications at Contractor's request.

3.4 Owner Acquired Permits. Obtain with Contractor's reasonable assistance to be provided at no cost to Owner, and pay for all Owner Acquired Permits.

3.5 Access to Site. Subject to Section 4.18, the Land Rights Agreements and the terms of the Applicable Permits, Owner shall make the designated parts of the Site reasonably available to Contractor on or prior to the applicable Owner Milestone for such part of the Site so as to permit the Contractor to perform the Work applicable to such part of the Site; provided, however, that Contractor shall coordinate with Owner regarding initial entry onto the Site or any part thereof and contact with the Persons who own property on or near, or have granted license or easement rights in and to, the Site. Contractor shall be solely responsible for all costs and expenses required to upgrade (including paving if required), repair and maintain any existing roads and to construct, repair and maintain any temporary roads in connection with the Project. Contractor shall be solely responsible for all costs and expenses required to repair any damages to the Site arising as a result of Contractor's performance of the Work; and without limiting the generality of this sentence, shall also be responsible for the specific damages in accordance with Exhibit "A", Section 18.

3.6 Hazardous Materials. Owner shall be responsible for all Hazardous Materials (other than Hazardous Materials for which Contractor is responsible pursuant to Section 4.33) at the Site as of prior to the Effective Date and for any Hazardous Materials subsequently brought to the Site by Owner or anyone employed by the Owner (other than Contractor, Subcontractor, anyone employed by them, or anyone for whose acts Contractor or any Subcontractor may be liable). Owner shall, with respect to those Hazardous Materials identified above in this Section, and at Owner's sole cost and expense, be responsible for: (a) the proper handling, storage, collection, containment, removal, transportation and disposal from the Site of all such Hazardous Materials; and

(b) any environmental condition caused by such Hazardous Materials.

4. RESPONSIBILITIES OF CONTRACTOR.

Contractor shall:

4.1 Performance of Work. Perform or cause to be performed all Work for the engineering, procurement, construction, erection, installation, commissioning and testing of the Project and the other materials, equipment, machinery and facilities; which work and services shall include the provision of all permits, materials, Equipment, machinery, tools, labor, transportation, administration and other services and items required to complete and deliver to Owner the fully integrated and operational Project, all on a fixed-price, turnkey, guaranteed-date basis, and otherwise in accordance with the Contract , Applicable Laws and Industry Standards. Contractor hereby agrees to perform or cause to be performed all Work upon the terms and conditions of this Contract.

Contractor shall perform and complete all of the Work on a turnkey basis without any Defects, in accordance with the terms of this Contract and in compliance with Industry Standards, Applicable Laws and Applicable Permits; provided, however, that where any such standard, law, permit or contract provides for less stringent standards than those specifically stated in this Contract, the standards specifically stated in this Contract shall govern.

Where this Contract describes a portion of the Work in general, but not in complete detail, the Parties acknowledge and agree that the Work includes any incidental work that within the construction industry is customarily included in projects of the type contemplated by this Contract or by Industry Standards.

Contractor shall design the Project so that it is capable of operation, at the design levels specified in the Scope of Work, including Exhibit "A", in compliance with Industry Standards, Applicable Laws and Applicable Permits. Contractor shall design the Project so that it will allow operation of the Project and its component parts over the full range of operative and ambient conditions while meeting Applicable Laws, Applicable Permits and Industry Standards. Contractor acknowledges that this Contract constitutes a fixed price obligation to engineer, design, procure, construct and test through Substantial Completion a turnkey project, complete in every detail, within the time and for the purpose specified herein by Owner.

References to the obligations of Contractor under this Contract as being "turnkey" and performing the Work on a "turnkey basis" mean that Contractor is obligated to supply all of the Equipment, labor and design services and to supply and perform all of the Work, in each case as may reasonably be required, necessary, or appropriate (whether or not specifically set forth in this Contract) to complete the Work such that the Project satisfies the applicable terms and conditions set forth in this Contract, all for the Contract Price.

The Project shall be built in a manner so that none of the Work (including the Equipment) will be determined, for insurance purposes, to be “prototype equipment.”

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4.2 Cost of Work. Furnish, be responsible for, and pay the cost of all of the Work including labor, materials, Equipment and supervision necessary to engineer, procure, expedite, deliver, receive, secure, off-load, store, construct, inspect, commission and test the Project, in strict accordance with the provisions of this Contract, including all access roads, site work, footings, foundations, pilings, drilled piers, construction materials, construction equipment, and auxiliaries.

4.3 Facilities. Provide all communication facilities, material storage and laydown areas, construction water, construction electricity and sanitary facilities to be used by Contractor and Subcontractors during performance of the Work.

4.4 Organization. Maintain a qualified and competent organization at the Site with adequate capacity and numbers of construction and commissioning personnel, construction equipment, tools, materials, supplies and facilities to execute the Work in a safe, efficient, environmentally sound, and professional manner at a rate of progress in accordance with the Critical Path Method Schedule.

4.5 Project Manager/Staff. Designate a Project Manager acceptable to Owner who will have full responsibility for the prosecution of the Work and will act as a single point of contact in all matters on behalf of Contractor. Designate a Construction Manager and provide staff to supervise, manage and coordinate the Work of Contractor and Subcontractors on the Site. The Key Personnel shall at all times hold the positions and be dedicated to the performance of the duties described in Exhibit “J”. Any replacement of the Project Manager or Key Personnel shall be subject to the prior written consent of Owner which consent will not be unreasonably withheld. If Owner fails to respond to a request for consent within ten (10) Business Days after Owner’s receipt of Contractor’s request, Owner shall be deemed to have consented to the proposed individual.

4.6 Contractor Acquired Permits. Obtain all Contractor Acquired Permits and provide copies to Owner at Owner’s request.

4.7 Inspection. Perform all inspection; expediting, quality surveillance, and other like services required for performance of the Work, including inspecting all materials and Equipment that comprise the Project or that are to be used in the performance of the Work. Contractor shall be responsible for determining all utility locations, underground obstructions, archeological and cultural resources at its own expense prior to undertaking any Work at the Site.

4.8 Maintenance of Site. Maintain the Site and any Contractor Yard Site clear of Hazardous Materials, debris, waste material and rubbish. All trash, debris and waste materials shall be

removed from the Site and disposed of by Contractor, in a timely manner. All waste must be disposed of at a permitted sanitary disposal site, and Contractor shall provide Owner copies of all waste disposal manifests. Combustible material shall be promptly removed from the Site or Contractor's Yard Site, and shall not be allowed to accumulate. Burning on the Site and the Contractor Yard Site is prohibited. Promptly upon the completion of the Work, the Work shall be cleaned and all scrap, trash, and waste materials and debris resulting from Work under this Contract shall be removed from the Site and the Contractor Yard Site. All Contractor-owned facilities, materials and construction equipment shall be removed from the Site and the Contractor Yard Site and such sites shall be left in its original condition, except to the extent it has been modified pursuant to this Contract. If Contractor fails to clean up as provided herein, Owner may do so and the reasonable cost thereof shall be charged to Contractor or offset against payments hereunder.

4.9 Price Allocation Schedule. Upon Owner's reasonable requests, provide a price allocation schedule for the Work and other information reasonably necessary for Owner to maintain segregated accounts for its accounting and tax records, ownership records and/or fixed asset records.

4.10 Site Security. Contractor shall provide all necessary and reasonably appropriate security measures for the protection of the Work, the Site, the Contractor Yard Site and the Project. Contractor will consult with and cooperate with Owner in the development and implementation of security practices and programs for the Project. Contractor shall prepare and maintain accurate reports of incidents of loss, theft, or vandalism and shall furnish these reports to Owner in a timely manner. Contractor shall not be entitled to any adjustment of the Substantial Completion Date or any adjustment to the Contract Price arising from incidents of Equipment theft or vandalism.

4.11 Contractor Safety Program. Contractor shall comply with the requirements of Exhibit "A", the Contractor Safety Program set out in Exhibit "T", and Owner's Safety Requirements set out in Exhibit "W" (including any third party safety requirements that are applicable to portions of the Work and stated in Exhibit "W"), and provide all necessary and reasonably appropriate safeguards at the Site and any Contractor Yard Site for the protection of all Persons and the Work. Contractor shall not perform any Work at the Site until and unless a safety plan applicable to such Work is either included in Exhibit "T" or included in the fully integrated safety program delivered and accepted by Owner in accordance with this Section 4.11. In the event Contractor fails to comply with the safety program requirements set forth in this Contract, Owner shall be entitled to immediately suspend the Work until non-compliance is rectified, and neither the Contract Price nor any other Project Guaranteed Dates shall be adjusted as the result of any such suspension.

Within sixty (60) days of the effective date, Contractor shall provide, by Notice to Owner, a Contractor Project safety program that has fully integrated the requirements in Exhibit "A", Exhibit "T" and Exhibit "W" and that is prepared specifically for this Project (the "Contractor Safety Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment within fifteen (15) days after receipt of such notice, Owner shall be deemed to have accepted such Contractor

Safety Program. Upon acceptance (or deemed acceptance) of such program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit "T" hereto. In the event the standards or requirements derived from the foregoing are inconsistent, Contractor shall perform, or cause to be performed, its obligations in accordance with the requirements of the most stringent rule, standard, criteria or guideline. Notwithstanding Owner's review and approval of the Contractor Safety Program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

Contractor shall provide Project Representative with immediate telephone or email notification followed by Notice to Owner within twenty-four (24) hours of any accidents and/or occupational injuries or vehicle accidents that occur to any of Contractor's or Subcontractor's employees working on or in the vicinity of the Site or a Contractor Yard Site, any damages to Owner's facilities, any property damage, bodily injury, electric contact, or fatality that arises in connection with the performance of this Contract on or in the vicinity of the Site or Contractor Yard Site which such notice shall be on the Owner's form included in the materials attached as part of Exhibit "W". Contractor will furnish Owner with a copy of all accident reports or work injury reports as promptly as possible and in any event within twenty-four (24) hours of such accident or work injury and in the event any further reports are completed after such initial reporting, Contractor shall promptly provide Owner a copy. Contractor shall assist Owner in any investigation and provide information as reasonably requested by Owner relating to the incident. Contractor shall provide Owner with a 'root cause analysis' of the accident or incident within three (3) business days of the accident or incident occurring. All accident and incident reports shall comply with Applicable Laws. Contractor shall provide Owner with copies of all written communications with Governmental Authorities and insurance companies (including any notices) with respect to accidents that occur at the Site.

4.12 Equipment. Arrange for complete handling of all Equipment and construction equipment including inspection, expediting, quality assurance, shipping, loading, unloading, customs clearance, permitting and licensing, receiving, storage, and claims.

4.13 Construction Materials and Supplies. Provide all temporary construction materials, office and meeting facilities, all communication lines and facilities, warehousing and storage facilities, fuel storage facilities, sanitary facilities, parking facilities for Contractor's and Subcontractors work force, laydown areas, equipment, supplies, construction utilities and facilities, special tools, and commissioning supplies reasonably necessary or appropriate for the construction, testing, commissioning, and operation and maintenance of the Project until achievement of Substantial Completion. Contractor shall provide internet access and telephone access at the construction Site office. By delivery of a Notice to Owner prior to the disposition of any surplus construction materials, parts, or supplies remaining on the Site on the Substantial Completion Date (other than materials and supplies necessary to achieve Final Completion), Contractor shall give Owner the option to purchase all or part of such items at a price not exceeding Contractor's cost therefor. Owner shall exercise such right, if it so elects, within thirty (30) days after receipt of such Notice.

4.14 Contractor's Personnel/Drugs, Alcohol and Firearms. Contractor shall employ in the performance of the Work only persons qualified for the same. Contractor shall at all times enforce strict discipline and good order among its employees and the employees of any Subcontractor of any tier. Contractor shall not permit or allow the introduction or use of any firearms, illegal drugs or intoxicating liquor upon the Work under this Contract, or upon any of the grounds occupied, controlled or used by Contractor in the performance of the Work. Contractor shall immediately remove from the Work, whenever requested by Owner, any person considered by Owner to be incompetent, insubordinate, careless, disorderly, or in violation of the above restriction on firearms, illegal drugs or intoxicating liquor, or under the influence of illegal drugs or intoxicating liquor, and such person shall not again be employed in the performance of the Work herein without the consent of Owner.

4.15 Applicable Laws/Permits. Contractor shall provide all technical support and information, and other reasonably requested information, to assist the Owner in applying for and obtaining Owner Acquired Permits. Contractor shall comply in all respects with all Applicable Laws and Applicable Permits relating to the Project, the Site, the Contractor Yard Site and the performance of the Work. The Contractor Acquired Permits either have been obtained by Contractor and are in full force and effect on the Effective Date or will be obtained by Contractor and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect, so as to permit Contractor to commence and prosecute the Work to completion in accordance with the Critical Path Method Schedule.

Without limiting the generality of the foregoing, Contractor shall comply with all Applicable Laws and Applicable Permits regarding environmental matters. Prior to proceeding with construction activities, Contractor must develop an environmental assurance plan complying with the requirements of Exhibit "A", Section 22. Contractor's environmental assurance program will be subject to Owner's review and approval. Delays incurred due to Contractor's failure to provide an environmental assurance program approved by Owner will not constitute a Change in Work. Within forty-five (45) days of the Effective Date, Contractor shall provide, by Notice to Owner, a Contractor environmental assurance program that has fully integrated the requirements in Exhibit "A", Section 22 and that is prepared specifically for this Project (the "Contractor Environmental Assurance Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment within fifteen (15) days after receipt of such notice, Owner shall be deemed to have accepted such Contractor Environmental Assurance Program. Upon acceptance (or deemed acceptance) of such program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit A, Section 22 hereto. In the event the standards or requirements derived from the foregoing are inconsistent, Contractor shall perform, or cause to be performed, its obligations in accordance with the requirements of the most stringent rule, standard, criteria or guideline and in all events in compliance with Applicable Laws and Applicable Permits. Notwithstanding Owner's review and approval of the Contractor Environmental Assurance Program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

Contractor shall be responsible for all Losses that may arise (including those that Owner pays or becomes liable to pay) because of non-compliance with requirements in this Section, other than any such Losses arising from: (a) the acts or omissions of Owner, Owner's employees and agents, or other third parties under the control of Owner, or (b) Hazardous Materials for which Owner is responsible pursuant to Section 3.6.

So long as Contractor has complied with its obligation to provide support and information as described above, Contractor shall be entitled to request a Change in Work in accordance with Article 17 in the event the final conditions, obligations and/or requirements of an Owner Acquired Permit (as identified in Exhibit "A", Section 17 as not being in final form as of the Effective Date) are different than those conditions, obligations and/or requirements that should have been reasonably anticipated by the Contractor based upon the Scope of Work, Industry Standards, and the applicable permit application or draft permit (if and as provided to Contractor by Owner prior to the Effective Date) and such difference has a materially adverse effect on Contractor's costs and schedule for performing the Work. Notwithstanding the forgoing, variances to Owner Acquired Permits that are not directed and approved by Owner will not constitute a Change in Work.

4.16 Replacement at Owner's Request. Within two (2) Business Days after request by Owner, remove from the Site and performance of the Work, and cause any Subcontractor to remove from the Site and performance of the Work, and as soon as reasonably practicable, replace, any individual performing the Work (including any of the Key Personnel) whom Owner believes to be creating a safety hazard or a material risk of: (a) non-achievement of a Project Guaranteed Date; or (b) material non-performance by Contractor in accordance with this Contract.

4.17 Quality Assurance Programs. Use effective quality assurance programs, acceptable to Owner and consistent with the requirements of Exhibit "A" and the Quality Assurance Program set out in Exhibit "U" in performing the Work. Within forty-five (45) days of the Effective Date, Contractor shall provide by Notice to Owner a Quality Assurance Program that has fully integrated the requirements in Exhibit "A" and Exhibit "U" and that is prepared specifically for this Project ("Quality Assurance Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment with fifteen days after receipt of such notice, Owner shall be deemed to have accepted such program. Contractor shall not perform any Work until and unless a quality assurance program applicable to such Work is either included in Exhibit "U" or included in the Quality Assurance Program delivered and accepted by Owner in accordance with this Section 4.17. Upon acceptance (or deemed acceptance) of such program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit "U" hereto. Notwithstanding Owner's review and approval of such program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

4.18 Access. Contractor and its Subcontractors may access those parts of the Site identified in Exhibit "I" as being available to be accessed by Contractor for the performance of the Work on the date of the corresponding Owner Milestone as set forth on Exhibit "I", and any

such access by Contractor and its Subcontractors shall be in accordance with the terms of this Contract. In no event shall Contractor or any Subcontractor commence any Work upon any portion of the Site unless and until Owner issues a Notice to Contractor that such portion of the Site may be accessed by the Contractor to perform the Work, and then upon such issuance Contractor shall only be permitted to access those portions of the Site reasonably required to be accessed to perform the Work that is the subject of the applicable Notice, unless otherwise agreed in writing by Owner.

Contractor shall use only the entrance(s) to the Site as specified by Owner for ingress and egress of all personnel, equipment, vehicles and materials. .

Contractor shall not damage, close, or obstruct any highway, road, or other public or private easement, except to the extent allowed by Applicable Permits. If such facilities are closed, obstructed, damaged, or made unsafe by Contractor, Contractor shall, at its sole expense, make such repair as necessary and shall also provide such temporary guards, lights, and other signals as necessary or required for safety or as reasonably requested by Owner.

Owner shall have access to all existing facilities in case emergency repairs are necessary. Contractor shall not block or obstruct existing access routes to existing facilities.

Contractor has undertaken (or will be deemed to have undertaken) an independent determination of the Site and the access thereto and represents that the Site and the access thereto are satisfactory and sufficient for Contractor to perform the Work hereunder on the real estate encompassing such Site.. Contractor shall comply with the terms of any applicable Site Agreements. As of the Effective Date, Contractor represents and warrants that it has inspected and is fully familiar with the Site and the Land Rights Agreements (as listed in Exhibit "A", Section 18) and that the Site and access thereto are sufficient for Contractor to undertake and complete the Work. Contractor shall have the sole responsibility to obtain all construction permits, transportation permits, and other licenses, rights of way and other real property rights and easements necessary for Contractor to complete the Work that are not part of the Site, and any Owner assistance to Contractor in obtaining, or negotiation of, such rights shall be for Contractor's account and Owner may deduct such costs and expenses from any payment due to Contractor from Owner hereunder.

Contractor shall provide all necessary information and documents and use all reasonable efforts to assist Owner in obtaining any other real property rights that Owner at any time is seeking in connection with the Project. Contractor shall provide direct support, including but not limited to engineering drawings, expert testimony, supporting documents and affidavits, etc., to Owner's legal counsel in connection with any condemnation proceedings or any other legal action that may arise from the work performed. Contractor shall notify Owner upon the occurrence, or likely occurrence, of a dispute, conflict, confrontation, or other similar problem, or potential problem, involving one or more owners or occupiers of land so situated as to potentially result in a situation that may have a material adverse effect upon the performance of the Work. Contractor shall cooperate with Owner in resolving all such problems.

Contractor agrees to conduct and coordinate (if necessary) the performance of the Work by Contractor at the Site with the other construction contractors performing work at the Site. Contractor shall, prior to proceeding with any Work at the Site, give Notice to Owner of any issues that Contractor has determined would materially delay or affect Contractor's performance of the Work. Failure of the Contractor to provide such Notice shall constitute an acknowledgment and admission that Owner has provided reasonable access to the Site.

4.19 Documents at Site. Upon mobilization to the Site, Contractor shall maintain at the Contractor's primary field office at or near the Site for Owner one (1) record copy of the Contractor Deliverables, in good order and marked currently to record changes and selections made during the Work and, in addition, approved shop drawings, product data, samples and similar required submittals. These shall be available to Owner at all times. Upon completion of the Work, Contractor shall promptly furnish Owner with one (1) set of as-built drawings and complete copies of the shop drawings, product data, samples, operating manuals, parts books and other submittals required by the Contract.

4.20 Other Assistance. Until Final Completion, Contractor shall: (a) to the extent reasonably requested by Owner, assist Owner in dealing with Governmental Authorities and other Persons in any and all matters relating to the Work and/or the Project; and (b) cooperate to the extent reasonably necessary to enable Owner to perform its obligations under Owner's agreements with other Persons.

4.21 Data, Drawings and Manuals. Provide all operating data, preliminary or redline as-built drawings, manuals and other information necessary to safely and efficiently commission, test, operate, shut down, and maintain the Project (including those set forth in Exhibit "A"). Contractor shall maintain at the Site (in compliance with the maintenance requirements in Section 4.19) for Owner one (1) record copy of the Contractor Deliverables in good order and marked currently to record changes and selections made during the Work and, in addition, approved shop drawings, product data, samples and similar required submittals. These shall be kept on the Site and be available to Owner at all times.

4.22 Training. Contractor shall provide the training as described in Exhibit "A".

4.23 Announcements; Publications. Other than as may be required by Applicable Laws, Contractor shall not make any public announcements or issue any public publication about the Project without the prior written consent of the Owner.

4.24 Workers' Compensation. Contractor shall comply with all applicable statutory requirements of the state and/or federal regulations (e.g., FELA, USL&H, Jones Act) where the Work is to be performed ("Workers' Compensation Laws") and shall furnish proof thereof satisfactory to Owner prior to commencing Work.

4.25 Documents Requested. Provide such data, reports, certifications and other documents, including multiple hard copies of each and one electronic copy (unless another quantity is specified in the Contract), or assistance related to the Work or this Contract as may be reasonably requested by the Owner; provided, however, that the provision of this

information shall not in any manner modify Contractor's rights or obligations under any other provision of this Contract.

4.26 Critical Path Method Schedule. Attached in Exhibit "G" is a summary schedule (including all of the Critical Path Items and the Owner Milestones) (the "Summary Bid Schedule").

Within fourteen (14) days of the Effective Date, Contractor shall provide Owner with a detailed preliminary schedule for the first ninety (90) days after the Effective Date ("90 Day Schedule"). The preliminary schedule should be generally consistent with the Summary Bid Schedule and must satisfy the requirements of Exhibit G.

Within Ninety (90) days of the Effective Date the Contractor must provide a complete detailed critical path method schedule (the "Project Baseline Schedule") to be submitted to the Owner, for review. The Project Baseline Schedule must be consistent with the Summary Bid Schedule and the 90 Day Schedule, and satisfy the requirements set forth in Exhibit "G". Each of the Summary Bid Schedule, 90 Day Schedule and Project Baseline Schedule shall be subject to Owner's approval, not to be unreasonably withheld or delayed. The latest version of the critical path method schedule approved by Owner shall be deemed to be the Critical Path Method Schedule required under the Contract.

Such complete fully detailed Critical Path Method Schedule shall be the baseline schedule against which all updates shall be compared against and neither the Critical Path Items, the Contractor Schedule Milestones, nor the Owner Milestones may be revised except in accordance with Article 17. Contractor shall advise Owner of any delays to any Critical Path Items of more than fifteen (15) days and promptly provide Owner with the reasons for such delay. In connection therewith, Contractor shall employ a project management system able to provide schedule monitoring and analysis which shall include a comparison of the original Critical Path Method Schedule with the actual progress for each time period with all variances noted. If any of the Critical Path Items, Contractor Schedule Milestones, Owner Milestones, or Project Guaranteed Dates are adjusted pursuant to Article 17, the system shall also provide a comparison of the revised Critical Path Method Schedule with actual progress. Schedule analysis shall include a determination of the impact of such variance, if material, on the Contractor's ability to meet the Project Guaranteed Dates and Contractor Schedule Milestones and, if applicable, any action necessary to correct the variance.

Utilizing the critical path method, Contractor shall continually be aware of factors that are delaying or that could delay the achievement of a Contractor Schedule Milestone or Substantial Completion and shall take all commercially reasonable and prudent remedial actions within its control to eliminate or minimize schedule delays including overtime for the employees of Contractor and Subcontractors and the assignment of additional personnel and/or other resources. During construction, the Contractor will update its Critical Path Method Schedule to reflect the current status of the Work. At a minimum, the updates will be performed and provided to Owner on a monthly basis as part of the Project Progress Report.

4.27 Project Progress Report. Contractor shall prepare a monthly Project Progress Report following the format of Exhibit "A", Section 19 and submit it to Owner within ten (10) days after the end of each reporting period and as part of the Contractor's Invoice submitted pursuant to Section 7.1. In addition, Contractor shall keep, and furnish to Owner at Owner's request, such information as Owner may reasonably require to determine that the Work is progressing according to the Critical Path Method Schedule and for the purpose of confirming that Progress Payments are due hereunder, including, but not limited to monthly forecasting and accruals processes acceptable to Owner. Contractor also shall keep daily logs at the Site and shall provide to Owner copies of weekly reports of actual construction progress as compared with scheduled progress, which such weekly reports shall include at a minimum the information required for such weekly reports as described in Exhibit "A", Section 19 hereto.

4.28 Accident Reports. Provide Owner with written accident reports for accidents that occur at the Site, prepared in accordance with the Contractor Safety Program and the requirements of this Contract. Provide Owner with copies of all written communications with Governmental Authorities and insurance companies (including any notices) with respect to accidents that occur at the Site or the Contractor Yard Site or in connection with the performance of the Work, and thereafter provide such written reports relating thereto as Owner may reasonably request.

4.29 Punchlist. On a weekly basis after the Substantial Completion Date, revise and update the Punchlist and schedule and budget therefor as initially prepared in accordance with Section 15.1(e). After the Substantial Completion Date, Contractor shall complete each item of Work set forth on the Punchlist within the scheduled time period for such item as agreed to pursuant to Section 15.1(e).

4.30 Measurements. Exclusively use the U.S. Customary System units of measurement in all specifications, drawings, and other documents.

4.31 Meetings. Schedule and conduct periodic meetings with Owner in accordance with the requirements of Exhibit "A" before mobilization, at Contractor's office or such other location as the Parties may agree, and after mobilization, at the Site, or such other location as the Parties may agree, for the purpose of reviewing the progress of the Work and adherence to the Critical Path Method Schedule. The frequency of such meetings shall be in accordance with the frequency described in the Exhibits or as established and modified, from time to time, by mutual agreement of Owner and Contractor; provided, however, Owner shall be entitled to require that meetings occur as frequently as weekly. If Owner requests that Contractor cause a representative of any Subcontractor to attend any such meeting, then Contractor shall cause a representative of such Subcontractor to attend such meeting.

4.32 Parts. Contractor shall for its own account, provide all parts needed for construction, commissioning and testing of the Project. Contractor shall provide the spare parts identified in Exhibit "A", Section 21 ("Spare Parts") to be provided by Contractor and the cost of such Spare Parts is included in the Contract Price. Contractor shall also provide the pricing for the parts in accordance with the requirements set out in Exhibit "A", Section 21. In

addition, Contractor shall use reasonable efforts prior to ordering an item of Equipment to deliver to Owner reasonably in advance of placing such order a schedule describing any additional spare parts relating to such item of Equipment that the Contractor or Subcontractor reasonably suggests to be purchased with the Equipment along with the price for such part(s).

Contractor agrees that any part (whether provided by Contractor or Owner) that is incorporated into the Project by Contractor shall be covered under the Project Warranties and the other terms of the Contract, notwithstanding that such part may not have been provided or procured by Contractor.

4.33 Hazardous Materials.

- (a) Contractor's Obligations. Contractor shall comply with the obligations in Exhibit "A" with respect to Hazardous Materials.
- (b) Contractor's Responsibility. Contractor shall be responsible for all Losses arising from Hazardous Materials being delivered to, brought to or used at the Site or Contractor Yard Site by Contractor, Subcontractor or anyone employed by them, except those for which Owner is responsible pursuant to Section 3.6, including the costs of: (i) the permitting, storage, transportation, processing or disposal of Hazardous Materials, (ii) the remediation of any environmental condition caused by such Hazardous Materials, and (iii) any fines or penalties imposed by any Governmental Authority. Without limiting the generality of foregoing, Contractor shall be responsible for any Losses relating to the disposal, discharge, disturbance or release of Hazardous Materials at or in the vicinity of the Site or Contractor Yard Site by Contractor (or otherwise present at or in the vicinity of the Site) as a result of Contractor's or Subcontractor's negligence or failure to comply with the terms of this Contract.
- (c) Procedures Upon Discovery. If Contractor discovers, encounters or is notified of the existence of any Hazardous Materials at the Site (but excluding any Hazardous Materials brought to the Site by Contractor or a Subcontractor and being used by Contractor or a Subcontractor in compliance with Applicable Laws or any Hazardous Materials that are being stored at the Site by Owner in compliance with Applicable Laws), then:
 - (i) Contractor shall as promptly as reasonably possible cease all Work in any area affected thereby;
 - (ii) Contractor shall promptly give Notice to Owner thereof and cordon off or otherwise barricade the area containing such Hazardous Materials unless instructed otherwise by Owner; and
 - (iii) Contractor shall promptly provide Owner with such written reports relating thereto as Owner may reasonably request.

(d) Contractor's Right to a Change in Work. Contractor shall not be entitled to any extension of time, additional compensation or a Change in Work hereunder for any delay or costs incurred by Contractor as a result of the existence of Hazardous Materials for which Contractor is responsible pursuant to this Section 4.33. However, should Contractor encounter Hazardous Materials at the Site which are not Contractor's responsibility pursuant this Section 4.33, then Contractor shall be entitled to a Change in Work in accordance with Article 17.

4.34 Design of Project. Contractor shall further design and construct the Project so that it will allow operation of the Project and each of its component parts over the full range of operating and ambient conditions specified in Exhibit "A" while meeting Applicable Laws, Applicable Permits and Industry Standards.

All engineering work of the Contractor (or any Subcontractor) requiring certification shall be certified and all Drawings and Specifications requiring sealing shall be sealed in each case by a professional engineer licensed and properly qualified to perform such engineering services in the state in which such portion of the Work is performed and in all appropriate jurisdictions and such engineers and their qualifications shall be subject to Owner's review hereunder. Upon Owner's request, Contractor shall provide Owner with the resumes and other information regarding such Persons. Contractor shall use, and shall cause its Subcontractor to use, staff that are certified, professional engineers in the states in which the Work is to be performed in relation to all mechanical, electrical and civil engineering Work performed in the respective states.

4.35 Audit. Contractor shall keep such full and detailed records, books and other documentation in accordance with Industry Standards and with generally accepted accounting principles as may be necessary for substantiation of all Contractor claims for additional compensation or Changes in Work. Owner and its respective designees, shall be afforded access to, be allowed to inspect and audit, and be allowed to make copies of such books, records and documentation. Such books, records and documentation will be available in the United States at Contractor's regular place of business during normal working hours. Contractor shall preserve all such books, records and documentation for a period of seven (7) years after the Final Payment, or longer where required by Applicable Laws. These requirements shall also apply to all Subcontractors and materials suppliers. The audit rights provided herein shall apply to the full extent necessary to verify any cost-based components of Contractor's pricing, as well as any portion of the guaranteed fixed pricing that is subject to commodity pricing adjustments pursuant to Section 6.1.1.

4.36 Operation of Existing Facilities. Contractor specifically acknowledges and agrees that the Work must be performed by the Contractor within the operating parameters relating to the Transmission Grid as described in Exhibit "A". In addition, Contractor agrees that it shall plan and perform the Work in such a manner to prevent disruption to the operations of any generating facility and the Transmission Grid, unless otherwise expressly approved in writing by Owner. In the event of an emergency on the

Transmission Grid or during any period for which Contractor has rendered a portion of the Transmission Grid inoperable or impaired, within 24 hours' notice from Owner, Contractor shall remove such condition in order to render the Transmission Grid fully operable.

4.37 Delivery of Documents. Owner and Contractor agree that the timely submission to Owner by Contractor of certain engineering Contractor Deliverables is an important aspect of this Contract. In the event Contractor's failure to timely provide Contractor Deliverables in accordance with the Deliverables Schedule (as established in accordance with Section 12.4) results in Owner's failure to obtain an Owner Acquired Permit or otherwise fulfill its obligations to Contractor under this Contract, then Contractor shall not be entitled to a Change in Work as a result of such delay.

4.38 Site Conditions. Neither Owner nor any of its agents or representatives have made nor shall they make any express or implied warranty to Contractor as to the accuracy and completeness of any test, inspection, report or other information concerning the condition of the Site and Owner shall not be liable to Contractor for any such information provided by Owner or its agents or representatives.

Contractor specifically represents and warrants that it has carefully examined the Agreement and understands the Agreement and Contract Documents, including all Drawings, Scope of Work, Plans and Specifications, and special conditions, if any. Contractor further represents that it has inspected the sites and routes of the Work and is thoroughly acquainted with all conditions that may be encountered in performing the Work. Contractor has considered all matters and factors that could affect the Work, or the cost thereof, or the schedule to complete the Work. No claim for either additional compensation or extension of time alleging changed, concealed or unknown conditions will be allowed or recognized by Company. In relation to the Work and the project site, Contractor has taken into account all facets of the job including the required access.

Contractor has investigated (or will be deemed to have investigated) the Site and each other location where any portion of the Work shall be performed and surrounding locations, including both surface and subsurface conditions and has satisfied itself with respect to the nature and location of the Work and the general and local conditions in and around the Site with respect to the environment, transportation, access, waste disposal, handling and storage of materials, availability and quality of electric power, availability and quality of water, availability and quality of roads, climatic conditions and seasons, physical conditions at the Site and the surrounding area as a whole, topography and ground surface conditions, sound attenuation conditions, subsurface geology and conditions, nature and quantity of surface and subsurface materials to be encountered (excluding Hazardous Materials) but including equipment and facilities, and requirements of all Governmental Authorities with regard to flora, fauna and cultural conditions needed before and during performance of all Contractor's obligations under this Contract (the foregoing, collectively, the "Site Conditions").

In the event that Contractor performs any geotechnical studies, Contractor shall promptly provide Owner with a copy of such studies and/or reports.

Contractor specifically acknowledges and accepts the foregoing Site Conditions and agrees that no Project Guaranteed Date shall be extended, the Contract Price shall not be modified, and Contractor shall not be entitled to request or be granted any Change in Work, as a result of any such Site Conditions. Further, should the Site Conditions be at variance with the condition of the Site indicated by any reports or other information furnished to Contractor by Owner or any of its representatives (including, but not limited to any unknown physical conditions below the surface of the ground or water differing in any way from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract) neither the Contract Price nor any other Project Guaranteed Dates shall be adjusted, and Contractor shall complete the Work for the Contract Price.

4.39 Non-Conforming Work. If Contractor is notified of or discovers any Defect, Contractor shall, at Contractor's sole cost and expense, correct such Defect and promptly provide Notice to Owner that such corrective measures have been completed. If Contractor discovers a defect in Owner's Engineer's design or engineering, Contractor shall immediately provide Notice to Owner. Any disagreements about the root cause of any Defect shall be resolved in accordance with the provisions of Article 36.

4.40 [Joint and Several Liability.] [The Contractor means each joint venture partner which shall undertake the duties and obligations of the Contractor under this Contract. Each joint venture partner has the duty and obligation, individually, to fully perform all of the duties and obligations of Contractor under this Contract. Owner may enforce the terms of this Contract against one or more joint venture partners, individually or collectively, upon breach of Contractor's performance hereunder. Even though each joint venture partner has assumed the duties and obligations of Contractor under this Contract on a joint and several basis, the Contractor is referred to herein as if singular in number. Without limiting the generality of the foregoing, the Owner shall be entitled to conclusively rely on any Notice or other correspondence received, or performance tendered by a Joint Venture Partner (relating to or in connection with the Project or this Contract) or the Contractor without any duty on the part of Owner to make an inquiry into the authority of the Contractor or such Joint Venture Partner to give such Notice or other correspondence or tender such performance, and any Notice or correspondence delivered or performance taken by one of the Joint Venture Partners (relating to or in connection with the Project or this Contract) or the Contractor shall validly and legally bind the others.] [If applicable.]

5. WARRANTIES AND REPRESENTATIONS

5.1 Of Contractor. Contractor represents and warrants to Owner that:

5.1.1 Organization, Standing and Qualification. Contractor is a _____, duly organized, validly existing and in good standing under the laws of the State of _____, and has, or will have by the date it commences the applicable Work, full power and authority to engage in the business it presently conducts and contemplates conducting in accordance with all Applicable Laws, and is or will be duly licensed or qualified and in good standing under the laws of all states in which Work is to be performed and in each other jurisdiction wherein the nature of the business transacted by it makes such licensing or qualification necessary and where the failure to be licensed or qualified would have a material adverse effect on its ability to perform its obligations hereunder. Contractor shall furnish Owner with a certified copy of its permit to transact business in each state and other jurisdiction wherein the nature of the business transacted by Contractor makes such licensing or qualification necessary prior to commencing Work under the Contract. Owner may, at its option, withhold from any payment hereunder and remit to the relevant Governmental Authority such sums as are required by Applicable Laws and has provided Owner with a copy of such certificate. In addition, the Owner may, as required by Applicable Laws, withhold the Final Payment of the Contract as a guarantee that sales and use Tax will be paid in the event that Owner has been provided notice by a Governmental Authority pursuant to Applicable Laws to withhold funds. Contractor shall make such returns and pay such Tax on account of payments received under this Contract as Applicable Laws may require, and shall hold Owner harmless on account of its failure to withhold any amount required by Applicable Laws from any payment made hereunder or on account of Contractor's failure to pay any such Tax to a Governmental Authority.

5.1.2 Enforceable Contract. This Contract has been duly authorized, executed and delivered by Contractor and constitutes the legal, valid and binding obligation of Contractor, enforceable against Contractor in accordance with its terms.

5.1.3 Due Authorization. The execution, delivery, and performance by Contractor of this Contract will not violate or conflict with: (a) any Applicable Laws; (b) any covenant, agreement, or understanding to which it is a party or by which it or any of its properties or assets is bound or affected; or (c) its organizational documents; and will not subject the Project or any component part thereof or the Site or any portion thereof to any lien other than as contemplated or permitted by this Contract.

5.1.4 Government Approvals. No authorization, approval, exemption, or consent of or by any Governmental Authority or other Person is required in connection with the authorization, execution, delivery, and performance of this Contract by Contractor. The Contractor Acquired Permits either have been obtained by Contractor and are in full force and effect on the Effective Date or will be obtained by Contractor and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect, so as to permit Contractor to commence and prosecute the Work to completion in accordance with the Critical Path Method Schedule.

5.1.5 No Suits, Proceedings. There are no actions, suits, proceedings, or investigations pending or, to Contractor's knowledge, threatened against it at law or in equity before any court (United States or otherwise) or before any Governmental Authority (whether or not covered by insurance) that individually or in the aggregate could result in any materially adverse effect on the business, properties, or assets or the condition, financial or otherwise, of Contractor or in any impairment of its ability to perform its obligations under this Contract. Contractor has no knowledge of any violation or default with respect to any order, writ, injunction, or decree of any court or any Governmental Authority that may result in any such materially adverse effect or such impairment.

5.1.6 Patents. Other than those patents, trademarks, service marks, tradenames, copyrights, licenses, franchises and permits included in Owner Acquired Permits, Contractor owns or has the right to use all patents, trademarks, service marks, tradenames, copyrights, licenses, franchises, and permits necessary to perform the Work without conflict with the rights of others and to enable Owner to operate the Project without infringement thereof.

5.1.7 Business Ethics. Contractor, its employees, officers, agents, representatives and Subcontractors shall at all times maintain the highest ethical standards and avoid conflicts of interest in the performance of Contractor's obligations under this Contract. In conjunction with its performance of the Work, Contractor and its employees, officers, agents and representatives shall comply with, and cause its Subcontractors and their respective employees, officers, agents and representatives to comply with, all applicable laws, statutes, regulations and other requirements prohibiting bribery, corruption, kick-backs or similar unethical practices including, without limitation, the United States Foreign Corrupt Practices Act, the United Kingdom Bribery Act 2010, or any similar laws, statutes, regulations and other requirements prohibiting bribery, corruption, kick-backs or similar unethical practices and similar Applicable Laws. Without limiting the generality of the foregoing, Contractor specifically represents and warrants that neither Contractor nor any Subcontractor employees, officers, representatives or other agents of Contractor have made or will make any payment, or have given or will give anything of value, in either case to any government official (including any officer or employee of any governmental authority) to influence his, her, or its decision or to gain any other advantage for Owner or Contractor in connection with the Work to be performed hereunder. Contractor shall maintain and cause to be maintained effective accounting procedures and internal controls necessary to record all expenditures in connection with this Contract and to verify Contractor's compliance with this Article. Owner shall be permitted to audit such records as reasonably necessary to confirm Contractor's compliance with this Article. Contractor shall immediately provide notice to Owner of any facts, circumstances or allegations that constitute or might constitute a breach of this Article and shall cooperate with Owner's subsequent investigation of such matters. Contractor shall indemnify and hold Owner harmless from all fines, penalties, expenses or other losses

sustained by Owner as a result of Contractor's breach of this provision. The Parties specifically acknowledge that Contractor's failure to comply with the requirements of this Article shall constitute a condition of default under this Contract.

5.1.8 Owner-Provided Information. Owner or its agents may provide or may have provided Contractor or Subcontractor with copies of certain studies, reports or other information (including oral statements) and Contractor acknowledges that all such documents or information have been or will be provided as background information or as an accommodation to Contractor. Contractor further acknowledges that neither Owner nor any of its agents makes any representations or warranties with respect to the accuracy of such documents or the information (including oral statements) or opinions therein contained or expressed. Contractor further represents and warrants that it is not relying on Owner or Owner's agents for any information, data, inferences, conclusions, or other information with respect to Site Conditions, including the surface and sub-surface conditions of the Site and the surrounding areas.

5.1.9 Financial Condition. Contractor is financially solvent, able to pay its debts as they mature, and possessed of sufficient working capital to complete its obligations under this Contract. Contractor is able to perform the Pre-Construction Services, furnish the Equipment, labor, and design services needed for the Project, is experienced in and competent to perform the Work, both construction and design, contemplated by this Contract, and is qualified to do the Work.

5.1.10 [Joint Venture.] [The Contractor is a joint venture and [each joint venture partner] have the power and authority to enter into this Contract. Each [joint venture partner] individually, has the duty and obligation to fully perform all of the duties and obligations of Contractor under this Contract. Any Notice or correspondence delivered or performance taken by one of either [joint venture partner] or the Contractor shall validly and legally bind the others on a joint and several basis.] [If applicable.]

5.1. **Of Owner.** Owner covenants, represents, and warrants to Contractor that:

5.2.1 Organization, Standing and Qualification. Owner is a limited liability company duly organized, validly existing, and in good standing under the laws of the State of Delaware, has full power to engage in the business Owner presently conducts and contemplates conducting, and is and will be duly licensed or qualified and in good standing in each jurisdiction wherein the nature of the business transacted by it makes such licensing or qualification necessary and where the failure to be licensed or qualified would have a material adverse effect on its ability to perform its obligations hereunder.

5.2.2 Enforceable Contract. This Contract has been duly authorized, executed and delivered by Owner and constitutes the legal, valid, and binding obligation of Owner, enforceable against Owner in accordance with its terms.

5.2.3 Due Authorization. The execution, delivery, and performance by Owner of this Contract will not conflict with: (a) any Applicable Laws; (b) any covenant, agreement, or understanding to which it is a party or by which it or any of its properties or assets is bound or affected; or (c) its certificate of incorporation or by-laws.

5.2.4 Government Approvals. No authorization, approval, exemption, or consent of or by any Governmental Authority or other Person (other than the Applicable Permits) is required in connection with the execution, delivery, and performance of this Contract by Owner and if not obtained will be obtained by Owner prior to the date on which it is required under Applicable Laws to be in full force and effect. The Owner Acquired Permits either have been obtained by Owner and are in full force and effect on the Effective Date or will be obtained by Owner and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect; and in the event such Owner Acquired Permit is not obtained by the applicable Owner Milestone, Contractor's sole remedy for a breach of the representations in this Section 5.2.4 shall be a Change in Work in accordance with Article 17.

5.2.5 No Suits, Proceedings. There are no material actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court (United States or otherwise) or before any Governmental Authority (whether or not covered by insurance) that individually or in the aggregate could result in any materially adverse effect on the business, properties, or assets or the condition, financial or otherwise, of Owner or in any impairment of its ability to perform its obligations under this Contract. Owner has no knowledge of any violation or default with respect to any order, writ, injunction, or any decree of any court or any Governmental Authority that may result in any such materially adverse effect or such impairment.

5.2.6 Business Practices. Owner will not, and Owner will direct its employees, agents, and subcontractors, and their employees and agents to not, make any payment or give anything of value to any government official (including any officer or employee of any Government Authority) to influence his, her, or its decision or to gain any other advantage for Owner or Contractor in connection with the Work to be performed hereunder. Neither Owner nor any of its employees or agents shall take any action that violates the United States Foreign Corrupt Practices Act or any similar Applicable Laws. Owner shall immediately give Notice to Contractor of any violation (or of the direction described in the first sentence hereof) and shall indemnify and hold Contractor harmless for all Losses arising out of such violation.

6. COST OF WORK

6.1 Contract Price. As full compensation for the Work, Owner shall pay to Contractor the fixed price amount of U.S. \$_____. (the "Contract Price"). The Contract Price shall be modified only by (i) a Change in Work approved in accordance with Article 17, or (ii) per Section 6.1(a).

The Contract Price shall be paid in accordance with Article 7.

6.2 All Items of Work Included. The Contract Price includes payment for: (a) all costs of Equipment, temporary equipment, materials, labor, transportation, engineering, design (if applicable) and other services relating to Contractor's performance of its obligations under this Contract and the Work (including any intellectual property rights licensed under this Contract, expressly or by implication) provided by Contractor or such Subcontractors; (b) any duties, levies, imposts, fees or charges of any kind (whether in the United States or elsewhere and including any of the foregoing related to the importation of any items into the United States) arising out of Contractor's or any such Subcontractor's performance of the Work; and (c) any duties, levies, imposts, fees, royalties or charges of any kind (whether in the United States or elsewhere and including any of the foregoing related to the importation of any items into the United States) imposed on Contractor or its Subcontractors with respect to any Equipment, materials, labor, or services provided under this Contract.

6.3 Taxes; Tax Administration and Payment.

(a) Responsibility for Taxes. The Contract Price includes payment for all taxes of any nature whatsoever including all: (i) United States federal, state, regional, and local taxes, national and foreign taxes, goods and services taxes, personal property taxes, sales and use taxes (including sales and use tax on the purchase, sale or use of all materials, supplies, Equipment and machinery); (ii) property taxes on all materials, supplies, equipment and machinery not intended to be transferred to Owner hereunder; (iii) occupational, excise, unemployment, value-added, gross receipts and income taxes; and (iv) any and all other taxes, effective or enacted as of the Effective Date or thereafter, each as imposed on Contractor or its Subcontractors or the Work (collectively referred to as "Taxes"); provided, however, the Contract Price shall not include any real property taxes on the Site or the Project, which shall be borne by Owner. With the exception of real property taxes not included in the Contract Price as described above in this paragraph, the Contract Price shall not be increased with respect to any of the foregoing Taxes or with respect to any withholdings in respect of any of the foregoing Taxes that Owner may be required to make. Calculation of Tax within the Contract Price is the sole responsibility of the Contractor and is provided for

informational purposes only. Any errors or omissions in calculating Tax shall be at the Contractor's risk.

(b) Tax Administration and Payment. Contractor shall, in accordance with Applicable Laws, timely administer and timely pay all Taxes that are included in the Contract Price and timely furnish to the appropriate taxing authorities all required information and reports in connection with such Taxes. Contractor shall provide to Owner information to confirm the correct Taxes have been paid on the Work by the Contractor and such further Tax information reasonably requested by Owner.

7. TERMS OF PAYMENT

Payments to Contractor shall be made as follows:

7.1. Contractor's Invoices.

- (a) Following the issuance of a Limited or Full Notice to Proceed, on or about the tenth (10th) day of each month, Contractor shall submit a Contractor's Invoice in the form of Exhibit "F" to Owner for the Progress Payment Amount in accordance with the requirements and provisions set forth in Exhibit "D". Owner shall pay undisputed amounts so invoiced within thirty (30) days.

In all cases, Contractor specifically agrees that it shall not request in any Contractor's Invoice the payment of any sum attributable to Work which has been rejected by Owner or Contractor or which otherwise constitutes or relates to a Subcontractor's application for payment, billings or invoices which Contractor disputes or for any other reason does not intend to pay in accordance with the terms of Contractor's agreements with its Subcontractors. Subject to the provisions of this Article 7, Owner shall pay Contractor each Progress Payment described on the Progress Payment Schedule upon Contractor's completion of the corresponding discrete portion of Work.

7.2. Certification by Contractor. Each Contractor's Invoice:

- (a) Shall provide documentary evidence in the form of a written progress report, in accordance with Section 4.27 to describe: (i) the completion of the Work to maintain the Interim Progress Milestones; (ii) the related Progress Payment Schedule and Amounts set forth on the Progress Payment Schedule that are then due as of the end of the immediately preceding month; and (iii) any other amounts then payable by Owner to Contractor under Article 17 or any other provision hereof and, without limiting Owner's right to dispute any amounts requested for payment;
- (b) Shall include Contractor's Partial Release and Waiver of Liens and Claims; and;
- (c) Shall include the Project Progress Report and Critical Path Method Schedule in accordance with Section 4.26 and Section 4.27, except to the extent they have previously been provided for the applicable month;

It being understood and agreed by Contractor that any Contractor's Invoice not in compliance with the Project Payment Schedule or that has been demonstrated to not be in compliance with the Interim Progress Milestones described in Exhibit "G", and in Exhibit "G" Attachment G.1.1 shall not, to the extent of such deficiency, constitute

a valid request for payment. Each Progress Payment Amount shall be due and payable only to the extent it is supported by documentary evidence of compliance with the Interim Progress Milestones set forth in Exhibit "G" Attachment G.1.1, it being acknowledged and understood that no Progress Payment shall be made for any partially or improperly completed individual items of Work or for Work that remains subject to Owner's review and inspection rights in accordance with Section 12.5.

Notwithstanding the foregoing, in no event shall the cumulative amount actually paid with respect to any period of time exceed the maximum cumulative amount payable for such period in accordance with the Progress Payment Schedule.

7.3 Subcontractor Statements. Accompanying each Contractor's Invoice, Contractor shall submit a Partial Release and Waiver of Liens and Claims from each Major Subcontractor whose Work is covered under such Contractor's Invoice.

7.4 Owner Review; Payments. Without limiting Owner's rights of review under Article 10 and Article 12, within fourteen (14) days after receipt by Owner of a Contractor's Invoice and all accompanying documentation required by Section 7.2, Owner shall: (a) determine whether the Interim Progress Milestones described in Exhibit G Attachment G.1.1 remain valid and not subject to the provisions of Section 8.3; (b) determine whether the Work performed conforms with the requirements of this Contract; (c) determine whether the Contractor's Invoice has been properly submitted; and (d) determine and give Notice to Contractor concerning any invoiced amount that is in dispute and the basis for such dispute. Owner will pay Contractor, within thirty (30) days after receipt by Owner of Contractor's Invoice, all Progress Payment Amounts and other amounts then payable and not in dispute. Failure by Owner to pay any amount in dispute and identified pursuant to clause (d) above until resolution of such dispute pursuant to Section 7.7 shall not alleviate, diminish, or modify in any respect Contractor's obligations to perform the Work in accordance with this Contract. Contractor shall promptly pay each Subcontractor directly contracting with Contractor the amount to which said Subcontractor is entitled under its agreement with Contractor with respect to the Work covered by such payment by Owner in accordance with the terms of its subcontract with such Subcontractor. Contractor shall, by an appropriate agreement with each Major Subcontractor, contractually require each such Subcontractor to make payments to its subcontractors in a similar manner.

7.5 Retainage. Owner shall retain and withhold payment of ten (10%) of all payments made to Contractor pursuant to Section 7.4 (the "Retainage") other than the Final Payment. Such amount shall be held by Owner and any interest thereon shall accrue for the account of Owner and not Contractor. Alternatively and in lieu of the above, no Retainage will be withheld by Owner provided Contractor posts an irrevocable transferable letter of credit issued for the benefit of the Owner by a Qualified Bank (the "Retainage LOC") not less than an amount equal to the Retainage (had it been withheld by Owner in accordance with the first paragraph of this Section 7.5).

7.6 Final Payment. Upon the delivery of Owner's Certificate of Final Completion in accordance with Section 15.5(1), Contractor shall submit a final Contractor's Invoice (the

“Final Contractor’s Invoice”) which shall set forth all amounts due to Contractor that remain unpaid (including amounts relating to the Punchlist Items), and upon approval thereof by Owner, Owner shall pay to Contractor the amount due under such Final Contractor’s Invoice (“Final Payment”). Subject to achievement of Final Completion pursuant to this Contract, Final Payment shall include release of the Retainage or return and cancellation of the Retaining LOC (as applicable). Owner shall have no obligation to make Final Payment until Contractor shall have delivered the following items to Owner:

- (a) With respect to each Major Subcontractor the Final Release and Waiver of Liens and; and
- (b) With respect to Contractor,
 - (i) A certification to the effect that:
 - (x) Contractor has been paid all amounts owing or that may become owing to Contractor with respect to the Project and the performance of the Work except for amounts requested in the Final Contractor’s Invoice, and
 - (y) Contractor has paid all amounts that Contractor will be required to pay in connection with the performance of the Work, including all amounts to be paid to any Subcontractor with respect to the Project and the performance of the Work, except for amounts that in the aggregate shall be less than the Final Payment;
 - (ii) The Final Release and Waiver of Liens and Claims; and
 - (iii) The Warranty LOC.

7.7 Disputes. Contractor’s acceptance of any payment shall not be deemed to constitute a waiver of amounts that are then in dispute. Contractor and Owner shall use their reasonable efforts to resolve all disputed amounts as expeditiously as possible in accordance with the provisions of Article 36.

7.8 Method of Payment. All payments to be made to Contractor under this Contract shall be paid in Dollars and shall be paid by electronic funds transfer in immediately available funds on the date due or, if such date is not a Business Day, on the immediately succeeding Business Day to the account as may be designated by Contractor from time to time by Notice to Owner in accordance with Article 33.

7.9 Holdbacks. Any provision hereof to the contrary notwithstanding, upon the occurrence and continuance of any of the following events, Owner, upon Notice to Contractor, may (but shall have no obligation to) withhold or retain such portion of any payment due to Contractor under this Contract to the extent reasonably necessary to ensure the performance of the Work, to cover Owner’s reasonable costs to cover such event or otherwise protect fully Owner’s rights hereunder:

- (a) A Contractor Event of Default shall have occurred hereunder as defined in Section 20.1;
- (b) Any part of such payment shall be attributable to Work which shall contain a Defect or shall not have been performed in accordance with the terms of this Contract;
- (c) Contractor shall have improperly failed to make prompt payments to its Subcontractors pursuant to the terms of such subcontract for material or labor used in the Work for which Owner has paid Contractor;
- (d) Owner in good faith shall have determined based upon the Critical Path Method Schedule that Contractor cannot with prompt and reasonable acceleration of the Work achieve the Project Guaranteed Dates; provided, however, that the amount withheld or retained on account of this Section 7.9(d) shall not exceed the amount of the Delay Liquidated Damages which would be payable under Article 16 on account of the then estimated delay in achieving the Project Guaranteed Dates;
- (e) Contractor shall have failed to deliver a Schedule Recovery Plan reasonably acceptable to Owner as set forth in Section 8.3, or Contractor shall have failed to cause the prosecution of the Work to conform to the Schedule Recovery Plan approved by Owner; or
- (f) Contractor shall have failed to deliver any Contractor Deliverable (prepared by Contractor in good faith) to Owner on or before the date set forth on the Deliverables Schedule for the delivery of such Contractor Deliverable.

No payment made hereunder shall be construed to be acceptance or approval of that part of the Work to which such payment relates or to relieve Contractor of any of its obligations hereunder. Should any dispute arise with respect to Owner's exercise of its rights under this Section 7.9, such dispute shall be subject to resolution in accordance with the expedited payment dispute procedures provided in Article 36. Notwithstanding the provisions of Section 20.4 and Article 36, Contractor shall not have any rights of termination or suspension under Section 20.4 as a result of Owner's exercise or attempted exercise of its rights under this Section 7.9.

7.10 Application of Monies. Contractor shall use the sums paid to it pursuant to this Article 7 for the purpose of performing the Work and designing, furnishing, equipping, testing and commissioning the Project in accordance with this Contract. No provision hereof shall be construed, however, to require Owner to see to the proper disposition or application of the monies so paid to Contractor.

7.11 Release of Liability. Acceptance by Contractor of the Final Payment shall constitute a release by Contractor of Owner, its Affiliates and every officer and agent thereof from all liens (whether statutory or otherwise and including mechanics' or suppliers' liens), claims and liability with respect to the payment of the Contract Price or any event or

circumstance that would entitle Contractor to request a Change in Work in accordance with Article 17 in respect of any Work performed or furnished in connection with this Contract, or for any act or omission of Owner or of any Person relating to or affecting Owner's payment obligations under this Contract, except for unresolved claims for which Contractor has previously delivered a dispute Notice to Owner and claims which are based on facts and/or circumstances that arise only after Final Completion; and further provided that such acceptance shall not constitute a release of Contractor's right to enforce any provision of this Contract that survives termination of this Contract in accordance with Section 37.3. No payment by Owner shall be deemed a waiver by Owner of any obligation of Contractor under this Contract.

7.12 All Payments in Dollars. All amounts in this Contract are expressed in, and all payments required hereunder shall be paid in United States Dollars.

8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1. Limited Notices.

- (a) Limited Notice to Proceed. Owner may issue to the Contractor a Limited Notice to Proceed to perform specified Work as required within Exhibit "A" and shall pay Contractor in accordance with the terms of Exhibit "D" that are applicable

Prior to the Full Notice to Proceed Date, Contractor shall only perform the activities set forth in a Limited Notice to Proceed. Contractor shall not be entitled to any payment for activities, services, products or other costs or expenses incurred outside of the scope set forth in the Limited Notice to Proceed. Amendments to a Limited Notice to Proceed shall be made in accordance with the provisions of Article 17, *mutatis mutandis*. Owner may terminate a Limited Notice to Proceed at any time, provided that any such termination shall not terminate this Contract nor shall it affect the other rights, obligations or agreements of the Parties set forth in this Contract. Owner shall pay Contractor for the value of agreed services completed (or if not completed, the reasonable approximation of the portion that has been completed) as of the date of termination of a Limited Notice to Proceed.

8.2 Full Notice to Proceed. Owner shall provide Contractor with Notice that Contractor is directed to commence Work under this Agreement ("Full Notice to Proceed") as follows:

- (b) (a) Owner shall inform Contractor of the date Owner reasonably anticipates to issue Full Notice to Proceed, and the date on which Owner provides Contractor with Full Notice to Proceed shall be the Full Notice to Proceed

Date; On the Full Notice to Proceed Date, Contractor shall commence and shall thereafter diligently pursue the applicable Work in accordance with the terms of this Contract. Contractor expressly agrees that the period of time specified to complete all Work and the timely achievement of the Project Guaranteed Dates includes an appropriate allowance for all hindrances and delays incidental to the Work and no claim shall be made by Contractor for hindrances or delays for any cause during the progress of the Work, except as provided under Article 9 and Article 17.

(c) Contractor shall prosecute the Work in accordance with the Critical Path Method Schedule. Contractor shall cause Mechanical Completion, Substantial Completion and Final Completion to occur on or before the applicable Project Guaranteed Dates (as such dates may be extended pursuant to Article 17 or Article 22).

8.3 Schedule Recovery Plan. If Contractor fails, other than by reasons not attributable to Contractor, to stay within thirty (30) days of the schedule (as determined using the Critical Path Method Schedule) for achieving the applicable Project Guaranteed Dates, then Contractor shall, within five (5) days after Contractor becomes aware of such delay, submit for approval by Owner, a written plan (the "Schedule Recovery Plan") to complete all necessary Work to achieve such Project Guaranteed Dates not later than thirty (30) days after the applicable Project Guaranteed Dates, including a revised Critical Path Method Schedule. Within five (5) days after receipt of the proposed Schedule Recovery Plan, Owner shall deliver written approval or disapproval of such plan to Contractor. If Owner disapproves the proposed Schedule Recovery Plan and provides comments to the Schedule Recovery Plan, Contractor shall resubmit a revised Schedule Recovery Plan addressing such Owner comments within five (5) additional days. Review and/or approval by Owner of a Schedule Recovery Plan shall not be deemed in any way to have relieved Contractor of its obligations under this Contract relating to the failure to achieve Substantial Completion or Final Completion by the applicable Project Guaranteed Date, be a basis for an increase in the Contract Price, or limit the rights of Owner under Section 16.1.

8.4 Interim Progress Milestones Recovery Plan. If the provisions of Section 8.3 are invoked then the Contractor shall provide to the Owner, with the required recovery schedule a revised Exhibit "G", Attachment G.1.1 "Interim Progress Milestones" and Exhibit "D", "Attachment 1", "Progress Payment Schedule" in conjunction with the submittal requirements of Section 8.3. The Owner shall review, approve, reject or comment such submittals in a manner consistent with the terms of Section 8.3.

9. FORCE MAJEURE.

9.1 Events of Force Majeure. No failure or omission to carry out or observe any of the terms, provisions, or conditions of this Contract shall give rise to any claim by any Party against any other Party hereto, or be deemed to be a breach or default of this Contract if

such failure or omission shall be caused by or arise out of an event of Force Majeure. No obligations of either Party that were required to be performed before the occurrence of an event of Force Majeure causing the suspension of performance shall be excused as a result of such occurrence. The obligation to pay money in a timely manner shall not be subject to the Force Majeure provisions.

9.2 Notice. If either Party's ability to perform its obligations under this Contract is affected by an event of Force Majeure, such Party shall promptly as reasonably possible, upon learning of such event and ascertaining that it will delay its performance hereunder (but in any event within two (2) Business Days after such Party becomes aware of such delay), give Notice to the other Party (a "Delay Notice") stating the nature of the event, its anticipated duration and effect upon the performance of such Party's obligations, and any action being taken to avoid or minimize its effect. The burden of proof shall be on the Party claiming to be affected pursuant to this Section 9.2.

9.3 Scope of Suspension; Duty to Mitigate. The suspension of performance due to an event of Force Majeure shall be of no greater scope and no longer duration than is required by such event and the effects of such event. The excused Party shall use its reasonable efforts to: (a) mitigate the duration of, and costs arising from, any suspension or delay in the performance; (b) continue to perform its obligations hereunder to the extent unaffected by the Force Majeure event; and (c) remedy its inability to perform. When the affected Party is able to resume performance of its obligation under this Contract, such affected Party shall give the other Party Notice to that effect.

9.4 Removal of Force Majeure. If, within a reasonable time after an event of Force Majeure that has caused Contractor to suspend or delay performance of the Work, action to be undertaken at the expense of Owner has been identified and recommended to Contractor, and Contractor has failed within ten (10) days after receipt of Notice thereof from Owner to commence to take such action as Contractor could lawfully and reasonably initiate to remove or relieve either the Force Majeure event or its direct or indirect effects, Owner may, in its sole discretion and after Notice to Contractor, initiate such reasonable measures as will be designed to remove or relieve such Force Majeure event or its direct or indirect effects and, after such removal or relief has been accomplished, require Contractor to resume full or partial performance of the Work. To the extent Contractor's failure to take such measures results in additional expense in addition to what Owner would have paid to Contractor, had Contractor taken such measures, such additional expense shall be for Contractor's account.

9.5 Responsibility of Contractor. Damages or injuries to Persons or properties resulting from an event of Force Majeure during the performance of the obligations provided for in this Contract shall not relieve the Contractor of the responsibility to bear the cost of the damage or injuries caused by Contractor's negligence or misconduct to the extent such costs are not covered by the insurance described in Article 23.

9.6 Contractor's Remedy. Contractor's sole remedy for the occurrence of an event of Force Majeure shall be an extension of time as determined in accordance with Article 17.

Contractor shall not suspend the Work unaffected by Force Majeure pending resolution of the agreement on the extension of time under this Article 17 unless directed by Owner in writing in accordance with Article 22.

10. SUBCONTRACTORS

10.1 Use of Subcontractors; Owner's Right to Object. The Persons (including, where applicable, specific plant locations utilized by such Persons) identified in Exhibit "A" have been pre-approved by Owner for use by Contractor as a Subcontractor for the particular materials, equipment or services as specified in Exhibit "A", and are not subject to the requirements of this Section 10.1. In the event Contractor desires to use a substitute for any of the Persons (including, where applicable, specific plant locations utilized by such Persons) listed in Exhibit "A", (including if such Person is not a Major Subcontractor) then Contractor shall follow the procedures set forth in Exhibit "A".

Contractor shall follow the procedure set forth in this Section 10.1 with respect to obtaining Owner approval of Major Subcontractors that are not otherwise subject to the procedures set forth in Exhibit "A". Within fifteen days (15) of the Effective Date, Contractor shall provide Owner with a list of all anticipated potential Major Subcontractors. Within fifteen (15) Business Days after receipt of such list, Owner shall have the right to advise Contractor of any such potential Major Subcontractor to which it reasonably objects, together with the reasons for such objection. Contractor shall remove from the list any potential Major Subcontractor to which Owner reasonably objects. Owner shall be deemed not to have objected to any potential Major Subcontractor on the list to which Owner does not object within such fifteen (15) Business Day period. Contractor shall have the right to add potential Major Subcontractors to the list subject to the procedures set forth above. Other than for the Persons approved in accordance with Exhibit "A", no Subcontractor for any Equipment, material, component or service in connection with the Work covered by this Section 10.1 shall be engaged by Contractor prior to completion of the review process set forth in this Section 10.1.

10.2 No Approvals; Contractor Responsible for Work. Neither the use by Contractor of any Subcontractors nor the review or failure to object by Owner of any Subcontractor under this Article 10 shall: (a) constitute any approval of the Work undertaken by any such Person; (b) cause Owner to have any responsibility for the actions, the Work, or payment of such Person or to be deemed to be in a contractual or an employer-employee relationship with any such Person; or (c) in any way relieve Contractor of its responsibilities and obligations under this Contract. Contractor shall be responsible for any Work performed by a Subcontractor. In no event shall any act or omission by any Subcontractor constitute an event of Force Majeure except to the extent caused by an event or circumstance that itself constituted an event of Force Majeure. Notwithstanding anything in Article 7 to the contrary, in no event shall Contractor submit or Owner be obligated to review any Contractor's Invoice with respect to work performed by any Major Subcontractor prior to the expiration of the review period provided in Section 10.1.

10.3 Assignment. Each subcontract and purchase order entered into by Contractor with respect to the Work with a Major Subcontractor shall contain a provision in the form of Exhibit "P" consenting to assignment to Owner in the case of a Contractor default.

10.4 Information; Access. Contractor shall furnish such information and access relative to its Subcontractors as Owner may reasonably request. Contractor shall promptly provide Owner with all recall notices, defect notices or other product communications from the Vendors and/or shall require that its Vendors send such notices and communications directly to the Owner.

11. LABOR RELATIONS

11.1 General Management of Employees. Subject to Section 4.16, and notwithstanding the provisions of Section 11.2, Contractor shall retain its rights to exercise and shall exercise its management rights in performing the Work. Such management rights shall include the rights to hire, discharge, promote, and transfer employees; to select and remove foremen or other Persons at other levels of supervision; to establish and enforce reasonable standards of production; to introduce, to the extent feasible, labor saving equipment and materials; to determine the number of craftsmen necessary to perform a task, job, or project; and to establish, maintain, and enforce rules and regulations conducive to safe, efficient and productive operations. Contractor shall plan and conduct its operations so that its employees and Subcontractors of any tier will work harmoniously with Owner's employees and other workers employed on the same or related projects to assure that there will be no delays, work stoppages, excessive labor costs, or other labor difficulties. Contractor shall enforce strict discipline and good order among Contractor's employees and Subcontractors' employees. Contractor shall not permit the employment of any unfit individual or individuals not skilled in the tasks assigned to them.

11.2 Labor Disputes. Contractor shall use, and shall cause each Subcontractor to use, reasonable efforts to minimize the risk of labor related delays or disruption of the progress of the Work. Contractor shall promptly take, and shall cause each Subcontractor to take, any and all reasonable steps that may be available to resolve violations of collective bargaining agreements or labor jurisdictional disputes, including the filing of appropriate processes with any court or administrative agency having jurisdiction to settle, enjoin, or award damages resulting from violations of collective bargaining agreements or labor jurisdictional disputes. Contractor shall advise Owner promptly, in writing, of any actual or threatened labor dispute of which Contractor has knowledge that might materially affect the performance of the Work by Contractor or by any Subcontractors. Notwithstanding the foregoing, the settlement of strikes, walkouts, lockouts or other labor disputes shall be at the discretion of the Party having the difficulty.

11.3 Personnel Documents. Contractor shall ensure that all its personnel and personnel of any Subcontractors performing the Work are, and at all times shall be, in possession of all such documents (including visas, driver's licenses and work permits) as may be required by any and all Applicable Laws.

12. INSPECTION; EFFECT OF REVIEW AND COMMENT

12.1 Inspection and Uncovering Work. Owner shall have the right, but not the obligation, to observe the Work and to inspect any item of Equipment or material, design, engineering, service, workmanship or any other portion of the Work to be provided hereunder, and Contractor shall make available for review by Owner, and provide to Owner if requested by Owner, all design criteria, system descriptions, Equipment specifications, Drawings and Specifications, design calculations, quality assurance reports, design drawings, shop drawings, Required Manuals, other Contractor Deliverables and other documents relating to the Work as required by this Contract. Owner shall be responsible for all of Owner's (and its representatives') costs and expenses with respect to such inspections.

Contractor shall submit to the Owner a detailed Inspection and Test Plan ("ITP") for each material piece of Equipment within ten (10) days after award of such Equipment purchase agreement and for all material Work to be performed within thirty (30) days of the Effective Date which such ITP is to include the inspections and testing requirements as provided in Exhibit "A". The ITP shall include pertinent Vendor manufacturing and construction inspection operations and plans. Owner shall identify to Contractor the Equipment or portions of Work Owner desires to be hold points so that Owner can inspect or witness consistent with the ITP and the Critical Path Method Schedule before such Work can be released for further manufacture, shipment and/or construction. Contractor shall provide Owner with reasonable notice of any such hold points which shall be not less than five (5) Business Days for manufacture and shipment related inspections and not less than three (3) Business Days with respect to on-Site construction-related inspections. If any portion of the Work so identified by Owner is completed and/or covered without Contractor having given Owner the opportunity to inspect such Work consistent with the ITP, Owner shall have the right to have such portion of the Work uncovered or dismantled for inspection. The cost and schedule impact of such uncovering and recovering (or dismantling and reconstruction) shall be borne by Contractor whether the Work is found to be in conformance or nonconformance with this Contract.

In the event Contractor has provided Owner an opportunity to inspect in accordance with the prior paragraph and Owner did not exercise its right to so inspect, or in the event Contractor was not required in accordance with the prior paragraph to provide Owner with an opportunity to inspect, then in either event, Owner shall have the right to have any portion of the Work uncovered or dismantled for inspection upon Notice to Contractor. The cost and schedule impact of such uncovering and recovering (or dismantling and reconstruction) shall be borne by Contractor if the Work contains a

Defect; and if the Work is found not to contain a Defect, Contractor shall be entitled to a Change in Work in accordance with Article 17.

12.2 Right to Reject Work. Regardless of whether payment has been made therefor, Owner shall have the right to reject any portion of the Work that contains any Defect. Upon such rejection, Contractor shall promptly remedy, at its sole cost and expense, any Defect that is identified by Owner as giving rise to such rejection.

12.3 General Inspection Rights. Contractor agrees that Owner and its representatives may observe and inspect the Work, any item of Equipment (including Equipment under fabrication), material, service, or workmanship to be provided hereunder and to observe all tests of the Work and the Project (including factory or other tests performed at a location other than the Site). Upon reasonable Notice to Contractor by Owner, Contractor shall allow Owner and its representative's reasonable access to the Work (including Equipment under fabrication) and the Project. Owner also shall be entitled to review all Contractor's Drawings and Specifications or technical details pertaining thereto as reasonably requested by Owner or its representatives. Contractor shall incorporate the review and inspection rights set forth in this Article 12 in all Equipment purchase orders and subcontracts. To facilitate such observations and inspections, Contractor shall maintain at the Site a complete set of all Drawings and Specifications and current Critical Path Method Schedule.

12.4 Deliverables Schedule. Attached as part of Exhibit "H" is an initial deliverables schedule. Within sixty (60) days after the Effective Date, Contractor shall provide a Notice to Owner attaching a schedule identifying all Contractor Deliverables to be delivered to Owner, the deadline for delivery thereof, and Owner's time period for review and comment (in accordance with Section 12.5) with respect thereto, and as updated and revised as required herein (the "Deliverables Schedule") which such schedule shall comply with the requirements set forth in Exhibit "H" and incorporate the initial schedule attached in Exhibit "H". The Deliverables Schedule shall include the Contractor Deliverables and documents (and include the time periods for Owner's or a third party's review) as set forth in Exhibit "A". Thereafter, Contractor shall at least on a monthly basis provide Notice to Owner attaching an updated schedule identifying Contractor Deliverables to be delivered to Owner, the deadline for delivery and Owner's time period for review and comment with respect thereto. Owner shall have the right to promptly review and comment on such Deliverables Schedule. If Owner provides any comments with respect to the Deliverables Schedule to Contractor, then Contractor shall incorporate changes into such Deliverables Schedule addressing such comments, and resubmit the same to Owner. Such incorporation of changes to address Owner's reasonable comments shall not be considered a Change in Work. If Owner fails to comment within ten (10) Business Days after receipt of such Notice, Owner shall be deemed to have accepted the Deliverables Schedule.

The Deliverables Schedule shall provide an Owner's review period of adequate length of time to permit a complete review by Owner based on the nature and extent of items involved and the volume and content of other Contractor Deliverables submitted to

Owner during the same period. The Owner review time periods shall be consistent with those set forth in Exhibit "A".

12.5 Owner Review of Documents. Contractor shall submit for review to Owner Contractor Deliverables in accordance with the requirements of Exhibit "A", including the Deliverables Schedule and Exhibit "H". Contractor shall ensure that all such items undergo a comprehensive independent in-house review and approval process before submission of such items to Owner. After receipt of any Contractor Deliverable, Owner shall have the right, during the time period of fifteen (15) Business Days from the receipt by Owner of such applicable Contractor Deliverable (except to the extent that a different review period is specifically provided for in Exhibit "H") to describe any Defects in the design or other Work identified in such Contractor Deliverable. Notwithstanding anything in Article 7 to the contrary, in no event shall Contractor submit any Contractor's Invoice with respect to Work performed pursuant to any such Contractor Deliverables prior to the expiration of the review period set forth in this Section 12.5. Issuance by Contractor of any purchase orders prior to Owner completing its review shall be at Contractor's own risk.

12.6 Remedy of Defect – Contractor Deliverables. If Owner identifies any Defect in the design with respect to any Contractor Deliverables submitted for review, then Contractor shall incorporate changes into such Contractor Deliverables addressing and remedying the Defect and resubmit the same to Owner, and such incorporation of changes to address Owner's comments shall not be considered a Change in Work. No Contractor Deliverable subject to this Section 12.6 shall be released for use in connection with the Work prior to completion of the review process set forth in Section 12.5.

12.7 Limitation on Owner's Obligations. Inspection, review, acknowledgement, acceptance, approval or comment by Owner or any of its representatives, with respect to any subcontract or purchase order or any Drawings and Specifications, Contractor Deliverables, samples, and other documents, or any other Work or services performed by Contractor or any Subcontractor, is solely at the discretion of Owner and shall not in any way affect or reduce Contractor's obligations to complete the Work in accordance with the provisions of this Contract or be deemed to be a warranty or acceptance by Owner with respect to such Work.

13. FOUNDATION COMPLETION AND PROJECT MECHANICAL COMPLETION OF THE WORK

13.1 Foundation Completion. Contractor shall achieve Foundation Completion with respect to each individual foundation that is part of the Work. Foundation Completion with respect to an individual foundation means the achievement of the following milestones:

- (a) Such foundation is mechanically completed and installed in accordance with the Scope of Work;

- (b) Such foundation is structurally complete and contains all necessary embedded inserts;
- (c) The concrete portion of such foundation has cured so as to have achieved the minimum strength necessary to allow assembly, erection and installation of the tower thereon;
- (d) Backfilling of the area surrounding such foundation has been completed;
- (e) All of the crane hardstandings and tower erection lay-down and work areas have been completed in accordance with the construction plan approved under this Contract;
- (f) Contractor has provided sketches of each foundation and the tower (both above-ground and below-ground in the immediately surrounding area);
- (g) Embedded grounding material has been installed and ground grid analysis has been completed;
- (h) All coatings and grout required pursuant to Exhibit "A" have been installed; and
- (i) Owner has accepted or is deemed to have accepted a Foundation Completion Certificate with respect to such Work pursuant to Section 13.3.

13.2 Project Mechanical Completion. The following are conditions precedent to Project Mechanical Completion:

- (a) Contractor shall have achieved Foundation Completion for each foundation that is part of the Project;
- (b) The Project and each sub-system of the Project, in each case to the extent required for commissioning, initial operation, adjustment and testing is mechanically, electrically, and structurally constructed in accordance with the requirements of this Contract, the Scope of Work and Industry Standards, including completion of the Mechanical Completion Tests in accordance with the Mechanical Completion Test Procedures;
- (c) The Project and each sub-system of the Project may be commissioned and operated without damage to the Project or the Site and any sub-system or any other property on or off the Site, and without injury to any Person;
- (d) The Project and each sub-system of the Project is functionally complete to the extent necessary for commissioning, initial operation, adjustment, and testing; and

- (e) Owner has accepted or is deemed to have accepted a Project Mechanical Completion Certificate with respect to such Work pursuant to Section 13.4.

13.3 Achievement of Foundation Completion When Contractor believes that it has achieved Foundation Completion it shall deliver to Owner a completed Foundation Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Foundation Completion. The report shall include, but not be limited to, the following:

- (a) An organized submittal for each foundation in both electronic and hard copy format including, but not limited to, the following:

- a. Those items identified in Section 13.1 (f);
- b. foundation excavation report;
- c. open hole inspection report (if applicable);
- d. concrete placement log, including concrete batch tickets;
- e. direct embed installation report;
- f. foundation installation report;
- g. anchor bolt foundation installation report;
- h. structure grounding and resistance measurement;
- i. steel mill certificates;
- j. compressive strength report
- k. non-destructive testing / discrepancy resolution report

- (b) The ground grid analysis referred to in Section 13.1 (g) in its native file format;

- (c) Other documentation as requested by Owner to verify completion of those items identified in Section 13.1.

Owner shall, within ten (10) Business Days, following receipt of a Foundation Completion Certificate, either: (a) deliver to Contractor a countersigned Foundation Completion Certificate, indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 13.2. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Foundation Completion shall be the date on which Contractor delivers to Owner the Foundation Completion Certificate that Owner ultimately accepts or is deemed to have accepted or pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's

submitted Foundation Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

13.4 Achievement of Project Mechanical Completion When Contractor believes that it has achieved Project Mechanical Completion it shall deliver to Owner a completed Project Mechanical Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Project Mechanical Completion.

Owner shall, within ten (10) Business Days, following receipt of a Project Mechanical Completion Certificate, either: (a) deliver to Contractor a countersigned Project Mechanical Completion Certificate, indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 13.4. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Project Mechanical Completion shall be the date on which Contractor delivers to Owner the Project Mechanical Completion Certificate that Owner ultimately accepts or is deemed to have accepted or pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Project Mechanical Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

14. TESTS AND TESTING

14.1 Test Procedures. Contractor shall: (i) provide for Owner's review and approval detailed Mechanical Completion Test Procedures in accordance with the requirements for testing, documenting and satisfactorily achieving each Acceptance Requirement, as set out in Exhibit "A" not less than one hundred and twenty (120) days prior to the start of testing and such Mechanical Completion Test Procedures must be agreed upon by Contractor and Owner at least sixty (60) days prior to the commencement of testing with the Test Procedures clearly indicating when in the testing schedule Interconnection will be required; and (ii) keep the Project Representative apprised of the specified schedule and changes thereto for the commencement and performance of such activities.

14.2 Conduct of Tests. The representatives of Owner and Owner's Engineer shall have the right, but not the obligation, to be present during any tests performed by Contractor under this Contract.

14.3 Test Schedules. A projected schedule shall be provided by Contractor with submission of Mechanical Completion Test Procedures required in Section 14.1 and agreed to at least thirty (30) days prior to the anticipated start of the applicable Tests. Contractor shall provide Owner at least ten (10) days' prior Notice thereof prior to performing such tests. The Contractor shall keep the Project Representative apprised of the specified schedule, and changes therein, for the commencement and performance of such tests, and shall give the Project Representative at least five (5) Business Days' prior Notice of the re-performance of any such tests. A test conducted by the Contractor without the required Notice to Owner shall not be valid for the purposes of this Contract.

14.4 Owner Testing. Owner shall provide Notice to Contractor of any construction deficiencies identified during any Owner Testing as soon as practicable but no later than five (5) days after identification of the deficiency and in all cases not later than fifteen (15) days prior to the Substantial Completion Guaranteed Date.

15. SUBSTANTIAL COMPLETION AND FINAL COMPLETION

15.1 Substantial Completion. Substantial Completion shall be achieved when:

- (a) Contractor shall have achieved Foundation Completion for each foundation that is part of the Project;
- (b) The Project and each sub-system of the Project, in each case to the extent required for commissioning, initial operation and adjustment is mechanically, electrically, and structurally constructed in accordance with the requirements of this Contract, the Scope of Work and Industry Standards, including completion of all testing required in Exhibit A;
- (c) The Project and each sub-system of the Project may be commissioned and operated without damage to the Project and any sub-system or any other property on or off the Site, and without injury to any Person;
- (d) The Project and each sub-system of the Project is functionally complete to the extent necessary for commissioning, initial operation, adjustment and testing;
- (e) Owner has received copies of all Contractor Acquired Permits required for operation of the Project;

- (f) Contractor has certified by Notice to Owner that it has administered the training required by Section 4.22;
- (g) Owner has received all Contractor Deliverables due prior to Substantial Completion in accordance with the terms of this Contract;
- (h) The Punchlist and a schedule and budget for completion of each Punchlist Item, in each case reasonably satisfactory to Owner, have been developed by Contractor and delivered to Owner;
- (i) All Work other than those Punchlist Items shown on the Punchlist or Work which by its nature is to be performed after Substantial Completion has been completed by Contractor;
- (j) The Project as a whole may be operated in accordance with Industry Standards and manufacturers' warranties without damage to the Project or any sub-system or part thereof or any other property on or off the Site and without injury to any Person;
- (k) No Contractor Event of Default exists;
- (l) All other Work except for the Punchlist,, which is not part of the Work necessary to commission, test, start-up and operate the Project, has been completed in accordance with Industry Standards and manufacturers warranties and can be utilized and function without damage to the Work, the Site or any other property on or off the Site and without injury to any Persons; and all Applicable Permits with respect to such Work have been provided to Owner; and
- (m) Owner has accepted or is deemed to have accepted a Substantial Completion Certificate with respect to such Work pursuant to Section 15.2.

15.2 Achievement of Substantial Completion. When Contractor believes that it has achieved Substantial Completion, it shall deliver to Owner a completed Substantial Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Substantial Completion. Owner shall, within ten (10) Business Days following receipt of such certificate, either: (a) deliver to Contractor a countersigned Substantial Completion Certificate indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another Notice with respect to such milestone pursuant to this Section 15.2. Such procedure shall be

repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Substantial Completion shall be the date on which Contractor delivers to Owner the Substantial Completion Certificate that Owner ultimately accepts or is deemed to have accepted or, pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Substantial Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

15.3 [Reserved.]

15.4 [Reserved.]

15.5 Final Completion. Final Completion of the Work and the Project shall be deemed to have occurred only if and when all of the following have occurred:

- (a) Contractor has achieved Substantial Completion in accordance with Section 15.2;
- (b) Owner has received at least one (1) hard copy and one (1) electronic copy of legible and complete as-built documentation, calculations, test data, performance data, Equipment descriptions, Required Manuals, training aids, Spare Parts lists, and other technical information each as required hereunder for Owner to start up, operate, commission, and maintain the Project;
- (c) All tools and Spare Parts purchased by Contractor to replace those used by Contractor during commissioning have been purchased for delivery to Owner free and clear of liens;
- (d) All Contractor's and Subcontractors' personnel, supplies, tools, equipment, machinery, surplus materials, waste materials, rubbish, and temporary facilities to which Owner does not hold title have been removed from the Site, and any permanent facilities used by Contractor and the Site have been restored in accordance with the terms of the Contract. All cleanup and disposal shall be conducted in accordance with all Applicable Laws;
- (e) Owner has received from Contractor all information requested by Owner and required for Owner's final fixed asset records with respect to the Project in accordance with Section 4.9;
- (f) Contractor has paid Owner all amounts due hereunder and not in dispute;

- (g) Contractor has assigned to Owner or provided Owner with all warranties or guarantees that Contractor received from Subcontractors to the extent Contractor is obligated to do so pursuant to Section 18.6;
- (h) The Punchlist Items have been completed to the satisfaction of Owner;
- (i) Contractor has delivered the certifications, Final Release and Waiver of Liens and Claims, or the bonds, in accordance with Section 7.6 and has delivered such other documents and certificates as Owner has reasonably requested to ensure compliance with all Applicable Laws;
- (j) Contractor has, within 60 days of the Substantial Completion Date, provided a detailed list of quantities by Property Retirement Unit (PRU) for each Pricing Schedule Item shown in Exhibit "Y". The material and installation costs for major pieces of equipment should be broken out separately. Examples of this equipment are identified in Exhibit "Y". For transmission, the final quantities shall match the final schedule of values updated by Contractor in accordance with Exhibit "D". In addition for transmission, Exhibit "Y" identifies specific information that will be submitted by Contractor in an electronic format acceptable to Company;
- (k) RESERVED
- (l) Owner has accepted or is deemed to have accepted a Final Completion Certificate pursuant to Section 15.6.

15.6 Achievement of Final Completion. When Contractor believes that it has achieved Final Completion, it shall deliver to Owner a completed Final Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Final Completion. Owner shall, within twenty (20) Business Days following receipt of such certificate, either: (a) deliver to Contractor a countersigned Final Completion Certificate indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 15.6. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Final Completion shall be the date on which Contractor delivers to Owner the Final Completion Certificate that Owner ultimately accepts or is deemed to have accepted or, pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Final Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by

Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

15.7 Contractor's Access After Substantial Completion. Following Substantial Completion, Owner shall provide Contractor with reasonable and timely access subject to the terms of this Contract to complete Punchlist Items and to satisfy the other requirements for Final Completion; provided, however, Owner shall not be obligated hereunder to shut down, reduce or otherwise interfere with its operation of the Project or the Transmission Grid as a direct or indirect result of allowing Contractor access pursuant to this Section 15.7. Owner will: (a) provide Contractor with reasonable advance Notice of any extended scheduled outages of the Project or the Transmission Grid and the expected duration thereof; and (b) cooperate with Contractor with regard to reasonable requests by Contractor for access during such extended scheduled outages of the Project or the Transmission Grid.

16. DELAY DAMAGES

16.1 Liquidated Damages for Delay. Contractor understands that if the Substantial Completion does not occur on or before the Substantial Completion Guaranteed Date or if the operation of the Transmission Grid is interrupted or otherwise affected, Owner will suffer substantial damages, including, potentially, additional interest and financing charges on funds obtained by Owner to finance the Work, reduction of the return on Owner's equity investment in the Project, and other operating and construction costs and charges. Therefore the following liquidated damages, collectively the "Delay Liquidated Damages", shall be payable by Contractor to Owner:

16.1.1. Project Mechanical Completion Delay LDs. Contractor agrees that, if Project Mechanical Completion is not achieved by the applicable Project Mechanical Completion Guaranteed Date, Contractor shall pay liquidated damages ("Project Mechanical Completion Delay LDs") in the amount of \$_____ per day for each day by which the Project Mechanical Completion Date is delayed

16.1.2. Substantial Completion Delay LDs. Contractor agrees that, if Substantial Completion is not achieved by the applicable Substantial Completion Guaranteed Date, Contractor shall pay liquidated damages ("Substantial Completion Delay LDs") in the amount of \$_____ per day for each day by which the Substantial Completion Date is delayed. Substantial Completion Delay LD's will be in addition to the Project Mechanical Delay LD's, where Project Mechanical Completion Date has not been achieved by the date of Substantial Completion Guaranteed Date, and until the date of accepted Project Mechanical Completion.

Delay Liquidated Damages will not be assessed to the extent that the failure to meet the dates is attributable is caused by an Owner caused delay.

16.1.3. Transmission Grid Interference. Contractor agrees to pay liquidated damages in the amount of \$_____ per day, per transmission line for each day that a transmission line which is a part of the Transmission Grid is out of service or materially interfered with prior to Final Completion, to the extent of a Contractor Cause.

16.1.4As-Built Drawings. Contractor agrees to pay liquidated damages in the amount of One Thousand Dollars (\$1,000) per day for each and every day that the As-Built drawing completion date, as specified in Exhibit "G" is not achieved

16.1.4. Proration of Daily Amounts. Notwithstanding that the liquidated damage amounts set forth in this Section 16.1 are identified on a per day basis, the actual amount of liquidated damages will be determined and be payable on an hourly basis; and the amount per hour is determined by dividing the per day amount by twenty-four.

16.2 Payment of Liquidated Damages. Any amount Contractor is obligated to pay to Owner under Section 16.1 shall be due and payable ten (10) days after receipt of a written request therefor from Owner.

16.3 Offset. If Contractor is obligated to pay any amount to Owner pursuant to this Article 16 and such amount is not paid within the time period referred to in such Section, then Owner shall have the right to offset any such amount against any amount then or thereafter due from Owner to Contractor under this Contract and to exercise its rights against any security provided by or for the benefit of Contractor in such order as Owner may elect in its sole discretion.

16.4 Sole and Exclusive Remedy. Contractor and Owner agree that Owner's actual damages in the event of delays in achieving completion of the various parts of the Project would be extremely difficult or impracticable to determine and that, after negotiation, Owner and Contractor have agreed that the Delay Liquidated Damages set forth in Section 16.1 are a reasonable estimate of the damages that Owner would incur as a result of such delays or failures and are not intended in any way to be a penalty. Subject to Article 35, the amounts payable under Section 16.1 and, if such failure constitutes a Contractor Event of Default the remedies provided for in Article 20, shall be Owner's sole remedies for delays in achieving Substantial Completion by the Substantial Completion Guaranteed Date; and interruption or interference with the Transmission Grid as provided in Sections 16.1.2.

17. CHANGES IN THE WORK

17.1. Change in Work. A Change in Work may result only from any of the following:

- (a) A Change in Work required by Owner in writing, including an acceleration of Work, in accordance with Section 17.2;

- (b) A Change in Work as provided in Section 4.33(d) (Hazardous Materials);
- (c) A Change in Work relating to Owner Acquired Permits as provided in Section 4.15;
- (d) A Change in Work as provided in Section 12.1 (uncovering non-defective Work);
- (e) A Change in Law;
- (f) An Owner Caused Delay;
- (g) Such other event which pursuant to the terms of this Contract expressly permit Contractor to obtain a Change in Work in accordance with this Article 17.

A Change in Work may result from an event of Force Majeure but Contractor's sole remedy for the occurrence of an event of Force Majeure shall be an extension of time in accordance with Section 9.6 and Section 17.4.3.

17.2 By Owner. Owner may request a Change in Work, whether such changes are modifications, alterations, decelerations, additions, or deletions. Upon receipt of such Notice, Contractor shall prepare and provide Owner with a completed Change in Work form identified in Exhibit "E" within fifteen (15) Days thereafter. All such changes shall be made in accordance with this Article 17 and shall be considered, for all purposes of this Contract, as part of the Work.

17.3 By Contractor. Contractor shall only be entitled to request a Change in Work to the extent permitted in Section 17.1 upon a) delivery by Contractor to Owner of a written notice of its intention to submit a request for a Change in Work within five (5) Business Days after the date that Contractor becomes aware of the event or condition giving rise to the entitlement to a Change in Work, and b) Contractor prepares and provides Owner with a completed Change in Work form identified in Exhibit "E" within fifteen (15) Days thereafter.

17.4 Adjustments to the Contract.

17.4.1 Adjustments to Project Schedule. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) as a result, Contractor shall be actually and demonstrably delayed in the performance of a Critical Path Item as scheduled in the Critical Path Method Schedule, then Contractor may request a Change in Work and upon such request, the Critical Path Method Schedule (and each Project Guaranteed Date referenced therein) shall be extended by the period of time that Contractor is actually and demonstrably delayed in the performance of a Critical Path Item. Owner shall

have the right, in lieu of extending a Project Guaranteed Date, to direct Contractor to accelerate the Work in accordance with Section 17.2.

17.4.2 Adjustments to the Contract Price. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) such Change in Work impacts Contractor's costs of performing the Work, then an equitable adjustment to the Contract Price shall be made. Where Contractor is entitled to an equitable adjustment, and where Exhibit R, as applicable, provides unit price rates with respect to the applicable Change in Work, the Contract Price shall be adjusted solely in accordance with the unit price rates set forth in Exhibit R, as applicable. Without limiting the generality of the forgoing, unit price rates shall be the sole basis for equitable price adjustments with respect to Changes in Work requiring: route changes with respect to the transmission line, transmission line pole relocations, additions of transmission pole structures, changes in transmission pole structure types, changes in foundation types and/or changes in access road routes or configurations. For the avoidance of doubt,. For Changes in Work for which no unit price rates are provided in Exhibit R, then the Contract Price shall be changed to reflect the amount of increased or decreased costs at such other fixed price, unit rate,time and materials rates or other rates as the Parties may agree; provided, however, that, to the extent reasonably possible, such equitable adjustments to the Contract Price shall be consistent with commodity cost, equipment cost, labor cost, resource staffing requirements, overhead, profit, and other assumptions embedded in the unit price rates for analogous work as set forth in Exhibit R. Owner may direct the Contractor to proceed with the Change in Work pending negotiation of a Change in Work Form by issuing a written unilateral directive (which shall be considered a Change in Work Form for purposes of Section 17.7.2) and Contractor shall continue with the performances of Work.

17.4.3 Adjustments to the Progress Payment Amounts or Progress Payment Schedule. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) such Change in Work impacts Contractor's costs or schedule for performing the Work, then (a) an equitable adjustment to the Contract Schedule shall be made in accordance with Section 17.4.1; (b) an equitable adjustment to the Contract Price shall be made in accordance with Section 17.4.2. If either or both equitable adjustment(s) entitle the Contractor to a change in any of the Interim Progress Milestone, Progress Payment Amount or Progress Payment Schedule then the Contractor shall be solely responsible for applying to the Owner for written authorization of an equitable adjustment of such item(s) as they may apply by providing all relevant and necessary supporting documentation and analysis to permit the Owner to provide a decision in such matters. The Owner shall review such application in a timely manner and mutually agree within 30 days with the Contractor revisions to

the Interim Progress Milestones, Progress Payment Amounts and Progress Payment Schedule as they may apply.

17.4.4 Force Majeure. Upon the occurrence of an event of Force Majeure, if Contractor shall be actually, demonstrably and materially delayed in the performance a Critical Path Item as scheduled in the Critical Path Method Schedule as a result of such event or circumstance, then Contractor may request a Change in Work under which the Project Guaranteed Dates shall be extended by the period of time Contractor is so actually and demonstrably delayed in the performance of a Critical Path Item and as set forth in the Change in Work Form accepted by Owner, but there shall be no change to the Contract Price.

17.4.5 Reduction In Cost. If a Change in Work involves a reduction in the cost to perform the Work including a reduction in the use of less labor resulting in reduced labor costs, there shall be a lump-sum deduction from the Contract Price, which deduction will be based on unit price rates set forth in Exhibit R. For Changes in Work for which no unit price rates are provided in Exhibit R then the Contract Price shall be reduced by the amount that Contractor has in its budget for the Work involved, inclusive of direct and indirect costs, overhead, margins, contingencies and fees.

17.4.6 Other Terms and Conditions to Apply. Subject to the equitable adjustments to price and schedule contemplated in this Article 17, all Changes in Work shall continue to be subject to the terms and conditions of this Contract including terms and conditions allocating Project risks between the Parties.

17.5. [RESERVED].

17.6 Disputes. If there is a dispute between the Parties about a request for a Change in Work by either Party under this Article 17, such dispute shall be resolved in accordance with Article 36. Notwithstanding any provision of this Article 17 to the contrary, the Parties will execute a Change in Work to reflect the resolution of such dispute.

17.7 Procedures.

17.7.1 Contractor's Estimate. Contractor shall, as soon as practicable after notification or becoming aware of such an event, prepare and deliver to Owner a detailed statement of the proposed Change in Work setting forth: (a) a description of the work covered by such Change in Work; (b) a detailed estimate of the cost (identifying labor, equipment, material costs and other expenses) and the estimated time required to implement the Change in Work and a quote for a firm price; and (c) the impact such Change in Work would have on (i) the Progress Payment Schedule; (ii) the Critical Path Method Schedule; (iii) the Project Guaranteed Dates; (iv) the Warranties; (v) the costs of operation and maintenance of the Project following Substantial Completion; and (vi) any other obligations of either Party of this Contract. Contractor shall not charge Owner for the costs of

preparing the Change in Work Form unless the Change in Work Form is not implemented.

17.7.2 No Unapproved Scope Changes. In no event shall Contractor be entitled to undertake or be obligated to undertake any Change in work until Contractor has received a Change in Work Form submitted by Contractor and accepted by Owner and, in the absence of such Change in Work Form, if Contractor undertakes any Changes in Work, Contractor shall make any such Changes in Work at Contractor's sole risk and expense and Contractor shall not be entitled to any payment or other relief under the Contract for undertaking such changes.

17.7.3 Failure to Comply with Notice Requirements. In the event Contractor does not provide Notice within the five (5) Business Days of the date Contractor became aware of the facts or circumstances that permit Contractor to seek a Change In Work permitted under this Article 17 as required by Section 17.3, Contractor shall not be entitled to a Change In Work under this Article 17 or any other relief hereunder.

17.8 No Suspension Contractor shall not suspend the Work pending resolution of any proposed Change in Work unless directed by Owner in writing in accordance with Article 22. Contractor's rights in the cases of a dispute involving a proposed Change in Work (or the equitable adjustments related to a proposed Change in Work) shall be as set forth in Section 17.4 and Article 36.

18. WARRANTIES CONCERNING THE WORK

18.1 Project Warranties. During the Warranty Period, Contractor warrants and guarantees with respect to the Project (the "Project Warranties") that all Work shall conform to the Materials Warranty set out in Section 18.2 and that all Work (other than Work covered by the Materials Warranty), including the Pre-Construction Services, the design and construction of the Project and the installation of the Equipment shall be: (a) in accordance with Industry Standards; (b) free from Defects; (c) in conformance with all applicable requirements of this Contract; and (d) safe and fit for Owner's use as part of the Transmission Grid as set forth in this Contract. In addition, with respect to Pre-Construction Services, Contractor shall perform the Pre-Construction Services in accordance with the scope set forth in the Limited Notice to Proceed and using the standards of care, skill, and diligence normally provided by a professional in the performance of similar services, and shall comply with all laws, codes and standards applicable to the Pre-Construction Services.

18.2 Materials Warranty. During the Warranty Period, Contractor further warrants that all Equipment and other items furnished by Contractor and any Subcontractors hereunder shall be new and of good and suitable quality when installed, shall conform to the requirements of this Contract, including the Scope of Work, shall be free from any

charge, lien, security interest or other encumbrance and shall be free of any Defects (the “Materials Warranty”). If requested by Owner, Contractor shall provide Owner with satisfactory evidence that any item(s) of Equipment satisfy the Materials Warranty. As part of the Materials Warranty, Contractor specifically covenants that all rights and benefits which Contractor possesses with regard to warranty obligations of any manufacturer of Equipment shall be fully available to or assigned to Owner.

18.3 Warranty Period. The “Warranty Period” for the Work shall be as follows:

- (a) With respect to the Work), a period of __10__ years from the Substantial Completion Date.

Contractor shall have no liability under Section 18.1 or 18.2 from and after the end of the Warranty Period (as such period may be extended in accordance with the terms hereof); provided, however, that the Warranty Period for any item or part required to be repaired, corrected or replaced following discovery of a Defect during the original Warranty Period shall be extended from the time of such repair, correction or replacement for a period that in no event shall extend beyond a date that is five (5) years after expiration of the Warranty Period.

18.4 Enforcement After Expiration. Commencing on the expiration of the Warranty Period, or such later date as is provided in Section 18.3, Owner shall be responsible for enforcing all representations, warranties, and guarantees from Subcontractors, and Contractor shall provide reasonable assistance to Owner, on a reimbursable basis, in enforcing such representations, warranties, and guarantees, when and as reasonably requested by Owner. In addition, prior to the expiration of each respective Warranty Period, or such later date as is provided in Section 18.3 with respect to Work required to be re-performed, Owner, at its option and upon prior written Notice to Contractor, may enforce any such warranty against any Subcontractor if: (a) Owner determines that Contractor has not enforced such warranty against the Subcontractor in a timely and diligent manner or performed the warranty work itself, or (b) a Contractor Event of Default exists and owner has taken actions to terminate this Contract in accordance with the terms hereof.

18.5 Exclusions. The Project Warranties and Materials Warranty set forth in Section 18.1 and Section 18.2 shall not apply to damage to any Equipment to the extent such damage is caused by:

- (a) Owner’s failure to operate and maintain such Equipment in accordance with Industry Standards;
- (b) Owner’s operation of such Equipment in excess of the operating specifications for such Equipment;
- (c) The use of parts or consumables in the repair or maintenance of such Equipment that are not in accordance with Industry Standards;

- (d) Any event of Force Majeure; or
- (e) Normal wear and tear.

18.6 Subcontractor Warranties. Without in any way derogating from Contractor's own representations and warranties with respect to all of the Work, Contractor shall use its reasonable efforts: (a) to obtain from all Subcontractors (including Vendors) any representations, warranties, guarantees, and obligations offered by such Subcontractors; and (b) to attempt to negotiate warranty periods longer than the Warranty Periods at no additional cost to Contractor with respect to design, materials, workmanship, Equipment, tools, supplies and other items furnished by such Subcontractors. All representations, warranties, guarantees, and obligations of such Subcontractors shall be assigned to Owner, in accordance with the provisions of this Contract, including Exhibit "P", to Owner upon Substantial Completion; provided, however, that, notwithstanding such assignment, Contractor shall also be entitled to enforce each such representation, warranty, guarantee, and obligation through the end of the applicable warranty periods as an express third-party beneficiary. Contractor shall deliver to Owner promptly following execution of such applicable contract with a Subcontractor and upon Owner's request duly executed copies (with pricing information redacted) of all contracts containing such representations, warranties, guarantees, and obligations.

18.1. Correction of Defects.

- (a) Owner shall promptly give Notice to Contractor upon discovery of any failure of any of the Work to satisfy the Project Warranties or the Materials Warranty during the applicable Warranty Period (including Subcontractor warranty period). In the event of any such failure under circumstances in which there is an immediate need as defined in Section 18.8, then Owner shall perform such warranty work for Contractor's account in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty. In all other cases, Contractor shall, at its own cost and expense (except to the extent of insurance proceeds actually received), be responsible for re-performing any necessary engineering and purchasing relating to such Equipment, material, labor, and shipping, and removing any Defect and the cost of replacement thereof, including any resulting damage to surrounding Work and/or adjacent property, equipment and facilities, as shall be necessary to cause the Work and the Project to conform to the Project Warranties or Materials Warranty. Within five (5) days after receipt by Contractor of a Notice from Owner specifying a failure of any of the Work to satisfy Contractor's Project Warranties or the Materials Warranty and requesting Contractor to correct the Defect, Contractor and Owner shall mutually agree when and how Contractor shall remedy said Defect. If Contractor does not use commercially reasonable efforts to proceed to complete said remedy within the time agreed to, or should Contractor and Owner fail to reach such an agreement within such five (5) day period, Owner shall have the right to

perform the necessary remedy, or have third parties perform the necessary remedy, in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty, and the costs as established pursuant to the Warranty Procedures shall be borne by Contractor.

- (b) Notwithstanding the foregoing, Contractor shall have the right to request Owner to perform all or any portion of Contractor's obligations with respect to any warranty claim, and, if Owner determines that it has the capability and expertise to perform such obligations, Owner shall perform such obligations and all costs incurred thereby shall be for Contractor's account in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty.

18.8 Additional Warranty Procedures. Where Owner determines that an immediate need exists, Owner may undertake immediate corrective action, including contacting the applicable Vendor directly to seek assistance. An "immediate need" is a situation when there is: (a) a threat of imminent harm to persons or property; (b) a situation that in Owner's reasonable determination could materially adversely impact the operation of the Project or the Transmission Grid; or (c) an electric line outage, generation project outage or customer outage that in Owner's reasonable determination requires immediate action.

Where Owner does not take corrective action under this Section 18.8, Owner shall notify Contractor in accordance with Section 18.7 of the Contract and provide documents as provided below. Within two (2) days after receipt of said documents, Contractor and Owner shall confer with regard to the appropriate procedures to utilize in correcting the Defect and shall within a reasonable period thereafter (not to exceed thirty (30) days) mutually agree when and how Contractor shall remedy said Defect. If Contractor does not use its reasonable efforts to proceed to complete said remedy within the time agreed to, or should Contractor and Owner fail to reach such an agreement within such thirty (30) day period, Owner shall have the right to perform the necessary remedy, or have others perform the necessary remedy, in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty, and the costs reasonably incurred shall be borne by Contractor.

The following procedures ("Warranty Procedures") shall be observed in all Contractor warranty claims for the Project in connection with which Owner has independently taken corrective action as set forth above with respect to an "immediate need":

- (a) Owner shall promptly provide telephonic notice to Contractor's designated warranty representative of any failure of the Work to satisfy either the Project Warranty or the Materials Warranty;
- (b) A failure report, which shall contain technical and logistical information sufficiently detailed to enable Contractor to assess the damage of the

Work and to evaluate appropriate corrective action shall be provided by Owner within a reasonable period of time after the occurrence of any event giving rise to a warranty claim;

(c) Warranty claims shall be submitted in accordance with paragraph (d) below, and shall include, as a required minimum, the following documents:

(i) Applicable failure report;

(ii) List of equipment and materials purchased or used in accomplishing the repair, schedule of operations, and subcontractors hours applicable to each claim, and a copy of any internal work orders or purchase orders prepared in connection with each such claim;

(iii) Owner's maintenance and repair records with respect to the Equipment for which the claim is being made, including the manufacturer/vendor part number and serial number and the identification by part number and serial number of the next major assembly call out; and

(iv) Copies of invoices received or prepared for costs and expenses claimed.

(d) All warranty claims pertaining to failure of the Equipment for which Owner has independently undertaken corrective action pursuant to this Section 18.8 during any calendar month shall be submitted to Contractor on or before the last day of the following calendar month. Claims shall be paid by Contractor on a net 21 day basis. Work performed by Owner under a warranty claim shall be billed on a time and materials basis as further defined below in paragraph (d). Any warranty claim submitted by Owner that is not disputed by Contractor within ninety (90) days shall be deemed to have been accepted by Contractor.

(e) "Time and Material" in connection with a warranty claim is defined as follows:

(i) With respect to "Time," the product of 115% of the normal hourly wage (including fringe benefits, insurance and taxes) Owner pays with respect to its particular employee (not including overhead) multiplied times the number of hours each employee performed the particular work.

(ii) With respect to "Material," 115% of the actual purchase price paid by Owner or an Affiliate to a third party for the materials incorporated or consumed in connection with the Work; and

(iii) With respect to Work performed by a subcontractor (other than an entity which is an Affiliate of Owner, Work performed by any such entity being deemed Work performed by Owner through its own employees for purposes of this definition), 115% of the actual amount paid by Owner to the subcontractor for such Work.

(f) Owner shall maintain adequate records to support all warranty claims and allow Contractor access to such records upon not less than ten (10) days' notice.

18.9 Limitations On Warranties. This Article provides the exclusive remedies for all claims based on a failure or Defect in the Work, whether the failure or Defect arises before or during the applicable warranty period and whether a claim, however described, is based on contract, warranty, indemnity, tort/extracontractual liability (including negligence), strict liability or otherwise. The warranties provided in this Article are exclusive and are in lieu of all other warranties and guarantees whether written, oral, implied or statutory EXCEPT FOR THE EXPRESS WARRANTIES AND REPRESENTATIONS SET FORTH IN THIS CONTRACT, CONTRACTOR DOES NOT MAKE ANY OTHER EXPRESS WARRANTIES OR REPRESENTATIONS, OR ANY IMPLIED WARRANTIES OR REPRESENTATIONS, OF ANY KIND WHATEVER RELATING TO THIS CONTRACT, THE WORK, OR DESIGN, EQUIPMENT, OR MATERIALS TO BE SUPPLIED BY CONTRACTOR UNDER THIS CONTRACT OR TO THE PROJECT, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY.

19. EQUIPMENT IMPORTATION; TITLE

19.1 Importation of Equipment. Contractor, at its own cost and expense, shall make all arrangements, including the processing of all documentation, necessary to import into the United States Equipment to be incorporated into the Project and any other equipment and other items necessary to perform the Work and shall coordinate with the applicable Governmental Authorities in achieving clearance of United States customs for all such Equipment and other items and, to the extent available under United States law but without limiting Contractor's liability for any and all import duties, Taxes and levies as specified in Section 6.2 and Section 6.3, achieving such importation duty-free and tax-free. In no event shall Owner be responsible for any delays in customs clearance or any resulting delays in performance of the Work. Such delays in customs clearance shall not be considered an event of Force Majeure, unless such delay is itself caused by a Force Majeure event.

19.2 Title.

19.2.1 Contractor warrants good title, free and clear of all liens, claims, charges, security interests, and encumbrances whatsoever, to all Equipment and other items furnished by it or any of its Subcontractors that become part of the Project or that are to be used for the operation, maintenance, or repair thereof.

19.2.2 Title to all Equipment and other items shall pass to Owner, free and clear of all liens, claims, charges, security interests, and encumbrances whatsoever, upon the earlier of payment in full therefor or incorporation into the Project or delivery to the Site, a Contractor Yard Site, or any laydown area or storage area used primarily in connection with the Work.

19.2.3 The transfer of title shall in no way affect Owner's rights as set forth in any other provision of this Contract. Contractor shall have care, custody, and control of all Equipment and other items (including Equipment and other items imported into the United States) and exercise due care with respect thereto consistent with Section 24.1.

19.3 Protection. For the purpose of protecting Owner's interest in all Equipment and other items with respect to which title has passed to Owner pursuant to Section 19.2 but that remain in possession of another Person, Contractor shall take or cause to be taken all steps necessary under Applicable Laws to protect Owner's title and to protect Owner against claims by other Persons with respect thereto.

20. DEFAULT

20.1 Contractor Events of Default. Contractor shall be immediately in default of its obligations pursuant to this Contract upon the occurrence of any one or more events of default below (each, a "Contractor Event of Default"):

- (a) Contractor or Parent Guarantor becomes insolvent, generally does not pay its debts as they become due, admits in writing its inability to pay its debts, or makes an assignment for the benefit of creditors, or insolvency, receivership, reorganization, or bankruptcy proceedings are commenced by Contractor or Parent Guarantor (as applicable);
- (b) Insolvency, receivership, reorganization, or bankruptcy proceedings are commenced against Contractor or Parent Guarantor and such proceedings shall remain undismissed or unstayed for a period thirty (30) days;
- (c) Any representation or warranty made by Contractor herein was false or materially misleading when made and Contractor fails to remedy such false or misleading representation or warranty, and to make Owner whole for any consequences thereof, within thirty (30) days after Contractor receives a Notice from Owner with respect thereto;

- (d) Contractor assigns or transfers (or attempts to so assign or transfer) this Contract or any right or interest herein, except as expressly permitted under Article 30;
- (e) Contractor fails to maintain any insurance coverages required of it in accordance with Article 23;
- (f) Contractor fails to perform or observe in any respect any provision of this Contract providing for the payment of an undisputed amount of money to Owner and such failure continues for ten (10) days after Contractor receives Notice from Owner with respect thereto;
- (g) Following approval of a Schedule Recovery Plan pursuant to Section 8.3, Contractor's unexcused failure to meet the schedule set forth in the Schedule Recovery Plan (as determined from the revised Critical Path Method Schedule established by the Schedule Recovery Plan);
- (h) Contractor is otherwise in breach of any material provision of this Contract, or has otherwise failed in a material respect to perform its obligations under this Contract (not otherwise addressed in this Section 20.1) and such breach or failure continues for thirty (30) days after Contractor receives Notice from Owner; provided, however, that if in Owner's determination such default or failure is not capable of cure within a thirty (30) day period and within a fifteen (15) day period after receipt of such Notice from Owner and Contractor commences and diligently proceeds to cure such default or failure, then such default or failure shall not constitute a Contractor Event of Default unless it remains uncured ninety (90) days from the date of the original Notice from Owner;
- (i) The Project Mechanical Completion Date with respect to the Project has not occurred on or before a date that is sixty (60) days after the Project Mechanical Completion Guaranteed Date; or the Substantial Completion Date with respect to the Project has not occurred on or before a date that is thirty (30) days after the Substantial Completion Guaranteed Date; or the Final Completion Date has not occurred on or before a date that is sixty (60) days after the Final Completion Guaranteed Date; or
- (j) Contractor has incurred the Maximum Aggregate Liquidated Damages; or
- (k) Contractor suspends or abandons the Work. "Suspend" for the purposes of this Section 20.1(k) means that Contractor has not accomplished any progress toward any of the Critical Path Items for a period of thirty (30) or more days and such suspension is not otherwise permitted under this Contract. "Abandon" for the purposes of this Section 20.1(k) means that Contractor has substantially reduced personnel at the Site or removed further required equipment from the Site such that, in the opinion of an experienced

construction manager, Contractor would not be capable of maintaining progress in accordance with the Critical Path Method Schedule.

20.2 Owner's Rights and Remedies. In the event of a Contractor Event of Default, Owner or its assignees shall have the following rights and remedies, in addition to any other rights and remedies that may be available to Owner or its assignees under this Contract and Applicable Laws, and Contractor shall have the following obligations:

- (a) Owner may, without prejudice to any of its other rights or remedies, terminate this Contract;
- (b) Owner may, without prejudice to any of its other rights or remedies, seek performance by any guarantor of Contractor's obligations hereunder or draw upon any applicable Letter of Credit provided in accordance with this Contract;
- (c) If requested by Owner, Contractor shall withdraw from the Site, shall assign to Owner such of Contractor's subcontracts and purchase orders that are not subject to Contractor's assignment under Section 10.3 and to the extent assignable, and Contractor Acquired Permits as Owner may request. If requested by Owner, Contractor shall deliver and make available to Owner all information, documents, patents, and licenses of Contractor related to the Work reasonably necessary to permit Owner to complete or cause the completion of the Work, and in connection therewith Contractor authorizes Owner and its agents to use such information in completing the Work. If requested by Owner, Contractor shall remove such materials, equipment, tools, and instruments used by and any debris or waste materials generated by Contractor in the performance of the Work as Owner may direct, and Owner may take possession of any or all Drawings and Specifications, Required Manuals, and Site facilities, related to the Work and necessary for completion of the Work (whether or not such Drawings and Specifications, Required Manuals, and Site facilities are complete);
- (d) Owner shall have the right (either with or without the use of Contractor's equipment) to have the Work finished whether by enforcing any security given by or for the benefit of Contractor for its performance under this Contract or otherwise, in which case Owner shall have the right to take possession of and use all construction equipment of Contractor necessary for completion of the Work, and Contractor shall have no right to remove such items from the Site until such completion; provided, however, Owner shall be responsible for any loss or damage incurred (normal wear and tear excluded) as a result of such use;
- (e) Owner may seek equitable relief to cause Contractor to take action or to refrain from taking action pursuant to this Contract or to make restitution of amounts improperly received under this Contract; or

- (f) Owner may seek damages as provided in Section 20.3, including proceeding against any bond, guarantee, Letter of Credit, or other security given by or for the benefit of Contractor for its performance under this Contract.

20.3 Damages for Contractor Default.

- (a) In the event of a Contractor Event of Default, but in such case subject to the limitations of Article 35, Contractor shall be liable to Owner for any and all actual damages (and also the damages payable in accordance with subparagraph (b) below) to Owner as a result of such Contractor Event of Default, it being understood that, to the extent that the actual costs of completing the Work, including compensation for obtaining a replacement contractor or for obtaining additional professional services required as a consequence of Contractor's Event of Default, exceed those costs that would have been payable to Contractor but for Contractor's Event of Default, Contractor shall be obligated to pay the difference to Owner. In addition, in the event of a Contractor Event of Default, Owner shall be entitled to withhold further payments to Contractor for the Work performed prior to termination of this Contract until Owner determines the liability of Contractor, if any, under this Section 20.3. Upon determination of the total cost of the Work, Owner shall give Notice to Contractor of the amount, if any, that Contractor shall pay Owner or Owner shall pay Contractor. Such payment hereunder shall be made within twenty-one (21) days after receipt of such Notice accompanied by reasonably satisfactory documentation substantiating the amounts payable.
- (b) In addition, if, in the event of a Contractor Event of Default set forth in clauses (g), (i) or (k) of Section 20.1, Owner elects to terminate this Contract pursuant to Section 20.2(a) above, then Contractor shall immediately pay to Owner the Maximum Aggregate Liquidated Damages as liquidated damages for such Contractor Event of Default and for Contractor's failure to proceed with or make adequate progress towards the completion of the Work as required by this Contract. Owner and Contractor agree that Owner's actual damages in the event of any Contractor Event of Default set forth in clauses (g), (i) or (k) of Section 20.1 would be extremely difficult or impracticable to determine and that, after negotiation, Owner and Contractor have agreed that the Delay Liquidated Damages and/or Maximum Aggregate Liquidated Damages required to be paid hereunder are a reasonable estimate of the damages that Owner would incur as a result of such a Contractor Event of Default.
- (c) If it is determined for any reason that Contractor was not in default or that its default was excusable or that Owner was not entitled to the remedy against Contractor provided above, the termination will be deemed to be a termination for convenience/early termination pursuant to Article 21.

20.4 Owner Event of Default. Owner shall be in default of its obligations pursuant to this Contract in the event Owner fails to perform or observe in any respect any provision of this Contract providing for the payment of an undisputed amount of money to Contractor, and such failure continues for ten (10) Business Days after Owner receives a Notice from Contractor with respect thereto (“Owner Event of Default”).

20.5 Contractor’s Remedies. In the event of an Owner Event of Default, and subject to Article 35, Contractor shall have all rights and remedies that may be available under Applicable Laws against Owner with respect to this Contract, including the right to suspend performance of the Work or to terminate this Contract (and including the right to immediately stop work upon an Owner Event Of Default for non-payment).

21. **EARLY TERMINATION**

21.1 General. Owner may in its sole discretion terminate all or part of the Work with or without cause at any time by giving Notice of termination to Contractor, to be effective upon the receipt of such Notice by Contractor or upon such other termination date specifically identified by Owner therein. If Owner terminates the Work without cause or for any cause other than a Contractor Event of Default specified in Section 20.1 or if the circumstances described in the last paragraph of Section 20.3 apply, then Contractor shall receive as compensation for the Work performed through the effective date of termination:

- (a) The sum, without duplication, of: (i) the aggregate amount set forth on the Project Payment Schedule for completion of items of Work that have been properly completed by Contractor, in accordance with this Contract; (ii) for each item of Work properly commenced but not yet completed by Contractor in accordance with this Contract, a percentage of the aggregate amount set forth on the Progress Payment Schedule for completion of such item based on the percentage of completion of such item; and (iii) reasonable demobilization costs; provided, however that the sum shall not exceed the amount set forth on the Cancellation Schedule corresponding to the month in which such termination occurs; minus
- (b) Any amounts previously paid to Contractor under this Contract, in respect of the Contract Price.

21.1.1 Adjustment for Defects. Notwithstanding the foregoing, the amount owed pursuant to Section 21.1 shall be subject to adjustment to the extent any Work contains Defects or to the extent of any overpayments by Owner and provided, further, that Contractor shall use its reasonable efforts to minimize costs that arise between the date of its receipt of a Notice of termination and the effective date thereof, including by promptly notifying its Subcontractors of such termination.

21.1.2 Assumption of Contractor Contracts. Owner shall have the right, at its sole option, to assume and become liable for any reasonable obligations that Contractor may have in good faith incurred for its Site personnel and for any

reasonable written obligations and commitments that Contractor may have in good faith undertaken with third parties in connection with the Work to be performed at the Site, which obligations and commitments shall not have been covered by the payments made to Contractor under Section 21.1. If Owner elects to assume any obligation of Contractor as described in this Section 21.1.2, then, as a condition precedent to Owner's compliance with any subsection of this Article 21, Contractor shall execute all papers and take all other reasonable steps requested by Owner which may be required to vest in Owner all rights, set-offs, benefits and titles necessary to such assumption by Owner of such obligations described in this Article 21. Owner shall simultaneously provide to Contractor indemnities against liabilities thereafter arising under the assumed obligations or commitments.

21.2 Claims for Payment. All claims for payment by Contractor under this Article 21 must be made within forty-five (45) days after the effective date of a termination hereunder. Owner shall make payments under this Article 21 in accordance with Article 7.

21.3 Termination Payments. The payments described in Section 21.1 include payment for all costs of Equipment, temporary equipment, materials, labor, transportation, engineering, design and other services relating to Contractor's performance of its obligations under this Contract (including any intellectual property rights licensed under this Contract, expressly or by implication) provided by Contractor. In addition to the payments described in Section 21.1, Owner shall pay Contractor for: (a) all Taxes on the Work (but not taxes based on Contractor's income or revenues); and (b) all other duties, levies, imposts, fees, or charges of any kind (whether in the United States or elsewhere) arising out of Contractor's or any such Subcontractor's performance of the Work, and (iii) any duties, levies, imposts, fees, charges, and royalties imposed on Contractor or its Subcontractors with respect to any such Equipment, materials, labor, or services provided under this Contract. Except as otherwise provided in Section 6.3, the above-described payments shall not be increased with respect to any of the foregoing or with respect to any withholdings in respect of any of the foregoing items that Owner may be required to make.

22. SUSPENSION

22.1 General. If at any time Owner, in its sole discretion, elects to suspend performance of the Work, Owner may suspend performance of the Work by giving Notice to Contractor. Such suspension shall commence and continue for the period specified in the suspension Notice. The Contract Price shall be adjusted as provided in clauses (a), (b), (c) and (d) of Section 22.2 to reflect any additional increased costs of Contractor resulting from any such suspension, as demonstrated by Contractor to Owner's reasonable satisfaction. No adjustment shall be made to the extent that performance is suspended, delayed, or interrupted for any cause due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract. At any time after the effective date of the suspension, Owner may require Contractor to commence to resume performance of the Work upon five (5) Business Days' Notice.

22.2 Contractor's Termination and Compensation Rights If, at the end of the specified suspension period, Owner has not requested a resumption of the Work or has not notified Contractor of any extension of the suspension period (but in no event beyond three hundred sixty-five (365) days in the aggregate for all such suspensions, other than suspensions for any reason due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract) Contractor may terminate this Contract. Owner shall promptly pay Contractor for the Work performed pursuant to Section 21.1. In addition, in the event of any such suspension, Owner shall pay Contractor within thirty (30) days after receipt of Contractor's Invoice for those reasonable costs incurred during the suspension period that are documented by Contractor to the reasonable satisfaction of Owner, to the extent attributable to the suspension, and that are:

- (a) For the purpose of safeguarding and/or storing the Work and the materials and Equipment at the point of fabrication, in transit, or at the Site;
- (b) For personnel, Subcontractors or rented equipment, the payments for which, with Owner's prior written concurrence, are continued during the suspension period;
- (c) For costs of demobilization and remobilization as approved by Owner; or
- (d) For rescheduling the Work (including penalties or additional payments to Subcontractors for the same).

22.3 Extension of Time. In the event of any suspension under this Article 22, other than from a cause due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract, the Project Guaranteed Dates shall be extended by a period equal to the suspension period, plus a reasonable period for demobilization and remobilization approved by Owner, and, provided that the Owner was notified of and approved suspension of long lead time Equipment orders, for any delays due to such suspension of long lead time Equipment for which the procurement schedule has been adversely affected, and the Critical Path Method Schedule and the Progress Payment Schedule shall be adjusted to account for same.

22.4 Claims for Payment. All claims by Contractor for compensation or extension of time under this Article 22 must be made within sixty (60) days after the suspension period has ended and the Work has been either terminated or resumed. Failure of Contractor to make such claim within said period shall be deemed a waiver by Contractor of any such claims.

23. INSURANCE

23.1. General.

23.1.1 Contractor's Insurance. Contractor, at its own expense, shall procure or cause to be procured and maintain or cause to be maintained in full force and

effect at all times, commencing no later than upon commencement of the Work at the Site and until expiration of the Warranty Periods, all insurance coverages specified in Exhibit "Q-1" (except that the ocean marine cargo coverage and, to the extent applicable, construction all risk insurance coverage need only be maintained in full force and effect until the Substantial Completion Date). All insurance coverage shall be in accordance with the terms of this Article 23 and Exhibit "Q-1" and Exhibit "Q-3" using companies, to the extent required by Applicable Laws, authorized to do business in_____.

23.1.2 Owner's Insurance. Owner, at its own expense, shall procure or cause to be procured and maintain or cause to be maintained in full force and effect at all times, commencing no later than upon commencement of the Work at the Site and until the Substantial Completion, all insurance coverages specified in Exhibit "Q-2" (except that, to the extent applicable, construction all risk insurance coverage need only be maintained in full force and effect until the Substantial Completion Date). All insurance coverages shall be in accordance with this Article 23 and Exhibit "Q-2" and Exhibit "Q-3" using companies, to the extent required by Applicable Laws, authorized to do business in _____

23.1.3 Non-Violation. Contractor shall not violate nor permit to be violated any conditions of the policies provided by Owner under the terms of this Contract and shall at all times satisfy the requirements of the insurance companies issuing them. All requirements imposed by such policies and to be performed by Contractor shall likewise be imposed upon and assumed by each Subcontractor.

23.2 Subrogation Waivers. All policies (except Professional Liability and Aircraft Liability) shall provide for a waiver of subrogation rights against Owner, Owner's Affiliates, Contractor, and their respective assigns, subsidiaries, Affiliates, directors, officers, employees, insurers, and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such Person insured under any such policy. Builders all risk insurance will not waive subrogation rights against manufacturers, suppliers, Subcontractors or Vendors for loss or damage caused by faulty design or workmanship in manufacturing of Equipment. Contractor releases, assigns, and waives any and all rights of recovery against the Owner, and Owner's Affiliates, subsidiaries, employees, successors, permitted assigns, insurers, and underwriters that Contractor may otherwise have or acquire in or from or in any way connected with any loss covered by policies of insurance maintained or required to be maintained by Contractor pursuant to this Contract or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

23.3 Evidence of Insurance. Evidence of insurance required hereunder, in the form required to be delivered by a Party, but in any event in the form of certificates of insurance certified by such Party's insurance brokers, shall be furnished by each Party when required to be delivered no later than the date on which coverage is required to be in effect pursuant to Exhibit "Q-1", Exhibit "Q-2" and Exhibit "Q-3" as applicable. If applicable, a copy of the "Builders All Risk" insurance policy required to be provided in

accordance with Exhibit "Q-1" shall be provided to the Owner for its review and approval (which approval shall not be unreasonably withheld) prior to any construction-related Work being performed at the Site or the delivery of any Equipment to the Site. If requested by Owner, copies of the other insurance policies shall be promptly provided by Contractor to Owner after the coverage date, excluding any premium information. Contractor's automobile liability, commercial general liability and excess liability policies shall provide a severability of interests or cross-liability clause applying to such liability policies; provided, however, that the insurance shall be primary and not excess to or contributing with any insurance or self-insurance maintained by Owner and contain a provision that the policies may not be canceled or changed except: (a) as provided in Exhibit "Q-1", Exhibit "Q-2" and Exhibit "Q-3" as applicable; or (b) if not therein provided, without thirty (30) days' or, in the case of nonpayment of premium, ten (10) days' prior written Notice given by certified mail to Owner and Contractor. Not later than the one-year anniversary of the date of delivery of the policies of insurance hereunder or the expiration date of the policy if for a term of more than one year, and not later than each one-year anniversary or policy renewal date thereafter, each Party shall deliver copies of the renewal insurance certificates as aforesaid.

23.4 Insurance Coverages. All amounts of insurance coverage under this Contract specified in Exhibit "Q-1", Exhibit "Q-2" and Exhibit "Q-3" are required minimums. Owner and Contractor shall each be solely responsible for determining the appropriate amount of insurance, if any, in excess thereof. The required minimum amounts of insurance shall not operate as limits on recoveries available under this Contract.

23.5 Failure to Maintain Insurance. If at any time the insurance to be provided by Owner or Contractor hereunder shall be reduced or cease to be maintained, then (without limiting the rights of the other Party hereunder in respect of any default that arises as a result of such failure) the other Party may at its option maintain the insurance required hereby, and, in such event: (a) Owner may withhold the cost of insurance premiums expended for such replacement insurance from any payments to Contractor; or (b) Owner shall reimburse Contractor for the premium of any such replacement insurance, as applicable.

23.6 Scope of Coverage. Contractor shall require such automobile liability, commercial general liability, excess liability insurance and workers' compensation/employer's liability insurance of Subcontractors who perform services at the Site as shall be reasonable and in accordance with Industry Standards in relation to the Work or other items being provided by each such Subcontractor. Each Subcontractor shall provide evidence of its insurance to Owner prior to performing any Work at the Site.

24. RISK OF LOSS OR DAMAGE

24.1 Contractor Assumption of Risk. From the Effective Date until the Substantial Completion Date, Contractor assumes risk of loss and full responsibility for the cost of replacing or repairing the damage to the Project (including any insurance deductible and any uninsured losses) and all materials, Equipment, supplies and maintenance equipment (including temporary materials, equipment and supplies) which are purchased by

Contractor or Owner for permanent installation in or for use during construction of the Project regardless of whether Owner has title thereto under this Contract, unless such loss or damage is a result of the negligence or intentional misconduct of Owner or Owner's agents during such time as such agents are acting under Owner's control, in which case Owner shall be responsible for the amount of any deductible amounts under applicable policies as identified in Exhibit "Q-1". Owner shall bear the risk of loss and be responsible for any damage with respect to the Project after the Substantial Completion Date or Owner's existing structures, materials or equipment adjacent to or on the Site, except in the event and to the extent such loss or damage is a result of: (a) the continuing performance of the Work by the Contractor (including any Subcontractor); (b) the negligence or intentional misconduct of Contractor or any Subcontractor (including any of their employees or agents); or (c) a defect or other failure covered under any warranty set forth herein or any other act, omission or event for which Contractor is legally liable to Company under contract, law, or equity.

24.2 Loss or Damage; Limitations. If any portion of the Work is lost or damaged during the period when Contractor has the risk of loss in accordance with Section 24.1, then Contractor shall replace or repair any such loss or damage and complete the Work in accordance with this Contract. Notwithstanding the foregoing, to the extent that Owner has maintained construction all risk insurance for the Project, Contractor shall not be obligated to replace or repair any such loss or damage unless: (a) Owner has properly carried and maintained such insurance pursuant to Article 23 and Contractor has received reasonable assurances from Owner that Owner will prosecute such claim in a commercially reasonable manner and Contractor will receive the insurance proceeds, if any, paid under such Owner maintained insurance coverages in accordance with the disbursement provisions of this Contract; or (b) Owner agrees to pay for such replacement or repair as requested by Owner in accordance with Section 17.2. Should a loss be sustained under a third party liability policy, Contractor shall assume all responsibilities of an insured under the terms of said insurance.

25. INDEMNIFICATION

25.1 By Owner. Except for matters expressly made Contractor's responsibility hereunder or otherwise expressly limited as set forth in this Contract, Owner shall defend, indemnify, and hold harmless Contractor and its Subcontractors, and all their respective employees, Affiliates, agents, officers, partners and directors from and against all third party claims, or Losses for bodily injury or property damage that arise out of or result from the sole negligence of Owner.

25.2 By Contractor. Except for matters expressly made Owner's responsibility hereunder and in addition to any other indemnification obligations of Contractor under this Contract, Contractor shall defend, indemnify, and hold harmless Owner and any Person acting for or on behalf of Owner and their respective employees, agents, partners, Affiliates, shareholders, directors, officers, and permitted assigns, from and against all Losses that directly or indirectly:

- (a) Arise out of or result from the prosecution of the Work by Contractor (including its Subcontractors) that arise out of or result from any acts or omissions (including strict liability) of Contractor, its agents, servants, employees or by the agents, servants or employees of any Subcontractors;
- (b) Arise out of or result from the failure of Contractor or Subcontractors to comply with Applicable Laws or the conditions or provisions of Applicable Permits;
- (c) Arise out of any insurance policy procured under Article 23 being vitiated as a result of Contractor's failure to comply with any of the requirements set forth in such policy or any other act by Contractor or any Subcontractor;
- (d) Arise out of or result from Contractor's failure to comply with its obligations under this Contract with respect to Hazardous Materials; or
- (e) Arise from any other breach by Contractor of its representations, warranties and obligations (including any other indemnification provision) under this Contract.

25.3 Actions by Government Authorities. Contractor shall defend, indemnify, and hold Owner and their respective employees, agents, partners, Affiliates, shareholders, directors, officers, and assigns harmless from and against all claims by any Governmental Authority claiming Taxes or other obligations that are Contractor's responsibility pursuant to Section 6.2 and Section 6.3, including Taxes based on gross receipts or income of Contractor, any of its Subcontractors, or any of their respective agents or employees with respect to any payment for the Work made to or earned by Contractor, any of its Subcontractors, or any of their respective agents or employees under this Contract.

25.4 Notice; Defense; Settlement. An indemnitee under this Article 25 or any other indemnification provision set forth in the Contract shall, within ten (10) Business Days after the receipt of written notice of the commencement of any legal action or of any claims against such indemnitee in respect of which indemnification will be sought, notify the indemnitor with a written notice thereof. Failure of the indemnitee to give such written notice will reduce the liability of the indemnitor by the amount of damages attributable to the failure of the indemnitee to give such written notice to the indemnitor, but the failure so to notify shall not relieve the indemnitor from any liability that it may have to such indemnitee otherwise than under the indemnity agreements contained in this Article 25. In case any such claim or legal action shall be made or brought against an indemnitee and such indemnitee shall notify the indemnitor thereof, the indemnitor may, or if so requested by such indemnitee shall, assume the defense thereof, without any reservation of rights. After written notice from the indemnitor to such indemnitee of an election to assume the defense thereof and approval by the indemnitee of counsel selected by the indemnitor, the indemnitor will not be liable to such indemnitee under this Article 25 for any legal fees or expenses subsequently incurred by such indemnitee in connection

with the defense thereof so long as the indemnitor continues to provide such defense. No indemnitee shall settle any indemnified claim over which the indemnitor has not been afforded the opportunity to assume the defense without the indemnitor's written approval. The indemnitor shall control the settlement of all claims over which it has assumed the defense; provided, however, that the indemnitor shall not conclude any settlement that requires any action or forbearance from action by the indemnitee or any of its Affiliates without the prior written approval of the indemnitee. The indemnitee shall provide reasonable assistance to the indemnitor, at the indemnitor's expense, in connection with such legal action or claim. If the indemnitor assumes the defense of any such claim or legal action, any indemnitee shall have the right to employ separate counsel in such claim or legal action and participate therein, and the reasonable fees and expenses of such counsel shall be at the expense of such indemnitee, except that such fees and expenses shall be for the account of the indemnitor if: (a) the employment of such counsel has been specifically authorized by the indemnitor; or (b) the named parties to such action (including any impleaded parties) include both such indemnitee and the indemnitor and representation of such indemnitee and the indemnitor by the same counsel would, in the reasonable opinion of the indemnitee, be inappropriate under applicable standards of professional conduct due to actual or potential conflicting interests between them. Notwithstanding anything to the contrary in this Section 25.4, the indemnitee shall have the right, at its expense, to retain counsel to monitor and consult with indemnitor's counsel in connection with any such legal action or claim.

26. PATENT INFRINGEMENT AND OTHER INDEMNIFICATION RIGHTS

26.1 Indemnity by Contractor. Contractor shall defend, indemnify, and hold harmless Owner and its employees, partners, directors, officers and assigns against all Losses arising from any claim or legal action for unauthorized disclosure or use of any trade secrets, or of patent, copyright, or trademark infringement arising from Contractor's performance (or that of its Affiliates or Subcontractors) under this Contract or otherwise asserted against Owner that either: (a) concerns any Equipment, materials, supplies, or other items provided by Contractor, any of its Affiliates, or any Subcontractor under this Contract; (b) is based upon or arises out of the performance of the Work by Contractor, any of its Affiliates, or any Subcontractor, including the use of any tools or other implements of construction by Contractor, any of its Affiliates, or any Subcontractor; (c) is based upon or arises out of the design or construction of any item by Contractor under this Contract or the operation of any item according to directions embodied in Contractor's final process design, or any revision thereof, prepared or approved by Contractor; or (d) affects the Owner's ability to operate the Project.

26.2 Lawsuits. If such claim or legal action for such infringement results in a suit against Owner the provisions of Section 25.4 shall apply.

26.3 Injunction. If Owner is enjoined from completion of the Project or any part thereof, or from the use, operation, or enjoyment of the Project or any part thereof, as a result of such claim or legal action or any litigation based thereon, Contractor shall promptly use its best efforts to have such injunction removed at no cost to Owner. If any such claim, suit or proceeding, the Project or any part, combination or process thereof is

alleged to or is held to constitute an infringement and its use is permanently enjoined, Contractor shall at its own expense and without impairing performance requirements, (1) procure for Owner the right to use the infringing Work, (2) if (1) is not commercially feasible, modify the infringing Work or part, combination or process thereof so they become non-infringing, or (3) if (1) and (2) are not commercially feasible, replace the infringing Work or part, combination or process thereof with non-infringing components or parts, provided such modification or replacement shall not diminish or alter the features of or the functionality of the Work.

26.4 Effect of Owner's Actions. Owner's acceptance of the Contractor Deliverables or proposed or supplied materials and Equipment shall not be construed to relieve Contractor of any obligation hereunder.

27. CONFIDENTIAL INFORMATION; TITLE TO INTELLECTUAL PROPERTY

27.1. Confidential Information.

27.1.1 Any Confidential Information is disclosed in confidence, and the transferee shall restrict its use of such information solely to uses related to the Project or performance of this Contract. Neither the transferee nor any consultant or other Person to whom any confidential or proprietary information is provided in connection with the Project or performance of this Contract shall publish or otherwise disclose such information to others or use such information for any purpose except as expressly provided above without the written approval of the transferor; provided, however, that nothing herein shall limit: (a) the right of Owner to provide any information regarding Contractor, any Subcontractor, this Contract, or the Work to any financing entity (or advisors retained on their behalf) or their successors and assigns or to any potential or actual successor in interest or to a purchaser of a Party's assets to which this Contract relates (provided, however, that such disclosures shall be subject to the agreement of such Persons to keep such information confidential pursuant to the terms of this Section 27.1); (b) the right of either Party to supply such information to any Governmental Authority asserting a right to such information, or as may be required by Applicable Laws; or (c) the right of Owner to disclose, reproduce and/or use as many copies of any information or documents provided to Owner as Owner in its sole discretion considers useful or necessary for the furtherance of the Work or in connection with the operation, maintenance or repair of the Project, regardless of any notices, legends, or disclaimers on such information or documents.

BES Cyber System Information. Confidential Information of Owner labeled as BCSI shall be protected consistent with the following requirements: (a) BCSI shall be protected at all times, either by appropriate storage or having it under the personal observation and control of a person authorized to receive it; (b) each person who works with protected BCSI is personally responsible for taking proper precautions to ensure that unauthorized persons do not gain access to it; (c) reasonable steps shall be taken to minimize the risks of access to BCSI by unauthorized personnel (when not in use, BCSI shall be secured in a secure

container, such as a locked desk, file cabinet or facility where security is provided); (d) documents or material containing BCSI may be reproduced to the minimum extent necessary, consistent with the need to carry out the Work, provided that the reproduced material is marked and protected in the same manner as the original material; (e) material containing BCSI should be disposed of through secured shredding receptacles or other secured document destruction methods; (f) BCSI shall be transmitted only by the following means: (i) hand delivery; (ii) United States first class, express, certified or registered mail, bonded courier, or through secure electronic means; (iii) e-mail with encrypted file (such as, WinZip with password) (the password should not be included in e-mail, but should be delivered by phone or in an unrelated e-mail not mentioning the document name; password-protected Microsoft Office documents do not meet the encryption requirements); and (g) documents or material containing BCSI shall be returned to Owner or certified destroyed upon completion of the Work.

27.1.2 Notwithstanding the designation of any information as proprietary by a transferor, such information shall not be deemed proprietary or confidential if it: (a) was furnished by such Party prior to the execution of this Contract without restrictions; (b) becomes knowledge available within the public domain; (c) is received by either Party from a third party without restriction and without breach of this Contract; or (d) is or becomes generally available to, or is independently known to or has been or is developed by, either Party or any of its Affiliates other than solely as a result of any disclosure of proprietary information by the transferor to the transferee.

Title to the Confidential Information shall remain with the owner of such Confidential Information.

27.2 Title to Contractor Deliverables. All Contractor Deliverables and other documents to be furnished to Owner by Contractor or by any Subcontractor or Vendor and all modifications made by Contractor to any documents obtained, developed or created exclusively for the Project by or for Contractor shall be the property of Owner. Notwithstanding the foregoing, to the extent Contractor furnishes standard Equipment manuals or similar materials not created specifically in connection with the Work, Owner shall obtain ownership only of the copies actually furnished and shall not hold the copyright thereto. Contractor shall retain the ownership of intellectual property rights in its standard drawing details, designs, specifications, databases, computer software and any other proprietary property.

28. INVENTIONS AND LICENSES

Contractor agrees to grant and hereby grants to Owner an irrevocable, non-exclusive, royalty-free license with respect to all Confidential Information, patents and other proprietary information of Contractor or any Subcontractor related to the Work now or hereafter owned or controlled by Contractor or a Subcontractor to the extent reasonably necessary for the operation, maintenance, repair, or alteration of the Project or any subsystem or component thereof designed, specified, or constructed by Contractor under

this Contract or in connection with any of Owner's electric transmission operations. No other license in such Confidential Information, patents and proprietary information is granted pursuant to this Contract.

29. ASSIGNMENT BY OWNER

Without the prior consent of Contractor, Owner may, upon Notice to Contractor, assign all or part of its right, title, and interest in this Contract and/or the Work to any Affiliate. In addition, without the prior consent of Contractor, Owner may, upon Notice to Contractor, assign all or part of its right, title, and interest in this Contract and/or Work to any Person that acquires the part of the Transmission Grid to which the Project is a part, whether by sale, merger or other means of transfer. Owner may assign all or part of its right, title, and interest in this Contract to any other Person with the prior written approval of Contractor, which approval shall not be unreasonably withheld or delayed; and upon such assignment the Owner shall be relieved of all of its obligations hereunder.

30. ASSIGNMENT BY CONTRACTOR

Contractor understands that this Contract is personal to Contractor. Contractor shall have no right, power, or authority to assign or delegate this Contract or any portion thereof, either voluntarily or involuntarily, or by operation of law. Contractor's attempted assignment or delegation of any of its work hereunder shall be null and void and shall be ineffective to relieve Contractor of its responsibility for the Work assigned or delegated.

31. INDEPENDENT CONTRACTOR

31.1 General. Contractor is an independent contractor, and nothing contained herein shall be construed as constituting any relationship with Owner other than that of owner and independent contractor, or as creating any relationship whatsoever between Owner and Contractor's employees. Neither Contractor nor any of its employees is or shall be deemed to be an employee of Owner.

31.2 Employees. Subject to Section 4.5, Section 4.16 and Section 10.1, Contractor has sole authority and responsibility to employ, discharge, and otherwise control its employees and Subcontractors.

32. NON-PAYMENT CLAIMS

Contractor shall provide Owner, upon Owner's request, copies of any preliminary notices filed with Governmental Authorities and any other similar notices received from any of its Subcontractors related to Work or the Project. If requested by Owner, Contractor shall promptly file a "notice of completion" or similar document with the appropriate Governmental Authority as allowed by Applicable Law.

Contractor shall indemnify and hold harmless Owner and Affiliates (collectively, the "Lien Indemnitees") and defend each of them from and against any and all Losses arising out of any and all claims for payment, whether or not reduced to a lien or mechanic's

lien, filed by Contractor (except as permitted pursuant to the final sentence of this Article 32) or any Subcontractor, or other Persons performing any portion of the Work, including reasonable attorneys' fees and expenses incurred by any Lien Indemnatee in discharging any such liens or similar encumbrances. If Contractor shall fail to discharge, bond around or otherwise dispatch in a manner reasonably satisfactory to Owner promptly any such lien or claim filed against the Project or any interest therein, upon any materials, Equipment, or structures encompassed therein, or upon the Site and/or premises upon which they are located, any Lien Indemnatee may so notify Contractor in writing, and Contractor shall then: (a) satisfy all such liens and claims; or (b) defend Lien Indemnatees against all such liens or claims and provide assurances of payment as described in the second to last sentence of this Article 32. If Contractor does not promptly satisfy such liens or claims, give such Lien Indemnatee reasons in writing that are satisfactory to such Lien Indemnatee for not causing the release of such liens or paying such claims, or contest such liens or claims in accordance with the provisions of the second to last sentence of this Article 32, any Lien Indemnatee shall have the right, at its option, after written notification to Contractor, to cause the release of, pay, or settle such liens or claims, and Owner at its sole option may (i) require Contractor to pay, within five (5) days after request by Owner; or (ii) offset against any retainage or other amounts due or to become due to Contractor (in which case Owner shall, if it is not the applicable Lien Indemnatee, pay such amounts directly to the Lien Indemnatee causing the release, payment, or settlement of such liens or claims) all costs and expenses incurred by the Lien Indemnatee in causing the release of, paying, or settling such liens or claims, including administrative costs, attorneys' fees, and other expenses. Contractor shall have the right to contest any such lien, provided it first provides to Owner a bond or other assurances of payment reasonably satisfactory to Owner in the amount of such lien and in form and substance reasonably satisfactory to Owner. Notwithstanding any provision of this Contract to the contrary, nothing herein shall affect Contractor's right to file or otherwise place a lien on the Project, Site, and/or Work (including a mechanic's lien) as a result of the non-payment by Owner of any undisputed amount owed to Contractor hereunder.

33. NOTICES AND COMMUNICATIONS

33.1 Requirements. Any Notice pursuant to the terms and conditions of this Contract shall be in writing and: (a) delivered personally, (b) sent by certified mail, return receipt requested, or (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, to the following addresses:

35.1 Limitations on Damages. Except for the Delay Liquidated Damages payable under Article 16, and the Maximum Aggregate Liquidated Damages payable under Section 20.3, and each Party's respective indemnity obligations for third party Losses under Article 25, Article 26, and any other provision in this Contract imposing indemnification obligations, and notwithstanding anything else in this Contract to the contrary, neither Party nor its Affiliates shall be liable to the other for any indirect, punitive, consequential or special damages or lost profits, lost revenue or loss of use of the Project, or cost of purchase or replacement power, whether foreseen or not, arising from a failure to perform any obligation under this Contract, whether such liability arises in contract, tort (including negligence or strict liability), statutory or otherwise. This Section 35.1 shall

not be construed to limit recovery for any Losses under any indemnity in this Contract, included Article 25 and Article 26.

35.2 Parent Guaranty and Letter of Credit.

(a) Parent Guaranty. All of Contractor's obligations under this Contract shall be secured by the Parent Guaranty's. Contractor shall deliver the Parent Guaranty's (duly executed by the party thereto) to Owner contemporaneously with Contractor's execution of this Contract.

(b) Letters of Credit.

(1) Performance LOC. Contractor shall deliver such Performance LOC to Owner within five (5) days after the Effective Date and such delivery shall be a condition precedent to Owner's further obligations hereunder. The Performance LOC shall terminate sixty (60) days after the Substantial Completion Date, provided Contractor has delivered to Owner a Warranty LOC in accordance with Section 35.2(b)(2).

(2) Warranty LOC. The Warranty LOC shall be provided to Owner on or prior to sixty (60) days after the Substantial Completion Date and Owner shall not be entitled to draw under such Warranty LOC unless and until the Performance LOC has been cancelled or terminated in accordance with subpart (1) above. The Warranty LOC shall be cancelled on the date 60 months after the Substantial Completion Date.

(3) General Terms. The Contractor shall maintain each of the Performance LOC, the Retainage LOC and the Warranty LOC in full force and effect at all times as required hereunder. If, at any time, any Letter of Credit ceases to satisfy the requirements set forth in this Contract, then the Contractor shall upon four (4) Business Days Notice from Owner deliver a replacement Letter of Credit that complies with the requirements of this Contract, unless Owner has drawn any portion or the entire amount of the Letter of Credit pursuant to Section 35.2(b).

(4) Draw Conditions. Owner shall be entitled to make a demand under a Letter of Credit one or more times in amount(s) not to exceed the stated value of the Letter of Credit. Owner may draw on a Letter of Credit, and may draw multiple times, in amount(s) not to exceed the stated value of the Letter of Credit in Owner's sole discretion, in accordance with the terms of each such Letter of Credit.

(5) Improper Draws. Notwithstanding any other provision of this Contract, if Owner draws on a Letter of Credit in violation of the requirements of this Contract, Owner shall reimburse the Contractor within two (2) Business Days for such wrongfully demanded payment or wrongfully retained portion of a payment properly demanded, plus interest at the Contract Rate, and, if the

improperly drawn upon Letter of Credit is still outstanding or required to be outstanding, the Contractor promptly shall cause such reimbursed amount to be again available for demand thereunder.

(6) Return of Letters of Credit. If the Contractor delivers to Owner a replacement for any Letter of Credit or (ii) the relevant Letter of Credit shall have terminated in accordance with the terms of this Contract, then Owner shall immediately return the relevant Letter of Credit then in Owner's possession to the issuing bank or Contractor for cancellation.

(7) Transfer by Owner of Letter of Credit. All bank administrative fees associated with and imposed by the issuer of the Letter Credit in connection with the transfer by Owner of a Letter of Credit shall be paid by the Owner.

(8) Failure to Renew or Maintain. Contractor shall be in breach of this Contract if Contractor has not renewed or replaced a Letter of Credit required to be provided hereunder no later than twenty-one (21) days prior to the stated expiration date for, or required renewal or replacement date of, such Letter of Credit; and upon Contractor's failure to so renew or replace the Owner shall have the right to draw down the entire amount of such Letter of Credit.

- (c) Contractor shall be in breach of this Contract if Contractor has not provided and maintained any Parent Guaranty or Letter of Credit as required by this Contract and upon Contractor's failure to so provide and maintain in accordance with the terms of this Contract, Owner shall have the right to draw down the entire amount of the Letter of Credits. If after any such draw by Owner, the Contractor provides a Letter of Credit satisfying the requirements of this Contract, the Owner shall within ten (10) Business Days return all previously unapplied proceeds to the Contractor.

35.3 Limitations on Contractor's Liability.

35.3.1 Aggregate Liability and Exclusions. In no event shall Contractor's liability pursuant to this Contract, whether arising in contract, warranty, default or otherwise, be greater in the aggregate than an amount equal to one hundred percent (100%) of the Contract Price; provided, however, that nothing contained in this Section 35.3 or in any other provision of this Contract shall be construed to limit Contractor's liabilities for its obligations: (a) with respect to termination, cancellation or non-renewal (or other loss of coverage) of any insurance policy as set forth in Section 25.2(c) of the Contract; (b) with respect to any gross negligence or willful misconduct or fraud on the part of Contractor; or (c) with respect to any of Contractor's indemnity obligations under Article 25, Article 26, and any other provision in this Contract imposing indemnification obligations.

Notwithstanding anything herein to the contrary, no: (i) liabilities of Contractor to Owner paid for by insurance carried by Contractor pursuant to Article 23 of this

Contract or by Owner (except deductibles paid by Contractor); or (ii) the cost of warranty Work performed by any Subcontractor at such Subcontractor's expense and the cost of any warranty Work paid for by any Subcontractor or recovered by Contractor from any Subcontractor shall be included in Contractor's aggregate liability for the purposes of determining the limit on Contractor's liability pursuant to this Contract.

35.3.2 Maximum Delay Liquidated Damages Amounts. Notwithstanding any other provisions in this Contract to the contrary, in no event shall Contractor's aggregate liability under Section 16.1 for Delay Liquidated Damages exceed the Maximum Aggregate Liquidated Damages.

35.4 Limitation on Owner's Liability. In no event shall the aggregate damages payable by Owner hereunder exceed the Contract Price (as the same may be modified by Changes in Work in accordance with the terms of this Contract); provided, however, that nothing contained in this Section 35.4 or in any other provision of this Contract shall be construed to limit Owner's liabilities for its obligations with respect to any of Owner's indemnity obligations for third party Losses under Article 25 and any other provision in this Contract imposing indemnification obligations. Notwithstanding anything herein to the contrary, no liabilities of Owner to Contractor covered by insurance carried by Owner pursuant to Article 23 of this Contract or by Contractor (except deductibles paid by Owner) shall be included in Owner's aggregate liability for purposes of determining the limit on Owner's liability pursuant to this Contract.

35.5 Releases, Indemnities and Limitations. Releases, indemnities, or limitations on liability expressed in this Contract shall apply in accordance with the terms of this Contract, notwithstanding other legal bases of responsibility such as negligence, strict liability, fault, or breach of contract of the Party indemnified or whose liability is released or limited.

36. DISPUTES

36.1 Negotiations. Any disputes arising pursuant to this Contract that cannot be resolved between Owner's Project Representative and Contractor's Project Manager within fourteen (14) days or, in the case of payment disputes, three (3) Business Days after receipt by each thereof of Notice of such dispute (specifically referencing this Section 36.1) shall be referred, by Notice signed by Owner's Project Representative and Contractor's Project Manager, to the executive officers of the Parties designated in Section 37.4 as their designated representatives (which shall not be the Owner's Project Representative or the Contractor's Project Manager) for resolution.

If the Parties, negotiating in good faith, fail to reach an agreement within a reasonable period of time, not exceeding twenty (20) days or, in the case of payment disputes, ten (10) days after such referral, then Owner or Contractor may institute proceedings as set forth in Section 36.2.

36.2 Dispute Resolution. If the Parties, negotiating in good faith, fail to reach an agreement within the period of time set forth above in Section 36.1, then Owner and Contractor agree that any and all disputes arising from, relating to or in connection with the Contract, whether based on contract, tort or otherwise shall be submitted to the jurisdiction of the federal or state courts located in Utah, to the exclusion of any and all other courts, forums, venues, and the Parties waive any and all right to contest the exclusivity of such forum, including any rights based upon the doctrine of forum non conveniens.

36.3 Work to Continue. Unless otherwise agreed in writing, Contractor shall diligently carry on the Work and shall not interfere with, restrict or discourage the prompt completion of any portion of the Work, the correction of any Defects or the provision of any warranty service during of the pendency of any dispute proceedings, as required under the terms of this Contract, and Owner shall continue to make undisputed payments and perform its obligations under this Contract; provided that, during the pendency of any dispute proceeding, amounts constituting Delay Liquidated Damages shall be paid and no set-off against such amounts shall be taken by Contractor and, to the extent Delay Liquidated Damages are unpaid, Owner may exercise its set-off rights pursuant to Section 37.17.

37. MISCELLANEOUS

37.1 Severability. The invalidity or unenforceability of any portion or provision of this Contract shall in no way affect the validity or enforceability of any other portion or provision hereof. Any invalid or unenforceable portion or provision shall be deemed severed from this Contract and the balance of the Contract shall be construed and enforced as if the Contract did not contain such invalid or unenforceable portion or provision. If any such provision of this Contract is so declared invalid, the Parties shall promptly negotiate in good faith new provisions to eliminate such invalidity and to restore this Contract as near as possible to its original intent and effect.

37.2 Governing Law. This Contract shall be governed by and interpreted in accordance with the internal laws of the state of ____ excluding its conflict of laws provisions. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS CONTRACT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED. IF A WAIVER OF JURY TRIAL IS DEEMED BY ANY COURT OF COMPETENT JURISDICTION TO NOT BE ENFORCEABLE FOR ANY REASON, THEN TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO AGREE TO BINDING ARBITRATION. SUCH ARBITRATION SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES OF THE AMERICAN ARBITRATION ASSOCIATION (AAA). NOTWITHSTANDING ANY AAA RULES AND PROCEDURES OR ANY OTHER PROVISIONS OR ANY STATE OR FEDERAL LAWS, THE PARTIES

AGREE THAT THE ARBITRATORS SHALL NOT CONSIDER OR AWARD PUNITIVE DAMAGES AS A REMEDY. UPON THE OWNER'S REQUEST, AAA SHALL PROVIDE THE PARTIES A LIST OF ARBITRATORS EACH OF WHOM HAVE EXPERIENCE AND EXPERTISE WITH RESPECT TO CONSTRUCTION. UPON EACH OF THE PARTIES RECEIPT OF SUCH LIST, EACH PARTY SHALL HAVE TEN (10) DAYS TO SELECT AN ARBITRATOR. THE TWO SELECTED ARBITRATORS SHALL THEN SELECT A THIRD ARBITRATOR WITHIN THIRTY (30) DAYS FROM THE DATE THE INITIAL TWO ARBITRATORS WERE SELECTED AND THE MATTER SUBJECT TO ARBITRATION SHALL BE ARBITRATED WITHIN ONE HUNDRED EIGHTY (180) DAYS AFTER THE SELECTION OF THE THIRD ARBITRATOR.

37.3 Survival of Termination. The representations, warranties, rights and obligations of the Parties and any other provisions of this Contract which by their nature are intended to survive the termination or expiration of this Contract shall continue in force and effect beyond the expiration or termination of this Contract and shall inure to the benefit of the Parties.

37.4 No Oral Modification. No oral or written amendment or modification of this Contract (including a Change in Work Form accepted under Article 17) by any officer, agent, or employee of Contractor or Owner, either before or after execution of this Contract, shall be of any force or effect unless such amendment or modification or Change in Work Form is in writing and is signed by any President, any Vice President or the Chief Executive Officer of the Party (or of the managing member of the Party on behalf of the Party) to be bound thereby.

37.5 No Waiver. Either Party's waiver of any breach or failure to enforce any of the terms, covenants, conditions, or other provisions of this Contract at any time shall not in any way affect, limit, modify, or waive that Party's right thereafter to enforce or compel strict compliance with every term, covenant, condition, or other provision hereof, any course of dealing or custom of the trade notwithstanding. All waivers must be in writing and signed on behalf of Owner and Contractor by the individuals identified in Section 37.4.

37.1. Time of Essence. Time is of the essence with respect to the performance by Contractor of its obligations under this Contract.

37.2. Contract Interest Rate. Overdue undisputed payment obligations of the Owner and the Contractor hereunder shall bear interest from the date due until the date paid at a rate per annum equal to the lesser of: (a) Prime Rate in effect from time to time plus three percent (3%); and (b) the highest rate permitted by Applicable Laws.

37.3. Headings for Convenience Only. The headings contained herein are not part of this Contract and are included solely for the convenience of the Parties.

37.4. Third-Party Beneficiaries. The provisions of this Contract are intended for the sole benefit of Owner and Contractor and there are no third party beneficiaries hereof,

except where otherwise expressly provided, other than assignees contemplated by the terms herein.

37.5. Language. The language of this Contract is the English language, which shall be the ruling language in which the Contract shall be construed and interpreted. All correspondence, Drawings and Specifications, Contractor Deliverables, test reports, Notices, certificates, Required Manuals and other information shall be entirely in the English language.

37.6. Drafting Interpretations. Preparation of this Contract has been a joint effort of the Parties and the resulting documents shall not be construed more severely against one of the Parties than against the other.

37.7. Further Assurances. Owner and Contractor will each use reasonable efforts to implement the provisions of this Contract, and for such purpose each, at the request of the other, will, without further consideration, promptly execute and deliver or cause to be executed and delivered to the other such assistance, or assignments, consents or other instruments in addition to those required by this Contract, in form and substance satisfactory to the other, as the other may reasonably deem necessary or desirable to implement any provision of this Contract. Additionally, in the event that either Party has reasonable cause to suspect that the other Party's ability to perform its respective obligations under this Contract has been substantially impaired, the impaired Party shall upon request, provide the requesting Party with reasonably adequate assurance of its intention and ability to continue its performance as required by this Contract.

37.8. Record Retention. Contractor agrees to retain for a period of seven (7) years from the Final Completion Date or any longer period as may be required by Applicable Laws all records relating to its performance of the Work or Contractor's warranty obligations herein, and agrees to cause all Subcontractors engaged in connection with the Work or the performance by Contractor of its warranty obligations herein to retain for the same period all their records relating to the Work.

37.9. Binding on Successors. This Contract shall be binding on the Parties hereto and on their respective successors, heirs and permitted assigns.

37.10. Merger of Prior Contracts. This Contract supersedes any other agreement, whether written or oral, that may have been made or entered into between Owner and Contractor or by any officer or officers of such Parties relating to the Project or the Work. This Contract and Exhibits hereto constitutes the entire agreement between the Parties with respect to the Project, and there are no other agreements or commitments with respect to the Project except as set forth herein.

37.11. Counterpart Execution. This Contract may be executed by the Parties hereto in any number of counterparts (and by each of the Parties hereto on separate counterparts), each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute but one and the same instrument.

37.12. Set-Off. Either Party may at any time, but shall be under no obligation to, set off any and all sums due from the other Party against sums due to such Party hereunder.

37.13. Further Information. To the extent Contractor does not file financial statements with the United States Security and Exchange Commission, the Contractor agrees from time to time to provide the Owner such information and documents (financial or otherwise) regarding the Contractor as the Owner may reasonable request at Contractor's cost and expense.

38. NERC CIPS COMPLIANCE

38.1 In the event that the Work under this Contract requires any (i) authorized unescorted physical access to Owner's Facilities (i.e., Unescorted Personnel), or (ii) authorized unescorted physical access or authorized cyber access to Owner's CIP Covered Assets (i.e., Sensitive Personnel), Contractor, Unescorted Personnel, and Sensitive Personnel shall be required to comply with North American Electric Reliability Corporation ("NERC") Critical Infrastructure Protection Standards ("CIPS"), as adopted by Owner and attached hereto as Exhibit "S", Background Check Criteria – NERC / CIPS Standards. For all Unescorted Personnel and Sensitive Personnel, Contractor shall:

- (a) Ensure that Unescorted Personnel and Sensitive Personnel have passed the background checks outlined in Section 38.3(a) consistent with the Owner's Background Check Criteria set forth on Exhibit "S" prior to requesting unescorted physical access and/or cyber access to Owner's Facilities and/or CIPS Covered Assets, as applicable;
- (b) Ensure that Unescorted Personnel and Sensitive Personnel complete Owner provided or approved initial CIPS compliance training prior to requesting unescorted physical access and/or cyber access to Owner's Facilities and/or CIPS Covered Assets, as applicable;
- (c) Ensure that Unescorted Personnel and Sensitive Personnel have passed Contractor's drug and alcohol exam and are in compliance with Contractor's substance abuse/drug and alcohol policy as outlined in Section 38.5; and
- (d) Keep accurate and detailed documentation to confirm completion dates for background checks, all CIPS compliance training (initial and annual training, to the extent applicable), and drug tests, and certify to Owner such documentation by completing a Contractor/Vendor Information Form, attached as part of Exhibit "S" hereto, for each Unescorted Personnel and Sensitive Personnel.

Contractor shall not allow any Unescorted Personnel or Sensitive Personnel who have not met the foregoing requirements of this Section 38.1 to perform Work, unless Contractor has received prior written consent from Owner.

38.2 Additional Access Requirements Specific to Sensitive Personnel. In addition to the access requirements outlined in Section 38.1, with respect to all Sensitive Personnel, Contractor also shall:

- (a) Ensure that Sensitive Personnel and any Personnel with access to BCSI are informed of and comply with the requirements of Article 27 contained herein, as well as the requirements set forth herein;
- (b) In addition to the initial CIPS compliance training requirement outlined in Section 38.1(b), ensure that Sensitive Personnel complete Owner provided or approved supplemental CIPS compliance training within Owner's prescribed training window, and not less than on an annual basis; and
- (c) Immediately report both (i) Sensitive Personnel terminations for cause, and (ii) all other Sensitive Personnel terminations or changes in employment status for those who no longer require access, to Owner's Enterprise Service Desk ("ESD"). The ESD is available by calling the Project Representative.

Contractor shall not allow any Sensitive Personnel who have not met the foregoing requirements of this Section 38.2 to perform Work, unless Contractor has received prior written consent from Owner.

38.3 Personnel Screening/Background Check Requirements. For all Unescorted Personnel and Sensitive Personnel, the following requirements must be met by Contractor:

- (a) Contractor shall conduct, at Contractor's cost and expense, the requisite background checks for the current and past countries of residence of all Unescorted Personnel and Sensitive Personnel consistent with Owner's Background Check Criteria set forth on Exhibit "S". All background checks will be conducted in accordance with federal, state, provincial, and local laws, and subject to existing collective bargaining unit agreements or other agreements, if any;
- (b) Following the initial background check to obtain authorization for access, the background checks shall be updated no less frequently than every seven (7) years or upon request by Owner, and shall, at a minimum, consist of a social security number identity verification and seven (7) year criminal background check, including all convictions for a crime punishable by imprisonment for a term exceeding one (1) year;
- (c) Contractor shall ensure that each of the Unescorted Personnel and Sensitive Personnel sign an appropriate authorization form prior to background checks being conducted, acknowledging that the background check is being conducted, and authorizing the information obtained to be provided to Owner;
- (d) Owner has the right to audit Contractor's records supporting each Contractor/Vendor Information Form submitted to Owner, including background check results, and to verify that the requisite background checks and drug tests were performed consistent with Owner's Background Check

Criteria, set forth on Exhibit "S". Contractor shall provide Owner with all requested records supporting Contractor/Vendor Information Forms within a reasonable time after receiving such request, and in the form requested by Owner, but not longer than three (3) Business Days following the date of such request;

- (e) For purposes of this Contract, a background check is considered valid pursuant to the Owner's Background Check Criteria, set forth on Exhibit "S", if it was completed within two (2) years prior to the date on which the Contractor signed a Contractor/Vendor Information Form for each Unescorted Personnel and Sensitive Personnel. Regardless of when performed, all background checks shall be documented pursuant to the requirements set forth in this Section 38.3; and
- (f) In the event Owner notifies Contractor of the impending expiration of the background check of any Unescorted Personnel or Sensitive Personnel, Contractor shall provide an updated Contractor/Vendor Information Form reflecting a refreshed background check within twenty (20) days of receipt of the notice, in order to avoid revocation of such person's access.

38.4 Contractor Designee. Contractor shall designate one person to be responsible for compliance with the requirements of this Article 38, and all reporting and inquiries, other than Sensitive Personnel terminations or changes in employment status, shall be made via e-mail to Project Representative. Sensitive Personnel terminations or changes in employment status should be reported to the ESD pursuant to Section 38.2(c).

38.5 Drug Testing.

- (a) Contractor shall have and ensure compliance with a substance abuse/drug and alcohol policy that complies with all applicable federal, provincial and/or local statutes or regulations. Contractor shall subject each of the Personnel to a drug test at Contractor's sole cost and expense. Such drug test shall, at a minimum, be a five (5) Panel Drug Test, which should be recognizable at testing labs as a "SamHSA5 panel at 50NG – THC cut-off."
- (b) For any Personnel who have had a recent drug test, such recent drug test shall be documented pursuant to the previous paragraph. Contractor warrants that Contractor and the Personnel are in compliance with Contractor's substance abuse/drug and alcohol policy.
- (c) During the course of Work performed under this Contract, Contractor shall keep accurate and detailed documentation of its drug policy and Personnel drug tests, which it shall submit to Owner upon request.

- (d) Contractor shall designate one person to be responsible for compliance with the requirements of this Article 38 and all reporting and inquiries, other than Sensitive Personnel terminations or changes in employment status covered in Section 38.4, shall be made to the Project Representative in a timely manner.

38.6 Department of Transportation Compliance. Contractor shall ensure Department of Transportation compliance, including but not limited to valid driver's license, equipment inspections, hours of service and all appropriate documentation for any Personnel who may drive while on assignment to Owner.

39. CYBER SECURITY

39.1 Scope. This Cybersecurity Article (“Article”) applies to any contractor or supplier (collectively, “Contractor” for purposes of this Article) and its Personnel and Subcontractors that provide hardware, software, or services to the Owner that may impact the confidentiality, integrity, or availability of the Company’s networks, systems, software, Data, or Confidential Information for the term of the Contract.

39.2 Defined Terms.

“Confidential Information” shall have the meaning as defined in the Contract and in addition include any information that can be used to identify or distinguish the identity of an individual, employee, or customer of Company, including but not limited to name, social security number, date and place of birth, customer account number, customer address, customer energy usage information, credit or bank account number, passport or driver’s license numbers, or any information that is linked or linkable to an individual, employee, or customer that is not otherwise classified as public information by Company, including medical, financial, and employment information.

“Data” shall mean any information, formulae, algorithms, or other content that the Company or the Company’s employees, agents and end users upload, create or modify using any software provided pursuant to the Contract. Data also includes user identification information and metadata which may contain Data or from which the Company’s Data may be ascertainable.

“Security Breach” shall mean any act or omission that compromises either the security, confidentiality, or integrity of Company’s Confidential Information, Data, systems and facilities or Company’s physical, technical, administrative or organizational safeguards and controls relating to the protection of Company’s Confidential Information, Data, systems, and facilities.

Any capitalized terms not otherwise defined herein shall have the meaning in the Contract.

39.3 Cybersecurity Controls.

(a) Without limiting Contractor’s obligations elsewhere in this Article or the Contract, Contractor shall implement security safeguards and controls to protect the Company’s networks, systems, software, Data, and Confidential Information that are no less rigorous than accepted industry practices, specifically those set forth in the latest published version of ISO/IEC 27001 – *Information Security Management Systems–Requirements* and ISO/IEC 27002 – *Code of Practice for International Security Management*.

(b) Contractor agrees to notify the Company of known security vulnerabilities in hardware, software, and services provided under the Contract in a timely manner.

- (c) Contractor warrants that the hardware, software, and patches provided under the Contract will not contain malicious code. Contractor agrees to provide a method to verify the integrity and authenticity of all software and patches provided by the Contractor.
- (d) Contractor shall follow all applicable Company requirements for all remote access to Company resources and systems. To the extent Contractor's Personnel will have interactive remote access to Company's networks, systems or applications, such access must be performed on a secure connection. Contractor shall utilize multi-factor authentication provided by the Company. Authentication tokens and passwords may not be shared without written permission from the Company's Vice President, Information Technology. Immediately upon either (i) Personnel termination actions or (ii) changes in the status of Personnel which removes their need for remote access, Contractor shall report such termination or change in status to the Company's Service Desk.

39.4 Oversight of Compliance. Company reserves the right to conduct an assessment, audit, examination, or review of Contractor's security controls to confirm Contractor's adherence to the terms of this Article, as well as any applicable laws, regulations, and industry standards, not more than once per year or upon notification of any Security Breach or complaint regarding Contractor's privacy and security practices. Company may elect to obtain the services of a mutually-agreeable third party to conduct this assessment, audit, examination, or review on behalf of Company. Company shall give Contractor no less than thirty (30) calendar days' notice of its intent to conduct such assessment, audit, examination, or review. As part of this assessment, audit, examination, or review, Company may review all controls in Contractor's physical and/or technical environment in relation to all Confidential Information being handled and/or hardware, software, or services being provided pursuant to this Contract. Contractor shall fully cooperate with such assessment by providing access to knowledgeable personnel, physical premises, documentation, infrastructure, application software, and systems relevant to the provision of hardware, software, or services under the Contract.

39.5 Security Breach Procedures; Equitable Relief. In the event of Security Breach of the contractor or subcontractor affecting the Company, the Company's networks, systems, software, Data, or the Company's Confidential Information,

- (a) Contractor shall:
 - (i) notify the Company of a Security Breach as soon as practicable, but no later than 48 hours after Contractor becomes aware of it by telephone at the following number: [insert applicable company's Service Desk number]; and
 - (ii) provide the Company with the name and contact information for any Personnel who shall serve as Contractor's primary security contact and shall be available to assist the Company in resolving obligations associated with a Security Breach;

(b) Immediately following Contractor's notification to the Company of a Security Breach, the Parties shall coordinate with each other to investigate such Security Breach. Contractor agrees to coordinate with Company in Company's handling of the matter, including: (i) assisting with any investigation and (ii) making available all relevant records and other materials required to comply with applicable law, regulation, industry standards, or otherwise reasonably required by Company.

(c) Contractor shall use best efforts to immediately remedy any Security Breach and prevent any further or recurrent Security Breach at Contractor's expense in accordance with applicable privacy laws, regulations, and standards. Contractor shall reimburse Company for actual reasonable costs incurred by Company in responding to, and mitigating damages caused by, any Security Breach, including all costs of notice and/or remediation pursuant to this section.

(d) Contractor shall fully cooperate at its own expense with Company in any litigation or other formal action deemed reasonably necessary by Company to protect its rights relating to the use, disclosure, protection, and maintenance of its Confidential Information and Data.

(e) Contractor acknowledges that any breach of Contractor's obligations set forth in this Article may cause Company substantial irreparable harm for which monetary damages would not be adequate compensation and agrees that, in the event of such a breach or threatened breach, Company is entitled to seek equitable relief, including a restraining order, injunctive relief, specific performance and any other relief that may be available from any court, in addition to any other remedy to which Company may be entitled at law or in equity. Such remedies shall not be deemed to be exclusive but shall be in addition to all other available remedies at law or in equity, subject to any express exclusions or limitations in the Contract to the contrary.

39.6 Network Security & Privacy Liability. If the Work under the Contract involves the rendering of IT services including, but not limited to: software, software or hardware or systems development or consulting services; internet/application services (e.g., web hosting); providing content; connections to systems, technology or network(s); or if Contractor in any way collects, obtains, maintains or in any way accesses or uses Confidential Information or Data, then Contractor, and its Subcontractors, shall maintain Network Security & Privacy Liability coverage, which can be included via evidenced endorsement to Professional Errors & Omissions coverage, throughout the term of this Contract and for a period of two (2) years thereafter, with a minimum required limit of \$5,000,000 Each Claim.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be executed as of the date and the year first above written.

OWNER:

By: _____

Name: _____

Title: _____

CONTRACTOR:

[_____]

By: _____

Name: _____

Title: _____

RFQ Copy

MASTER
CONTRACT
FOR

ENGINEERING, PROCUREMENT
AND CONSTRUCTION SERVICES

BETWEEN

[_____]

PACIFICORP TRANSMISSION PROJECTS

Dated as of

[_____]

Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

RFQ Copy

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THIS TURNKEY CONTRACT FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION SERVICES (the "Contract") is made and entered into as of _____ [201_], (the "Effective Date") by and between, PacifiCorp, an Oregon Corporation ("Owner"), and _____, ("Contractor"). Each entity is sometimes individually referred to herein as a "Party" and both entities are sometimes collectively referred to herein as the "Parties."

RECITALS

- A. Owner desires to construct, own and operate various Projects.
- B. For a particular Project, and through a particular Release, Owner desires to engage Contractor to:
- (1) following issuance of a Limited Notice to Proceed, provide the Pre-Construction Services; and
 - (2) following issuance of Full Notice to Proceed, to design, engineer, procure, construct, test and commission (as to testing and commissioning, only to the extent expressly provided in this Contract, including Exhibit "A") the Project all on a turnkey, guaranteed fixed price, guaranteed completion date basis, and Contractor desires to provide such services, all as further defined by the terms and conditions set forth in this Contract.
- C. Contractor has:
- (1) been provided and reviewed the preliminary drawings and certain specifications for the Project and other documents relating to the Project which Contractor has deemed necessary in connection with this Contract;
 - (2) inspected the real property on which the Project shall be constructed; and
 - (3) performed or reviewed such other investigations, studies, and analyses which Contractor has determined to be necessary or prudent in connection with entering into this Contract.
- D. Contractor agrees to guarantee the timely completion of the Project.

AGREEMENT

NOW, THEREFORE, in consideration of any sums to be paid to Contractor by Owner and of the covenants and agreements set forth herein, the Parties agree as follows:

1. DEFINITIONS

For purposes of this Contract, except as otherwise expressly provided or unless the context otherwise requires, the following terms shall have the following meanings. The meanings specified are applicable to both the singular and plural.

1.1. Affiliate. With respect to any Person, another Person that is controlled by, that controls or is under common control with, such Person; and, for this purpose, "control" with respect to any Person shall mean the ability to effectively control, directly or indirectly, the operations and business decisions of such Person whether by voting of securities or partnership interests or any other method.

1.2. Applicable Laws. The term means and includes all of the following:

(a) any statute, law, rule, regulation, code, ordinance, judgment, decree, writ, order or the like, of any Governmental Authority, and the interpretations thereof, including any statute, law, rule, regulation, code, ordinance, judgment, decree, writ, order or the like, regulating, relating to or imposing liability or standards of conduct concerning:

(i) Owner, Contractor, the Site, the Contractor Yard Site or the performance of any portion of the Work or the Work taken as a whole, or the operation of the Project; or

(ii) safety and the prevention of injury to Persons and damage to property on, about or adjacent to the Site or any other location where any other portion of the Work shall be performed (including the Contractor Yard Sites) or

(iii) protection of human health or the environment or emissions, discharges, releases or threatened releases of pollutants, contaminants, chemicals or industrial, toxic or hazardous substances or wastes into the environment including ambient air, surface water, ground water, or land, or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of pollutants, contaminants, chemicals, Hazardous Materials or other industrial, toxic materials or wastes; as now or may at any time hereafter be in effect; and

(b) Any requirements or conditions on or with respect to the issuance, maintenance or renewal of any Applicable Permit or any application therefor.

- 1.3. Applicable Permits. Each and every national, state and local license, authorization, certification, filing, recording, permit, waiver, exception, variance, franchise, order or other approval with or of any Governmental Authority, including each and every environmental, construction, operating or occupancy permit and any agreement, consent or approval that is required by any Applicable Laws.
- 1.4. BES Cyber System Information (BCSI) shall mean information concerning CIPS Covered Assets that: (i) relates to the production, generation or transmission of energy; (ii) could be useful to a person planning an attack on critical infrastructure; and (iii) provides strategic information beyond the geographic location of the critical asset, and which is identified as BCSI by Owner. BCSI also includes any information concerning CIPS Covered Assets that has been identified by Owner as Critical Infrastructure Information (or CII).
- 1.5. Business Day. A Day, other than a Saturday or Sunday or holiday, on which banks are generally open for business in Salt Lake City, UT.
- 1.6. Cancellation Schedule. The cancellation payment schedule shall mean as set forth in Exhibit "D" as part of each Release.
- 1.7. Change in Law. The enactment, adoption, promulgation, modification, or repeal after the Effective date of each Release of any Applicable Law of any Governmental Authority of the United States or the modification after the Effective date of each Release of any Applicable Permit issued or promulgated by any Governmental Authority of the United States (that could not be reasonably anticipated on the Effective date of each Release) that establishes requirements that have a materially adverse effect on Contractor's costs or schedule for performing the Work; provided, however, neither (a) a change in any national, federal, or any other income tax law or any other law imposing a tax, duty, levy, impost, fee, royalty, or charge for which Contractor is responsible hereunder nor (b) a Change in Law that affects Contractor's or Subcontractor's costs of employment, shall constitute a Change in Law pursuant to this Contract. Section 4.15 sets out Contractor's rights in the event that an Owner Acquired Permit has not been issued or an application therefore has not been made on or prior to the Effective date of each Release.
- 1.8. Change in Work. A change in the Work as defined in Section 17.1.

1.9. Change in Work Form. The form documenting a Change in Work as attached hereto as Exhibit "E".

1.10. CIPS Covered Assets. Any assets identified by Owner as "critical assets," "critical cyber assets," "BES assets," "BES cyber assets," or "BES cyber systems," as those terms are defined in the North American Electric Reliability Corporation (NERC) Glossary of Terms. "BES" refers to the "Bulk Electric System" as defined by NERC.

1.11. Company. The term as used in the Exhibits hereto has the same meaning as the term Owner.

1.12. Confidential Information. Information, ideas or materials now or hereafter owned by or otherwise in the possession or control of, or otherwise relating to, one Party and/or any of its Affiliates, including inventions, business or trade secrets, know-how, techniques, data, reports, drawings, specifications, blueprints, flow sheets, designs, engineering, construction, environmental, operations, marketing, transmission line, substation and generating station outage schedules and other operating restrictions and conditions, or other information, together with all copies, summaries, analyses, or extracts thereof, based thereon or derived therefrom, disclosed by one Party (the "transferor") to the other Party or any of its Affiliates or any of their respective directors, employees or agents (the "transferee"); provided, however, Confidential Information of Owner shall also mean all BES Cyber System Information and any information, ideas or materials related to the Work or the Project obtained, developed or created by or for Contractor in connection with the Work, or delivered or disclosed to Owner in connection with the Work, together with all copies, reproductions, summaries, analyses, or extracts thereof, based thereon or derived therefrom; and provided, further, Confidential Information of Owner shall also mean information, ideas, or materials disclosed by Owner or any of its Affiliates, or deduced by Contractor, any Subcontractor or any of their Affiliates or any of their respective directors, employees or agents from information supplied by Owner or its Affiliates or agents, or as a result of visits by Contractor, any Subcontractor, or any of their Affiliates or any of their respective directors, employees or agents to the premises of Owner or any of its Affiliates or the Site, which relate to the Project. The terms of this Contract shall also be considered Confidential Information of the Owner.

1.13. Construction Manager. The permanent, on-Site construction manager designated by Contractor and approved by Owner in accordance with Section 4.5.

1.14. Contract. This Turnkey Contract for Engineering, Procurement and Construction Services, including all Exhibits hereto, as the same may be modified, amended, or supplemented from time to time in accordance with Article 17 and Section 37.4.

- 1.15. Contract Price. Shall mean with respect to each Release, the fixed amount for performing the Work that is payable to Contractor as set forth in Section 6.1, as the same may be modified from time to time in accordance with the terms hereof.
- 1.16. Contractor. The term has the meaning as set forth in the first paragraph of this Contract. [The JV partners shall undertake the duties and obligations of the Contractor under this Contract severally and jointly. Even though the joint venture partners have assumed the duties and obligations of Contractor under this Contract on a joint and several basis, the Contractor is referred to throughout the Contract Documents as if singular in number.] [If applicable.]
- 1.17. Contract Acquired Permits. The Applicable Permits defined in Exhibit "A", Section 17 attached to a particular Release as Contractor Acquired Permits, and any other Applicable Permits required in connection with the Project or the Work except those Applicable Permits specified in Exhibit "A", Section 17 attached to a particular Release as Owner Acquired Permits.
- 1.18. Contract Term. Shall mean the period commencing upon the execution of this Contract by Owner and continuing thereafter until December 31, 2020, unless earlier terminated as provided herein.
- 1.19. Contractor Cause. The term shall mean any of the following: (a) Contractor's unexcused delay in achieving a Project Guaranteed Date or other breach by Contractor of its obligations under this Contract, or (b) a Defect.
- 1.20. Contractor Deliverables. Each of the material documents relating to each particular Release to be delivered to Owner for review and comment in accordance with the requirements of this Contract, including Article 12; which shall include the documents set forth on the Deliverables Schedule.
- 1.21. Contractor Environmental Assurance Program. The accepted material documents provided in compliance with the requirements of Exhibit A, Section 22.
- 1.22. Contractor Event of Default. The term has the meaning set forth in Section 20.1.
- 1.23. Contractor Safety Program. The term has the meaning set forth in Section 4.11.

- 1.24. Contractor Schedule Milestones. The Contractor schedule milestones set forth on Exhibit "G" as related to each particular Release.
- 1.25. Contractor's Invoice. An invoice from Contractor to Owner in accordance with Section 7.1 and in the form of Exhibit "F" hereto.
- 1.26. Contractor Yard Sites. A site(s) in the vicinity of the Site acquired by the Contractor at its cost and used by the Contractor as a construction equipment or Equipment storage yard, a site for construction office trailers, a worker reporting location and/or other Project-related uses.
- 1.27. CPCN. The final certificate of public convenience and necessity for a particular project as issued by the relevant Governmental Authority.
- 1.28. Critical Path Item(s). With respect to each Project, any items demonstrated (with satisfactory evidence provided in accordance with Exhibit "G") to be on the critical path for the Critical Path Method Schedule prepared by Contractor in accordance with Section 4.26.
- 1.29. Critical Path Method Schedule. With respect to each Project a critical path method schedule prepared by Contractor describing the time of completion of the Work (including Critical Path Items) by Contractor, setting forth the dependencies among all Critical Path Items that affect the achievement of the Project Guaranteed Dates, meeting the requirements set forth in Exhibit "G", and developed and agreed by the Parties in accordance with Section 4.26.
- 1.30. Day or day. A calendar day, unless otherwise specified.
- 1.31. Defect. Unless otherwise specifically defined elsewhere herein, the term Defect includes any designs, engineering, materials, workmanship, Equipment, tools, supplies, installation or other Work, which:
- (a) Do not conform to the requirements of this Contract;
 - (b) Are of defective or inferior manufacture, workmanship or materials;
 - (c) Are inconsistent with Industry Standards; or
 - (d) Are not suitable for a project of this type.

- 1.32. Delay Liquidated Damages. Liquidated damages for delay as set forth in Section 16.1 for the amounts specified in each Release.
- 1.33. Delay Notice. A Notice of a Force Majeure event, and the estimated delays associated with such event, as set forth in Section 9.2.
- 1.34. Deliverables Schedule. With respect to each Release the schedule as described and to be agreed upon by the Parties in accordance with Section 12.4 that identifies the Contractor Deliverables to be delivered by Contractor, and Owner's period for review thereof, as such schedule may be updated from time to time in accordance with Section 12.4 of this Contract.
- 1.35. Design Engineering. The responsibility for design engineering including the Drawings and Specifications for each Project will be defined within each Release and may be provided by either party or any combination thereof.
- 1.36. Dollars or \$. The lawful currency of the United States of America.
- 1.37. Drawings and Specifications. With respect to each Project, Drawings, specifications and documents that are part of the Scope of Work defined in each Release or that have been or will be prepared by Owner's Engineer, Contractor or any Subcontractor with respect to the Work and submitted under this Contract (including those drawings, specifications and documents identified in the Deliverables Schedule and Exhibit "A", Section 23).
- 1.38. Effective Date. The term has the meaning as set forth in the first paragraph of this Contract.
- 1.39. Equipment. With respect to each Project, all materials, supplies, apparatus, machinery, equipment, parts, tools, components, instruments, appliances and appurtenances thereto that are: (a) required for prudent operation of the Project in accordance with Industry Standards; or (b) described in or required by this Contract, including Exhibit "A" and the Drawings and Specifications, as described within each Release.
- 1.40. Exhibits. Each exhibit listed in Section 2.1 and attached hereto and incorporated herein in its entirety by this reference.
- 1.41. Final Completion. Satisfaction by Contractor or waiver by Owner of all of the

conditions for Final Completion as set forth in Section 15.5.

1.42. Final Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.

1.43. Final Completion Date. The date on which Final Completion of each Project occurs.

1.44. Final Completion Guaranteed Date. The date specified within each Release, and as such date may be modified in accordance with Article 17.

1.45. Final Contractor's Invoice. With respect to each Project, the final invoice submitted by Contractor in accordance with Section 7.6.

1.46. Final Payment. With respect to each Project, the final payment made by Owner to Contractor in accordance with Section 7.6.

1.47. Final Release and Waiver of Liens and Claims. With respect to each Project, a sworn statement and waiver of liens prepared by Contractor and each Major Subcontractor, as applicable, which provides that such Person unconditionally waives and releases all mechanic's liens, stop notices and bond rights with respect to all Work for which Contractor requested Final Payment in the applicable form set forth in Exhibit "Z".

1.48. Force Majeure.

- (a) Any war (whether declared or not), hostilities, blockade, revolution, insurrection, riot or terrorist act; expropriation, requisition, confiscation, or nationalization; closing of harbors, docks, canals, or other assistances to or adjuncts of the shipping or navigation of or within any place; rationing or allocation as imposed by law, decree, or regulation, or by any Governmental Authorities; actions of a Governmental Authority (other than with respect to a Party's compliance with Applicable Laws and Applicable Permits required in connection with a Party's performance under this Contract); fire or explosion; unusually severe storms and unusually severe weather conditions occurring in the vicinity of the Site, including flood, lightning strikes, tornado or hurricane; unusually severe tide, tidal wave or volcano; accidents of navigation or breakdown or damage of shipping vessels, or accidents to harbors, docks or canals; epidemic or quarantine; general labor disturbances not specific to Contractor's or Subcontractor's personnel; or any other event, matter, or thing, wherever occurring and whether similar or dissimilar to any of the foregoing; provided, however, that, in each case: (i) such event, matter or circumstance is not within the reasonable control and is without the fault or negligence of, or willful misconduct of, or breach of this Contract by the Party

whose performance is affected thereby; (ii) such event, despite the exercise of commercially reasonable efforts, cannot be or be caused to be prevented, avoided or removed by such Party; and (iii) to the extent commercially reasonable, the Party affected has taken precautions and measures to avoid the effect of such event on such Party and mitigate the consequences thereof.

- (b) In relation to any labor strikes, disputes, disturbances, or other matters, the following shall not constitute Force Majeure: (i) any labor shortages involving the employees or workers of Contractor or a Subcontractor; or (ii) any labor disturbance or dispute of Contractor's and/or any Subcontractor's personnel taking place at the Site or a facility of Contractor or Subcontractor (except if such action is part of a national action).
- (c) In addition, and notwithstanding anything in this definition to the contrary, the following shall not constitute Force Majeure: (i) mechanical or Equipment failures (so long as such failure was not itself caused by an event included in part (a) of this definition); (ii) any Site Condition (so long as the delay was not itself caused by an event included in part (a) of this definition); (iii) road embargos by Governmental Entities as a result of seasonal or other weather conditions; (iv) winds of any speed (except this shall not mean a tornado or hurricane) or any seasonal or climatic weather conditions (unless such condition is unusually severe); (v) any condition described in (a) above that results in increased costs of performance but does not otherwise affect a Party's ability to perform; (vi) delays in customs clearance (so long as the delay was not itself caused by an event included in part (a) of this definition); (vii) delays, breakdowns and accident in transportation other than delays in transportation due to an event included in part (a) of this definition; and (viii) inability of employees or workers of Contractor or a Subcontractor to gain physical access to the Site or a Contractor Yard Site (so long as such inability was not itself caused by an event included in part (a) of this definition).

1.49. Foundation Completion. The term has the meaning set forth in Section 13.1.

1.50. Foundation Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.

1.51. Full Notice to Proceed. The term has the meaning set forth in Section 8.2.

1.52. Full Notice to Proceed Date. The term has the meaning set forth in Section 8.2.

1.53. Governmental Authorities. All United States and other national, federal, state, provincial and local governments and all agencies, authorities, departments, instrumentalities, courts, corporations, or other subdivisions of each having or claiming a regulatory interest in or jurisdiction over the Site, the Contractor Yard Site, the Project, the

Work or the Parties to this Contract.

- 1.54. Hazardous Materials. Any chemical, material or substance in any form, whether solid, liquid, gaseous, semisolid, or any combination thereof, whether waste material, raw material, chemical, finished product, byproduct, or any other material or article, that is defined, listed or regulated or as to which liability could be imposed, under Applicable Laws as a “hazardous” or “toxic” substance or waste or material, or as a “pollutant” or “contaminant,” (or words of similar meaning or import) or is otherwise listed or regulated under Applicable Laws, or as to which liability could be imposed, under Applicable Laws including, without limitation, petroleum products, petroleum derived substances, radioactive materials, asbestos, asbestos containing materials, polychlorinated biphenyls, urea formaldehyde foam insulation, and lead-containing paints or coatings.
- 1.55. Industry Standards. Those standards of engineering, construction, operation, workmanship, Equipment and components specified, with respect to each Release in Exhibit “A”, provided, however, that if the relevant standard is not so specified or is ambiguous therein, then Industry Standards shall mean those standards of construction, workmanship, operation, care and diligence normally practiced in the United States by nationally recognized engineering and construction firms in performing services of a similar nature and in accordance with: (a) Applicable Laws and Applicable Permits; (b) other standards and codes established for such work; and (c) those standards (including of operation) established and/or recognized as prudent utility practice in the Western United States. Industry Standards are not necessarily defined as the optimal standard, practice or method to the exclusion of others, but rather refer to a range of actions reasonable under the circumstances. For purposes of this definition: (i) the Contractor Deliverables must comply with Industry Standards at the time that they are submitted to Owner; and (iii) the Work performed must comply with the Industry Standards at the time that it is performed.
- 1.56. Interconnection. The connection of each applicable part of the Project to the Transmission Grid such that the applicable part of the Project is energized at the nominal system operating voltage for which such part of the Project is designed as further described in Exhibit “A” and/or such that the Project delivers power and energy to energize the Project for Tests.
- 1.57. Key Personnel. The natural persons named in Exhibit “J” attached to each Release.
- 1.58. Land Rights Agreements. Those agreements and other documents or instruments with respect to the Site identified and set forth in Exhibit “A”, Section 18 attached to each Release.
- 1.59. Letter of Credit. The term shall mean the Performance LOC, the Retainage LOC (if applicable) and the Warranty LOC.

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

- 1.60. Lien Indemnitees. The term has the meaning set forth in Article 32.
- 1.61. Limited Notice to Proceed. A Notice provided by Owner directing Contractor to perform Pre-Construction Services, pursuant to the provisions of Section 8.1.
- 1.62. Loss(es). Any and all liabilities (including liabilities arising out of the application of the doctrine of strict liability), obligations, losses, damages, penalties, fines, claims, actions, suits, judgments, costs, expenses and disbursements, whether any of the foregoing be founded or unfounded, (including reasonable legal fees and expenses and reasonable third party costs of investigation), of whatsoever kind and nature and whether or not involving damages to the Project or the Site.
- 1.63. Major Subcontractor. Any Subcontractor where the aggregate value of the applicable subcontracts and purchase orders between it and the Contractor (or other Subcontractor as applicable) with respect to the Project exceeds (or is reasonably expected by Contractor to exceed) \$500,000.
- 1.64. Materials Notice to Proceed. A Notice provided by Owner directing Contractor to procure certain materials, pursuant to the provisions of Section 8.1
- 1.65. Materials Notice to Proceed Date. The actual date on which the Materials Notice to Proceed is delivered to the Contractor by the Owner. The anticipated date is identified in Exhibit "I" as attached to each Release.
- 1.66. Materials Warranty. The warranty of Contractor under Section 18.2.
- 1.67. Maximum Aggregate Liquidated Damages. With respect to each Release, ten percent (10%) of the Contract Price as the Contract Price may be adjusted from time to time in accordance with the terms hereof.
- 1.68. Mechanical Completion Test Procedures. The written procedures for the Mechanical Completion Tests produced by Contractor and agreed to by Owner in accordance with Article 14 and Exhibit "A".
- 1.69. Mechanical Completion Tests. Those tests identified to be performed by the Contractor in connection with the construction and commissioning of the Project in accordance with Exhibit "A" and Article 14.
- 1.70. Monthly Progress Report. A written monthly progress report prepared by Contractor in

form and content generally in accordance with Exhibit “A”, Section 19 as attached to each Release.

- 1.71. Notice. A written communication between the Parties required or permitted by this Contract and conforming to the requirements of Article 33.
- 1.72. Owner. PacifiCorp, an Oregon Corporation or as Owner may assign to an Affiliate per Article 29.
- 1.73. Owner Acquired Permits. The Applicable Permits defined as Owner Acquired Permits in Exhibit “A”, Section 17 as attached to each Release.
- 1.74. Owner Caused Delay. Owner’s unexcused delay in performing or failure to perform any obligation of Owner under this Contract (other than as a result of Force Majeure or by Owner’s exercise of rights under this Contract, including the exercise by Owner of the right to have defective or nonconforming Work corrected or re-executed).
- 1.75. Owner’s Engineer. The engineering firm or other engineer or engineers (which may be employees of Owner) selected and designated by Owner.
- 1.76. Owner’s Facilities. The term shall mean any facilities owned, operated or otherwise controlled by Owner, which requires Owner authorization to obtain access.
- 1.77. Owner’s Scope. The work associated with the Project for which Owner is responsible and which is expressly identified as such in Exhibit A as attached to each Release.
- 1.78. Owner Event of Default. The term has the meaning set forth in Section 20.4.
- 1.79. Owner Milestones. The term has the meaning set forth in Section 3.2.
- 1.80. Parent Guarantor. The Parent Guarantor is [_____].
- 1.81. Parent Guaranty. The guarantee of the Parent Guarantor referred to in Section 35.2 in the form set forth in Exhibit “M”.
- 1.82. Parent Legal Opinion. A legal opinion of legal counsel to the Parent Guarantor reasonably acceptable to Owner in the form set forth in Exhibit “M”.

- 1.83. Partial Release and Waiver of Liens and Claims. A sworn statement and waiver of liens prepared by Contractor and each Major Subcontractor, as applicable, which provides that such Person waives and releases all mechanic's liens, stop notices and bond rights with respect to that portion of Work for which Contractor requested payment in the current Contractor's Invoice conditioned upon payment by Owner of the amount of such Contractor's Invoice in the applicable form set forth in Exhibit "Z".
- 1.84. Party and Parties. The terms have the meanings set forth in the first paragraph of this Contract.
- 1.85. Performance LOC. An irrevocable transferable letter of credit that is (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner's sole discretion; (b) is in the stated amount equal to ten percent (10%) of the Contract Price with respect to each Release; and (c) is substantially in the form of Exhibit "O-1". The Performance LOC terminates in accordance with Section 35.2.
- 1.86. Person. Any individual, corporation, company, voluntary association, partnership, incorporated organization, trust, limited liability company, or any other entity or organization, including any Governmental Authority.
- 1.87. Pre-Construction Period. The period of the Project commencing on Owner issuance of a Limited Notice to Proceed and terminating at the Owner issuance of a Materials Notice to Proceed, during which period the Contractor shall perform the Pre-Construction Services as specified in Exhibit "B" as may be attached to each Release.
- 1.88. Pre-Construction Services. Services to be performed by Contractor during the Pre-Construction Period, pursuant to the provisions of Section 8.1, as specified in Exhibit "B" as may be attached to each Release, as requested by Owner in a Limited Notice to Proceed.
- 1.89. Prime Rate. The interest rate per annum published in The Wall Street Journal as the "prime rate" from time to time (or if more than one rate is published, the arithmetic mean of such rates), determined as of the date the obligation to pay interest arises.
- 1.90. Progress Payment(s). A discrete portion of the Contract Price, payable pursuant to the Progress Payment Schedule, as a progress payment for completion of discrete portions of Work, in accordance with Section 7.1.
- 1.91. Progress Payment Schedule. The Progress Payment Schedule as specified in Exhibit "D" as attached to each Release, setting forth payments to Contractor for completion of discrete portions of the Work.

- 1.92. Project. The complete electric transmission project to be designed, engineered, procured, constructed, tested and commissioned under a particular Release, together with all ancillary Equipment and subsystems, together with all supporting improvements and connections, as generally described in, and including all items described in, the Scope of Work attached to each Release. The Project generally consists of the Work.
- 1.93. Project Guaranteed Dates. The Substantial Completion Guaranteed Date and the Final Completion Date included in each Release (provided, however, that the Final Completion Date does not have any Delay Liquidated Damages related thereto).
- 1.94. Project Manager. The Project Manager designated by Contractor and approved by Owner pursuant to Section 4.5.
- 1.95. Project Mechanical Completion. Satisfactory completion by Contractor of all conditions necessary to achieve Project Mechanical Completion for the entire Project, as set forth in Section 13.2.
- 1.96. Project Mechanical Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto, which Contractor shall submit upon completion of the entire Scope of Work as described in Exhibit "A" attached to each release, in accordance with the definition within Article 1.94.
- 1.97. Project Mechanical Completion Date. The date on which Project Mechanical Completion actually occurs and the entire Scope of Work described in Exhibit "A" as attached to each Release, is completed in accordance with the definition within Article 1.94.
- 1.98. Project Mechanical Completion Guaranteed Dates. The date, as specified in each Release, as such date may be modified in accordance with Article 17.
- 1.99. Project Representative. The Project Representative designated by Owner pursuant to Section 3.1.
- 1.100. Project Warranties. The warranties of Contractor as set forth in Article 18.
- 1.101. Punchlist. A schedule of Punchlist Items developed pursuant to Section 15.1(h), which list must be reasonably satisfactory to Owner.
- 1.102. Punchlist Items. Each item of Work that: (a) Owner or Contractor identifies as

requiring completion or containing Defects; (b) does not impede the ability of Owner to safely operate the Project in accordance with Industry Standards; (c) does not affect the operability (including the capacity, efficiency, reliability, or cost effectiveness), safety or mechanical or electrical integrity of the Project or the Transmission Grid; and (d) the completion or repair of which will neither interfere with, nor adversely affect, the performance of the Project or the Transmission Grid.

1.103. Qualified Bank. A United States branch of any United States bank whose secured debt obligations or long-term deposits are rated at least "A-" by Standard & Poors (or the equivalent rating thereof by Moody's) as at the date of issuance, and during the term, of any Letter of Credit.

1.104. Quality Assurance Program. The Contractor's quality assurance program for the Work as defined in Section 4.17.

1.105. Release. For each Project to be performed by Contractor hereunder, the authorized Owner representative shall submit to Contractor a Release substantially in the form attached hereto as Exhibit K. A unique Release, each with a unique corresponding Release number, shall be issued for each new Project and be signed by Owner and Contractor. The Release will include the attachments described in this Contract as, attached to each Release, including but not limited to attachments describing; Scope of Work, agreed price, period of performance, invoicing details and other such items. Each Release shall be incorporated into this Contract and be subject to the provisions, terms and conditions of this Contract.

1.106. Required Manuals. All manufacturers' operating data and manuals, Equipment and parts manuals, integrated and coordinated operation and maintenance manuals and instructions, and training aids reasonably necessary to safely, effectively and efficiently commission, test, start up, operate, maintain and shut down the Project, including those set out in the Deliverables Schedule.

1.107. Retainage. The amount withheld from payments to Contractor pursuant to Section 7.5.

1.108. Retainage LOC. An irrevocable transferable letter of credit that is (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner's sole discretion; (b) is in the amount not less than the amount as required by Section 7.5; and (c) is substantially in the form of Exhibit "O-2". The Retainage LOC terminates in accordance with Section 7.6.

1.109. Schedule Recovery Plan. The term has the meaning set forth in Section 8.3.

- 1.110. Scope of Work. The requirements and specifications regarding the Work set forth under a particular Release, including Exhibit "A".
- 1.111. Sensitive Personnel. The term shall mean all Personnel with authorized unescorted physical access or authorized cyber access to Owner's CIPS Covered Assets.
- 1.112. Site. Those areas of real estate described in Exhibit "A", Section 18, as attached to each Release, for the performance of Work which may consist of existing or new substation sites and transmission line corridors, including any additional areas as may, from time to time, be designated in writing by Owner (in Owner's sole discretion) for Contractor's use hereunder.
- 1.113. Site Conditions. The term has the meaning set forth in Section 4.38.
- 1.114. Spare Parts. The term has the meaning set forth in Section 4.32.
- 1.115. Subcontractor. Any Person, other than Contractor, performing any portion of the Work (including any Subcontractor of any tier and any Vendor) in furtherance of Contractor's obligations under this Contract.
- 1.116. Substantial Completion. Satisfaction by Contractor or waiver by Owner of all of the conditions for Substantial Completion as set forth in Section 15.1.
- 1.117. Substantial Completion Certificate. A certificate in substantially the form as set forth in Exhibit "V" hereto.
- 1.118. Substantial Completion Date. The date, on which Substantial Completion actually occurs.
- 1.119. Substantial Completion Guaranteed Date. The date, as specified in each Release, as such date may be modified in accordance with Article 17.
- 1.120. Transmission Grid. The electric transmission and distribution system of Owner, or any other affected transmission owner or operator, and the electric transmission and distribution systems interconnecting to or adjacent to Owner's or other affected transmission owner or operator, electric transmission and distribution system.
- 1.121. Unescorted Personnel. The term shall mean all Personnel with authorized unescorted physical access to Owner's Facilities.

- 1.122. U.S. Customary System. The primary system of weights and measures (other than the metric system) used in the U.S. today inherited from, but now different from, the British Imperial System of weights and measures.
- 1.123. Vendor(s). Persons that supply Equipment to Contractor or any Subcontractor in connection with the performance of the Work.
- 1.124. Warranty LOC. An irrevocable transferable letter of credit that is: (a) issued for the benefit of Owner by a Qualified Bank that is acceptable to Owner, in Owner's sole discretion; (b) is in the stated amount equal to five percent (5%) of the Contract Price with respect to each Release; and (c) is substantially in the form of Exhibit "O-3". The Warranty LOC shall terminate in accordance with Section 35.2.
- 1.125. Warranty Period. The term has the meaning as set forth in Section 18.3.
- 1.126. Warranty Procedures. The term has the meaning as set forth in Section 18.8.
- 1.127. Work. All work and services required or appropriate in connection with the engineering, procurement, manufacturing, construction, erection, installation, training, commissioning (including inspection), testing and completion and all Equipment, and as further described in Section 4.1, including the Pre-Construction Services.
- 1.128. Workers' Compensation Laws. The term has the meaning as set forth in Section 4.24.

2. EXHIBITS, INTERPRETATION, CONFLICTS

- 2.1 Exhibits. This Contract includes the following Exhibits annexed hereto (and incorporates all attachments to such Exhibits, if any) and any reference in this Contract to an Exhibit by letter designation, Exhibit or title shall mean one of the following so indicated and such reference shall indicate such Exhibit herein.

EXHIBITS

- A Scope of Work and Specifications (attached to each Release)
- B Pre-Construction Services (attached to each Release)
- C-1 [BHE] Code of Business Conduct
- D Progress Payment Schedule and Schedule of Values (attached to each Release)

E	Change in Work Form
F	Form of Contractor's Invoice
G	Critical Path Method Schedule
H	Deliverables Schedule (attached to each Release)
I	Owner Milestones (attached to each Release)
J	Key Personnel (attached to each Release)
K	Form of Release
L	Not Used
M	Form of Parent Guarantee and Legal Opinion
N	Not Used
O	Form of Letters of Credit
P	Form of Assignment Clause for Subcontractors
Q	Insurance
R	Detailed Pricing Schedules, Change in Work Rates and Unit Price Change in Work Rates
S	Background Check Criteria / NERC-CIPS Standards
T	Contractor's Safety Assurance Program
U	Contractor's Quality Assurance Programs
V	Forms of Completion Certificates
W	Owner's Site Access and Safety Requirements
X	Not Used
Y	Property Retirement Unit Reporting Requirements
Z	Forms of Partial and Final Release and Waiver of Liens and Claims

2.2 Interpretation. Except as otherwise expressly noted:

- (a) Terms defined in a given number, tense or form shall have the corresponding meaning when used in this Contract with initial capitals in another number, tense or form;
- (b) Except as otherwise expressly noted, reference to specific Sections, Subsections and Exhibits are references to such provisions of or attachments to this Contract;
- (c) References containing terms such as "hereof," "herein," "hereto," "hereinafter," and other terms of like import are not limited in applicability to the specific provision within which such references are set forth but instead refer to this Contract taken as a whole;
- (d) "Includes" or "including" shall not be deemed limited by the specific enumeration of items, but shall be deemed without limitation;

- (e) References to agreements, certificates and other legal instruments include all subsequent amendments thereto, and changes to, and restatements or replacements of, such agreements, certificates or instruments that are duly entered into and effective against the parties thereto or their permitted successors and assigns;
- (f) References to Persons include their permitted successors and assigns;
- (g) A reference to a statute or to a regulation issued by a Governmental Authority includes the statute or regulation in force as of the date hereof, together with all amendments and supplements thereto and any statute or regulation substituted for such statute or regulations;
- (h) A reference to a governmental agency, department, board, commission or other public body or to a public officer includes an entity or officer that or who succeeds to substantially the same functions as those performed by such public body or officer as of the Effective Date;
- (i) Unless the context clearly intends to the contrary, words singular or plural in number shall be deemed to include the other and pronouns having a masculine or feminine gender shall be deemed to include the other;
- (j) Unless otherwise stated, words which have well known technical or construction industry meanings are used in this Contract in accordance with such recognized meanings; and
- (k) The words “acceptable to”, “approved by,” “satisfactory to,” “determine that,” “consent of” or other phrases of like effect or import shall mean that, unless expressly stated otherwise (including where the Contract provides a time period for such action), the Party exercising such right of acceptance, approval or judgment shall be reasonable under the circumstances and shall not unduly delay or withhold such acceptance, approval, consent or judgment.

2.3 Conflicts in Documentation.

- (a) In the event of any conflict between this document and any of the Exhibits hereto, the terms and provisions of this document, as amended from time to time, shall control, unless expressly stated otherwise in this document.

(b) Should there be any conflict between or within the Exhibit(s) (including the attachments to the Exhibits) hereto, the Contractor shall promptly give Notice to Owner and shall secure written instructions from the Project Representative before proceeding with the Work affected thereby. Upon receiving written instructions from the Project Representative, Contractor shall proceed as instructed.

2.4 Documentation Format. This Contract and all documentation to be supplied hereunder shall be in the English language.

3. **RESPONSIBILITIES OF OWNER.**

Owner shall:

3.1 Project Representative. Designate (by a Notice delivered to Contractor) a Project Representative, who shall act as a single point of contact for Contractor with respect to the prosecution of the Work but who shall not be authorized to execute or approve any Change in Work or any amendments to this Contract.

3.2 Owner Milestones. Owner shall commence or complete, as the case may be, the Owner's Scope in accordance with the milestones set forth on Exhibit "I" ("Owner Milestones") in accordance with the schedule, terms and conditions set forth in Exhibit "I" with respect to each applicable Owner Milestone. Owner and Contractor agree that the timely completion of the Contractor Schedule Milestones by Contractor is an important aspect of this Contract. In the event Contractor's failure to timely complete a Contractor Schedule Milestone by the date provided in Exhibit G.1.1 or a Contractor Cause results in Owner's failure to complete an Owner Milestone by the applicable date provided in Exhibit "I" or otherwise causes Owner to incur additional costs and expenses in connection with the performance of its work related to any Owner Milestones, then: (a) the Owner Milestone date shall be adjusted to reflect any delays to the extent caused by Contractor; and (b) Contractor shall pay Owner for any additional costs and expenses reasonably incurred by Owner as a result of any such delay.

3.3 Ministerial Assistance. In a reasonably prompt manner after Notice from Contractor, execute applications as Contractor may reasonably request in connection with obtaining any Contractor Acquired Permits. Contractor shall indemnify, defend, and hold harmless Owner from and against any and all Losses that Owner may incur as a result of signing any such applications at Contractor's request.

3.4 Owner Acquired Permits. Obtain with Contractor's reasonable assistance to be provided at no cost to Owner, and pay for all Owner Acquired Permits.

3.5 Access to Site. Subject to Section 4.18, the Land Rights Agreements and the terms of the Applicable Permits, Owner shall make the designated parts of the Site reasonably available to Contractor on or prior to the applicable Owner Milestone for such part of the Site so as to permit the Contractor to perform the Work applicable to such part of the Site; provided, however, that Contractor shall coordinate with Owner regarding initial entry onto the Site or any part thereof and contact with the Persons who own property on or near, or have granted license or easement rights in and to, the Site. Contractor shall be solely responsible for all costs and expenses required to upgrade (including paving if required), repair and maintain any existing roads and to construct, repair and maintain any temporary roads in connection with the Project. Contractor shall be solely responsible for all costs and expenses required to repair any damages to the Site arising as a result of Contractor's performance of the Work; and without limiting the generality of this sentence, shall also be responsible for the specific damages in accordance with Exhibit "A", Section 18.

3.6 Hazardous Materials. Owner shall be responsible for all Hazardous Materials (other than Hazardous Materials for which Contractor is responsible pursuant to Section 4.33) at the Site as of prior to the Effective date of each Release and for any Hazardous Materials subsequently brought to the Site by Owner or anyone employed by the Owner (other than Contractor, Subcontractor, anyone employed by them, or anyone for whose acts Contractor or any Subcontractor may be liable). Owner shall, with respect to those Hazardous Materials identified above in this Section, and at Owner's sole cost and expense, be responsible for: (a) the proper handling, storage, collection, containment, removal, transportation and disposal from the Site of all such Hazardous Materials; and (b) any environmental condition caused by such Hazardous Materials.

4. RESPONSIBILITIES OF CONTRACTOR.

Contractor shall:

4.1 Performance of Work. Perform or cause to be performed all Work for the engineering, procurement, construction, erection, installation, commissioning and testing of the Project and the other materials, equipment, machinery and facilities; which work and services shall include the provision of all permits, materials, Equipment, machinery, tools, labor, transportation, administration and other services and items required to complete and deliver to Owner the fully integrated and operational Project, all on a fixed-price, turnkey, guaranteed-date basis, and otherwise in accordance with the Contract (including Exhibit "A" and, if applicable, Exhibit "B"), Applicable Laws and Industry Standards. Contractor

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

hereby agrees to perform or cause to be performed all Work upon the terms and conditions of this Contract.

Contractor shall perform and complete all of the Work on a turnkey basis without any Defects, in accordance with the terms of this Contract and in compliance with Industry Standards, Applicable Laws and Applicable Permits; provided, however, that where any such standard, law, permit or contract provides for less stringent standards than those specifically stated in this Contract, the standards specifically stated in this Contract shall govern.

Where this Contract describes a portion of the Work in general, but not in complete detail, the Parties acknowledge and agree that the Work includes any incidental work that within the construction industry is customarily included in projects of the type contemplated by this Contract or by Industry Standards.

Contractor shall design the Project so that it is capable of operation, at the design levels specified in the Scope of Work, including Exhibit "A", in compliance with Industry Standards, Applicable Laws and Applicable Permits. Contractor shall design the Project so that it will allow operation of the Project and its component parts over the full range of operative and ambient conditions while meeting Applicable Laws, Applicable Permits and Industry Standards. Contractor acknowledges that this Contract constitutes a fixed price obligation to engineer, design, procure, construct and test through Substantial Completion a turnkey project, complete in every detail, within the time and for the purpose specified herein by Owner.

References to the obligations of Contractor under this Contract as being "turnkey" and performing the Work on a "turnkey basis" mean that Contractor is obligated to supply all of the Equipment, labor and design services and to supply and perform all of the Work, in each case as may reasonably be required, necessary, or appropriate (whether or not specifically set forth in this Contract) to complete the Work such that the Project satisfies the applicable terms and conditions set forth in this Contract, all for the Contract Price.

The Project shall be built in a manner so that none of the Work (including the Equipment) will be determined, for insurance purposes, to be "prototype equipment."

Contractor acknowledges that the Project permits, including applicable regulatory approvals, may be based on work areas and conditions as defined in those documents. Project work areas may have been, or may be, identified including, but not limited to pull sites, work areas, access roads, and potential staging areas. Project change opportunities may be severely limited. No Project changes will be approved if they would be located outside of the geographic boundary of the established project work areas or otherwise are deemed to alter the circumstances, impacts, conditions, or effects of the Project.

Certain details of the Work are further described in this Article 4. Without limiting the foregoing, Contractor shall perform the following as part of the Work.

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

4.2 Cost of Work. Furnish, be responsible for, and pay the cost of all of the Work including labor, materials, Equipment and supervision necessary to engineer, procure, expedite, deliver, receive, secure, off-load, store, construct, inspect, commission and test the Project, in strict accordance with the provisions of this Contract, including all access roads, site work, footings, foundations, pilings, drilled piers, construction materials, construction equipment, and auxiliaries.

4.3 Facilities. Provide all communication facilities, material storage and laydown areas, construction water, construction electricity and sanitary facilities to be used by Contractor and Subcontractors during performance of the Work.

4.4 Organization. Maintain a qualified and competent organization at the Site with adequate capacity and numbers of construction and commissioning personnel, construction equipment, tools, materials, supplies and facilities to execute the Work in a safe, efficient, environmentally sound, and professional manner at a rate of progress in accordance with the Critical Path Method Schedule.

4.5 Project Manager/Staff. Designate a Project Manager acceptable to Owner who will have full responsibility for the prosecution of the Work and will act as a single point of contact in all matters on behalf of Contractor. Designate a Construction Manager and provide staff to supervise, manage and coordinate the Work of Contractor and Subcontractors on the Site. The Key Personnel shall at all times hold the positions and be dedicated to the performance of the duties described in Exhibit "J". Any replacement of the Project Manager or Key Personnel shall be subject to the prior written consent of Owner which consent will not be unreasonably withheld. If Owner fails to respond to a request for consent within ten (10) Business Days after Owner's receipt of Contractor's request, Owner shall be deemed to have consented to the proposed individual.

4.6 Contractor Acquired Permits. Obtain all Contractor Acquired Permits and provide copies to Owner at Owner's request.

4.7 Inspection. Perform all inspection; expediting, quality surveillance, and other like services required for performance of the Work, including inspecting all materials and Equipment that comprise the Project or that are to be used in the performance of the Work. Contractor shall be responsible for determining all utility locations, underground obstructions, archeological and cultural resources at its own expense prior to undertaking any Work at the Site.

4.8 Maintenance of Site. Maintain the Site and any Contractor Yard Site clear of Hazardous Materials, debris, waste material and rubbish. All trash, debris and waste materials shall be removed from the Site and disposed of by Contractor, in a timely manner. All waste must be disposed of at a permitted sanitary disposal site, and Contractor shall provide Owner copies of all waste disposal manifests. Combustible material shall be promptly removed

from the Site or Contractor's Yard Site, and shall not be allowed to accumulate. Burning on the Site and the Contractor Yard Site is prohibited. Promptly upon the completion of the Work, the Work shall be cleaned and all scrap, trash, and waste materials and debris resulting from Work under this Contract shall be removed from the Site and the Contractor Yard Site. All Contractor-owned facilities, materials and construction equipment shall be removed from the Site and the Contractor Yard Site and such sites shall be left in its original condition, except to the extent it has been modified pursuant to this Contract. If Contractor fails to clean up as provided herein, Owner may do so and the reasonable cost thereof shall be charged to Contractor or offset against payments hereunder.

4.9 Price Allocation Schedule. Upon Owner's reasonable requests, provide a price allocation schedule for the Work and other information reasonably necessary for Owner to maintain segregated accounts for its accounting and tax records, ownership records and/or fixed asset records.

4.10 Site Security. Contractor shall provide all necessary and reasonably appropriate security measures for the protection of the Work, the Site, the Contractor Yard Site and the Project. Contractor will consult with and cooperate with Owner in the development and implementation of security practices and programs for the Project. Contractor shall prepare and maintain accurate reports of incidents of loss, theft, or vandalism and shall furnish these reports to Owner in a timely manner. Contractor shall not be entitled to any adjustment of the Substantial Completion Date or any adjustment to the Contract Price arising from incidents of Equipment theft or vandalism.

4.11 Contractor Safety Program. Contractor shall comply with the requirements of Exhibit "A", the Contractor Safety Program set out in Exhibit "T", and Owner's Safety Requirements set out in Exhibit "W" (including any third party safety requirements that are applicable to portions of the Work and stated in Exhibit "W"), and provide all necessary and reasonably appropriate safeguards at the Site and any Contractor Yard Site for the protection of all Persons and the Work. Contractor shall not perform any Work at the Site until and unless a safety plan applicable to such Work is either included in Exhibit "T" or included in the fully integrated safety program delivered and accepted by Owner in accordance with this Section 4.11. In the event Contractor fails to comply with the safety program requirements set forth in this Contract, Owner shall be entitled to immediately suspend the Work until non-compliance is rectified, and neither the Contract Price nor any other Project Guaranteed Dates shall be adjusted as the result of any such suspension.

Within sixty (60) days of the effective date of each Release, Contractor shall provide, by Notice to Owner, a Contractor Project safety program that has fully integrated the requirements in Exhibit "A", Exhibit "T" and Exhibit "W" and that is prepared specifically for this Project (the "Contractor Safety Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment within fifteen (15) days after receipt of such notice, Owner shall be deemed to have accepted such Contractor Safety Program. Upon acceptance (or deemed acceptance) of such

program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit "T" hereto. In the event the standards or requirements derived from the foregoing are inconsistent, Contractor shall perform, or cause to be performed, its obligations in accordance with the requirements of the most stringent rule, standard, criteria or guideline. Notwithstanding Owner's review and approval of the Contractor Safety Program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

Contractor shall provide Project Representative with immediate telephone or email notification followed by Notice to Owner within twenty-four (24) hours of any accidents and/or occupational injuries or vehicle accidents that occur to any of Contractor's or Subcontractor's employees working on or in the vicinity of the Site or a Contractor Yard Site, any damages to Owner's facilities, any property damage, bodily injury, electric contact, or fatality that arises in connection with the performance of this Contract on or in the vicinity of the Site or Contractor Yard Site which such notice shall be on the Owner's form included in the materials attached as part of Exhibit "W". Contractor will furnish Owner with a copy of all accident reports or work injury reports as promptly as possible and in any event within twenty-four (24) hours of such accident or work injury and in the event any further reports are completed after such initial reporting, Contractor shall promptly provide Owner a copy. Contractor shall assist Owner in any investigation and provide information as reasonably requested by Owner relating to the incident. Contractor shall provide Owner with a 'root cause analysis' of the accident or incident within three (3) business days of the accident or incident occurring. All accident and incident reports shall comply with Applicable Laws. Contractor shall provide Owner with copies of all written communications with Governmental Authorities and insurance companies (including any notices) with respect to accidents that occur at the Site.

4.12 Equipment. Arrange for complete handling of all Equipment and construction equipment including inspection, expediting, quality assurance, shipping, loading, unloading, customs clearance, permitting and licensing, receiving, storage, and claims.

4.13 Construction Materials and Supplies. Provide all temporary construction materials, office and meeting facilities, all communication lines and facilities, warehousing and storage facilities, fuel storage facilities, sanitary facilities, parking facilities for Contractor's and Subcontractors work force, laydown areas, equipment, supplies, construction utilities and facilities, special tools, and commissioning supplies reasonably necessary or appropriate for the construction, testing, commissioning, and operation and maintenance of the Project until achievement of Substantial Completion. Contractor shall provide internet access and telephone access at the construction Site office. By delivery of a Notice to Owner prior to the disposition of any surplus construction materials, parts, or supplies remaining on the Site on the Substantial Completion Date (other than materials and supplies necessary to achieve Final Completion), Contractor shall give Owner the option to purchase all or part of such items at a price not exceeding Contractor's cost therefor. Owner shall exercise such right, if it so elects, within thirty (30) days after receipt of such Notice.

4.14 Contractor's Personnel/Drugs, Alcohol and Firearms. Contractor shall employ in the performance of the Work only persons qualified for the same. Contractor shall at all times enforce strict discipline and good order among its employees and the employees of any Subcontractor of any tier. Contractor shall not permit or allow the introduction or use of any firearms, illegal drugs or intoxicating liquor upon the Work under this Contract, or upon any of the grounds occupied, controlled or used by Contractor in the performance of the Work. Contractor shall immediately remove from the Work, whenever requested by Owner, any person considered by Owner to be incompetent, insubordinate, careless, disorderly, or in violation of the above restriction on firearms, illegal drugs or intoxicating liquor, or under the influence of illegal drugs or intoxicating liquor, and such person shall not again be employed in the performance of the Work herein without the consent of Owner.

4.15 Applicable Laws/Permits. Contractor shall provide all technical support and information, and other reasonably requested information, to assist the Owner in applying for and obtaining Owner Acquired Permits. Contractor shall comply in all respects with all Applicable Laws and Applicable Permits relating to the Project, the Site, the Contractor Yard Site and the performance of the Work. The Contractor Acquired Permits either have been obtained by Contractor and are in full force and effect on the Effective date of each Release or will be obtained by Contractor and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect, so as to permit Contractor to commence and prosecute the Work to completion in accordance with the Critical Path Method Schedule.

Without limiting the generality of the foregoing, Contractor shall comply with all Applicable Laws and Applicable Permits regarding environmental matters. Prior to proceeding with construction activities, Contractor must develop an environmental assurance plan complying with the requirements of Exhibit "A", Section 22. Contractor's environmental assurance program will be subject to Owner's review and approval. Delays incurred due to Contractor's failure to provide an environmental assurance program approved by Owner will not constitute a Change in Work. Within forty-five (45) days of the effective date of each Release, Contractor shall provide, by Notice to Owner, a Contractor environmental assurance program that has fully integrated the requirements in Exhibit "A", Section 22 and that is prepared specifically for this Project (the "Contractor Environmental Assurance Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment within fifteen (15) days after receipt of such notice, Owner shall be deemed to have accepted such Contractor Environmental Assurance Program. Upon acceptance (or deemed acceptance) of such program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit A, Section 22" hereto. In the event the standards or requirements derived from the foregoing are inconsistent, Contractor shall perform, or cause to be performed, its obligations in accordance with the requirements of the most stringent rule, standard, criteria or guideline and in all events in compliance with Applicable Laws and Applicable Permits. Notwithstanding Owner's review and approval of the Contractor

Environmental Assurance Program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

Contractor shall be responsible for all Losses that may arise (including those that Owner pays or becomes liable to pay) because of non-compliance with requirements in this Section, other than any such Losses arising from: (a) the acts or omissions of Owner, Owner's employees and agents, or other third parties under the control of Owner, or (b) Hazardous Materials for which Owner is responsible pursuant to Section 3.6.

So long as Contractor has complied with its obligation to provide support and information as described above, Contractor shall be entitled to request a Change in Work in accordance with Article 17 in the event the final conditions, obligations and/or requirements of an Owner Acquired Permit (as identified in Exhibit "A", Section 17 as not being in final form as of the Effective date of each Release) are different than those conditions, obligations and/or requirements that should have been reasonably anticipated by the Contractor based upon the Scope of Work, Industry Standards, and the applicable permit application or draft permit (if and as provided to Contractor by Owner prior to the Effective date of each Release) and such difference has a materially adverse effect on Contractor's costs and schedule for performing the Work. Notwithstanding the forgoing, variances to Owner Acquired Permits that are not directed and approved by Owner will not constitute a Change in Work.

4.16 Replacement at Owner's Request. Within two (2) Business Days after request by Owner, remove from the Site and performance of the Work, and cause any Subcontractor to remove from the Site and performance of the Work, and as soon as reasonably practicable, replace, any individual performing the Work (including any of the Key Personnel) whom Owner believes to be creating a safety hazard or a material risk of: (a) non-achievement of a Project Guaranteed Date; or (b) material non-performance by Contractor in accordance with this Contract.

4.17 Quality Assurance Programs. Use effective quality assurance programs, acceptable to Owner and consistent with the requirements of Exhibit "A" and the Quality Assurance Program set out in Exhibit "U" in performing the Work. Within forty-five (45) days of the effective date of each Release, Contractor shall provide by Notice to Owner a Quality Assurance Program that has fully integrated the requirements in Exhibit "A" and Exhibit "U" and that is prepared specifically for this Project ("Quality Assurance Program"). Owner shall have the right to review and comment on such program and if Owner provides Contractor with comments, then Contractor shall incorporate such changes into such program. If Owner fails to comment with fifteen days after receipt of such notice, Owner shall be deemed to have accepted such program. Contractor shall not perform any Work until and unless a quality assurance program applicable to such Work is either included in Exhibit "U" or included in the Quality Assurance Program delivered and accepted by Owner in accordance with this Section 4.17. Upon acceptance (or deemed acceptance) of such program by Owner, such program shall supersede and be deemed to replace the program attached as Exhibit "U" hereto. Notwithstanding Owner's review and approval of such

program, Contractor shall remain solely responsible for performing the Work in accordance with this Contract.

4.18 Access. Contractor and its Subcontractors may access those parts of the Site identified in Exhibit "I" as being available to be accessed by Contractor for the performance of the Work on the date of the corresponding Owner Milestone as set forth on Exhibit "I", and any such access by Contractor and its Subcontractors shall be in accordance with the terms of this Contract. In no event shall Contractor or any Subcontractor commence any Work upon any portion of the Site unless and until Owner issues a Notice to Contractor that such portion of the Site may be accessed by the Contractor to perform the Work, and then upon such issuance Contractor shall only be permitted to access those portions of the Site reasonably required to be accessed to perform the Work that is the subject of the applicable Notice, unless otherwise agreed in writing by Owner.

Contractor shall use only the entrance(s) to the Site as ultimately determined, per Section 4.1, as a result of the permits, plans and designs resulting from the Pre-Construction Services for ingress and egress of all personnel, equipment, vehicles and materials. In addition, Contractor shall comply with the terms set forth in the Land Rights Agreements as described in Exhibit "A", Section 18 with respect to certain specific access matters. Contractor shall perform the Work consistent and in accordance with Owner's ownership, license, easement rights in and to the Site, and the Land Rights Agreements, all as set forth in Exhibit "A", Section 18. That portion of the Site subject to the Land Rights Agreements may only be accessed by using the right-of-way as defined in such Land Rights Agreements and not across other property of the right-of-way landowner. Owner agrees to provide to Contractor any Land Rights Agreement or Contractor obligations with respect to access to the Site not included in Exhibit "A", Section 18 or the other provisions of Exhibit "A" after the Effective date of each Release and prior to the applicable Owner Milestone set forth in Exhibit "I" relating to Site Access.

Contractor shall not damage, close, or obstruct any highway, road, or other public or private easement, except to the extent allowed by Applicable Permits. If such facilities are closed, obstructed, damaged, or made unsafe by Contractor, Contractor shall, at its sole expense, make such repair as necessary and shall also provide such temporary guards, lights, and other signals as necessary or required for safety or as reasonably requested by Owner.

Owner shall have access to all existing facilities in case emergency repairs are necessary. Contractor shall not block or obstruct existing access routes to existing facilities.

Contractor has undertaken (or will be deemed to have undertaken) an independent determination of the adequacy of the Land Rights Agreements as described in Exhibit "A", Section 18 and represents that such Land Rights Agreements (or if not obtained as of the Effective Date, if substantially in the form of the Land Rights Agreements as described in Exhibit "A", Section 18) are satisfactory and sufficient for Contractor to perform the Work hereunder on the real estate covered by such Land Rights Agreements and to gain access to the transmission line right of way and the substation properties. Contractor shall comply

with the terms of the Land Rights Agreements. As of the Effective date of each Release, Contractor represents and warrants that it has inspected and is fully familiar with the Site and the Land Rights Agreements (as listed in Exhibit "A", Section 18) and that the Site and such Land Rights Agreements are sufficient for Contractor to undertake and complete the Work. Contractor shall have the sole responsibility to obtain all construction permits, transportation permits, and other licenses, rights of way and other real property rights and easements necessary for Contractor to complete the Work that are not part of the Land Rights Agreements, and any Owner assistance to Contractor in obtaining, or negotiation of, such rights shall be for Contractor's account and Owner may deduct such costs and expenses from any payment due to Contractor from Owner hereunder.

Contractor shall provide all necessary information and documents and use all reasonable efforts to assist Owner in obtaining any Land Rights Agreements or other real property rights that Owner at any time is seeking in connection with the Project. Contractor shall provide direct support, including but not limited to engineering drawings, expert testimony, supporting documents and affidavits, etc., to Owner's legal counsel in connection with any condemnation proceedings or any other legal action that may arise from the work performed. Contractor shall notify Owner upon the occurrence, or likely occurrence, of a dispute, conflict, confrontation, or other similar problem, or potential problem, involving one or more owners or occupiers of land so situated as to potentially result in a situation that may have a material adverse effect upon the performance of the Work. Contractor shall cooperate with Owner in resolving all such problems.

Contractor agrees to conduct and coordinate (if necessary) the performance of the Work by Contractor at the Site with the other construction contractors performing work at the Site. Contractor shall, prior to proceeding with any Work at the Site, give Notice to Owner of any issues that Contractor has determined would materially delay or affect Contractor's performance of the Work. Failure of the Contractor to provide such Notice shall constitute an acknowledgment and admission that Owner has provided reasonable access to the Site.

4.19 Documents at Site. Upon mobilization to the Site, Contractor shall maintain at the Contractor's primary field office at or near the Site for Owner one (1) record copy of the Contractor Deliverables, in good order and marked currently to record changes and selections made during the Work and, in addition, approved shop drawings, product data, samples and similar required submittals. These shall be available to Owner at all times. Upon completion of the Work, Contractor shall promptly furnish Owner with one (1) set of as-built drawings and complete copies of the shop drawings, product data, samples, operating manuals, parts books and other submittals required by the Contract.

4.20 Other Assistance. Until Final Completion, Contractor shall: (a) to the extent reasonably requested by Owner, assist Owner in dealing with Governmental Authorities and other Persons in any and all matters relating to the Work and/or the Project; and (b) cooperate to the extent reasonably necessary to enable Owner to perform its obligations under Owner's agreements with other Persons.

4.21 Data, Drawings and Manuals. Provide all operating data, preliminary or redline as-built drawings, manuals and other information necessary to safely and efficiently commission, test, operate, shut down, and maintain the Project (including those set forth in Exhibit "A"). Contractor shall maintain at the Site (in compliance with the maintenance requirements in Section 4.19) for Owner one (1) record copy of the Contractor Deliverables in good order and marked currently to record changes and selections made during the Work and, in addition, approved shop drawings, product data, samples and similar required submittals. These shall be kept on the Site and be available to Owner at all times.

4.22 Training. Contractor shall provide the training as described in Exhibit "A".

4.23 Announcements; Publications. Other than as may be required by Applicable Laws, Contractor shall not make any public announcements or issue any public publication about the Project without the prior written consent of the Owner.

4.24 Workers' Compensation. Contractor shall comply with all applicable statutory requirements of the state and/or federal regulations (e.g., FELA, USL&H, Jones Act) where the Work is to be performed ("Workers' Compensation Laws") and shall furnish proof thereof satisfactory to Owner prior to commencing Work.

4.25 Documents Requested. Provide such data, reports, certifications and other documents, including multiple hard copies of each and one electronic copy (unless another quantity is specified in the Contract), or assistance related to the Work or this Contract as may be reasonably requested by the Owner; provided, however, that the provision of this information shall not in any manner modify Contractor's rights or obligations under any other provision of this Contract.

4.26 Critical Path Method Schedule. Attached in Exhibit "G" is a summary schedule (including all of the Critical Path Items and the Owner Milestones) (the "Summary Bid Schedule"). For Pre-Construction Services scope of work, as may be described in Exhibit B, the Contractor is not required to submit a schedule. Contractor shall provide materials and information on an updated basis in accordance with Exhibit G.8.1.2 for Pre-Construction Services.

Within fourteen (14) days of the effective date of each Release, Contractor shall provide Owner with a detailed preliminary schedule for the first ninety (90) days after the effective date of each Release. The preliminary schedule should be consistent with the Summary Bid Schedule and must satisfy the requirements of Exhibit G.

For construction services scope of work as described in Exhibit A, the Contractor must provide a complete detailed critical path method schedule (the "Project Baseline Schedule") to be submitted to the Owner, for review, within sixty (60) Days of the effective date of each Release.. The Project Baseline Schedule must be consistent with the Summary Bid Schedule, and satisfy the requirements set forth in Exhibit "G". The Project Baseline Schedule shall be subject to Owner's approval, not to be unreasonably withheld or delayed.

The latest version of the critical path method schedule approved by Owner shall be deemed to be the Critical Path Method Schedule required under the Contract.

Such complete fully detailed Critical Path Method Schedule shall be the baseline schedule against which all updates shall be compared against and neither the Critical Path Items, the Contractor Schedule Milestones, nor the Owner Milestones may be revised except in accordance with Article 17. Contractor shall advise Owner of any delays to any Critical Path Items of more than fifteen (15) days and promptly provide Owner with the reasons for such delay. In connection therewith, Contractor shall employ a project management system able to provide schedule monitoring and analysis which shall include a comparison of the original Critical Path Method Schedule with the actual progress for each time period with all variances noted. If any of the Critical Path Items, Contractor Schedule Milestones, Owner Milestones, or Project Guaranteed Dates are adjusted pursuant to Article 17, the system shall also provide a comparison of the revised Critical Path Method Schedule with actual progress. Schedule analysis shall include a determination of the impact of such variance, if material, on the Contractor's ability to meet the Project Guaranteed Dates and Contractor Schedule Milestones and, if applicable, any action necessary to correct the variance.

Utilizing the critical path method, Contractor shall continually be aware of factors that are delaying or that could delay the achievement of a Contractor Schedule Milestone or Substantial Completion and shall take all commercially reasonable and prudent remedial actions within its control to eliminate or minimize schedule delays including overtime for the employees of Contractor and Subcontractors and the assignment of additional personnel and/or other resources. During construction, the Contractor will update its Critical Path Method Schedule to reflect the current status of the Work. At a minimum, the updates will be performed and provided to Owner on a monthly basis as part of the Project Progress Report.

4.27 Project Progress Report. Contractor shall prepare a monthly Project Progress Report following the format of Exhibit "A", Section 19 and submit it to Owner within ten (10) days after the end of each reporting period and as part of the Contractor's Invoice submitted pursuant to Section 7.1. In addition, Contractor shall keep, and furnish to Owner at Owner's request, such information as Owner may reasonably require to determine that the Work is progressing according to the Critical Path Method Schedule and for the purpose of confirming that Progress Payments are due hereunder, including, but not limited to monthly forecasting and accruals processes acceptable to Owner. Contractor also shall keep daily logs at the Site and shall provide to Owner copies of weekly reports of actual construction progress as compared with scheduled progress, which such weekly reports shall include at a minimum the information required for such weekly reports as described in Exhibit "A", Section 19 hereto.

4.28 Accident Reports. Provide Owner with written accident reports for accidents that occur at the Site, prepared in accordance with the Contractor Safety Program and the requirements of this Contract. Provide Owner with copies of all written communications with Governmental Authorities and insurance companies (including any notices) with

respect to accidents that occur at the Site or the Contractor Yard Site or in connection with the performance of the Work, and thereafter provide such written reports relating thereto as Owner may reasonably request.

4.29 Punchlist. On a weekly basis after the Substantial Completion Date, revise and update the Punchlist and schedule and budget therefor as initially prepared in accordance with Section 15.1(e). After the Substantial Completion Date, Contractor shall complete each item of Work set forth on the Punchlist within the scheduled time period for such item as agreed to pursuant to Section 15.1(e).

4.30 Measurements. Exclusively use the U.S. Customary System units of measurement in all specifications, drawings, and other documents.

4.31 Meetings. Schedule and conduct periodic meetings with Owner in accordance with the requirements of Exhibit "A" before mobilization, at Contractor's office or such other location as the Parties may agree, and after mobilization, at the Site, or such other location as the Parties may agree, for the purpose of reviewing the progress of the Work and adherence to the Critical Path Method Schedule. The frequency of such meetings shall be in accordance with the frequency described in the Exhibits or as established and modified, from time to time, by mutual agreement of Owner and Contractor; provided, however, Owner shall be entitled to require that meetings occur as frequently as weekly. If Owner requests that Contractor cause a representative of any Subcontractor to attend any such meeting, then Contractor shall cause a representative of such Subcontractor to attend such meeting.

4.32 Parts. Contractor shall for its own account, provide all parts needed for construction, commissioning and testing of the Project. Contractor shall provide the spare parts identified in Exhibit "A", Section 21 ("Spare Parts") to be provided by Contractor and the cost of such Spare Parts is included in the Contract Price. Contractor shall also provide the pricing for the parts in accordance with the requirements set out in Exhibit "A", Section 21. In addition, Contractor shall use reasonable efforts prior to ordering an item of Equipment to deliver to Owner reasonably in advance of placing such order a schedule describing any additional spare parts relating to such item of Equipment that the Contractor or Subcontractor reasonably suggests to be purchased with the Equipment along with the price for such part(s).

Contractor agrees that any part (whether provided by Contractor or Owner) that is incorporated into the Project by Contractor shall be covered under the Project Warranties and the other terms of the Contract, notwithstanding that such part may not have been provided or procured by Contractor.

4.33 Hazardous Materials.

(a) Contractor's Obligations. Contractor shall comply with the obligations in Exhibit "A" with respect to Hazardous Materials.

- (b) Contractor's Responsibility. Contractor shall be responsible for all Losses arising from Hazardous Materials being delivered to, brought to or used at the Site or Contractor Yard Site by Contractor, Subcontractor or anyone employed by them, except those for which Owner is responsible pursuant to Section 3.6, including the costs of: (i) the permitting, storage, transportation, processing or disposal of Hazardous Materials, (ii) the remediation of any environmental condition caused by such Hazardous Materials, and (iii) any fines or penalties imposed by any Governmental Authority. Without limiting the generality of foregoing, Contractor shall be responsible for any Losses relating to the disposal, discharge, disturbance or release of Hazardous Materials at or in the vicinity of the Site or Contractor Yard Site by Contractor (or otherwise present at or in the vicinity of the Site) as a result of Contractor's or Subcontractor's negligence or failure to comply with the terms of this Contract.
- (c) Procedures Upon Discovery. If Contractor discovers, encounters or is notified of the existence of any Hazardous Materials at the Site (but excluding any Hazardous Materials brought to the Site by Contractor or a Subcontractor and being used by Contractor or a Subcontractor in compliance with Applicable Laws or any Hazardous Materials that are being stored at the Site by Owner in compliance with Applicable Laws), then:
- (i) Contractor shall as promptly as reasonably possible cease all Work in any area affected thereby;
 - (ii) Contractor shall promptly give Notice to Owner thereof and cordon off or otherwise barricade the area containing such Hazardous Materials unless instructed otherwise by Owner; and
 - (iii) Contractor shall promptly provide Owner with such written reports relating thereto as Owner may reasonably request.
- (d) Contractor's Right to a Change in Work. Contractor shall not be entitled to any extension of time, additional compensation or a Change in Work hereunder for any delay or costs incurred by Contractor as a result of the existence of Hazardous Materials for which Contractor is responsible pursuant to this Section 4.33. However, should Contractor encounter Hazardous Materials at the Site which are not Contractor's responsibility pursuant this Section 4.33, then Contractor shall be entitled to a Change in Work in accordance with Article 17.

4.34 Design of Project. Contractor shall further design and construct the Project so that it will allow operation of the Project and each of its component parts over the full range of operating and ambient conditions specified in Exhibit "A" while meeting Applicable Laws, Applicable Permits and Industry Standards.

All engineering work of the Contractor (or any Subcontractor) requiring certification shall be certified and all Drawings and Specifications requiring sealing shall be sealed in each case by a professional engineer licensed and properly qualified to perform such engineering services in the state in which such portion of the Work is performed and in all appropriate jurisdictions and such engineers and their qualifications shall be subject to Owner's review hereunder. Upon Owner's request, Contractor shall provide Owner with the resumes and other information regarding such Persons. Contractor shall use, and shall cause its Subcontractor to use, staff that are certified, professional engineers in the states in which the Work is to be performed in relation to all mechanical, electrical and civil engineering Work performed in the respective states.

4.35 Audit. Contractor shall keep such full and detailed records, books and other documentation in accordance with Industry Standards and with generally accepted accounting principles as may be necessary for substantiation of all Contractor claims for additional compensation or Changes in Work. Owner and its respective designees, shall be afforded access to, be allowed to inspect and audit, and be allowed to make copies of such books, records and documentation. Such books, records and documentation will be available in the United States at Contractor's regular place of business during normal working hours. Contractor shall preserve all such books, records and documentation for a period of seven (7) years after the Final Payment, or longer where required by Applicable Laws. These requirements shall also apply to all Subcontractors and materials suppliers. The audit rights provided herein shall apply to the full extent necessary to verify any cost-based components of Contractor's pricing, as well as any portion of the guaranteed fixed pricing that is subject to commodity pricing adjustments pursuant to Section 6.1.1.

4.36 Operation of Existing Facilities. Contractor specifically acknowledges and agrees that the Work must be performed by the Contractor within the operating parameters relating to the Transmission Grid as described in Exhibit "A". In addition, Contractor agrees that it shall plan and perform the Work in such a manner to prevent disruption to the operations of any generating facility and the Transmission Grid, unless otherwise expressly approved in writing by Owner. In the event of an emergency on the Transmission Grid or during any period for which Contractor has rendered a portion of the Transmission Grid inoperable or impaired, within 24 hours' notice from Owner, Contractor shall remove such condition in order to render the Transmission Grid fully operable.

4.37 Delivery of Documents. Owner and Contractor agree that the timely submission to Owner by Contractor of certain engineering Contractor Deliverables is an important aspect of this Contract. In the event Contractor's failure to timely provide Contractor Deliverables in accordance with the Deliverables Schedule (as established in accordance with Section 12.4) results in Owner's failure to obtain an Owner Acquired Permit or

otherwise fulfill its obligations to Contractor under this Contract, then Contractor shall not be entitled to a Change in Work as a result of such delay.

4.38 Site Conditions. Neither Owner nor any of its agents or representatives have made nor shall they make any express or implied warranty to Contractor as to the accuracy and completeness of any test, inspection, report or other information concerning the condition of the Site and Owner shall not be liable to Contractor for any such information provided by Owner or its agents or representatives.

Contractor specifically represents and warrants that it has carefully examined the Agreement and understands the Agreement and Contract Documents, including all Drawings, Scope of Work, Plans and Specifications, and special conditions, if any. Contractor further represents that it has inspected the sites and routes of the Work and is thoroughly acquainted with all conditions that may be encountered in performing the Work. Contractor has considered all matters and factors that could affect the Work, or the cost thereof, or the schedule to complete the Work. No claim for either additional compensation or extension of time alleging changed, concealed or unknown conditions will be allowed or recognized by Company. In relation to the Work and the project site, Contractor has taken into account all facets of the job including the required access.

Contractor has investigated (or will be deemed to have investigated) the Site and each other location where any portion of the Work shall be performed and surrounding locations, including both surface and subsurface conditions and has satisfied itself with respect to the nature and location of the Work and the general and local conditions in and around the Site with respect to the environment, transportation, access, waste disposal, handling and storage of materials, availability and quality of electric power, availability and quality of water, availability and quality of roads, climatic conditions and seasons, physical conditions at the Site and the surrounding area as a whole, topography and ground surface conditions, sound attenuation conditions, subsurface geology and conditions, nature and quantity of surface and subsurface materials to be encountered (excluding Hazardous Materials) but including equipment and facilities, and requirements of all Governmental Authorities with regard to flora, fauna and cultural conditions needed before and during performance of all Contractor's obligations under this Contract (the foregoing, collectively, the "Site Conditions").

In the event that Contractor performs any geotechnical studies, Contractor shall promptly provide Owner with a copy of such studies and/or reports.

Contractor specifically acknowledges and accepts the foregoing Site Conditions and agrees that no Project Guaranteed Date shall be extended, the Contract Price shall not be modified, and Contractor shall not be entitled to request or be granted any Change in Work, as a result of any such Site Conditions. Further, should the Site Conditions be at variance with the condition of the Site indicated by any reports or other information furnished to Contractor by Owner or any of its representatives (including, but not limited

to any unknown physical conditions below the surface of the ground or water differing in any way from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this Contract) neither the Contract Price nor any other Project Guaranteed Dates shall be adjusted, and Contractor shall complete the Work for the Contract Price.

4.39 Non-Conforming Work. If Contractor is notified of or discovers any Defect, Contractor shall, at Contractor's sole cost and expense, correct such Defect and promptly provide Notice to Owner that such corrective measures have been completed. If Contractor discovers a defect in Owner's Engineer's design or engineering, Contractor shall immediately provide Notice to Owner. Any disagreements about the root cause of any Defect shall be resolved in accordance with the provisions of Article 36.

4.40 [Joint and Several Liability]. [The Contractor means each joint venture partner which shall undertake the duties and obligations of the Contractor under this Contract. Each joint venture partner has the duty and obligation, individually, to fully perform all of the duties and obligations of Contractor under this Contract. Owner may enforce the terms of this Contract against one or more joint venture partners, individually or collectively, upon breach of Contractor's performance hereunder. Even though each joint venture partner has assumed the duties and obligations of Contractor under this Contract on a joint and several basis, the Contractor is referred to herein as if singular in number. Without limiting the generality of the foregoing, the Owner shall be entitled to conclusively rely on any Notice or other correspondence received, or performance tendered by a Joint Venture Partner (relating to or in connection with the Project or this Contract) or the Contractor without any duty on the part of Owner to make an inquiry into the authority of the Contractor or such Joint Venture Partner to give such Notice or other correspondence or tender such performance, and any Notice or correspondence delivered or performance taken by one of the Joint Venture Partners (relating to or in connection with the Project or this Contract) or the Contractor shall validly and legally bind the others.] [If applicable.]

5. WARRANTIES AND REPRESENTATIONS

5.1 Of Contractor. Contractor represents and warrants to Owner that:

5.1.1 Organization, Standing and Qualification. Contractor is a _____, duly organized, validly existing and in good standing under the laws of the State of _____, and has, or will have by the date it commences the applicable Work, full power and authority to engage in the business it presently conducts and contemplates conducting in accordance with all Applicable Laws, and is or will be duly licensed or qualified and in good standing under the laws of all states in which Work is to be performed and in each other jurisdiction wherein the nature

of the business transacted by it makes such licensing or qualification necessary and where the failure to be licensed or qualified would have a material adverse effect on its ability to perform its obligations hereunder. Contractor shall furnish Owner with a certified copy of its permit to transact business in each state and other jurisdiction wherein the nature of the business transacted by Contractor makes such licensing or qualification necessary prior to commencing Work under the Contract. Owner may, at its option, withhold from any payment hereunder and remit to the relevant Governmental Authority such sums as are required by Applicable Laws and has provided Owner with a copy of such certificate. In addition, the Owner may, as required by Applicable Laws, withhold the Final Payment of the Contract as a guarantee that sales and use Tax will be paid in the event that Owner has been provided notice by a Governmental Authority pursuant to Applicable Laws to withhold funds. Contractor shall make such returns and pay such Tax on account of payments received under this Contract as Applicable Laws may require, and shall hold Owner harmless on account of its failure to withhold any amount required by Applicable Laws from any payment made hereunder or on account of Contractor's failure to pay any such Tax to a Governmental Authority.

5.1.2 Enforceable Contract. This Contract has been duly authorized, executed and delivered by Contractor and constitutes the legal, valid and binding obligation of Contractor, enforceable against Contractor in accordance with its terms.

5.1.3 Due Authorization. The execution, delivery, and performance by Contractor of this Contract will not violate or conflict with: (a) any Applicable Laws; (b) any covenant, agreement, or understanding to which it is a party or by which it or any of its properties or assets is bound or affected; or (c) its organizational documents; and will not subject the Project or any component part thereof or the Site or any portion thereof to any lien other than as contemplated or permitted by this Contract.

5.1.4 Government Approvals. No authorization, approval, exemption, or consent of or by any Governmental Authority or other Person is required in connection with the authorization, execution, delivery, and performance of this Contract by Contractor. The Contractor Acquired Permits either have been obtained by Contractor and are in full force and effect on the Effective date of each Release or will be obtained by Contractor and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect, so as to permit Contractor to commence and prosecute the Work to completion in accordance with the Critical Path Method Schedule.

5.1.5 No Suits, Proceedings. There are no actions, suits, proceedings, or investigations pending or, to Contractor's knowledge, threatened against it at law or in equity before any court (United States or otherwise) or before any Governmental Authority (whether or not covered by insurance) that individually

or in the aggregate could result in any materially adverse effect on the business, properties, or assets or the condition, financial or otherwise, of Contractor or in any impairment of its ability to perform its obligations under this Contract. Contractor has no knowledge of any violation or default with respect to any order, writ, injunction, or decree of any court or any Governmental Authority that may result in any such materially adverse effect or such impairment.

5.1.6 Patents. Other than those patents, trademarks, service marks, tradenames, copyrights, licenses, franchises and permits included in Owner Acquired Permits, Contractor owns or has the right to use all patents, trademarks, service marks, tradenames, copyrights, licenses, franchises, and permits necessary to perform the Work without conflict with the rights of others and to enable Owner to operate the Project without infringement thereof.

5.1.7 Business Ethics. Contractor, its employees, officers, agents, representatives and Subcontractors shall at all times maintain the highest ethical standards and avoid conflicts of interest in the performance of Contractor's obligations under this Contract. In conjunction with its performance of the Work, Contractor and its employees, officers, agents and representatives shall comply with, and cause its Subcontractors and their respective employees, officers, agents and representatives to comply with, all applicable laws, statutes, regulations and other requirements prohibiting bribery, corruption, kick-backs or similar unethical practices including, without limitation, the United States Foreign Corrupt Practices Act, the United Kingdom Bribery Act 2010, and Owner Code of Business Conduct attached as Exhibit C-1. Without limiting the generality of the foregoing, Contractor specifically represents and warrants that neither Contractor nor any Subcontractor employees, officers, representatives or other agents of Contractor have made or will make any payment, or have given or will give anything of value, in either case to any government official (including any officer or employee of any governmental authority) to influence his, her, or its decision or to gain any other advantage for Owner or Contractor in connection with the Work to be performed hereunder. Contractor shall maintain and cause to be maintained effective accounting procedures and internal controls necessary to record all expenditures in connection with this Contract and to verify Contractor's compliance with this Article. Owner shall be permitted to audit such records as reasonably necessary to confirm Contractor's compliance with this Article. Contractor shall immediately provide notice to Owner of any facts, circumstances or allegations that constitute or might constitute a breach of this Article and shall cooperate with Owner's subsequent investigation of such matters. Contractor shall indemnify and hold Owner harmless from all fines, penalties, expenses or other losses sustained by Owner as a result of Contractor's breach of this provision. The Parties specifically acknowledge that Contractor's failure to comply with the requirements of this Article shall constitute a condition of default under this Contract.

5.1.8 Owner-Provided Information. Owner or its agents may provide or may have provided Contractor or Subcontractor with copies of certain studies, reports or other information (including oral statements) and Contractor acknowledges that all such documents or information have been or will be provided as background information or as an accommodation to Contractor. Contractor further acknowledges that neither Owner nor any of its agents makes any representations or warranties with respect to the accuracy of such documents or the information (including oral statements) or opinions therein contained or expressed. Contractor further represents and warrants that it is not relying on Owner or Owner's agents for any information, data, inferences, conclusions, or other information with respect to Site Conditions, including the surface and sub-surface conditions of the Site and the surrounding areas.

5.1.9 Financial Condition. Contractor is financially solvent, able to pay its debts as they mature, and possessed of sufficient working capital to complete its obligations under this Contract. Contractor is able to perform the Pre-Construction Services, furnish the Equipment, labor, and design services needed for the Project, is experienced in and competent to perform the Work, both construction and design, contemplated by this Contract, and is qualified to do the Work.

5.1.10 [Joint Venture]. [The Contractor is a joint venture and [each joint venture partner] have the power and authority to enter into this Contract. Each [joint venture partner] individually, has the duty and obligation to fully perform all of the duties and obligations of Contractor under this Contract. Any Notice or correspondence delivered or performance taken by one of either [joint venture partner] or the Contractor shall validly and legally bind the others on a joint and several basis.] [If applicable.]

5.1. Of Owner. Owner covenants, represents, and warrants to Contractor that:

5.2.1 Organization, Standing and Qualification. Owner is a limited liability company duly organized, validly existing, and in good standing under the laws of the State of Delaware, has full power to engage in the business Owner presently conducts and contemplates conducting, and is and will be duly licensed or qualified and in good standing in each jurisdiction wherein the nature of the business transacted by it makes such licensing or qualification necessary and where the failure to be licensed or qualified would have a material adverse effect on its ability to perform its obligations hereunder.

5.2.2 Enforceable Contract. This Contract has been duly authorized, executed and delivered by Owner and constitutes the legal, valid, and binding obligation of Owner, enforceable against Owner in accordance with its terms.

5.2.3 Due Authorization. The execution, delivery, and performance by Owner of this Contract will not conflict with: (a) any Applicable Laws; (b) any covenant, agreement, or understanding to which it is a party or by which it or any of its properties or assets is bound or affected; or (c) its certificate of incorporation or by-laws.

5.2.4 Government Approvals. No authorization, approval, exemption, or consent of or by any Governmental Authority or other Person (other than the Applicable Permits) is required in connection with the execution, delivery, and performance of this Contract by Owner and if not obtained will be obtained by Owner prior to the date on which it is required under Applicable Laws to be in full force and effect. The Owner Acquired Permits either have been obtained by Owner and are in full force and effect on the Effective date of each Release or will be obtained by Owner and will be in full force and effect on or prior to the date on which they are required, under Applicable Laws, to be in full force and effect; and in the event such Owner Acquired Permit is not obtained by the applicable Owner Milestone, Contractor's sole remedy for a breach of the representations in this Section 5.2.4 shall be a Change in Work in accordance with Article 17.

5.2.5 No Suits, Proceedings. There are no material actions, suits, proceedings, or investigations pending or, to its knowledge, threatened against it at law or in equity before any court (United States or otherwise) or before any Governmental Authority (whether or not covered by insurance) that individually or in the aggregate could result in any materially adverse effect on the business, properties, or assets or the condition, financial or otherwise, of Owner or in any impairment of its ability to perform its obligations under this Contract. Owner has no knowledge of any violation or default with respect to any order, writ, injunction, or any decree of any court or any Governmental Authority that may result in any such materially adverse effect or such impairment.

5.2.6 Business Practices. Owner will not, and Owner will direct its employees, agents, and subcontractors, and their employees and agents to not, make any payment or give anything of value to any government official (including any officer or employee of any Government Authority) to influence his, her, or its decision or to gain any other advantage for Owner or Contractor in connection with the Work to be performed hereunder. Neither Owner nor any of its employees or agents shall take any action that violates the United States Foreign Corrupt Practices Act or any similar Applicable Laws. Owner shall immediately give Notice to Contractor of any violation (or of the direction described in the first sentence hereof) and shall indemnify and hold Contractor harmless for all Losses arising out of such violation.

6. COST OF WORK

6.1 Contract Price. As full compensation for the Work, Owner shall pay to Contractor the fixed price amount specified in each Release. (the "Contract Price"). The Contract Price shall be modified only by (i) a Change in Work approved in accordance with Article 17, or (ii) per Section 6.1(a).

The Contract Price shall be paid in accordance with Article 7.

6.1.1 Significant Decrease in Market Prices for Key Commodities. Owner shall be entitled to a decrease in the Contract Price, if the price per unit Contractor pays, either directly or indirectly, for aluminum and carbon steel as raw material inputs (not finished products) ("Key Commodities") for the manufacture of conductor wire, engineered poles and lattice towers is less than the Assumed Price, as hereinafter defined. Exhibit "R" identifies the per unit price (the "Assumed Price") for the Key Commodities included by the Contractor as part of its Contract Price. Such Assumed Price is based on certain indexes specified in Exhibit "R". In the event that the price actually paid by Contractor for a Key Commodity ("Actual Price") on a per unit basis is less than the Assumed Price for such Key Commodity by ten percent (10%) or more, as determined through reference to the pertinent index identified in Exhibit "R" and associated purchase documentation, then the Contract Price shall be reduced by an amount equal to one-half the difference between the applicable Assumed Price and the Actual Price multiplied by the actual quantity purchased by Contractor. The Parties agree to review and document the status of any potential Contract Price decrease resulting under this Section 6.1.1 on a quarterly basis and also when Contractor estimates that substantially ninety-five percent (95%) of each Key Commodity have been purchased. Full reconciliation of Key Commodities price adjustment under this Section 6.1.1 shall be documented on a Change in Work form pursuant to Article 17 and shall be a condition precedent to Final Completion. Contractor shall provide owner with any documentation (including materials subcontracts, and purchase orders at any tier of Subcontractor or Supplier) for Owner to confirm existence and extent of Key Commodities price adjustments under this Contract. In addition, Contractor shall use its commercially reasonable efforts to include in its agreements with the Suppliers of the Key Commodities a provision that provides for a purchase price decrease in the event the underlying commodity prices affecting the sale price for such Key Commodity decrease prior to the date such Key Commodities are ordered (or if applicable, the date such Key Commodities are delivered if the price is determined under the applicable agreement as at the time of delivery).

6.2 All Items of Work Included. The Contract Price includes payment for: (a) all costs of Equipment, temporary equipment, materials, labor, transportation, engineering, design (if applicable) and other services relating to Contractor's performance of its obligations under this Contract and the Work (including any intellectual property rights licensed under this Contract, expressly or by implication) provided by Contractor or such Subcontractors; (b) any duties, levies, imposts, fees or charges of any kind (whether in

the United States or elsewhere and including any of the foregoing related to the importation of any items into the United States) arising out of Contractor's or any such Subcontractor's performance of the Work; and (c) any duties, levies, imposts, fees, royalties or charges of any kind (whether in the United States or elsewhere and including any of the foregoing related to the importation of any items into the United States) imposed on Contractor or its Subcontractors with respect to any Equipment, materials, labor, or services provided under this Contract.

6.3 Taxes; Tax Administration and Payment.

(a) Responsibility for Taxes. The Contract Price includes payment for all taxes of any nature whatsoever including all: (i) United States federal, state, regional, and local taxes, national and foreign taxes, goods and services taxes, personal property taxes, sales and use taxes (including sales and use tax on the purchase, sale or use of all materials, supplies, Equipment and machinery); (ii) property taxes on all materials, supplies, equipment and machinery not intended to be transferred to Owner hereunder; (iii) occupational, excise, unemployment, value-added, gross receipts and income taxes; and (iv) any and all other taxes, effective or enacted as of the Effective date of each Release or thereafter, each as imposed on Contractor or its Subcontractors or the Work (collectively referred to as "Taxes"); provided, however, the Contract Price shall not include any real property taxes on the Site or the Project, which shall be borne by Owner. With the exception of real property taxes not included in the Contract Price as described above in this paragraph, the Contract Price shall not be increased with respect to any of the foregoing Taxes or with respect to any withholdings in respect of any of the foregoing Taxes that Owner may be required to make. Calculation of Tax within the Contract Price is the sole responsibility of the Contractor and is provided for informational purposes only. Any errors or omissions in calculating Tax shall be at the Contractor's risk.

(b) Tax Administration and Payment. Contractor shall, in accordance with Applicable Laws, timely administer and timely pay all Taxes that are included in the Contract Price and timely furnish to the appropriate taxing authorities all required information and reports in connection with such Taxes. Contractor shall provide to Owner information to confirm the correct Taxes have been paid on the Work by the Contractor and such further Tax information reasonably requested by Owner.

7. TERMS OF PAYMENT

Payments to Contractor shall be made as follows:

7.1. Contractor's Invoices.

- (a) Following the issuance of a Limited Notice to Proceed, on or about the tenth (10th) day of each month, Contractor shall submit a Contractor's Invoice in the form of Exhibit "F" to Owner for the Progress Payment Amount for Pre-Construction Services performed during such period in accordance with the requirements and provisions set forth in Exhibit "D". Owner shall pay undisputed amounts so invoiced within thirty (30) days.

Each Contractor's Invoice submitted in respect of the Pre-Construction Services shall include Contractor's Partial Release and Waiver of Liens and Claims. The provisions of Article 7 apply to Contractor's Invoices in respect of Pre-Construction Services.

- (b) Following the issuance of a Full Notice to Proceed, on or about the tenth (10th) day of each month, Contractor shall submit a Contractor's Invoice in the form of Exhibit "F" to Owner for the Work performed thereunder in the then immediately preceding month. For clarity, Contractor shall submit invoices for Pre-Construction Services separately from Work performed that is not Pre-Construction Services.

In all cases, Contractor specifically agrees that it shall not request in any Contractor's Invoice the payment of any sum attributable to Work which has been rejected by Owner or Contractor or which otherwise constitutes or relates to a Subcontractor's application for payment, billings or invoices which Contractor disputes or for any other reason does not intend to pay in accordance with the terms of Contractor's agreements with its Subcontractors. Subject to the provisions of this Article 7, Owner shall pay Contractor each Progress Payment described on the Progress Payment Schedule upon Contractor's completion of the corresponding discrete portion of Work.

7.2. Certification by Contractor. Each Contractor's Invoice:

- (a) Shall provide documentary evidence in the form of a written progress report, in accordance with Section 4.27 to describe: (i) the completion of the Work to maintain the Interim Progress Milestones; (ii) the related Progress Payment Schedule and Amounts set forth on the Progress Payment Schedule that are then due as of the end of the immediately preceding month; and (iii) any other amounts then payable by Owner to Contractor under Article 17 or any other provision

hereof and, without limiting Owner's right to dispute any amounts requested for payment;

- (b) Shall include Contractor's Partial Release and Waiver of Liens and Claims; and;
- (c) Shall include the Project Progress Report and Critical Path Method Schedule in accordance with Section 4.26 and Section 4.27, except to the extent they have previously been provided for the applicable month;

It being understood and agreed by Contractor that any Contractor's Invoice not in compliance with the Project Payment Schedule or that has been demonstrated to not be in compliance with the Interim Progress Milestones described in Exhibit "G", and in Exhibit "G" Attachment 9 shall not, to the extent of such deficiency, constitute a valid request for payment. Each Progress Payment Amount shall be due and payable only to the extent it is supported by documentary evidence of compliance with the Interim Progress Milestones set forth in Exhibit "G" Attachment 9, it being acknowledged and understood that no Progress Payment shall be made for any partially or improperly completed individual items of Work or for Work that remains subject to Owner's review and inspection rights in accordance with Section 12.5.

Notwithstanding the foregoing, in no event shall the cumulative amount actually paid with respect to any period of time exceed the maximum cumulative amount payable for such period in accordance with the Progress Payment Schedule.

7.3 Subcontractor Statements. Accompanying each Contractor's Invoice, Contractor shall submit a Partial Release and Waiver of Liens and Claims from each Major Subcontractor whose Work is covered under such Contractor's Invoice.

7.4 Owner Review; Payments. Without limiting Owner's rights of review under Article 10 and Article 12, within fourteen (14) days after receipt by Owner of a Contractor's Invoice and all accompanying documentation required by Section 7.2, Owner shall: (a) determine whether the Interim Progress Milestones described in Exhibit G Attachment 9 remain valid and not subject to the provisions of Section 8.3; (b) determine whether the Work performed conforms with the requirements of this Contract; (c) determine whether the Contractor's Invoice has been properly submitted; and (d) determine and give Notice to Contractor concerning any invoiced amount that is in dispute and the basis for such dispute. Owner will pay Contractor, within thirty (30) days after receipt by Owner of Contractor's Invoice, all Progress Payment Amounts and other amounts then payable and not in dispute. Failure by Owner to pay any amount in dispute and identified pursuant to clause (d) above until resolution of such dispute pursuant to Section 7.7 shall not alleviate, diminish, or modify in any respect Contractor's obligations to perform the Work in accordance with this Contract. Contractor shall promptly pay each Subcontractor directly contracting with Contractor the amount to which said Subcontractor is entitled under its agreement with Contractor with respect to

the Work covered by such payment by Owner in accordance with the terms of its subcontract with such Subcontractor. Contractor shall, by an appropriate agreement with each Major Subcontractor, contractually require each such Subcontractor to make payments to its subcontractors in a similar manner.

7.5 Retainage. Owner shall retain and withhold payment of ten (10%) of all payments made to Contractor pursuant to Section 7.4 (the “Retainage”) other than the Final Payment. Such amount shall be held by Owner and any interest thereon shall accrue for the account of Owner and not Contractor. Alternatively and in lieu of the above, no Retainage will be withheld by Owner provided Contractor posts an irrevocable transferable letter of credit issued for the benefit of the Owner by a Qualified Bank (the “Retainage LOC”) not less than an amount equal to the Retainage (had it been withheld by Owner in accordance with the first paragraph of this Section 7.5).

7.6 Final Payment. Upon the delivery of Owner’s Certificate of Final Completion in accordance with Section 15.5(l), Contractor shall submit a final Contractor’s Invoice (the “Final Contractor’s Invoice”) which shall set forth all amounts due to Contractor that remain unpaid (including amounts relating to the Punchlist Items), and upon approval thereof by Owner, Owner shall pay to Contractor the amount due under such Final Contractor’s Invoice (“Final Payment”). Subject to achievement of Final Completion pursuant to this Contract, Final Payment shall include release of the Retainage or return and cancellation of the Retaining LOC (as applicable). Owner shall have no obligation to make Final Payment until Contractor shall have delivered the following items to Owner:

- (a) With respect to each Major Subcontractor the Final Release and Waiver of Liens and; and
- (b) With respect to Contractor,
 - (i) A certification to the effect that:
 - (x) Contractor has been paid all amounts owing or that may become owing to Contractor with respect to the Project and the performance of the Work except for amounts requested in the Final Contractor’s Invoice, and
 - (y) Contractor has paid all amounts that Contractor will be required to pay in connection with the performance of the Work, including all amounts to be paid to any Subcontractor with respect to the Project and the performance of the Work, except for amounts that in the aggregate shall be less than the Final Payment;
 - (ii) The Final Release and Waiver of Liens and Claims; and
 - (iii) The Warranty LOC.

7.7 Disputes. Contractor's acceptance of any payment shall not be deemed to constitute a waiver of amounts that are then in dispute. Contractor and Owner shall use their reasonable efforts to resolve all disputed amounts as expeditiously as possible in accordance with the provisions of Article 36.

7.8 Method of Payment. All payments to be made to Contractor under this Contract shall be paid in Dollars and shall be paid by electronic funds transfer in immediately available funds on the date due or, if such date is not a Business Day, on the immediately succeeding Business Day to the account as may be designated by Contractor from time to time by Notice to Owner in accordance with Article 33.

7.9 Holdbacks. Any provision hereof to the contrary notwithstanding, upon the occurrence and continuance of any of the following events, Owner, upon Notice to Contractor, may (but shall have no obligation to) withhold or retain such portion of any payment due to Contractor under this Contract to the extent reasonably necessary to ensure the performance of the Work, to cover Owner's reasonable costs to cover such event or otherwise protect fully Owner's rights hereunder:

- (a) A Contractor Event of Default shall have occurred hereunder as defined in Section 20.1;
- (b) Any part of such payment shall be attributable to Work which shall contain a Defect or shall not have been performed in accordance with the terms of this Contract;
- (c) Contractor shall have improperly failed to make prompt payments to its Subcontractors pursuant to the terms of such subcontract for material or labor used in the Work for which Owner has paid Contractor;
- (d) Owner in good faith shall have determined based upon the Critical Path Method Schedule that Contractor cannot with prompt and reasonable acceleration of the Work achieve the Project Guaranteed Dates; provided, however, that the amount withheld or retained on account of this Section 7.9(d) shall not exceed the amount of the Delay Liquidated Damages which would be payable under Article 16 on account of the then estimated delay in achieving the Project Guaranteed Dates;
- (e) Contractor shall have failed to deliver a Schedule Recovery Plan reasonably acceptable to Owner as set forth in Section 8.3, or Contractor shall have failed to cause the prosecution of the Work to conform to the Schedule Recovery Plan approved by Owner; or
- (f) Contractor shall have failed to deliver any Contractor Deliverable (prepared by Contractor in good faith) to Owner on or before the date set forth on the Deliverables Schedule for the delivery of such Contractor Deliverable.

No payment made hereunder shall be construed to be acceptance or approval of that part of the Work to which such payment relates or to relieve Contractor of any of its obligations hereunder. Should any dispute arise with respect to Owner's exercise of its rights under this Section 7.9, such dispute shall be subject to resolution in accordance with the expedited payment dispute procedures provided in Article 36. Notwithstanding the provisions of Section 20.4 and Article 36, Contractor shall not have any rights of termination or suspension under Section 20.4 as a result of Owner's exercise or attempted exercise of its rights under this Section 7.9.

7.10 Application of Monies. Contractor shall use the sums paid to it pursuant to this Article 7 for the purpose of performing the Work and designing, furnishing, equipping, testing and commissioning the Project in accordance with this Contract. No provision hereof shall be construed, however, to require Owner to see to the proper disposition or application of the monies so paid to Contractor.

7.11 Release of Liability. Acceptance by Contractor of the Final Payment shall constitute a release by Contractor of Owner, its Affiliates and every officer and agent thereof from all liens (whether statutory or otherwise and including mechanics' or suppliers' liens), claims and liability with respect to the payment of the Contract Price or any event or circumstance that would entitle Contractor to request a Change in Work in accordance with Article 17 in respect of any Work performed or furnished in connection with this Contract, or for any act or omission of Owner or of any Person relating to or affecting Owner's payment obligations under this Contract, except for unresolved claims for which Contractor has previously delivered a dispute Notice to Owner and claims which are based on facts and/or circumstances that arise only after Final Completion; and further provided that such acceptance shall not constitute a release of Contractor's right to enforce any provision of this Contract that survives termination of this Contract in accordance with Section 37.3. No payment by Owner shall be deemed a waiver by Owner of any obligation of Contractor under this Contract.

7.12 All Payments in Dollars. All amounts in this Contract are expressed in, and all payments required hereunder shall be paid in Dollars.

8. COMMENCEMENT AND PROSECUTION OF THE WORK

8.1. Limited Notices.

- (a) Limited Notice to Proceed. Owner may issue to the Contractor, within each Release a Limited Notice to Proceed to perform specified services and shall pay Contractor in accordance with the terms of Exhibit "D" that are applicable

Prior to the Full Notice to Proceed Date, Contractor shall only perform the activities set forth in a Limited Notice to Proceed. Contractor shall not be entitled to any payment for activities, services, products or other costs or expenses incurred outside of the scope set forth in the Limited Notice to Proceed. Amendments to a Limited Notice to Proceed shall be made in accordance with the provisions of Article 17, *mutatis mutandis*. Owner may terminate a Limited Notice to Proceed at any time, provided that any such termination shall not terminate this Contract nor shall it affect the other rights, obligations or agreements of the Parties set forth in this Contract. Owner shall pay Contractor for the value of Pre-Construction Services completed (or if not completed, the reasonable approximation of the portion that has been completed) as of the date of termination of a Limited Notice to Proceed.

- (b) Materials Notice to Proceed. Owner may issue to Contractor, within each Release a notice to procure certain materials on the Materials Notice to Proceed Date, thus authorizing Contractor to procure the materials required under Exhibit A of each Release.

8.2 Full Notice to Proceed. Owner shall provide Contractor with Notice that Contractor is directed to commence Work under this Agreement ("Full Notice to Proceed") as follows:

- (a) Owner shall inform Contractor of the date Owner reasonably anticipates to issue Full Notice to Proceed, and the date on which Owner provides Contractor with Full Notice to Proceed shall be the Full Notice to Proceed Date; provided, however, that the following shall be conditions precedent to Owner's right (but not obligation) to provide Contractor with Full Notice to Proceed:

(i) Contractor Security. Contractor shall have provided Owner with the Parent Guarantee, the Performance LOC; and

(ii) Insurance Requirements. Owner and Contractor have each obtained the insurance required to be provided by each of them in accordance with the terms of this Contract and shall have provided the other Party reasonable documentation evidencing such insurance effectuation.

- (b) On the Full Notice to Proceed Date, Contractor shall commence and shall thereafter diligently pursue the applicable Work in accordance with the terms of this Contract. Contractor expressly agrees that the period of time specified to complete all Work and the timely achievement of the Project Guaranteed Dates includes an appropriate allowance for all hindrances and delays incidental to the Work and no claim shall be made by Contractor for hindrances or delays for any cause during the progress of the Work, except as provided under Article 9 and Article 17.

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

(c) Contractor shall prosecute the Work in accordance with the Critical Path Method Schedule. Contractor shall cause Substantial Completion and Final Completion to occur on or before the applicable Project Guaranteed Dates (as such dates may be extended pursuant to Article 17 or Article 22).

8.3 Schedule Recovery Plan. If Contractor fails, other than by reasons not attributable to Contractor, to stay within the number of days specified in each Release of the schedule (as determined using the Critical Path Method Schedule) for achieving the applicable Project Guaranteed Dates, then Contractor shall, within five (5) days after Contractor becomes aware of such delay, submit for approval by Owner, a written plan (the "Schedule Recovery Plan") to complete all necessary Work to achieve such Project Guaranteed Dates not later than thirty (30) days after the applicable Project Guaranteed Dates, including a revised Critical Path Method Schedule. Within five (5) days after receipt of the proposed Schedule Recovery Plan, Owner shall deliver written approval or disapproval of such plan to Contractor. If Owner disapproves the proposed Schedule Recovery Plan and provides comments to the Schedule Recovery Plan, Contractor shall resubmit a revised Schedule Recovery Plan addressing such Owner comments within five (5) additional days. Review and/or approval by Owner of a Schedule Recovery Plan shall not be deemed in any way to have relieved Contractor of its obligations under this Contract relating to the failure to achieve Substantial Completion or Final Completion by the applicable Project Guaranteed Date, be a basis for an increase in the Contract Price, or limit the rights of Owner under Section 16.1.

9. **FORCE MAJEURE.**

9.1 Events of Force Majeure. No failure or omission to carry out or observe any of the terms, provisions, or conditions of this Contract shall give rise to any claim by any Party against any other Party hereto, or be deemed to be a breach or default of this Contract if such failure or omission shall be caused by or arise out of an event of Force Majeure. No obligations of either Party that were required to be performed before the occurrence of an event of Force Majeure causing the suspension of performance shall be excused as a result of such occurrence. The obligation to pay money in a timely manner shall not be subject to the Force Majeure provisions.

9.2 Notice. If either Party's ability to perform its obligations under this Contract is affected by an event of Force Majeure, such Party shall promptly as reasonably possible, upon learning of such event and ascertaining that it will delay its performance hereunder (but in any event within two (2) Business Days after such Party becomes aware of such delay), give Notice to the other Party (a "Delay Notice") stating the nature of the event, its anticipated duration and effect upon the performance of such Party's obligations, and any action being taken to avoid or minimize its effect. The burden of proof shall be on the Party claiming to be affected pursuant to this Section 9.2.

9.3 Scope of Suspension; Duty to Mitigate. The suspension of performance due to an event of Force Majeure shall be of no greater scope and no longer duration than is required by such event and the effects of such event. The excused Party shall use its reasonable efforts to: (a) mitigate the duration of, and costs arising from, any suspension or delay in the performance; (b) continue to perform its obligations hereunder to the extent unaffected by the Force Majeure event; and (c) remedy its inability to perform. When the affected Party is able to resume performance of its obligation under this Contract, such affected Party shall give the other Party Notice to that effect.

9.4 Removal of Force Majeure. If, within a reasonable time after an event of Force Majeure that has caused Contractor to suspend or delay performance of the Work, action to be undertaken at the expense of Owner has been identified and recommended to Contractor, and Contractor has failed within ten (10) days after receipt of Notice thereof from Owner to commence to take such action as Contractor could lawfully and reasonably initiate to remove or relieve either the Force Majeure event or its direct or indirect effects, Owner may, in its sole discretion and after Notice to Contractor, initiate such reasonable measures as will be designed to remove or relieve such Force Majeure event or its direct or indirect effects and, after such removal or relief has been accomplished, require Contractor to resume full or partial performance of the Work. To the extent Contractor's failure to take such measures results in additional expense in addition to what Owner would have paid to Contractor, had Contractor taken such measures, such additional expense shall be for Contractor's account.

9.5 Responsibility of Contractor. Damages or injuries to Persons or properties resulting from an event of Force Majeure during the performance of the obligations provided for in this Contract shall not relieve the Contractor of the responsibility to bear the cost of the damage or injuries caused by Contractor's negligence or misconduct to the extent such costs are not covered by the insurance described in Article 23.

9.6 Contractor's Remedy. Contractor's sole remedy for the occurrence of an event of Force Majeure shall be an extension of time as determined in accordance with Article 17. Contractor shall not suspend the Work unaffected by Force Majeure pending resolution of the agreement on the extension of time under this Article 17 unless directed by Owner in writing in accordance with Article 22.

10. SUBCONTRACTORS

10.1 Use of Subcontractors; Owner's Right to Object. The Persons (including, where applicable, specific plant locations utilized by such Persons) identified in Exhibit "A" have been pre-approved by Owner for use by Contractor as a Subcontractor for the particular materials, equipment or services as specified in Exhibit "A", and are not

subject to the requirements of this Section 10.1. In the event Contractor desires to use a substitute for any of the Persons (including, where applicable, specific plant locations utilized by such Persons) listed in Exhibit "A", (including if such Person is not a Major Subcontractor) then Contractor shall follow the procedures set forth in Exhibit "A".

Contractor shall follow the procedure set forth in this Section 10.1 with respect to obtaining Owner approval of Major Subcontractors that are not otherwise subject to the procedures set forth in Exhibit "A". Within fifteen days (15) of the effective date of each Release, Contractor shall provide Owner with a list of all anticipated potential Major Subcontractors. Within fifteen (15) Business Days after receipt of such list, Owner shall have the right to advise Contractor of any such potential Major Subcontractor to which it reasonably objects, together with the reasons for such objection. Contractor shall remove from the list any potential Major Subcontractor to which Owner reasonably objects. Owner shall be deemed not to have objected to any potential Major Subcontractor on the list to which Owner does not object within such fifteen (15) Business Day period. Contractor shall have the right to add potential Major Subcontractors to the list subject to the procedures set forth above. Other than for the Persons approved in accordance with Exhibit "A", no Subcontractor for any Equipment, material, component or service in connection with the Work covered by this Section 10.1 shall be engaged by Contractor prior to completion of the review process set forth in this Section 10.1.

10.2 No Approvals; Contractor Responsible for Work. Neither the use by Contractor of any Subcontractors nor the review or failure to object by Owner of any Subcontractor under this Article 10 shall: (a) constitute any approval of the Work undertaken by any such Person; (b) cause Owner to have any responsibility for the actions, the Work, or payment of such Person or to be deemed to be in a contractual or an employer-employee relationship with any such Person; or (c) in any way relieve Contractor of its responsibilities and obligations under this Contract. Contractor shall be responsible for any Work performed by a Subcontractor. In no event shall any act or omission by any Subcontractor constitute an event of Force Majeure except to the extent caused by an event or circumstance that itself constituted an event of Force Majeure. Notwithstanding anything in Article 7 to the contrary, in no event shall Contractor submit or Owner be obligated to review any Contractor's Invoice with respect to work performed by any Major Subcontractor prior to the expiration of the review period provided in Section 10.1.

10.3 Assignment. Each subcontract and purchase order entered into by Contractor with respect to the Work with a Major Subcontractor shall contain a provision in the form of Exhibit "P" consenting to assignment to Owner in the case of a Contractor default.

10.4 Information; Access. Contractor shall furnish such information and access relative to its Subcontractors as Owner may reasonably request. Contractor shall promptly provide Owner with all recall notices, defect notices or other product communications from the Vendors and/or shall require that its Vendors send such notices and communications directly to the Owner.

11. LABOR RELATIONS

11.1 General Management of Employees. Subject to Section 4.16, and notwithstanding the provisions of Section 11.2, Contractor shall retain its rights to exercise and shall exercise its management rights in performing the Work. Such management rights shall include the rights to hire, discharge, promote, and transfer employees; to select and remove foremen or other Persons at other levels of supervision; to establish and enforce reasonable standards of production; to introduce, to the extent feasible, labor saving equipment and materials; to determine the number of craftsmen necessary to perform a task, job, or project; and to establish, maintain, and enforce rules and regulations conducive to safe, efficient and productive operations. Contractor shall plan and conduct its operations so that its employees and Subcontractors of any tier will work harmoniously with Owner's employees and other workers employed on the same or related projects to assure that there will be no delays, work stoppages, excessive labor costs, or other labor difficulties. Contractor shall enforce strict discipline and good order among Contractor's employees and Subcontractors' employees. Contractor shall not permit the employment of any unfit individual or individuals not skilled in the tasks assigned to them.

11.2 Labor Disputes. Contractor shall use, and shall cause each Subcontractor to use, reasonable efforts to minimize the risk of labor related delays or disruption of the progress of the Work. Contractor shall promptly take, and shall cause each Subcontractor to take, any and all reasonable steps that may be available to resolve violations of collective bargaining agreements or labor jurisdictional disputes, including the filing of appropriate processes with any court or administrative agency having jurisdiction to settle, enjoin, or award damages resulting from violations of collective bargaining agreements or labor jurisdictional disputes. Contractor shall advise Owner promptly, in writing, of any actual or threatened labor dispute of which Contractor has knowledge that might materially affect the performance of the Work by Contractor or by any Subcontractors. Notwithstanding the foregoing, the settlement of strikes, walkouts, lockouts or other labor disputes shall be at the discretion of the Party having the difficulty.

11.3 Personnel Documents. Contractor shall ensure that all its personnel and personnel of any Subcontractors performing the Work are, and at all times shall be, in possession of all such documents (including visas, driver's licenses and work permits) as may be required by any and all Applicable Laws.

12. INSPECTION; EFFECT OF REVIEW AND COMMENT

12.1 Inspection and Uncovering Work. Owner shall have the right, but not the obligation, to observe the Work and to inspect any item of Equipment or material, design,

engineering, service, workmanship or any other portion of the Work to be provided hereunder, and Contractor shall make available for review by Owner, and provide to Owner if requested by Owner, all design criteria, system descriptions, Equipment specifications, Drawings and Specifications, design calculations, quality assurance reports, design drawings, shop drawings, Required Manuals, other Contractor Deliverables and other documents relating to the Work as required by this Contract. Owner shall be responsible for all of Owner's (and its representatives') costs and expenses with respect to such inspections.

Contractor shall submit to the Owner a detailed Inspection and Test Plan ("ITP") for each material piece of Equipment within ten (10) days after award of such Equipment purchase agreement and for all material Work to be performed within thirty (30) days of the effective date of each Release which such ITP is to include the inspections and testing requirements as provided in Exhibit "A". The ITP shall include pertinent Vendor manufacturing and construction inspection operations and plans. Owner shall identify to Contractor the Equipment or portions of Work Owner desires to be hold points so that Owner can inspect or witness consistent with the ITP and the Critical Path Method Schedule before such Work can be released for further manufacture, shipment and/or construction. Contractor shall provide Owner with reasonable notice of any such hold points which shall be not less than five (5) Business Days for manufacture and shipment related inspections and not less than three (3) Business Days with respect to on-Site construction-related inspections. If any portion of the Work so identified by Owner is completed and/or covered without Contractor having given Owner the opportunity to inspect such Work consistent with the ITP, Owner shall have the right to have such portion of the Work uncovered or dismantled for inspection. The cost and schedule impact of such uncovering and recovering (or dismantling and reconstruction) shall be borne by Contractor whether the Work is found to be in conformance or nonconformance with this Contract.

In the event Contractor has provided Owner an opportunity to inspect in accordance with the prior paragraph and Owner did not exercise its right to so inspect, or in the event Contractor was not required in accordance with the prior paragraph to provide Owner with an opportunity to inspect, then in either event, Owner shall have the right to have any portion of the Work uncovered or dismantled for inspection upon Notice to Contractor. The cost and schedule impact of such uncovering and recovering (or dismantling and reconstruction) shall be borne by Contractor if the Work contains a Defect; and if the Work is found not to contain a Defect, Contractor shall be entitled to a Change in Work in accordance with Article 17.

12.2 Right to Reject Work. Regardless of whether payment has been made therefor, Owner shall have the right to reject any portion of the Work that contains any Defect. Upon such rejection, Contractor shall promptly remedy, at its sole cost and expense, any Defect that is identified by Owner as giving rise to such rejection.

12.3 General Inspection Rights. Contractor agrees that Owner and its representatives may observe and inspect the Work, any item of Equipment (including Equipment under fabrication), material, service, or workmanship to be provided hereunder and to observe all tests of the Work and the Project (including factory or other tests performed at a location other than the Site). Upon reasonable Notice to Contractor by Owner, Contractor shall allow Owner and its representative's reasonable access to the Work (including Equipment under fabrication) and the Project. Owner also shall be entitled to review all Contractor's Drawings and Specifications or technical details pertaining thereto as reasonably requested by Owner or its representatives. Contractor shall incorporate the review and inspection rights set forth in this Article 12 in all Equipment purchase orders and subcontracts. To facilitate such observations and inspections, Contractor shall maintain at the Site a complete set of all Drawings and Specifications and current Critical Path Method Schedule.

12.4 Deliverables Schedule. Attached to each Release as part of Exhibit "H" is an initial deliverables schedule. Within sixty (60) days after the effective date of each Release, Contractor shall provide a Notice to Owner attaching a schedule identifying all Contractor Deliverables to be delivered to Owner, the deadline for delivery thereof, and Owner's time period for review and comment (in accordance with Section 12.5) with respect thereto, and as updated and revised as required herein (the "Deliverables Schedule") which such schedule shall comply with the requirements set forth in Exhibit "H" and incorporate the initial schedule attached in Exhibit "H". The Deliverables Schedule shall include the Contractor Deliverables and documents (and include the time periods for Owner's or a third party's review) as set forth in Exhibit "A". Thereafter, Contractor shall at least on a monthly basis provide Notice to Owner attaching an updated schedule identifying Contractor Deliverables to be delivered to Owner, the deadline for delivery and Owner's time period for review and comment with respect thereto. Owner shall have the right to promptly review and comment on such Deliverables Schedule. If Owner provides any comments with respect to the Deliverables Schedule to Contractor, then Contractor shall incorporate changes into such Deliverables Schedule addressing such comments, and resubmit the same to Owner. Such incorporation of changes to address Owner's reasonable comments shall not be considered a Change in Work. If Owner fails to comment within ten (10) Business Days after receipt of such Notice, Owner shall be deemed to have accepted the Deliverables Schedule.

The Deliverables Schedule shall provide an Owner's review period of adequate length of time to permit a complete review by Owner based on the nature and extent of items involved and the volume and content of other Contractor Deliverables submitted to Owner during the same period. The Owner review time periods shall be consistent with those set forth in Exhibit "A".

12.5 Owner Review of Documents. Contractor shall submit for review to Owner Contractor Deliverables in accordance with the requirements of Exhibit "A", including the Deliverables Schedule and Exhibit "H". Contractor shall ensure that all such items undergo a comprehensive independent in-house review and approval process before

submission of such items to Owner. After receipt of any Contractor Deliverable, Owner shall have the right, during the time period of fifteen (15) Business Days from the receipt by Owner of such applicable Contractor Deliverable (except to the extent that a different review period is specifically provided for in Exhibit "H") to describe any Defects in the design or other Work identified in such Contractor Deliverable. Notwithstanding anything in Article 7 to the contrary, in no event shall Contractor submit any Contractor's Invoice with respect to Work performed pursuant to any such Contractor Deliverables prior to the expiration of the review period set forth in this Section 12.5. Issuance by Contractor of any purchase orders prior to Owner completing its review shall be at Contractor's own risk.

12.6 Remedy of Defect – Contractor Deliverables. If Owner identifies any Defect in the design with respect to any Contractor Deliverables submitted for review, then Contractor shall incorporate changes into such Contractor Deliverables addressing and remedying the Defect and resubmit the same to Owner, and such incorporation of changes to address Owner's comments shall not be considered a Change in Work. No Contractor Deliverable subject to this Section 12.6 shall be released for use in connection with the Work prior to completion of the review process set forth in Section 12.5.

12.7 Limitation on Owner's Obligations. Inspection, review, acknowledgement, acceptance, approval or comment by Owner or any of its representatives, with respect to any subcontract or purchase order or any Drawings and Specifications, Contractor Deliverables, samples, and other documents, or any other Work or services performed by Contractor or any Subcontractor, is solely at the discretion of Owner and shall not in any way affect or reduce Contractor's obligations to complete the Work in accordance with the provisions of this Contract or be deemed to be a warranty or acceptance by Owner with respect to such Work.

13. FOUNDATION COMPLETION AND PROJECT MECHANICAL COMPLETION OF THE WORK

13.1 Foundation Completion. Contractor shall achieve Foundation Completion with respect to each individual foundation that is part of the Work. Foundation Completion with respect to an individual foundation means the achievement of the following milestones:

- (a) Such foundation is mechanically completed and installed in accordance with the Scope of Work;
- (b) Such foundation is structurally complete and contains all necessary embedded inserts;

- (c) The concrete portion of such foundation has cured so as to have achieved the minimum strength necessary to allow assembly, erection and installation of the tower thereon;
- (d) Backfilling of the area surrounding such foundation has been completed;
- (e) All of the crane hardstandings and tower erection lay-down and work areas have been completed in accordance with the construction plan approved under this Contract;
- (f) Contractor has provided sketches of each foundation and the tower (both above-ground and below-ground in the immediately surrounding area);
- (g) Embedded grounding material has been installed and ground grid analysis has been completed;
- (h) All coatings and grout required pursuant to Exhibit "A" have been installed; and
- (i) Owner has accepted or is deemed to have accepted a Foundation Completion Certificate with respect to such Work pursuant to Section 13.3.

13.2 Project Mechanical Completion. The following are conditions precedent to Project Mechanical Completion:

- (a) Contractor shall have achieved Foundation Completion for each foundation that is part of the Project;
- (b) The Project and each sub-system of the Project, in each case to the extent required for commissioning, initial operation, adjustment and testing is mechanically, electrically, and structurally constructed in accordance with the requirements of this Contract, the Scope of Work and Industry Standards, including completion of the Mechanical Completion Tests in accordance with the Mechanical Completion Test Procedures;
- (c) The Project and each sub-system of the Project may be commissioned and operated without damage to the Project or the Site and any sub-system or any other property on or off the Site, and without injury to any Person;
- (d) The Project and each sub-system of the Project is functionally complete to the extent necessary for commissioning, initial operation, adjustment, and testing; and

- (e) Owner has accepted or is deemed to have accepted a Project Mechanical Completion Certificate with respect to such Work pursuant to Section 13.4.

13.3 Achievement of Foundation Completion When Contractor believes that it has achieved Foundation Completion it shall deliver to Owner a completed Foundation Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Foundation Completion. The report shall include, but not be limited to, the following:

- (a) An organized submittal for each foundation in both electronic and hard copy format including, but not limited to, the following:
 - a. Those items identified in Section 13.1 (f);
 - b. foundation excavation report;
 - c. open hole inspection report (if applicable);
 - d. concrete placement log, including concrete batch tickets;
 - e. direct embed installation report;
 - f. foundation installation report;
 - g. anchor bolt foundation installation report;
 - h. structure grounding and resistance measurement;
 - i. steel mill certificates;
 - j. compressive strength report
 - k. non-destructive testing / discrepancy resolution report
- (b) The ground grid analysis referred to in Section 13.1 (g) in its native file format;
- (c) Other documentation as requested by Owner to verify completion of those items identified in Section 13.1.

Owner shall, within ten (10) Business Days, following receipt of a Foundation Completion Certificate, either: (a) deliver to Contractor a countersigned Foundation Completion Certificate, indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 13.2. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Foundation Completion shall be the date on which Contractor delivers to Owner the Foundation Completion Certificate that Owner ultimately accepts or is deemed to

have accepted or pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Foundation Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

13.4 Achievement of Project Mechanical Completion When Contractor believes that it has achieved Project Mechanical Completion it shall deliver to Owner a completed Project Mechanical Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Project Mechanical Completion.

Owner shall, within ten (10) Business Days, following receipt of a Project Mechanical Completion Certificate, either: (a) deliver to Contractor a countersigned Project Mechanical Completion Certificate, indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 13.4. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Project Mechanical Completion shall be the date on which Contractor delivers to Owner the Project Mechanical Completion Certificate that Owner ultimately accepts or is deemed to have accepted or pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Project Mechanical Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

14. TESTS AND TESTING

14.1 Test Procedures. Contractor shall: (i) provide for Owner's review and approval detailed Mechanical Completion Test Procedures in accordance with the requirements for testing, documenting and satisfactorily achieving each Acceptance Requirement, as set out in Exhibit "A" not less than one hundred and twenty (120) days prior to the start of testing and such Mechanical Completion Test Procedures must be agreed upon by

Contractor and Owner at least sixty (60) days prior to the commencement of testing with the Test Procedures clearly indicating when in the testing schedule Interconnection will be required; and (ii) keep the Project Representative apprised of the specified schedule and changes thereto for the commencement and performance of such activities.

14.2 Conduct of Tests. The representatives of Owner and Owner's Engineer shall have the right, but not the obligation, to be present during any tests performed by Contractor under this Contract.

14.3 Test Schedules. A projected schedule shall be provided by Contractor with submission of Mechanical Completion Test Procedures required in Section 14.1 and agreed to at least thirty (30) days prior to the anticipated start of the applicable Tests. Contractor shall provide Owner at least ten (10) days' prior Notice thereof prior to performing such tests. The Contractor shall keep the Project Representative apprised of the specified schedule, and changes therein, for the commencement and performance of such tests, and shall give the Project Representative at least five (5) Business Days' prior Notice of the re-performance of any such tests. A test conducted by the Contractor without the required Notice to Owner shall not be valid for the purposes of this Contract.

14.4 Owner Testing. Owner shall provide Notice to Contractor of any construction deficiencies identified during any Owner Testing as soon as practicable but no later than five (5) days after identification of the deficiency and in all cases not later than fifteen (15) days prior to the Substantial Completion Guaranteed Date.

15. SUBSTANTIAL COMPLETION AND FINAL COMPLETION

15.1 Substantial Completion. Substantial Completion shall be achieved when:

- (a) Contractor shall have achieved Foundation Completion for each foundation that is part of the Project;
- (b) The Project and each sub-system of the Project, in each case to the extent required for commissioning, initial operation and adjustment is mechanically, electrically, and structurally constructed in accordance with the requirements of this Contract, the Scope of Work and Industry Standards, including completion of all testing required in Exhibit A;
- (c) The Project and each sub-system of the Project may be commissioned and operated without damage to the Project and any sub-system or any other property on or off the Site, and without injury to any Person;

- (d) The Project and each sub-system of the Project is functionally complete to the extent necessary for commissioning, initial operation, adjustment and testing;
- (e) Owner has received copies of all Contractor Acquired Permits required for operation of the Project;
- (f) Contractor has certified by Notice to Owner that it has administered the training required by Section 4.22;
- (g) Owner has received all Contractor Deliverables due prior to Substantial Completion in accordance with the terms of this Contract;
- (h) The Punchlist and a schedule and budget for completion of each Punchlist Item, in each case reasonably satisfactory to Owner, have been developed by Contractor and delivered to Owner;
- (i) All Work other than those Punchlist Items shown on the Punchlist or Work which by its nature is to be performed after Substantial Completion has been completed by Contractor;
- (j) The Project as a whole may be operated in accordance with Industry Standards and manufacturers' warranties without damage to the Project or any sub-system or part thereof or any other property on or off the Site and without injury to any Person;
- (k) No Contractor Event of Default exists;
- (l) All other Work except for the Punchlist,, which is not part of the Work necessary to commission, test, start-up and operate the Project, has been completed in accordance with Industry Standards and manufacturers warranties and can be utilized and function without damage to the Work, the Site or any other property on or off the Site and without injury to any Persons; and all Applicable Permits with respect to such Work have been provided to Owner; and
- (m) Owner has accepted or is deemed to have accepted a Substantial Completion Certificate with respect to such Work pursuant to Section 15.2.

15.2 Achievement of Substantial Completion. When Contractor believes that it has achieved Substantial Completion, it shall deliver to Owner a completed Substantial Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that

Contractor has achieved Substantial Completion. Owner shall, within ten (10) Business Days following receipt of such certificate, either: (a) deliver to Contractor a countersigned Substantial Completion Certificate indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another Notice with respect to such milestone pursuant to this Section 15.2. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Substantial Completion shall be the date on which Contractor delivers to Owner the Substantial Completion Certificate that Owner ultimately accepts or is deemed to have accepted or, pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Substantial Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

15.3 [Reserved.]

15.4 [Reserved.]

15.5 Final Completion. Final Completion of the Work and the Project shall be deemed to have occurred only if and when all of the following have occurred:

- (a) Contractor has achieved Substantial Completion in accordance with Section 15.2;
- (b) Owner has received at least one (1) hard copy and one (1) electronic copy of legible and complete as-built documentation, calculations, test data, performance data, Equipment descriptions, Required Manuals, training aids, Spare Parts lists, and other technical information each as required hereunder for Owner to start up, operate, commission, and maintain the Project;
- (c) All tools and Spare Parts purchased by Contractor to replace those used by Contractor during commissioning have been purchased for delivery to Owner free and clear of liens;
- (d) All Contractor's and Subcontractors' personnel, supplies, tools, equipment, machinery, surplus materials, waste materials, rubbish, and temporary facilities to which Owner does not hold title have been removed from the Site, and any permanent facilities used by Contractor and the Site have been restored in accordance with the terms of the Contract. All

cleanup and disposal shall be conducted in accordance with all Applicable Laws;

- (e) Owner has received from Contractor all information requested by Owner and required for Owner's final fixed asset records with respect to the Project in accordance with Section 4.9;
- (f) Contractor has paid Owner all amounts due hereunder and not in dispute;
- (g) Contractor has assigned to Owner or provided Owner with all warranties or guarantees that Contractor received from Subcontractors to the extent Contractor is obligated to do so pursuant to Section 18.6;
- (h) The Punchlist Items have been completed to the satisfaction of Owner;
- (i) Contractor has delivered the certifications, Final Release and Waiver of Liens and Claims, or the bonds, in accordance with Section 7.6 and has delivered such other documents and certificates as Owner has reasonably requested to ensure compliance with all Applicable Laws;
- (j) Contractor has, within 60 days of the Substantial Completion Date, provided a detailed list of quantities by Property Retirement Unit (PRU) for each Pricing Schedule Item shown in Exhibit "Y". The material and installation costs for major pieces of equipment should be broken out separately. Examples of this equipment are identified in Exhibit "Y". For transmission, the final quantities shall match the final schedule of values updated by Contractor in accordance with Exhibit "D". In addition for transmission, Exhibit "Y" identifies specific information that will be submitted by Contractor in an electronic format acceptable to Company;
- (k) RESERVED
- (l) Owner has accepted or is deemed to have accepted a Final Completion Certificate pursuant to Section 15.6.

15.6 Achievement of Final Completion. When Contractor believes that it has achieved Final Completion, it shall deliver to Owner a completed Final Completion Certificate. Such certificate shall include the results of all testing relevant to achievement of such milestone and otherwise contain a report in a form reasonably acceptable to Owner and with sufficient detail to enable Owner to determine that Contractor has achieved Final Completion. Owner shall, within twenty (20) Business Days following receipt of such certificate, either: (a) deliver to Contractor a countersigned Final Completion Certificate indicating its acceptance of the achievement of such milestone; or (b) if reasonable cause exists for doing so, notify Contractor in writing that such milestone has not been achieved, stating in detail the reasons therefor. If Owner delivers the notice under the

preceding clause (b), Contractor promptly shall take such action, including the performance of additional Work to achieve such milestone, and upon completion of such actions shall issue to Owner another notice with respect to such milestone pursuant to this Section 15.6. Such procedure shall be repeated as necessary until such milestone has been achieved. For all purposes of this Agreement, the date of achievement of Final Completion shall be the date on which Contractor delivers to Owner the Final Completion Certificate that Owner ultimately accepts or is deemed to have accepted or, pursuant to a determination under the dispute resolution procedures, should have accepted. If Owner fails to respond to Contractor's submitted Final Completion Certificate within the time set forth above, such Certificate shall be deemed accepted by Owner on the date submitted by Contractor. Any disputes regarding the existence or correction of any such alleged deficiencies shall be resolved pursuant to Article 36.

15.7 Contractor's Access After Substantial Completion. Following Substantial Completion, Owner shall provide Contractor with reasonable and timely access subject to the terms of this Contract to complete Punchlist Items and to satisfy the other requirements for Final Completion; provided, however, Owner shall not be obligated hereunder to shut down, reduce or otherwise interfere with its operation of the Project or the Transmission Grid as a direct or indirect result of allowing Contractor access pursuant to this Section 15.7. Owner will: (a) provide Contractor with reasonable advance Notice of any extended scheduled outages of the Project or the Transmission Grid and the expected duration thereof; and (b) cooperate with Contractor with regard to reasonable requests by Contractor for access during such extended scheduled outages of the Project or the Transmission Grid.

16. DELAY DAMAGES

16.1 Liquidated Damages for Delay. Contractor understands that if the Substantial Completion does not occur on or before the Substantial Completion Guaranteed Date or if the operation of the Transmission Grid is interrupted or otherwise affected, Owner will suffer substantial damages, including, potentially, additional interest and financing charges on funds obtained by Owner to finance the Work, reduction of the return on Owner's equity investment in the Project, and other operating and construction costs and charges. Therefore the following liquidated damages, collectively the "Delay Liquidated Damages", shall be payable by Contractor to Owner:

16.1.1. Project Mechanical Completion Delay LDs. Contractor agrees that, if Project Mechanical Completion is not achieved by the applicable Project Mechanical Completion Guaranteed Date, Contractor shall pay liquidated damages ("Project Mechanical Completion Delay LDs") in the amount as specified in each Release per day for each day by which the Project Mechanical Completion Date is delayed

16.1.2. Substantial Completion Delay LDs. Contractor agrees that, if Substantial Completion is not achieved by the applicable Substantial Completion Guaranteed Date, Contractor shall pay liquidated damages (“Substantial Completion Delay LDs”) in the amount as specified in each Release per day for each day by which the Substantial Completion Date is delayed. Substantial Completion Delay LD’s will be in addition to the Project Mechanical Delay LD’s, where Project Mechanical Completion Date has not been achieved by the date of Substantial Completion Guaranteed Date, and until the date of accepted Project Mechanical Completion.

Delay Liquidated Damages will not be assessed to the extent that the failure to meet the dates is attributable is caused by an Owner caused delay.

16.1.3. Transmission Grid Interference. Contractor agrees to pay liquidated damages in the amount as specified in each Release, per day, per transmission line for each day that a transmission line which is a part of the Transmission Grid is out of service or materially interfered with prior to Final Completion, to the extent of a Contractor Cause.

16.1.4. Proration of Daily Amounts. Notwithstanding that the liquidated damage amounts set forth in this Section 16.1 are identified on a per day basis, the actual amount of liquidated damages will be determined and be payable on an hourly basis; and the amount per hour is determined by dividing the per day amount by twenty-four.

16.2 Payment of Liquidated Damages. Any amount Contractor is obligated to pay to Owner under Section 16.1 shall be due and payable ten (10) days after receipt of a written request therefor from Owner.

16.3 Offset. If Contractor is obligated to pay any amount to Owner pursuant to this Article 16 and such amount is not paid within the time period referred to in such Section, then Owner shall have the right to offset any such amount against any amount then or thereafter due from Owner to Contractor under this Contract and to exercise its rights against any security provided by or for the benefit of Contractor in such order as Owner may elect in its sole discretion.

16.4 Sole and Exclusive Remedy. Contractor and Owner agree that Owner’s actual damages in the event of delays in achieving completion of the various parts of the Project would be extremely difficult or impracticable to determine and that, after negotiation, Owner and Contractor have agreed that the Delay Liquidated Damages set forth in Section 16.1 are a reasonable estimate of the damages that Owner would incur as a result of such delays or failures and are not intended in any way to be a penalty. Subject to Article 35, the amounts payable under Section 16.1 and, if such failure constitutes a

Contractor Event of Default the remedies provided for in Article 20, shall be Owner's sole remedies for delays in achieving Substantial Completion by the Substantial Completion Guaranteed Date; and interruption or interference with the Transmission Grid as provided in Sections 16.1.2.

17. CHANGES IN THE WORK

17.1. Change in Work. A Change in Work may result only from any of the following:

- (a) A Change in Work required by Owner in writing, including an acceleration of Work, in accordance with Section 17.2;
- (b) A Change in Work as provided in Section 4.33(d) (Hazardous Materials);
- (c) A Change in Work relating to Owner Acquired Permits as provided in Section 4.15;
- (d) A Change in Work as provided in Section 12.1 (uncovering non-defective Work);
- (e) A Change in Law;
- (f) An Owner Caused Delay;
- (g) Such other event which pursuant to the terms of this Contract expressly permit Contractor to obtain a Change in Work in accordance with this Article 17.

A Change in Work may result from an event of Force Majeure but Contractor's sole remedy for the occurrence of an event of Force Majeure shall be an extension of time in accordance with Section 9.6 and Section 17.4.3.

17.2 By Owner. Owner may request a Change in Work, whether such changes are modifications, alterations, decelerations, additions, or deletions. Upon receipt of such Notice, Contractor shall prepare and provide Owner with a completed Change in Work form identified in Exhibit "E" within fifteen (15) Days thereafter. All such changes shall be made in accordance with this Article 17 and shall be considered, for all purposes of this Contract, as part of the Work.

17.3 By Contractor. Contractor shall only be entitled to request a Change in Work to the extent permitted in Section 17.1 upon a) delivery by Contractor to Owner of a written notice of its intention to submit a request for a Change in Work within five (5) Business Days after the date that Contractor becomes aware of the event or condition giving rise to the entitlement to a Change in Work, and b) Contractor prepares and provides Owner with a completed Change in Work form identified in Exhibit "E" within fifteen (15) Days thereafter.

17.4 Adjustments to the Contract.

17.4.1 Adjustments to Project Schedule. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) as a result, Contractor shall be actually and demonstrably delayed in the performance of a Critical Path Item as scheduled in the Critical Path Method Schedule, then Contractor may request a Change in Work and upon such request, the Critical Path Method Schedule (and each Project Guaranteed Date referenced therein) shall be extended by the period of time that Contractor is actually and demonstrably delayed in the performance of a Critical Path Item. Owner shall have the right, in lieu of extending a Project Guaranteed Date, to direct Contractor to accelerate the Work in accordance with Section 17.2.

17.4.2 Adjustments to the Contract Price. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) such Change in Work impacts Contractor's costs of performing the Work, then an equitable adjustment to the Contract Price shall be made. Where Contractor is entitled to an equitable adjustment, and where Exhibit R, as applicable, provides unit price rates with respect to the applicable Change in Work, the Contract Price shall be adjusted solely in accordance with the unit price Change in Work rates set forth in Exhibit R, as applicable. Without limiting the generality of the forgoing, unit price rates shall be the sole basis for equitable price adjustments with respect to Changes in Work requiring: route changes with respect to the transmission line, transmission line pole relocations, additions of transmission pole structures, changes in transmission pole structure types, changes in foundation types and/or changes in access road routes or configurations. For the avoidance of doubt, Contractor shall not be entitled to any relocations as described in Exhibit R, as applicable, unless provided by Owner as a result of an Owner directed Change in Work in accordance with Section 17.2. Any determinations regarding the need to change transmission pole structure types or foundation types shall be determined in accordance with Exhibit R, as applicable. For Changes in Work for which no unit price rates are provided in Exhibit R, then the Contract Price shall be changed to reflect the amount of increased or decreased costs at such other fixed price, unit rate, time and materials rates or other rates as the Parties may agree; provided, however, that, to the extent reasonably possible, such equitable adjustments to the Contract Price shall be consistent with commodity cost, equipment cost, labor cost, resource staffing requirements, overhead, profit, and other assumptions embedded in the unit price Change in Work rates for analogous work as set forth in Exhibit R. Owner may direct the Contractor to proceed with the Change in Work pending negotiation of a Change in Work Form by issuing a written unilateral directive (which shall be considered a Change in Work Form for

purposes of Section 17.7.2) and Contractor shall continue with the performances of Work.

17.4.3 Adjustments to the Progress Payment Amounts or Progress Payment Schedule. If Owner directs a Change in Work in accordance with Section 17.2, or if Contractor is entitled to request a Change in Work in accordance with Section 17.3, and if (in either case) such Change in Work impacts Contractor's costs or schedule for performing the Work, then (a) an equitable adjustment to the Contract Schedule shall be made in accordance with Section 17.4.1; (b) an equitable adjustment to the Contract Price shall be made in accordance with Section 17.4.2. If either or both equitable adjustment(s) entitle the Contractor to a change in any of the Interim Progress Milestone, Progress Payment Amount or Progress Payment Schedule then the Contractor shall be solely responsible for applying to the Owner for written authorization of an equitable adjustment of such item(s) as they may apply by providing all relevant and necessary supporting documentation and analysis to permit the Owner to provide a decision in such matters. The Owner shall review such application in a timely manner and mutually agree within 30 days with the Contractor revisions to the Interim Progress Milestones, Progress Payment Amounts and Progress Payment Schedule as they may apply.

17.4.4 Force Majeure. Upon the occurrence of an event of Force Majeure, if Contractor shall be actually, demonstrably and materially delayed in the performance a Critical Path Item as scheduled in the Critical Path Method Schedule as a result of such event or circumstance, then Contractor may request a Change in Work under which the Project Guaranteed Dates shall be extended by the period of time Contractor is so actually and demonstrably delayed in the performance of a Critical Path Item and as set forth in the Change in Work Form accepted by Owner, but there shall be no change to the Contract Price.

17.4.5 Reduction In Cost. If a Change in Work involves a reduction in the cost to perform the Work including a reduction in the use of less labor resulting in reduced labor costs, there shall be a lump-sum deduction from the Contract Price, which deduction will be based on unit price rates set forth in Exhibit R. For Changes in Work for which no unit price rates are provided in Exhibit R then the Contract Price shall be reduced by the amount that Contractor has in its budget for the Work involved, inclusive of direct and indirect costs, overhead, margins, contingencies and fees.

17.4.6 Other Terms and Conditions to Apply. Subject to the equitable adjustments to price and schedule contemplated in this Article 17, all Changes in Work shall continue to be subject to the terms and conditions of this Contract including terms and conditions allocating Project risks between the Parties.

17.5. [RESERVED].

17.6 Disputes. If there is a dispute between the Parties about a request for a Change in Work by either Party under this Article 17, such dispute shall be resolved in accordance with Article 36. Notwithstanding any provision of this Article 17 to the contrary, the Parties will execute a Change in Work to reflect the resolution of such dispute.

17.7 Procedures.

17.7.1 Contractor's Estimate. Contractor shall, as soon as practicable after notification or becoming aware of such an event, prepare and deliver to Owner a detailed statement of the proposed Change in Work setting forth: (a) a description of the work covered by such Change in Work; (b) a detailed estimate of the cost (identifying labor, equipment, material costs and other expenses) and the estimated time required to implement the Change in Work and a quote for a firm price; and (c) the impact such Change in Work would have on (i) the Progress Payment Schedule; (ii) the Critical Path Method Schedule; (iii) the Project Guaranteed Dates; (iv) the Warranties; (v) the costs of operation and maintenance of the Project following Substantial Completion; and (vi) any other obligations of either Party of this Contract. Contractor shall not charge Owner for the costs of preparing the Change in Work Form unless the Change in Work Form is not implemented.

17.7.2 No Unapproved Scope Changes. In no event shall Contractor be entitled to undertake or be obligated to undertake any Change in work until Contractor has received a Change in Work Form submitted by Contractor and accepted by Owner and, in the absence of such Change in Work Form, if Contractor undertakes any Changes in Work, Contractor shall make any such Changes in Work at Contractor's sole risk and expense and Contractor shall not be entitled to any payment or other relief under the Contract for undertaking such changes.

17.7.3 Failure to Comply with Notice Requirements. In the event Contractor does not provide Notice within the five (5) Business Days of the date Contractor became aware of the facts or circumstances that permit Contractor to seek a Change In Work permitted under this Article 17 as required by Section 17.3, Contractor shall not be entitled to a Change In Work under this Article 17 or any other relief hereunder.

17.8 No Suspension Contractor shall not suspend the Work pending resolution of any proposed Change in Work unless directed by Owner in writing in accordance with Article 22. Contractor's rights in the cases of a dispute involving a proposed Change in Work (or the equitable adjustments related to a proposed Change in Work) shall be as set forth in Section 17.4 and Article 36.

18. WARRANTIES CONCERNING THE WORK

18.1 Project Warranties. During the Warranty Period, Contractor warrants and guarantees with respect to the Project (the “Project Warranties”) that all Work shall conform to the Materials Warranty set out in Section 18.2 and that all Work (other than Work covered by the Materials Warranty), including the Pre-Construction Services, the design and construction of the Project and the installation of the Equipment shall be: (a) in accordance with Industry Standards; (b) free from Defects; (c) in conformance with all applicable requirements of this Contract; and (d) safe and fit for Owner’s use as part of the Transmission Grid as set forth in this Contract. In addition, with respect to Pre-Construction Services, Contractor shall perform the Pre-Construction Services in accordance with the scope set forth in the Limited Notice to Proceed and using the standards of care, skill, and diligence normally provided by a professional in the performance of similar services, and shall comply with all laws, codes and standards applicable to the Pre-Construction Services.

18.2 Materials Warranty. During the Warranty Period, Contractor further warrants that all Equipment and other items furnished by Contractor and any Subcontractors hereunder shall be new and of good and suitable quality when installed, shall conform to the requirements of this Contract, including the Scope of Work, shall be free from any charge, lien, security interest or other encumbrance and shall be free of any Defects (the “Materials Warranty”). If requested by Owner, Contractor shall provide Owner with satisfactory evidence that any item(s) of Equipment satisfy the Materials Warranty. As part of the Materials Warranty, Contractor specifically covenants that all rights and benefits which Contractor possesses with regard to warranty obligations of any manufacturer of Equipment shall be fully available to or assigned to Owner.

18.3 Warranty Period. The “Warranty Period” for the Work shall be as follows:

- (a) With respect to the Work relating to the transmission line and associated communication facilities (including the foundations, poles, arms, insulators, conductors, Optical Ground Wires and shield wires), a period of years from the Substantial Completion Date as specified in each Release.

Contractor shall have no liability under Section 18.1 or 18.2 from and after the end of the Warranty Period (as such period may be extended in accordance with the terms hereof); provided, however, that the Warranty Period for any item or part required to be repaired, corrected or replaced following discovery of a Defect during the original Warranty Period shall be extended from the time of such repair, correction or replacement for a period that in no event shall extend beyond

a date that is five (5) years after expiration of the Warranty Period specified in each Release.

18.4 Enforcement After Expiration. Commencing on the expiration of the Warranty Period, or such later date as is provided in Section 18.3, Owner shall be responsible for enforcing all representations, warranties, and guarantees from Subcontractors, and Contractor shall provide reasonable assistance to Owner, on a reimbursable basis, in enforcing such representations, warranties, and guarantees, when and as reasonably requested by Owner. In addition, prior to the expiration of each respective Warranty Period, or such later date as is provided in Section 18.3 with respect to Work required to be re-performed, Owner, at its option and upon prior written Notice to Contractor, may enforce any such warranty against any Subcontractor if: (a) Owner determines that Contractor has not enforced such warranty against the Subcontractor in a timely and diligent manner or performed the warranty work itself, or (b) a Contractor Event of Default exists and owner has taken actions to terminate this Contract in accordance with the terms hereof.

18.5 Exclusions. The Project Warranties and Materials Warranty set forth in Section 18.1 and Section 18.2 shall not apply to damage to any Equipment to the extent such damage is caused by:

- (a) Owner's failure to operate and maintain such Equipment in accordance with Industry Standards;
- (b) Owner's operation of such Equipment in excess of the operating specifications for such Equipment;
- (c) The use of parts or consumables in the repair or maintenance of such Equipment that are not in accordance with Industry Standards;
- (d) Any event of Force Majeure; or
- (e) Normal wear and tear.

18.6 Subcontractor Warranties. Without in any way derogating from Contractor's own representations and warranties with respect to all of the Work, Contractor shall use its reasonable efforts: (a) to obtain from all Subcontractors (including Vendors) any representations, warranties, guarantees, and obligations offered by such Subcontractors; and (b) to attempt to negotiate warranty periods longer than the Warranty Periods at no additional cost to Contractor with respect to design, materials, workmanship, Equipment, tools, supplies and other items furnished by such Subcontractors. All representations, warranties, guarantees, and obligations of such Subcontractors shall be assigned to Owner, in accordance with the provisions of this Contract, including Exhibit "P", to Owner upon Substantial Completion; provided, however, that, notwithstanding such assignment, Contractor shall also be entitled to enforce each such representation,

warranty, guarantee, and obligation through the end of the applicable warranty periods as an express third-party beneficiary. Contractor shall deliver to Owner promptly following execution of such applicable contract with a Subcontractor and upon Owner's request duly executed copies (with pricing information redacted) of all contracts containing such representations, warranties, guarantees, and obligations.

18.1. Correction of Defects.

(a) Owner shall promptly give Notice to Contractor upon discovery of any failure of any of the Work to satisfy the Project Warranties or the Materials Warranty during the applicable Warranty Period (including Subcontractor warranty period). In the event of any such failure under circumstances in which there is an immediate need as defined in Section 18.8, then Owner shall perform such warranty work for Contractor's account in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty. In all other cases, Contractor shall, at its own cost and expense (except to the extent of insurance proceeds actually received), be responsible for re-performing any necessary engineering and purchasing relating to such Equipment, material, labor, and shipping, and removing any Defect and the cost of replacement thereof, including any resulting damage to surrounding Work and/or adjacent property, equipment and facilities, as shall be necessary to cause the Work and the Project to conform to the Project Warranties or Materials Warranty. Within five (5) days after receipt by Contractor of a Notice from Owner specifying a failure of any of the Work to satisfy Contractor's Project Warranties or the Materials Warranty and requesting Contractor to correct the Defect, Contractor and Owner shall mutually agree when and how Contractor shall remedy said Defect. If Contractor does not use commercially reasonable efforts to proceed to complete said remedy within the time agreed to, or should Contractor and Owner fail to reach such an agreement within such five (5) day period, Owner shall have the right to perform the necessary remedy, or have third parties perform the necessary remedy, in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty, and the costs as established pursuant to the Warranty Procedures shall be borne by Contractor.

(b) Notwithstanding the foregoing, Contractor shall have the right to request Owner to perform all or any portion of Contractor's obligations with respect to any warranty claim, and, if Owner determines that it has the capability and expertise to perform such obligations, Owner shall perform such obligations and all costs incurred thereby shall be for Contractor's account in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty.

18.8 Additional Warranty Procedures. Where Owner determines that an immediate need exists, Owner may undertake immediate corrective action, including contacting the applicable Vendor directly to seek assistance. An “immediate need” is a situation when there is: (a) a threat of imminent harm to persons or property; (b) a situation that in Owner’s reasonable determination could materially adversely impact the operation of the Project or the Transmission Grid; or (c) an electric line outage, generation project outage or customer outage that in Owner’s reasonable determination requires immediate action.

Where Owner does not take corrective action under this Section 18.8, Owner shall notify Contractor in accordance with Section 18.7 of the Contract and provide documents as provided below. Within two (2) days after receipt of said documents, Contractor and Owner shall confer with regard to the appropriate procedures to utilize in correcting the Defect and shall within a reasonable period thereafter (not to exceed thirty (30) days) mutually agree when and how Contractor shall remedy said Defect. If Contractor does not use its reasonable efforts to proceed to complete said remedy within the time agreed to, or should Contractor and Owner fail to reach such an agreement within such thirty (30) day period, Owner shall have the right to perform the necessary remedy, or have others perform the necessary remedy, in accordance with the Warranty Procedures; provided, however, that the failure to comply with such Warranty Procedures shall not void the Project Warranties or the Materials Warranty, and the costs reasonably incurred shall be borne by Contractor.

The following procedures (“Warranty Procedures”) shall be observed in all Contractor warranty claims for the Project in connection with which Owner has independently taken corrective action as set forth above with respect to an “immediate need”:

- (a) Owner shall promptly provide telephonic notice to Contractor’s designated warranty representative of any failure of the Work to satisfy either the Project Warranty or the Materials Warranty;
- (b) A failure report, which shall contain technical and logistical information sufficiently detailed to enable Contractor to assess the damage of the Work and to evaluate appropriate corrective action shall be provided by Owner within a reasonable period of time after the occurrence of any event giving rise to a warranty claim;
- (c) Warranty claims shall be submitted in accordance with paragraph (d) below, and shall include, as a required minimum, the following documents:
 - (i) Applicable failure report;
 - (ii) List of equipment and materials purchased or used in accomplishing the repair, schedule of operations, and subcontractors hours applicable

to each claim, and a copy of any internal work orders or purchase orders prepared in connection with each such claim;

(iii) Owner's maintenance and repair records with respect to the Equipment for which the claim is being made, including the manufacturer/vendor part number and serial number and the identification by part number and serial number of the next major assembly call out; and

(iv) Copies of invoices received or prepared for costs and expenses claimed.

(d) All warranty claims pertaining to failure of the Equipment for which Owner has independently undertaken corrective action pursuant to this Section 18.8 during any calendar month shall be submitted to Contractor on or before the last day of the following calendar month. Claims shall be paid by Contractor on a net 21 day basis. Work performed by Owner under a warranty claim shall be billed on a time and materials basis as further defined below in paragraph (d). Any warranty claim submitted by Owner that is not disputed by Contractor within ninety (90) days shall be deemed to have been accepted by Contractor.

(e) "Time and Material" in connection with a warranty claim is defined as follows:

(i) With respect to "Time," the product of 115% of the normal hourly wage (including fringe benefits, insurance and taxes) Owner pays with respect to its particular employee (not including overhead) multiplied times the number of hours each employee performed the particular work.

(ii) With respect to "Material," 115% of the actual purchase price paid by Owner or an Affiliate to a third party for the materials incorporated or consumed in connection with the Work; and

(iii) With respect to Work performed by a subcontractor (other than an entity which is an Affiliate of Owner, Work performed by any such entity being deemed Work performed by Owner through its own employees for purposes of this definition), 115% of the actual amount paid by Owner to the subcontractor for such Work.

(f) Owner shall maintain adequate records to support all warranty claims and allow Contractor access to such records upon not less than ten (10) days' notice.

19. EQUIPMENT IMPORTATION; TITLE

19.1 Importation of Equipment. Contractor, at its own cost and expense, shall make all arrangements, including the processing of all documentation, necessary to import into the United States Equipment to be incorporated into the Project and any other equipment and other items necessary to perform the Work and shall coordinate with the applicable Governmental Authorities in achieving clearance of United States customs for all such Equipment and other items and, to the extent available under United States law but without limiting Contractor's liability for any and all import duties, Taxes and levies as specified in Section 6.2 and Section 6.3, achieving such importation duty-free and tax-free. In no event shall Owner be responsible for any delays in customs clearance or any resulting delays in performance of the Work. Such delays in customs clearance shall not be considered an event of Force Majeure, unless such delay is itself caused by a Force Majeure event.

19.2 Title.

19.2.1 Contractor warrants good title, free and clear of all liens, claims, charges, security interests, and encumbrances whatsoever, to all Equipment and other items furnished by it or any of its Subcontractors that become part of the Project or that are to be used for the operation, maintenance, or repair thereof.

19.2.2 Title to all Equipment and other items shall pass to Owner, free and clear of all liens, claims, charges, security interests, and encumbrances whatsoever, upon the earlier of payment in full therefor or incorporation into the Project or delivery to the Site, a Contractor Yard Site, or any laydown area or storage area used primarily in connection with the Work.

19.2.3 The transfer of title shall in no way affect Owner's rights as set forth in any other provision of this Contract. Contractor shall have care, custody, and control of all Equipment and other items (including Equipment and other items imported into the United States) and exercise due care with respect thereto consistent with Section 24.1.

19.3 Protection. For the purpose of protecting Owner's interest in all Equipment and other items with respect to which title has passed to Owner pursuant to Section 19.2 but that remain in possession of another Person, Contractor shall take or cause to be taken all steps necessary under Applicable Laws to protect Owner's title and to protect Owner against claims by other Persons with respect thereto.

20. DEFAULT

20.1 Contractor Events of Default. Contractor shall be immediately in default of its obligations pursuant to this Contract upon the occurrence of any one or more events of default below (each, a “Contractor Event of Default”):

- (a) Contractor or Parent Guarantor becomes insolvent, generally does not pay its debts as they become due, admits in writing its inability to pay its debts, or makes an assignment for the benefit of creditors, or insolvency, receivership, reorganization, or bankruptcy proceedings are commenced by Contractor or Parent Guarantor (as applicable);
- (b) Insolvency, receivership, reorganization, or bankruptcy proceedings are commenced against Contractor or Parent Guarantor and such proceedings shall remain undismissed or unstayed for a period thirty (30) days;
- (c) Any representation or warranty made by Contractor herein was false or materially misleading when made and Contractor fails to remedy such false or misleading representation or warranty, and to make Owner whole for any consequences thereof, within thirty (30) days after Contractor receives a Notice from Owner with respect thereto;
- (d) Contractor assigns or transfers (or attempts to so assign or transfer) this Contract or any right or interest herein, except as expressly permitted under Article 30;
- (e) Contractor fails to maintain any insurance coverages required of it in accordance with Article 23;
- (f) Contractor fails to perform or observe in any respect any provision of this Contract providing for the payment of an undisputed amount of money to Owner and such failure continues for ten (10) days after Contractor receives Notice from Owner with respect thereto;
- (g) Following approval of a Schedule Recovery Plan pursuant to Section 8.3, Contractor’s unexcused failure to meet the schedule set forth in the Schedule Recovery Plan (as determined from the revised Critical Path Method Schedule established by the Schedule Recovery Plan);
- (h) Contractor is otherwise in breach of any material provision of this Contract, or has otherwise failed in a material respect to perform its obligations under this Contract (not otherwise addressed in this Section 20.1) and such breach or failure continues for thirty (30) days after Contractor receives Notice from Owner; provided, however, that if in Owner’s determination such default or

failure is not capable of cure within a thirty (30) day period and within a fifteen (15) day period after receipt of such Notice from Owner and Contractor commences and diligently proceeds to cure such default or failure, then such default or failure shall not constitute a Contractor Event of Default unless it remains uncured ninety (90) days from the date of the original Notice from Owner;

- (i) The Substantial Completion Date with respect to the Project has not occurred on or before a date that is sixty (30) days after the Substantial Completion Guaranteed Date; or the Final Completion Date has not occurred on or before a date that is sixty (30) days after the Final Completion Guaranteed Date; or
- (j) Contractor has incurred the Maximum Aggregate Liquidated Damages; or
- (k) Contractor suspends or abandons the Work. “Suspend” for the purposes of this Section 20.1(k) means that Contractor has not accomplished any progress toward any of the Critical Path Items for a period of thirty (30) or more days and such suspension is not otherwise permitted under this Contract. “Abandon” for the purposes of this Section 20.1(k) means that Contractor has substantially reduced personnel at the Site or removed further required equipment from the Site such that, in the opinion of an experienced construction manager, Contractor would not be capable of maintaining progress in accordance with the Critical Path Method Schedule.

20.2 Owner’s Rights and Remedies. In the event of a Contractor Event of Default, Owner or its assignees shall have the following rights and remedies, in addition to any other rights and remedies that may be available to Owner or its assignees under this Contract and Applicable Laws, and Contractor shall have the following obligations:

- (a) Owner may, without prejudice to any of its other rights or remedies, terminate this Contract;
- (b) Owner may, without prejudice to any of its other rights or remedies, seek performance by any guarantor of Contractor’s obligations hereunder or draw upon any applicable Letter of Credit provided in accordance with this Contract;
- (c) If requested by Owner, Contractor shall withdraw from the Site, shall assign to Owner such of Contractor’s subcontracts and purchase orders that are not subject to Contractor’s assignment under Section 10.3 and to the extent assignable, and Contractor Acquired Permits as Owner may request. If requested by Owner, Contractor shall deliver and make available to Owner all information, documents, patents, and licenses of Contractor related to the Work reasonably necessary to permit Owner to complete or cause the completion of the Work, and in connection therewith Contractor authorizes

Owner and its agents to use such information in completing the Work. If requested by Owner, Contractor shall remove such materials, equipment, tools, and instruments used by and any debris or waste materials generated by Contractor in the performance of the Work as Owner may direct, and Owner may take possession of any or all Drawings and Specifications, Required Manuals, and Site facilities, related to the Work and necessary for completion of the Work (whether or not such Drawings and Specifications, Required Manuals, and Site facilities are complete);

- (d) Owner shall have the right (either with or without the use of Contractor's equipment) to have the Work finished whether by enforcing any security given by or for the benefit of Contractor for its performance under this Contract or otherwise, in which case Owner shall have the right to take possession of and use all construction equipment of Contractor necessary for completion of the Work, and Contractor shall have no right to remove such items from the Site until such completion; provided, however, Owner shall be responsible for any loss or damage incurred (normal wear and tear excluded) as a result of such use;
- (e) Owner may seek equitable relief to cause Contractor to take action or to refrain from taking action pursuant to this Contract or to make restitution of amounts improperly received under this Contract; or
- (f) Owner may seek damages as provided in Section 20.3, including proceeding against any bond, guarantee, Letter of Credit, or other security given by or for the benefit of Contractor for its performance under this Contract.

20.3 Damages for Contractor Default.

- (a) In the event of a Contractor Event of Default, but in such case subject to the limitations of Article 35, Contractor shall be liable to Owner for any and all actual damages (and also the damages payable in accordance with subparagraph (b) below) to Owner as a result of such Contractor Event of Default, it being understood that, to the extent that the actual costs of completing the Work, including compensation for obtaining a replacement contractor or for obtaining additional professional services required as a consequence of Contractor's Event of Default, exceed those costs that would have been payable to Contractor but for Contractor's Event of Default, Contractor shall be obligated to pay the difference to Owner. In addition, in the event of a Contractor Event of Default, Owner shall be entitled to withhold further payments to Contractor for the Work performed prior to termination of this Contract until Owner determines the liability of Contractor, if any, under this Section 20.3. Upon determination of the total cost of the Work, Owner shall give Notice to Contractor of the amount, if any, that Contractor shall pay Owner or Owner shall pay Contractor. Such

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

payment hereunder shall be made within twenty-one (21) days after receipt of such Notice accompanied by reasonably satisfactory documentation substantiating the amounts payable.

- (b) In addition, if, in the event of a Contractor Event of Default set forth in clauses (g), (i) or (k) of Section 20.1, Owner elects to terminate this Contract pursuant to Section 20.2(a) above, then Contractor shall immediately pay to Owner the Maximum Aggregate Liquidated Damages as liquidated damages for such Contractor Event of Default and for Contractor's failure to proceed with or make adequate progress towards the completion of the Work as required by this Contract. Owner and Contractor agree that Owner's actual damages in the event of any Contractor Event of Default set forth in clauses (g), (i) or (k) of Section 20.1 would be extremely difficult or impracticable to determine and that, after negotiation, Owner and Contractor have agreed that the Delay Liquidated Damages and/or Maximum Aggregate Liquidated Damages required to be paid hereunder are a reasonable estimate of the damages that Owner would incur as a result of such a Contractor Event of Default.
- (c) If it is determined for any reason that Contractor was not in default or that its default was excusable or that Owner was not entitled to the remedy against Contractor provided above, the termination will be deemed to be a termination for convenience/early termination pursuant to Article 21.

20.4 Owner Event of Default. Owner shall be in default of its obligations pursuant to this Contract in the event Owner fails to perform or observe in any respect any provision of this Contract providing for the payment of an undisputed amount of money to Contractor, and such failure continues for ten (10) Business Days after Owner receives a Notice from Contractor with respect thereto ("Owner Event of Default").

20.5 Contractor's Remedies. In the event of an Owner Event of Default, and subject to Article 35, Contractor shall have all rights and remedies that may be available under Applicable Laws against Owner with respect to this Contract, including the right to suspend performance of the Work or to terminate this Contract (and including the right to immediately stop work upon an Owner Event Of Default for non-payment).

21. EARLY TERMINATION

21.1 General. Owner may in its sole discretion terminate all or part of the Work with or without cause at any time by giving Notice of termination to Contractor, to be effective upon the receipt of such Notice by Contractor or upon such other termination date specifically identified by Owner therein. If Owner terminates the Work without cause or for any cause other than a Contractor Event of Default specified in Section 20.1 or if the circumstances described in the last paragraph of Section 20.3 apply, then Contractor shall

receive as compensation for the Work performed through the effective date of termination:

- (a) The sum, without duplication, of: (i) the aggregate amount set forth on the Project Payment Schedule for completion of items of Work that have been properly completed by Contractor, in accordance with this Contract; (ii) for each item of Work properly commenced but not yet completed by Contractor in accordance with this Contract, a percentage of the aggregate amount set forth on the Progress Payment Schedule for completion of such item based on the percentage of completion of such item; and (iii) reasonable demobilization costs; provided, however that the sum shall not exceed the amount set forth on the Cancellation Schedule corresponding to the month in which such termination occurs; minus
- (b) Any amounts previously paid to Contractor under this Contract, in respect of the Contract Price.

21.1.1 Adjustment for Defects. Notwithstanding the foregoing, the amount owed pursuant to Section 21.1 shall be subject to adjustment to the extent any Work contains Defects or to the extent of any overpayments by Owner and provided, further, that Contractor shall use its reasonable efforts to minimize costs that arise between the date of its receipt of a Notice of termination and the effective date thereof, including by promptly notifying its Subcontractors of such termination.

21.1.2 Assumption of Contractor Contracts. Owner shall have the right, at its sole option, to assume and become liable for any reasonable obligations that Contractor may have in good faith incurred for its Site personnel and for any reasonable written obligations and commitments that Contractor may have in good faith undertaken with third parties in connection with the Work to be performed at the Site, which obligations and commitments shall not have been covered by the payments made to Contractor under Section 21.1. If Owner elects to assume any obligation of Contractor as described in this Section 21.1.2, then, as a condition precedent to Owner's compliance with any subsection of this Article 21, Contractor shall execute all papers and take all other reasonable steps requested by Owner which may be required to vest in Owner all rights, set-offs, benefits and titles necessary to such assumption by Owner of such obligations described in this Article 21. Owner shall simultaneously provide to Contractor indemnities against liabilities thereafter arising under the assumed obligations or commitments.

21.2 Claims for Payment. All claims for payment by Contractor under this Article 21 must be made within forty-five (45) days after the effective date of a termination hereunder. Owner shall make payments under this Article 21 in accordance with Article 7.

21.3 Termination Payments. The payments described in Section 21.1 include payment for all costs of Equipment, temporary equipment, materials, labor, transportation, engineering, design and other services relating to Contractor's performance of its obligations under this Contract (including any intellectual property rights licensed under this Contract, expressly or by implication) provided by Contractor. In addition to the payments described in Section 21.1, Owner shall pay Contractor for: (a) all Taxes on the Work (but not taxes based on Contractor's income or revenues); and (b) all other duties, levies, imposts, fees, or charges of any kind (whether in the United States or elsewhere) arising out of Contractor's or any such Subcontractor's performance of the Work, and (iii) any duties, levies, imposts, fees, charges, and royalties imposed on Contractor or its Subcontractors with respect to any such Equipment, materials, labor, or services provided under this Contract. Except as otherwise provided in Section 6.3, the above-described payments shall not be increased with respect to any of the foregoing or with respect to any withholdings in respect of any of the foregoing items that Owner may be required to make.

22. SUSPENSION

22.1 General. If at any time Owner, in its sole discretion, elects to suspend performance of the Work, Owner may suspend performance of the Work by giving Notice to Contractor. Such suspension shall commence and continue for the period specified in the suspension Notice. The Contract Price shall be adjusted as provided in clauses (a), (b), (c) and (d) of Section 22.2 to reflect any additional increased costs of Contractor resulting from any such suspension, as demonstrated by Contractor to Owner's reasonable satisfaction. No adjustment shall be made to the extent that performance is suspended, delayed, or interrupted for any cause due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract. At any time after the effective date of the suspension, Owner may require Contractor to commence to resume performance of the Work upon five (5) Business Days' Notice.

22.2 Contractor's Termination and Compensation Rights If, at the end of the specified suspension period, Owner has not requested a resumption of the Work or has not notified Contractor of any extension of the suspension period (but in no event beyond three hundred sixty-five (365) days in the aggregate for all such suspensions, other than suspensions for any reason due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract) Contractor may terminate this Contract. Owner shall promptly pay Contractor for the Work performed pursuant to Section 21.1. In addition, in the event of any such suspension, Owner shall pay Contractor within thirty (30) days after receipt of Contractor's Invoice for those reasonable costs incurred during the suspension period that are documented by Contractor to the reasonable satisfaction of Owner, to the extent attributable to the suspension, and that are:

- (a) For the purpose of safeguarding and/or storing the Work and the materials and Equipment at the point of fabrication, in transit, or at the Site;

- (b) For personnel, Subcontractors or rented equipment, the payments for which, with Owner's prior written concurrence, are continued during the suspension period;
- (c) For costs of demobilization and remobilization as approved by Owner; or
- (d) For rescheduling the Work (including penalties or additional payments to Subcontractors for the same).

22.3 Extension of Time. In the event of any suspension under this Article 22, other than from a cause due to Contractor's negligence, willful misconduct, or noncompliance with the terms of this Contract, the Project Guaranteed Dates shall be extended by a period equal to the suspension period, plus a reasonable period for demobilization and remobilization approved by Owner, and, provided that the Owner was notified of and approved suspension of long lead time Equipment orders, for any delays due to such suspension of long lead time Equipment for which the procurement schedule has been adversely affected, and the Critical Path Method Schedule and the Progress Payment Schedule shall be adjusted to account for same.

22.4 Claims for Payment. All claims by Contractor for compensation or extension of time under this Article 22 must be made within sixty (60) days after the suspension period has ended and the Work has been either terminated or resumed. Failure of Contractor to make such claim within said period shall be deemed a waiver by Contractor of any such claims.

23. **INSURANCE**

23.1. General.

23.1.1 Contractor's Insurance. Contractor, at its own expense, shall procure or cause to be procured and maintain or cause to be maintained in full force and effect at all times, commencing no later than upon commencement of the Work at the Site and until expiration of the Warranty Periods, all insurance coverages specified in Exhibit "Q-1" (except that the ocean marine cargo coverage and, to the extent applicable, construction all risk insurance coverage need only be maintained in full force and effect until the Substantial Completion Date). All insurance coverage shall be in accordance with the terms of this Article 23 and Exhibit "Q-1" and Exhibit "Q-3" using companies, to the extent required by Applicable Laws, authorized to do business in the states where the work specified in each Release is to be performed.

23.1.2 Owner's Insurance. Owner, at its own expense, shall procure or cause to be procured and maintain or cause to be maintained in full force and effect at all times, commencing no later than upon commencement of the Work at the Site and until the Substantial Completion, all insurance coverages specified in Exhibit "Q-

2” (except that, to the extent applicable, construction all risk insurance coverage need only be maintained in full force and effect until the Substantial Completion Date). All insurance coverages shall be in accordance with this Article 23 and Exhibit “Q-2” and Exhibit “Q-3” using companies, to the extent required by Applicable Laws, authorized to do business in the states where the work specified in each Release is to be performed.

23.1.3 Non-Violation. Contractor shall not violate nor permit to be violated any conditions of the policies provided by Owner under the terms of this Contract and shall at all times satisfy the requirements of the insurance companies issuing them. All requirements imposed by such policies and to be performed by Contractor shall likewise be imposed upon and assumed by each Subcontractor.

23.2 Subrogation Waivers. All policies (except Professional Liability and Aircraft Liability) shall provide for a waiver of subrogation rights against Owner, Owner’s Affiliates, Contractor, and their respective assigns, subsidiaries, Affiliates, directors, officers, employees, insurers, and underwriters, and of any right of the insurers to any set-off or counterclaim or any other deduction, whether by attachment or otherwise, in respect of any liability of any such Person insured under any such policy. Builders all risk insurance will not waive subrogation rights against manufacturers, suppliers, Subcontractors or Vendors for loss or damage caused by faulty design or workmanship in manufacturing of Equipment. Contractor releases, assigns, and waives any and all rights of recovery against the Owner, and Owner’s Affiliates, subsidiaries, employees, successors, permitted assigns, insurers, and underwriters that Contractor may otherwise have or acquire in or from or in any way connected with any loss covered by policies of insurance maintained or required to be maintained by Contractor pursuant to this Contract or because of deductible clauses in or inadequacy of limits of any such policies of insurance.

23.3 Evidence of Insurance. Evidence of insurance required hereunder, in the form required to be delivered by a Party, but in any event in the form of certificates of insurance certified by such Party’s insurance brokers, shall be furnished by each Party when required to be delivered no later than the date on which coverage is required to be in effect pursuant to Exhibit “Q-1”, Exhibit “Q-2” and Exhibit “Q-3” as applicable. If applicable, a copy of the “Builders All Risk” insurance policy required to be provided in accordance with Exhibit “Q-1” shall be provided to the Owner for its review and approval (which approval shall not be unreasonably withheld) prior to any construction-related Work being performed at the Site or the delivery of any Equipment to the Site. If requested by Owner, copies of the other insurance policies shall be promptly provided by Contractor to Owner after the coverage date, excluding any premium information. Contractor’s automobile liability, commercial general liability and excess liability policies shall provide a severability of interests or cross-liability clause applying to such liability policies; provided, however, that the insurance shall be primary and not excess to or contributing with any insurance or self-insurance maintained by Owner and contain a provision that the policies may not be canceled or changed except: (a) as provided in

Exhibit "Q-1", Exhibit "Q-2" and Exhibit "Q-3" as applicable; or (b) if not therein provided, without thirty (30) days' or, in the case of nonpayment of premium, ten (10) days' prior written Notice given by certified mail to Owner and Contractor. Not later than the one-year anniversary of the date of delivery of the policies of insurance hereunder or the expiration date of the policy if for a term of more than one year, and not later than each one-year anniversary or policy renewal date thereafter, each Party shall deliver copies of the renewal insurance certificates as aforesaid.

23.4 Insurance Coverages. All amounts of insurance coverage under this Contract specified in Exhibit "Q-1", Exhibit "Q-2" and Exhibit "Q-3" are required minimums. Owner and Contractor shall each be solely responsible for determining the appropriate amount of insurance, if any, in excess thereof. The required minimum amounts of insurance shall not operate as limits on recoveries available under this Contract.

23.5 Failure to Maintain Insurance. If at any time the insurance to be provided by Owner or Contractor hereunder shall be reduced or cease to be maintained, then (without limiting the rights of the other Party hereunder in respect of any default that arises as a result of such failure) the other Party may at its option maintain the insurance required hereby, and, in such event: (a) Owner may withhold the cost of insurance premiums expended for such replacement insurance from any payments to Contractor; or (b) Owner shall reimburse Contractor for the premium of any such replacement insurance, as applicable.

23.6 Scope of Coverage. Contractor shall require such automobile liability, commercial general liability, excess liability insurance and workers' compensation/employer's liability insurance of Subcontractors who perform services at the Site as shall be reasonable and in accordance with Industry Standards in relation to the Work or other items being provided by each such Subcontractor. Each Subcontractor shall provide evidence of its insurance to Owner prior to performing any Work at the Site.

24. RISK OF LOSS OR DAMAGE

24.1 Contractor Assumption of Risk. From the Full Notice to Proceed Date until the Substantial Completion Date, Contractor assumes risk of loss and full responsibility for the cost of replacing or repairing the damage to the Project (including any insurance deductible and any uninsured losses) and all materials, Equipment, supplies and maintenance equipment (including temporary materials, equipment and supplies) which are purchased by Contractor or Owner for permanent installation in or for use during construction of the Project regardless of whether Owner has title thereto under this Contract, unless such loss or damage is a result of the negligence or intentional misconduct of Owner or Owner's agents during such time as such agents are acting under Owner's control, in which case Owner shall be responsible for the amount of any deductible amounts under applicable policies as identified in Exhibit "Q-1". Owner shall bear the risk of loss and be responsible for any damage with respect to the Project after the Substantial Completion Date or Owner's existing structures, materials or equipment

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adjacent to or on the Site, except in the event and to the extent such loss or damage is a result of: (a) the continuing performance of the Work by the Contractor (including any Subcontractor); (b) the negligence or intentional misconduct of Contractor or any Subcontractor (including any of their employees or agents); or (c) a defect or other failure covered under any warranty set forth herein or any other act, omission or event for which Contractor is legally liable to Company under contract, law, or equity.

24.2 Loss or Damage; Limitations. If any portion of the Work is lost or damaged during the period when Contractor has the risk of loss in accordance with Section 24.1, then Contractor shall replace or repair any such loss or damage and complete the Work in accordance with this Contract. Notwithstanding the foregoing, to the extent that Owner has maintained construction all risk insurance for the Project, Contractor shall not be obligated to replace or repair any such loss or damage unless: (a) Owner has properly carried and maintained such insurance pursuant to Article 23 and Contractor has received reasonable assurances from Owner that Owner will prosecute such claim in a commercially reasonable manner and Contractor will receive the insurance proceeds, if any, paid under such Owner maintained insurance coverages in accordance with the disbursement provisions of this Contract; or (b) Owner agrees to pay for such replacement or repair as requested by Owner in accordance with Section 17.2. Should a loss be sustained under a third party liability policy, Contractor shall assume all responsibilities of an insured under the terms of said insurance.

25. INDEMNIFICATION

25.1 By Owner. Except for matters expressly made Contractor's responsibility hereunder or otherwise expressly limited as set forth in this Contract, Owner shall defend, indemnify, and hold harmless Contractor and its Subcontractors, and all their respective employees, Affiliates, agents, officers, partners and directors from and against all third party claims, or Losses for bodily injury or property damage that arise out of or result from the sole negligence of Owner.

25.2 By Contractor. Except for matters expressly made Owner's responsibility hereunder and in addition to any other indemnification obligations of Contractor under this Contract, Contractor shall defend, indemnify, and hold harmless Owner and any Person acting for or on behalf of Owner and their respective employees, agents, partners, Affiliates, shareholders, directors, officers, and permitted assigns, from and against all Losses that directly or indirectly:

- (a) Arise out of or result from the prosecution of the Work by Contractor (including its Subcontractors) that arise out of or result from any acts or omissions (including strict liability) of Contractor, its agents, servants, employees or by the agents, servants or employees of any Subcontractors;

- (b) Arise out of or result from the failure of Contractor or Subcontractors to comply with Applicable Laws or the conditions or provisions of Applicable Permits;
- (c) Arise out of any insurance policy procured under Article 23 being vitiated as a result of Contractor's failure to comply with any of the requirements set forth in such policy or any other act by Contractor or any Subcontractor;
- (d) Arise out of or result from Contractor's failure to comply with its obligations under this Contract with respect to Hazardous Materials; or
- (e) Arise from any other breach by Contractor of its representations, warranties and obligations (including any other indemnification provision) under this Contract.

25.3 Actions by Government Authorities. Contractor shall defend, indemnify, and hold Owner and their respective employees, agents, partners, Affiliates, shareholders, directors, officers, and assigns harmless from and against all claims by any Governmental Authority claiming Taxes or other obligations that are Contractor's responsibility pursuant to Section 6.2 and Section 6.3, including Taxes based on gross receipts or income of Contractor, any of its Subcontractors, or any of their respective agents or employees with respect to any payment for the Work made to or earned by Contractor, any of its Subcontractors, or any of their respective agents or employees under this Contract.

25.4 Notice; Defense; Settlement. An indemnitee under this Article 25 or any other indemnification provision set forth in the Contract shall, within ten (10) Business Days after the receipt of written notice of the commencement of any legal action or of any claims against such indemnitee in respect of which indemnification will be sought, notify the indemnitor with a written notice thereof. Failure of the indemnitee to give such written notice will reduce the liability of the indemnitor by the amount of damages attributable to the failure of the indemnitee to give such written notice to the indemnitor, but the failure so to notify shall not relieve the indemnitor from any liability that it may have to such indemnitee otherwise than under the indemnity agreements contained in this Article 25. In case any such claim or legal action shall be made or brought against an indemnitee and such indemnitee shall notify the indemnitor thereof, the indemnitor may, or if so requested by such indemnitee shall, assume the defense thereof, without any reservation of rights. After written notice from the indemnitor to such indemnitee of an election to assume the defense thereof and approval by the indemnitee of counsel selected by the indemnitor, the indemnitor will not be liable to such indemnitee under this Article 25 for any legal fees or expenses subsequently incurred by such indemnitee in connection with the defense thereof so long as the indemnitor continues to provide such defense. No indemnitee shall settle any indemnified claim over which the indemnitor has not been afforded the opportunity to assume the defense without the indemnitor's written approval.

The indemnitor shall control the settlement of all claims over which it has assumed the defense; provided, however, that the indemnitor shall not conclude any settlement that requires any action or forbearance from action by the indemnitee or any of its Affiliates without the prior written approval of the indemnitee. The indemnitee shall provide reasonable assistance to the indemnitor, at the indemnitor's expense, in connection with such legal action or claim. If the indemnitor assumes the defense of any such claim or legal action, any indemnitee shall have the right to employ separate counsel in such claim or legal action and participate therein, and the reasonable fees and expenses of such counsel shall be at the expense of such indemnitee, except that such fees and expenses shall be for the account of the indemnitor if: (a) the employment of such counsel has been specifically authorized by the indemnitor; or (b) the named parties to such action (including any impleaded parties) include both such indemnitee and the indemnitor and representation of such indemnitee and the indemnitor by the same counsel would, in the reasonable opinion of the indemnitee, be inappropriate under applicable standards of professional conduct due to actual or potential conflicting interests between them. Notwithstanding anything to the contrary in this Section 25.4, the indemnitee shall have the right, at its expense, to retain counsel to monitor and consult with indemnitor's counsel in connection with any such legal action or claim.

26. PATENT INFRINGEMENT AND OTHER INDEMNIFICATION RIGHTS

26.1 Indemnity by Contractor. Contractor shall defend, indemnify, and hold harmless Owner and its employees, partners, directors, officers and assigns against all Losses arising from any claim or legal action for unauthorized disclosure or use of any trade secrets, or of patent, copyright, or trademark infringement arising from Contractor's performance (or that of its Affiliates or Subcontractors) under this Contract or otherwise asserted against Owner that either: (a) concerns any Equipment, materials, supplies, or other items provided by Contractor, any of its Affiliates, or any Subcontractor under this Contract; (b) is based upon or arises out of the performance of the Work by Contractor, any of its Affiliates, or any Subcontractor, including the use of any tools or other implements of construction by Contractor, any of its Affiliates, or any Subcontractor; (c) is based upon or arises out of the design or construction of any item by Contractor under this Contract or the operation of any item according to directions embodied in Contractor's final process design, or any revision thereof, prepared or approved by Contractor; or (d) affects the Owner's ability to operate the Project.

26.2 Lawsuits. If such claim or legal action for such infringement results in a suit against Owner the provisions of Section 25.4 shall apply.

26.3 Injunction. If Owner is enjoined from completion of the Project or any part thereof, or from the use, operation, or enjoyment of the Project or any part thereof, as a result of such claim or legal action or any litigation based thereon, Contractor shall promptly use its best efforts to have such injunction removed at no cost to Owner. If any such claim, suit or proceeding, the Project or any part, combination or process thereof is alleged to or is held to constitute an infringement and its use is permanently enjoined,

Contractor shall at its own expense and without impairing performance requirements, (1) procure for Owner the right to use the infringing Work, (2) if (1) is not commercially feasible, modify the infringing Work or part, combination or process thereof so they become non-infringing, or (3) if (1) and (2) are not commercially feasible, replace the infringing Work or part, combination or process thereof with non-infringing components or parts, provided such modification or replacement shall not diminish or alter the features of or the functionality of the Work.

26.4 Effect of Owner's Actions. Owner's acceptance of the Contractor Deliverables or proposed or supplied materials and Equipment shall not be construed to relieve Contractor of any obligation hereunder.

27. CONFIDENTIAL INFORMATION; TITLE TO INTELLECTUAL PROPERTY

27.1. Confidential Information.

27.1.1 Any Confidential Information is disclosed in confidence, and the transferee shall restrict its use of such information solely to uses related to the Project or performance of this Contract. Neither the transferee nor any consultant or other Person to whom any confidential or proprietary information is provided in connection with the Project or performance of this Contract shall publish or otherwise disclose such information to others or use such information for any purpose except as expressly provided above without the written approval of the transferor; provided, however, that nothing herein shall limit: (a) the right of Owner to provide any information regarding Contractor, any Subcontractor, this Contract, or the Work to any financing entity (or advisors retained on their behalf) or their successors and assigns or to any potential or actual successor in interest or to a purchaser of a Party's assets to which this Contract relates (provided, however, that such disclosures shall be subject to the agreement of such Persons to keep such information confidential pursuant to the terms of this Section 27.1); (b) the right of either Party to supply such information to any Governmental Authority asserting a right to such information, or as may be required by Applicable Laws; or (c) the right of Owner to disclose, reproduce and/or use as many copies of any information or documents provided to Owner as Owner in its sole discretion considers useful or necessary for the furtherance of the Work or in connection with the operation, maintenance or repair of the Project, regardless of any notices, legends, or disclaimers on such information or documents.

BES Cyber System Information. Confidential Information of Owner labeled as BCSI shall be protected consistent with the following requirements: (a) BCSI shall be protected at all times, either by appropriate storage or having it under the personal observation and control of a person authorized to receive it; (b) each person who works with protected BCSI is personally responsible for taking proper precautions to ensure that unauthorized persons do not gain access to it; (c) reasonable steps shall be taken to minimize the risks of access to BCSI by

unauthorized personnel (when not in use, BCSI shall be secured in a secure container, such as a locked desk, file cabinet or facility where security is provided); (d) documents or material containing BCSI may be reproduced to the minimum extent necessary, consistent with the need to carry out the Work, provided that the reproduced material is marked and protected in the same manner as the original material; (e) material containing BCSI should be disposed of through secured shredding receptacles or other secured document destruction methods; (f) BCSI shall be transmitted only by the following means: (i) hand delivery; (ii) United States first class, express, certified or registered mail, bonded courier, or through secure electronic means; (iii) e-mail with encrypted file (such as, WinZip with password) (the password should not be included in e-mail, but should be delivered by phone or in an unrelated e-mail not mentioning the document name; password-protected Microsoft Office documents do not meet the encryption requirements); and (g) documents or material containing BCSI shall be returned to Owner or certified destroyed upon completion of the Work.

27.1.2 Notwithstanding the designation of any information as proprietary by a transferor, such information shall not be deemed proprietary or confidential if it: (a) was furnished by such Party prior to the execution of this Contract without restrictions; (b) becomes knowledge available within the public domain; (c) is received by either Party from a third party without restriction and without breach of this Contract; or (d) is or becomes generally available to, or is independently known to or has been or is developed by, either Party or any of its Affiliates other than solely as a result of any disclosure of proprietary information by the transferor to the transferee.

Title to the Confidential Information shall remain with the owner of such Confidential Information.

27.2 Title to Contractor Deliverables. All Contractor Deliverables and other documents to be furnished to Owner by Contractor or by any Subcontractor or Vendor and all modifications made by Contractor to any documents obtained, developed or created exclusively for the Project by or for Contractor shall be the property of Owner. Notwithstanding the foregoing, to the extent Contractor furnishes standard Equipment manuals or similar materials not created specifically in connection with the Work, Owner shall obtain ownership only of the copies actually furnished and shall not hold the copyright thereto. Contractor shall retain the ownership of intellectual property rights in its standard drawing details, designs, specifications, databases, computer software and any other proprietary property.

28. INVENTIONS AND LICENSES

Contractor agrees to grant and hereby grants to Owner an irrevocable, non-exclusive, royalty-free license with respect to all Confidential Information, patents and other proprietary information of Contractor or any Subcontractor related to the Work now or

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

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hereafter owned or controlled by Contractor or a Subcontractor to the extent reasonably necessary for the operation, maintenance, repair, or alteration of the Project or any subsystem or component thereof designed, specified, or constructed by Contractor under this Contract or in connection with any of Owner's electric transmission operations. No other license in such Confidential Information, patents and proprietary information is granted pursuant to this Contract.

29. ASSIGNMENT BY OWNER

Without the prior consent of Contractor, Owner may, upon Notice to Contractor, assign all or part of its right, title, and interest in this Contract and/or the Work to any Affiliate. In addition, without the prior consent of Contractor, Owner may, upon Notice to Contractor, assign all or part of its right, title, and interest in this Contract and/or Work to any Person that acquires the part of the Transmission Grid to which the Project is a part, whether by sale, merger or other means of transfer. Owner may assign all or part of its right, title, and interest in this Contract to any other Person with the prior written approval of Contractor, which approval shall not be unreasonably withheld or delayed; and upon such assignment the Owner shall be relieved of all of its obligations hereunder.

30. ASSIGNMENT BY CONTRACTOR

Contractor understands that this Contract is personal to Contractor. Contractor shall have no right, power, or authority to assign or delegate this Contract or any portion thereof, either voluntarily or involuntarily, or by operation of law. Contractor's attempted assignment or delegation of any of its work hereunder shall be null and void and shall be ineffective to relieve Contractor of its responsibility for the Work assigned or delegated.

31. INDEPENDENT CONTRACTOR

31.1 General. Contractor is an independent contractor, and nothing contained herein shall be construed as constituting any relationship with Owner other than that of owner and independent contractor, or as creating any relationship whatsoever between Owner and Contractor's employees. Neither Contractor nor any of its employees is or shall be deemed to be an employee of Owner.

31.2 Employees. Subject to Section 4.5, Section 4.16 and Section 10.1, Contractor has sole authority and responsibility to employ, discharge, and otherwise control its employees and Subcontractors.

32. NON-PAYMENT CLAIMS

Contractor shall provide Owner, upon Owner's request, copies of any preliminary notices filed with Governmental Authorities and any other similar notices received from any of its Subcontractors related to Work or the Project. If requested by Owner, Contractor shall

promptly file a “notice of completion” or similar document with the appropriate Governmental Authority as allowed by Applicable Law.

Contractor shall indemnify and hold harmless Owner and Affiliates (collectively, the “Lien Indemnitees”) and defend each of them from and against any and all Losses arising out of any and all claims for payment, whether or not reduced to a lien or mechanic’s lien, filed by Contractor (except as permitted pursuant to the final sentence of this Article 32) or any Subcontractor, or other Persons performing any portion of the Work, including reasonable attorneys’ fees and expenses incurred by any Lien Indemnitee in discharging any such liens or similar encumbrances. If Contractor shall fail to discharge, bond around or otherwise dispatch in a manner reasonably satisfactory to Owner promptly any such lien or claim filed against the Project or any interest therein, upon any materials, Equipment, or structures encompassed therein, or upon the Site and/or premises upon which they are located, any Lien Indemnitee may so notify Contractor in writing, and Contractor shall then: (a) satisfy all such liens and claims; or (b) defend Lien Indemnites against all such liens or claims and provide assurances of payment as described in the second to last sentence of this Article 32. If Contractor does not promptly satisfy such liens or claims, give such Lien Indemnitee reasons in writing that are satisfactory to such Lien Indemnitee for not causing the release of such liens or paying such claims, or contest such liens or claims in accordance with the provisions of the second to last sentence of this Article 32, any Lien Indemnitee shall have the right, at its option, after written notification to Contractor, to cause the release of, pay, or settle such liens or claims, and Owner at its sole option may (i) require Contractor to pay, within five (5) days after request by Owner; or (ii) offset against any retainage or other amounts due or to become due to Contractor (in which case Owner shall, if it is not the applicable Lien Indemnitee, pay such amounts directly to the Lien Indemnitee causing the release, payment, or settlement of such liens or claims) all costs and expenses incurred by the Lien Indemnitee in causing the release of, paying, or settling such liens or claims, including administrative costs, attorneys’ fees, and other expenses. Contractor shall have the right to contest any such lien, provided it first provides to Owner a bond or other assurances of payment reasonably satisfactory to Owner in the amount of such lien and in form and substance reasonably satisfactory to Owner. Notwithstanding any provision of this Contract to the contrary, nothing herein shall affect Contractor’s right to file or otherwise place a lien on the Project, Site, and/or Work (including a mechanic’s lien) as a result of the non-payment by Owner of any undisputed amount owed to Contractor hereunder.

33. NOTICES AND COMMUNICATIONS

33.1 Requirements. Any Notice pursuant to the terms and conditions of this Contract shall be in writing and: (a) delivered personally, (b) sent by certified mail, return receipt requested, or (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, to the following addresses:

If to Contractor: Telephone:
Attention:

With a copy to:

Attention:
Telephone:

If to Owner:

With a copy to:

33.2 Effective Time. Notices shall be effective when received by the other Party.

33.3 Representatives. Any technical or other communications pertaining to the Work shall be with the Parties' designated representative. Each Party shall give Notice to the other of the names of such representatives. The Project Manager and the Project Representative shall each have knowledge of the Work and be available at all reasonable times for consultation. Each Party's representative shall be authorized on behalf of such Party to administer this Contract, agree upon procedures for coordinating the efforts of Owner and Contractor, and, when appropriate, to furnish information to or receive information from the other Party in matters concerning the Work.

34. INTENTIONALLY OMITTED

35. LIMITATIONS OF LIABILITY AND REMEDIES

35.1 Limitations on Damages. Except for the Delay Liquidated Damages payable under Article 16, and the Maximum Aggregate Liquidated Damages payable under Section 20.3, and each Party's respective indemnity obligations for third party Losses under Article 25, Article 26, and any other provision in this Contract imposing indemnification obligations, and notwithstanding anything else in this Contract to the contrary, neither Party nor its Affiliates shall be liable to the other for any indirect, punitive, consequential or special damages or lost profits, lost revenue or loss of use of the Project, or cost of purchase or replacement power, whether foreseen or not, arising from a failure to perform any obligation under this Contract, whether such liability arises in contract, tort

(including negligence or strict liability), statutory or otherwise. This Section 35.1 shall not be construed to limit recovery for any Losses under any indemnity in this Contract, included Article 25 and Article 26.

35.2 Parent Guaranty and Letter of Credit.

(a) Parent Guaranty. All of Contractor's obligations under this Contract shall be secured by the Parent Guaranty's. Contractor shall deliver the Parent Guaranty's (duly executed by the party thereto) to Owner contemporaneously with Contractor's execution of this Contract.

(b) Letters of Credit.

(1) Performance LOC. Contractor shall deliver such Performance LOC to Owner within five (5) days after the Effective date of each Release and such delivery shall be a condition precedent to Owner's further obligations hereunder. The Performance LOC shall terminate sixty (60) days after the Substantial Completion Date, provided Contractor has delivered to Owner a Warranty LOC in accordance with Section 35.2(b)(2).

(2) Warranty LOC. The Warranty LOC shall be provided to Owner on or prior to sixty (60) days after the Substantial Completion Date and Owner shall not be entitled to draw under such Warranty LOC unless and until the Performance LOC has been cancelled or terminated in accordance with subpart (1) above. The Warranty LOC shall be cancelled on the date 60 months after the Substantial Completion Date.

(3) General Terms. The Contractor shall maintain each of the Performance LOC, the Retainage LOC and the Warranty LOC in full force and effect at all times as required hereunder. If, at any time, any Letter of Credit ceases to satisfy the requirements set forth in this Contract, then the Contractor shall upon four (4) Business Days Notice from Owner deliver a replacement Letter of Credit that complies with the requirements of this Contract, unless Owner has drawn any portion or the entire amount of the Letter of Credit pursuant to Section 35.2(b).

(4) Draw Conditions. Owner shall be entitled to make a demand under a Letter of Credit one or more times in amount(s) not to exceed the stated value of the Letter of Credit. Owner may draw on a Letter of Credit, and may draw multiple times, in amount(s) not to exceed the stated value of the Letter of Credit in Owner's sole discretion, in accordance with the terms of each such Letter of Credit.

(5) Improper Draws. Notwithstanding any other provision of this Contract, if Owner draws on a Letter of Credit in violation of the requirements of this

Contract, Owner shall reimburse the Contractor within two (2) Business Days for such wrongfully demanded payment or wrongfully retained portion of a payment properly demanded, plus interest at the Contract Rate, and, if the improperly drawn upon Letter of Credit is still outstanding or required to be outstanding, the Contractor promptly shall cause such reimbursed amount to be again available for demand thereunder.

(6) Return of Letters of Credit. If the Contractor delivers to Owner a replacement for any Letter of Credit or (ii) the relevant Letter of Credit shall have terminated in accordance with the terms of this Contract, then Owner shall immediately return the relevant Letter of Credit then in Owner's possession to the issuing bank or Contractor for cancellation.

(7) Transfer by Owner of Letter of Credit. All bank administrative fees associated with and imposed by the issuer of the Letter Credit in connection with the transfer by Owner of a Letter of Credit shall be paid by the Owner.

(8) Failure to Renew or Maintain. Contractor shall be in breach of this Contract if Contractor has not renewed or replaced a Letter of Credit required to be provided hereunder no later than twenty-one (21) days prior to the stated expiration date for, or required renewal or replacement date of, such Letter of Credit; and upon Contractor's failure to so renew or replace the Owner shall have the right to draw down the entire amount of such Letter of Credit.

(c) Contractor shall be in breach of this Contract if Contractor has not provided and maintained any Parent Guaranty or Letter of Credit as required by this Contract and upon Contractor's failure to so provide and maintain in accordance with the terms of this Contract, Owner shall have the right to draw down the entire amount of the Letter of Credits. If after any such draw by Owner, the Contractor provides a Letter of Credit satisfying the requirements of this Contract, the Owner shall within ten (10 Business Days return all previously unapplied proceeds to the Contractor.

35.3 Limitations on Contractor's Liability.

35.3.1 Aggregate Liability and Exclusions. In no event shall Contractor's liability pursuant to this Contract, whether arising in contract, warranty, default or otherwise, be greater in the aggregate than an amount equal to one hundred percent (100%) of the Contract Price; provided, however, that nothing contained in this Section 35.3 or in any other provision of this Contract shall be construed to limit Contractor's liabilities for its obligations: (a) with respect to termination, cancellation or non-renewal (or other loss of coverage) of any insurance policy as set forth in Section 25.2(c) of the Contract; (b) with respect to any gross negligence or willful misconduct or fraud on the part of Contractor; or (c) with

respect to any of Contractor's indemnity obligations under Article 25, Article 26, and any other provision in this Contract imposing indemnification obligations.

Notwithstanding anything herein to the contrary, no: (i) liabilities of Contractor to Owner paid for by insurance carried by Contractor pursuant to Article 23 of this Contract or by Owner (except deductibles paid by Contractor); or (ii) the cost of warranty Work performed by any Subcontractor at such Subcontractor's expense and the cost of any warranty Work paid for by any Subcontractor or recovered by Contractor from any Subcontractor shall be included in Contractor's aggregate liability for the purposes of determining the limit on Contractor's liability pursuant to this Contract.

35.3.2 Maximum Delay Liquidated Damages Amounts. Notwithstanding any other provisions in this Contract to the contrary, in no event shall Contractor's aggregate liability under Section 16.1 for Delay Liquidated Damages exceed the Maximum Aggregate Liquidated Damages.

35.4 Limitation on Owner's Liability. In no event shall the aggregate damages payable by Owner hereunder exceed the Contract Price (as the same may be modified by Changes in Work in accordance with the terms of this Contract); provided, however, that nothing contained in this Section 35.4 or in any other provision of this Contract shall be construed to limit Owner's liabilities for its obligations with respect to any of Owner's indemnity obligations for third party Losses under Article 25 and any other provision in this Contract imposing indemnification obligations. Notwithstanding anything herein to the contrary, no liabilities of Owner to Contractor covered by insurance carried by Owner pursuant to Article 23 of this Contract or by Contractor (except deductibles paid by Owner) shall be included in Owner's aggregate liability for purposes of determining the limit on Owner's liability pursuant to this Contract.

35.5 Releases, Indemnities and Limitations. Releases, indemnities, or limitations on liability expressed in this Contract shall apply in accordance with the terms of this Contract, notwithstanding other legal bases of responsibility such as negligence, strict liability, fault, or breach of contract of the Party indemnified or whose liability is released or limited.

36. DISPUTES

36.1 Negotiations. Any disputes arising pursuant to this Contract that cannot be resolved between Owner's Project Representative and Contractor's Project Manager within fourteen (14) days or, in the case of payment disputes, three (3) Business Days after receipt by each thereof of Notice of such dispute (specifically referencing this Section 36.1) shall be referred, by Notice signed by Owner's Project Representative and Contractor's Project Manager, to the executive officers of the Parties designated in Section 37.4 as their designated representatives (which shall not be the Owner's Project Representative or the Contractor's Project Manager) for resolution.

If the Parties, negotiating in good faith, fail to reach an agreement within a reasonable period of time, not exceeding twenty (20) days or, in the case of payment disputes, ten (10) days after such referral, then Owner or Contractor may institute proceedings as set forth in Section 36.2.

36.2 Dispute Resolution. If the Parties, negotiating in good faith, fail to reach an agreement within the period of time set forth above in Section 36.1, then Owner and Contractor agree that any and all disputes arising from, relating to or in connection with the Contract, whether based on contract, tort or otherwise shall be submitted to the jurisdiction of the federal or state courts located in Utah, to the exclusion of any and all other courts, forums, venues, and the Parties waive any and all right to contest the exclusivity of such forum, including any rights based upon the doctrine of forum non conveniens.

36.3 Work to Continue. Unless otherwise agreed in writing, Contractor shall diligently carry on the Work and shall not interfere with, restrict or discourage the prompt completion of any portion of the Work, the correction of any Defects or the provision of any warranty service during of the pendency of any dispute proceedings, as required under the terms of this Contract, and Owner shall continue to make undisputed payments and perform its obligations under this Contract; provided that, during the pendency of any dispute proceeding, amounts constituting Delay Liquidated Damages shall be paid and no set-off against such amounts shall be taken by Contractor and, to the extent Delay Liquidated Damages are unpaid, Owner may exercise its set-off rights pursuant to Section 37.17.

37. MISCELLANEOUS

37.1 Severability. The invalidity or unenforceability of any portion or provision of this Contract shall in no way affect the validity or enforceability of any other portion or provision hereof. Any invalid or unenforceable portion or provision shall be deemed severed from this Contract and the balance of the Contract shall be construed and enforced as if the Contract did not contain such invalid or unenforceable portion or provision. If any such provision of this Contract is so declared invalid, the Parties shall promptly negotiate in good faith new provisions to eliminate such invalidity and to restore this Contract as near as possible to its original intent and effect.

37.2 Governing Law. This Contract shall be governed by the internal laws of the state where the Work is to be performed excluding its conflict of laws provisions. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS CONTRACT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN

WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED. IF A WAIVER OF JURY TRIAL IS DEEMED BY ANY COURT OF COMPETENT JURISDICTION TO NOT BE ENFORCEABLE FOR ANY REASON, THEN TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO AGREE TO BINDING ARBITRATION. SUCH ARBITRATION SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES OF THE AMERICAN ARBITRATION ASSOCIATION (AAA). NOTWITHSTANDING ANY AAA RULES AND PROCEDURES OR ANY OTHER PROVISIONS OR ANY STATE OR FEDERAL LAWS, THE PARTIES AGREE THAT THE ARBITRATORS SHALL NOT CONSIDER OR AWARD PUNITIVE DAMAGES AS A REMEDY. UPON THE OWNER'S REQUEST, AAA SHALL PROVIDE THE PARTIES A LIST OF ARBITRATORS EACH OF WHOM HAVE EXPERIENCE AND EXPERTISE WITH RESPECT TO CONSTRUCTION. UPON EACH OF THE PARTIES RECEIPT OF SUCH LIST, EACH PARTY SHALL HAVE TEN (10) DAYS TO SELECT AN ARBITRATOR. THE TWO SELECTED ARBITRATORS SHALL THEN SELECT A THIRD ARBITRATOR WITHIN THIRTY (30) DAYS FROM THE DATE THE INITIAL TWO ARBITRATORS WERE SELECTED AND THE MATTER SUBJECT TO ARBITRATION SHALL BE ARBITRATED WITHIN ONE HUNDRED EIGHTY (180) DAYS AFTER THE SELECTION OF THE THIRD ARBITRATOR.

37.3 Survival of Termination. The representations, warranties, rights and obligations of the Parties and any other provisions of this Contract which by their nature are intended to survive the termination or expiration of this Contract shall continue in force and effect beyond the expiration or termination of this Contract and shall inure to the benefit of the Parties.

37.4 No Oral Modification. No oral or written amendment or modification of this Contract (including a Change in Work Form accepted under Article 17) by any officer, agent, or employee of Contractor or Owner, either before or after execution of this Contract, shall be of any force or effect unless such amendment or modification or Change in Work Form is in writing and is signed by any President, any Vice President or the Chief Executive Officer of the Party (or of the managing member of the Party on behalf of the Party) to be bound thereby.

37.5 No Waiver. Either Party's waiver of any breach or failure to enforce any of the terms, covenants, conditions, or other provisions of this Contract at any time shall not in any way affect, limit, modify, or waive that Party's right thereafter to enforce or compel strict compliance with every term, covenant, condition, or other provision hereof, any course of dealing or custom of the trade notwithstanding. All waivers must be in writing and signed on behalf of Owner and Contractor by the individuals identified in Section 37.4.

37.1. Time of Essence. Time is of the essence with respect to the performance by Contractor of its obligations under this Contract.

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

37.2. Contract Interest Rate. Overdue undisputed payment obligations of the Owner and the Contractor hereunder shall bear interest from the date due until the date paid at a rate per annum equal to the lesser of: (a) Prime Rate in effect from time to time plus three percent (3%); and (b) the highest rate permitted by Applicable Laws.

37.3. Headings for Convenience Only. The headings contained herein are not part of this Contract and are included solely for the convenience of the Parties.

37.4. Third-Party Beneficiaries. The provisions of this Contract are intended for the sole benefit of Owner and Contractor and there are no third party beneficiaries hereof, except where otherwise expressly provided, other than assignees contemplated by the terms herein.

37.5. Language. The language of this Contract is the English language, which shall be the ruling language in which the Contract shall be construed and interpreted. All correspondence, Drawings and Specifications, Contractor Deliverables, test reports, Notices, certificates, Required Manuals and other information shall be entirely in the English language.

37.6. Drafting Interpretations. Preparation of this Contract has been a joint effort of the Parties and the resulting documents shall not be construed more severely against one of the Parties than against the other.

37.7. Further Assurances. Owner and Contractor will each use reasonable efforts to implement the provisions of this Contract, and for such purpose each, at the request of the other, will, without further consideration, promptly execute and deliver or cause to be executed and delivered to the other such assistance, or assignments, consents or other instruments in addition to those required by this Contract, in form and substance satisfactory to the other, as the other may reasonably deem necessary or desirable to implement any provision of this Contract. Additionally, in the event that either Party has reasonable cause to suspect that the other Party's ability to perform its respective obligations under this Contract has been substantially impaired, the impaired Party shall upon request, provide the requesting Party with reasonably adequate assurance of its intention and ability to continue its performance as required by this Contract.

37.8. Record Retention. Contractor agrees to retain for a period of seven (7) years from the Final Completion Date or any longer period as may be required by Applicable Laws all records relating to its performance of the Work or Contractor's warranty obligations herein, and agrees to cause all Subcontractors engaged in connection with the Work or the performance by Contractor of its warranty obligations herein to retain for the same period all their records relating to the Work.

37.9. Binding on Successors. This Contract shall be binding on the Parties hereto and on their respective successors, heirs and permitted assigns.

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Both Parties have caused an individual with the requisite authority to acknowledge this and each page of this Contract prior to execution.

Contractor: Initial _____

Company: Initial _____

37.10. Merger of Prior Contracts. This Contract supersedes any other agreement, whether written or oral, that may have been made or entered into between Owner and Contractor or by any officer or officers of such Parties relating to the Project or the Work. This Contract and Exhibits hereto constitutes the entire agreement between the Parties with respect to the Project, and there are no other agreements or commitments with respect to the Project except as set forth herein.

37.11. Counterpart Execution. This Contract may be executed by the Parties hereto in any number of counterparts (and by each of the Parties hereto on separate counterparts), each of which when so executed and delivered shall be an original, but all such counterparts shall together constitute but one and the same instrument.

37.12. Set-Off. Either Party may at any time, but shall be under no obligation to, set off any and all sums due from the other Party against sums due to such Party hereunder.

37.13. Further Information. To the extent Contractor does not file financial statements with the United States Security and Exchange Commission, the Contractor agrees from time to time to provide the Owner such information and documents (financial or otherwise) regarding the Contractor as the Owner may reasonable request at Contractor's cost and expense.

37.19 Term The Contract shall be effective for Work performed pursuant to a Release that is authorized during the Contract Term, whether or not such Work is completed prior to the expiration of such Contract Term. The expiration of the Contract Term shall not impact the Parties' respective rights or obligations with respect to any Work authorized prior to expiration of such Contract Term. Moreover, neither the expiration of the Contract Term nor any earlier termination of this Contract shall impact any warranties, indemnities, insurance requirements, confidentiality obligations, termination obligations, or other obligations with by their own terms are intended to survive the completion of Work, all of which shall continue in full force and effect after the expiration or termination of this Contract.

38. NERC CIPS COMPLIANCE

38.1 In the event that the Work under this Contract requires any (i) authorized unescorted physical access to Owner's Facilities (i.e., Unescorted Personnel), or (ii) authorized unescorted physical access or authorized cyber access to Owner's CIP Covered Assets (i.e., Sensitive Personnel), Contractor, Unescorted Personnel, and Sensitive Personnel shall be required to comply with North American Electric Reliability Corporation ("NERC") Critical Infrastructure Protection Standards ("CIPS"), as adopted by Owner and attached hereto as Exhibit "S", Background Check Criteria – NERC / CIPS Standards. For all Unescorted Personnel and Sensitive Personnel, Contractor shall:

- (a) Ensure that Unescorted Personnel and Sensitive Personnel have passed the background checks outlined in Section 38.3(a) consistent with the Owner's Background Check Criteria set forth on Exhibit "S" prior to requesting unescorted physical access and/or cyber access to Owner's Facilities and/or CIPS Covered Assets, as applicable;
- (b) Ensure that Unescorted Personnel and Sensitive Personnel complete Owner provided or approved initial CIPS compliance training prior to requesting unescorted physical access and/or cyber access to Owner's Facilities and/or CIPS Covered Assets, as applicable;
- (c) Ensure that Unescorted Personnel and Sensitive Personnel have passed Contractor's drug and alcohol exam and are in compliance with Contractor's substance abuse/drug and alcohol policy as outlined in Section 38.5; and
- (d) Keep accurate and detailed documentation to confirm completion dates for background checks, all CIPS compliance training (initial and annual training, to the extent applicable), and drug tests, and certify to Owner such documentation by completing a Contractor/Vendor Information Form, attached as part of Exhibit "S" hereto, for each Unescorted Personnel and Sensitive Personnel.

Contractor shall not allow any Unescorted Personnel or Sensitive Personnel who have not met the foregoing requirements of this Section 38.1 to perform Work, unless Contractor has received prior written consent from Owner.

38.2 Additional Access Requirements Specific to Sensitive Personnel. In addition to the access requirements outlined in Section 38.1, with respect to all Sensitive Personnel, Contractor also shall:

- (a) Ensure that Sensitive Personnel and any Personnel with access to BCSI are informed of and comply with the requirements of Article 27 contained herein, as well as the requirements set forth herein;
- (b) In addition to the initial CIPS compliance training requirement outlined in Section 38.1(b), ensure that Sensitive Personnel complete Owner provided or approved supplemental CIPS compliance training within Owner's prescribed training window, and not less than on an annual basis; and
- (c) Immediately report both (i) Sensitive Personnel terminations for cause, and (ii) all other Sensitive Personnel terminations or changes in employment status for those who no longer require access, to Owner's Enterprise Service Desk ("ESD"). The ESD is available by calling the Project Representative.

Contractor shall not allow any Sensitive Personnel who have not met the foregoing requirements of this Section 38.2 to perform Work, unless Contractor has received prior written consent from Owner.

38.3 Personnel Screening/Background Check Requirements. For all Unescorted Personnel and Sensitive Personnel, the following requirements must be met by Contractor:

- (a) Contractor shall conduct, at Contractor's cost and expense, the requisite background checks for the current and past countries of residence of all Unescorted Personnel and Sensitive Personnel consistent with Owner's Background Check Criteria set forth on Exhibit "S". All background checks will be conducted in accordance with federal, state, provincial, and local laws, and subject to existing collective bargaining unit agreements or other agreements, if any;
- (b) Following the initial background check to obtain authorization for access, the background checks shall be updated no less frequently than every seven (7) years or upon request by Owner, and shall, at a minimum, consist of a social security number identity verification and seven (7) year criminal background check, including all convictions for a crime punishable by imprisonment for a term exceeding one (1) year;
- (c) Contractor shall ensure that each of the Unescorted Personnel and Sensitive Personnel sign an appropriate authorization form prior to background checks being conducted, acknowledging that the background check is being conducted, and authorizing the information obtained to be provided to Owner;
- (d) Owner has the right to audit Contractor's records supporting each Contractor/Vendor Information Form submitted to Owner, including background check results, and to verify that the requisite background checks and drug tests were performed consistent with Owner's Background Check Criteria, set forth on Exhibit "S". Contractor shall provide Owner with all requested records supporting Contractor/Vendor Information Forms within a reasonable time after receiving such request, and in the form requested by Owner, but not longer than three (3) Business Days following the date of such request;
- (e) For purposes of this Contract, a background check is considered valid pursuant to the Owner's Background Check Criteria, set forth on Exhibit "S", if it was completed within two (2) years prior to the date on which the Contractor signed a Contractor/Vendor Information Form for each Unescorted Personnel and Sensitive Personnel. Regardless of when performed, all background checks shall be documented pursuant to the requirements set forth in this Section 38.3; and

- (f) In the event Owner notifies Contractor of the impending expiration of the background check of any Unescorted Personnel or Sensitive Personnel, Contractor shall provide an updated Contractor/Vendor Information Form reflecting a refreshed background check within twenty (20) days of receipt of the notice, in order to avoid revocation of such person's access.

38.4 Contractor Designee. Contractor shall designate one person to be responsible for compliance with the requirements of this Article 38, and all reporting and inquiries, other than Sensitive Personnel terminations or changes in employment status, shall be made via e-mail to Project Representative. Sensitive Personnel terminations or changes in employment status should be reported to the ESD pursuant to Section 38.2(c).

38.5 Drug Testing.

- (a) Contractor shall have and ensure compliance with a substance abuse/drug and alcohol policy that complies with all applicable federal, provincial and/or local statutes or regulations. Contractor shall subject each of the Personnel to a drug test at Contractor's sole cost and expense. Such drug test shall, at a minimum, be a five (5) Panel Drug Test, which should be recognizable at testing labs as a "SamHSA5 panel at 50NG – THC cut-off."
- (b) For any Personnel who have had a recent drug test, such recent drug test shall be documented pursuant to the previous paragraph. Contractor warrants that Contractor and the Personnel are in compliance with Contractor's substance abuse/drug and alcohol policy.
- (c) During the course of Work performed under this Contract, Contractor shall keep accurate and detailed documentation of its drug policy and Personnel drug tests, which it shall submit to Owner upon request.
- (d) Contractor shall designate one person to be responsible for compliance with the requirements of this Article 38 and all reporting and inquiries, other than Sensitive Personnel terminations or changes in employment status covered in Section 38.4, shall be made to the Project Representative in a timely manner.

38.6 Department of Transportation Compliance. Contractor shall ensure Department of Transportation compliance, including but not limited to valid driver's license, equipment inspections, hours of service and all appropriate documentation for any Personnel who may drive while on assignment to Owner.

39. CYBER SECURITY

39.1 Scope. This Cybersecurity Article (“Article”) applies to any contractor or supplier (collectively, “Contractor” for purposes of this Article) and its Personnel and Subcontractors that provide hardware, software, or services to the Owner that may impact the confidentiality, integrity, or availability of the Company’s networks, systems, software, Data, or Confidential Information for the term of the Contract.

39.2 Defined Terms.

“Confidential Information” shall have the meaning as defined in the Contract and in addition include any information that can be used to identify or distinguish the identity of an individual, employee, or customer of Company, including but not limited to name, social security number, date and place of birth, customer account number, customer address, customer energy usage information, credit or bank account number, passport or driver’s license numbers, or any information that is linked or linkable to an individual, employee, or customer that is not otherwise classified as public information by Company, including medical, financial, and employment information.

“Data” shall mean any information, formulae, algorithms, or other content that the Company or the Company’s employees, agents and end users upload, create or modify using any software provided pursuant to the Contract. Data also includes user identification information and metadata which may contain Data or from which the Company’s Data may be ascertainable.

“Security Breach” shall mean any act or omission that compromises either the security, confidentiality, or integrity of Company’s Confidential Information, Data, systems and facilities or Company’s physical, technical, administrative or organizational safeguards and controls relating to the protection of Company’s Confidential Information, Data, systems, and facilities.

Any capitalized terms not otherwise defined herein shall have the meaning in the Contract.

39.3 Cybersecurity Controls.

(a) Without limiting Contractor’s obligations elsewhere in this Article or the Contract, Contractor shall implement security safeguards and controls to protect the Company’s networks, systems, software, Data, and Confidential Information that are no less rigorous than accepted industry practices, specifically those set forth in the latest published version of ISO/IEC 27001 – *Information Security Management Systems–Requirements* and ISO/IEC 27002 – *Code of Practice for International Security Management*.

- (b) Contractor agrees to notify the Company of known security vulnerabilities in hardware, software, and services provided under the Contract in a timely manner.
- (c) Contractor warrants that the hardware, software, and patches provided under the Contract will not contain malicious code. Contractor agrees to provide a method to verify the integrity and authenticity of all software and patches provided by the Contractor.
- (d) Contractor shall follow all applicable Company requirements for all remote access to Company resources and systems. To the extent Contractor's Personnel will have interactive remote access to Company's networks, systems or applications, such access must be performed on a secure connection. Contractor shall utilize multi-factor authentication provided by the Company. Authentication tokens and passwords may not be shared without written permission from the Company's Vice President, Information Technology. Immediately upon either (i) Personnel termination actions or (ii) changes in the status of Personnel which removes their need for remote access, Contractor shall report such termination or change in status to the Company's Service Desk.

39.4 Oversight of Compliance. Company reserves the right to conduct an assessment, audit, examination, or review of Contractor's security controls to confirm Contractor's adherence to the terms of this Article, as well as any applicable laws, regulations, and industry standards, not more than once per year or upon notification of any Security Breach or complaint regarding Contractor's privacy and security practices. Company may elect to obtain the services of a mutually-agreeable third party to conduct this assessment, audit, examination, or review on behalf of Company. Company shall give Contractor no less than thirty (30) calendar days' notice of its intent to conduct such assessment, audit, examination, or review. As part of this assessment, audit, examination, or review, Company may review all controls in Contractor's physical and/or technical environment in relation to all Confidential Information being handled and/or hardware, software, or services being provided pursuant to this Contract. Contractor shall fully cooperate with such assessment by providing access to knowledgeable personnel, physical premises, documentation, infrastructure, application software, and systems relevant to the provision of hardware, software, or services under the Contract.

39.5 Security Breach Procedures; Equitable Relief. In the event of Security Breach of the contractor or subcontractor affecting the Company, the Company's networks, systems, software, Data, or the Company's Confidential Information,

- (a) Contractor shall:
 - (i) notify the Company of a Security Breach as soon as practicable, but no later than 48 hours after Contractor becomes aware of it by

- telephone at the following number: [insert applicable company's Service Desk number]; and
- (ii) provide the Company with the name and contact information for any Personnel who shall serve as Contractor's primary security contact and shall be available to assist the Company in resolving obligations associated with a Security Breach;

(b) Immediately following Contractor's notification to the Company of a Security Breach, the Parties shall coordinate with each other to investigate such Security Breach. Contractor agrees to coordinate with Company in Company's handling of the matter, including: (i) assisting with any investigation and (ii) making available all relevant records and other materials required to comply with applicable law, regulation, industry standards, or otherwise reasonably required by Company.

(c) Contractor shall use best efforts to immediately remedy any Security Breach and prevent any further or recurrent Security Breach at Contractor's expense in accordance with applicable privacy laws, regulations, and standards. Contractor shall reimburse Company for actual reasonable costs incurred by Company in responding to, and mitigating damages caused by, any Security Breach, including all costs of notice and/or remediation pursuant to this section.

(d) Contractor shall fully cooperate at its own expense with Company in any litigation or other formal action deemed reasonably necessary by Company to protect its rights relating to the use, disclosure, protection, and maintenance of its Confidential Information and Data.

(e) Contractor acknowledges that any breach of Contractor's obligations set forth in this Article may cause Company substantial irreparable harm for which monetary damages would not be adequate compensation and agrees that, in the event of such a breach or threatened breach, Company is entitled to seek equitable relief, including a restraining order, injunctive relief, specific performance and any other relief that may be available from any court, in addition to any other remedy to which Company may be entitled at law or in equity. Such remedies shall not be deemed to be exclusive but shall be in addition to all other available remedies at law or in equity, subject to any express exclusions or limitations in the Contract to the contrary.

39.6 Network Security & Privacy Liability. If the Work under the Contract involves the rendering of IT services including, but not limited to: software, software or hardware or systems development or consulting services; internet/application services (e.g., web hosting); providing content; connections to systems, technology or network(s); or if Contractor in any way collects, obtains, maintains or in any way accesses or uses Confidential Information or Data, then Contractor, and its Subcontractors, shall maintain Network Security & Privacy Liability coverage, which can be included via evidenced endorsement to Professional Errors & Omissions coverage, throughout the term of this

Contact and for a period of two (2) years thereafter, with a minimum required limit of \$5,000,000 Each Claim.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties hereto have caused this Contract to be executed as of the date and the year first above written.

OWNER:

By: _____

Name: _____

Title: _____

CONTRACTOR:

[_____]

By: _____

Name: _____

Title: _____

Contract No. _____

MASTER CONSTRUCTION CONTRACT

BETWEEN

PACIFICORP

AND

FOR

LINE SERVICE AGREEMENT

INCLUDING DISTRIBUTION, TRANSMISSION, AND SUBSTATION CONSTRUCTION AND MAINTENANCE

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EXHIBITS

Exhibit A	PacifiCorp Transmission and Distribution Construction Standards, Electric Service Requirements, Materials Specifications, and other Engineering and Construction Publications (On-going protected access to an electronic site will be provided.)
Exhibit B	Unit Pricing
Exhibit B-1	Unit Pricing Rate Schedule for Underground Units for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-2	Unit Price Rate Schedule for Pole Replacement for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-3	Unit Price Rate Schedule for Overhead Maintenance for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-4	Unit Price Rate Schedule for NESC / GO95 Corrections for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-5	Unit Price Rate Schedule for Raptor Units for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-6	Unit Price Rate Schedule for Estimating Deteriorated Pole Replacement for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit B-7	Unit Price Rate Schedule for Estimating Underground Facilities for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit C	Time and Expense Pricing
Exhibit C-1	Schedule for Labor Hourly Rate for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit C-2	Hourly Rate Schedule for Equipment for Oregon, California, Washington, Idaho, Utah, and Wyoming
Exhibit D-1	Form of Purchase Order
Exhibit D-2	Form of Release
Exhibit E	Form of Lien Release
Exhibit F	Contractor Invoicing Requirements
Exhibit G	Letter of Credit Terms/ Form of Acceptable Letter of Credit, Drawing Certificate and Transfer Certificate
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Exhibit I	Contractor Tool List Requirements
Exhibit J	Additional Terms and Conditions for Major Substation, Transmission and Distribution Projects
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Part 1	Contractor Health, Safety and Environmental Requirements
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Exhibit N-5	Management of Electrical Equipment Removed from Service – Pacific Power
Exhibit N-6	Management of Electrical Equipment Removed from Service – Rocky Mountain Power
Exhibit N-7	Excavation and Disposal of Soil from Substations – Pacific Power
Exhibit N-8	Excavation and Disposal of Soil from Substations – Rocky Mountain Power
Exhibit N-9	EPA Treated Woods Consumer Information Sheets
Exhibit O	Testing and Commissioning Specification
Exhibit P	Form of Buy America Certification
Exhibit Q	RESERVED
Exhibit R	Contractor / Vendor Information Form
Exhibit S-1	General Conditions for Performing Contract Design/Estimating Services
Exhibit S-2	PacifiCorp Electronic Communications and Computer Resources Policy
Exhibit T	Requirements for Interactions with Company Customers
Exhibit U	Critical Path Schedule Instructions
Exhibit V	RESERVED
Exhibit W	Change Order Form
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Exhibit Y	Customer Guarantees
Exhibit Z	Environmental Requirements
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Exhibit AB	RESERVED
Exhibit AC	Sales Tax Compliance

Contract No. _____

MASTER CONSTRUCTION CONTRACT

BETWEEN

PACIFICORP

AND

FOR

OUTSIDE ELECTRICAL SERVICES (LINE CREW SERVICES) INCLUDING DISTRIBUTION, TRANSMISSION, AND SUBSTATION CONSTRUCTION AND MAINTENANCE

PARTIES

The Parties to this Master Construction Contract for Outside Electrical Services (Line Crew Services) including Distribution, Transmission and Substation Construction and Maintenance ("Contract") are **PACIFICORP** (hereinafter "Company") whose address is 825 NE Multnomah Street, Portland, Oregon 97232 and (hereinafter "Contractor") whose address is . Company and Contractor are hereinafter sometimes collectively referred to as "Parties" and individually as a "Party," as the context may require.

ARTICLE 1. DEFINITIONS

As used in this Contract and any individual Release entered into hereunder, the following terms have the meanings set forth below. Unless another meaning is specifically required by the context, when the following capitalized terms are used, such terms shall refer to the definitions set forth herein. All exhibits listed in the Table of Contents shall form a part of this Contract whether or not referenced in the master terms and conditions below.

BES Cyber System Information (BCSI) shall mean information concerning CIPS Covered Assets that: (i) relates to the production, generation or transmission of energy; (ii) could be useful to a person planning an attack on critical infrastructure; and (iii) provides strategic information beyond the geographic location of the critical asset, and which is identified as BCSI by Company. BCSI also includes any information concerning CIPS Covered Assets that has been identified by Company as Critical Infrastructure Information (or CII).

CIPS Covered Assets shall mean any assets identified by Company as "critical assets," "critical cyber assets," "BES assets," "BES cyber assets," or "BES cyber systems," as those terms are defined in the North American Electric Reliability Corporation (NERC) Glossary of Terms. "BES" refers to the "Bulk Electric System" as defined by NERC.

Company's Facilities shall mean any facilities owned, operated or otherwise controlled by Company which require Company authorization to obtain access.

Company-Furnished Materials shall mean any products, equipment, materials, goods, parts, associated hardware and spare parts specifically identified in the Scope of Work as being furnished by Company in conjunction with the improvements installed by Contractor under any Release.

Contract Price shall mean the consideration specified for Work in a Release. Except as otherwise provided in a Release, the Contract Price shall be a fixed-price, lump sum amount or unit price.

Contractor-Furnished Materials shall mean all products, equipment, materials, goods, parts, associated hardware and spare parts to be furnished by Contractor and made part of the improvements installed by Contractor under any Release. Except for products, equipment, materials, goods, parts, associated hardware and spare parts specifically identified as Company-Furnished Materials, all items necessary to complete the Work shall be deemed to be Contractor-Furnished Materials.

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Critical Contractor Milestones shall mean any interim completion milestones specified in a Release for which Contractor guarantees completion by a specific date prior to the Substantial Completion Guaranteed Date.

Critical Infrastructure Information (CII) shall mean information concerning CIPS Covered Assets that: (i) relates to the production, generation or transmission of energy; (ii) could be useful to a person planning an attack on critical infrastructure; and (iii) provides strategic information beyond the geographic location of the critical asset, and which is identified as CII by Company.

Critical Path Schedule shall mean, with respect to each Release, a critical path method schedule prepared by Contractor describing the time of completion of critical path items, and setting forth the dependencies among all critical path items that affect the achievement of the Project Guaranteed Dates.

Deliverables shall mean all drawings, manuals, calculations, specifications, maps, sketches, designs, tracings, notes, testing results, reports, data, computer programs, models, plans, lien releases, attestations, programs, procedures, protocols, samples and other documents and deliverables that are to be provided, obtained, prepared and delivered to Company by Contractor, as set forth in the applicable Scope of Work, the applicable Release and this Contract.

Default Security shall have the meaning set forth in ARTICLE 11, DEFAULT SECURITY.

Emergency shall mean conditions under which, without effecting an immediate repair or replacement: (i) life, health, or safety would be endangered by operation of Company's assets; (ii) Company's assets would be unavailable for commercial use; (iii) Company's customer's would not have electrical service; or (iv) Company's assets could not be operated, or demonstrated to be operating, in compliance with a) environmental regulations; b) regulations, policies or procedures issued by governmental or regulatory authorities; or c) prudent utility practice.

Final Completion shall mean satisfaction of all of the conditions for Final Completion as set forth in ARTICLE 56, SCHEDULE.

Final Punch list Items shall mean, with respect to the facilities constructed or installed pursuant to any Release, Work that: (a) requires completion or contains defects; (b) does not impede the ability of Company to safely operate the facilities in accordance with applicable laws, permits and industry standards; (c) does not affect the operability (including the capacity, efficiency, reliability, or cost effectiveness), safety or mechanical or electrical integrity of the facility or Company's transmission system; and (d) the completion or repair of which will neither interfere with, nor adversely affect, the performance of the facility or Company's transmission system.

Force Majeure Event shall mean a delay caused by any national or general strikes (but excluding strikes relating solely to the work force of Company, Contractor or a Subcontractor), fires, riots, acts of God, acts of the public enemy, floods, acts of terrorism, unavoidable transportation accidents or embargoes, or other events which are: (i) not reasonably foreseeable as of the date the applicable Release was executed; and (ii) attributable to a cause beyond the control and without the fault or negligence of the Party incurring such delay. The term Force Majeure Event does not include a delay caused by seasonal weather conditions, inadequate construction forces, general economic conditions, changes in the costs of goods, or Contractor's failure to place orders for Contractor-Furnished Materials, construction equipment or other items sufficiently in advance to ensure the Work is completed in accordance with the Contract and the applicable Release.

Hazardous Materials shall mean any chemical, material or substance in any form, whether solid, liquid, gaseous, semisolid, or any combination thereof, whether waste material, raw material, chemical, finished product, byproduct, or any other material or article, that is defined, listed or regulated, or as to which liability could be imposed, under applicable laws as a "hazardous" or "toxic" substance or waste or material, or as a "pollutant" or "contaminant" (or words of similar meaning or import), or is otherwise listed or regulated under applicable laws, or as to which liability could be imposed, under applicable laws including, without limitation, petroleum products, petroleum derived substances, radioactive materials, asbestos, asbestos containing materials, polychlorinated biphenyls, urea formaldehyde foam insulation, and lead containing paints or coatings.

Material Adverse Change (MAC) shall mean, with respect to Contractor, if Contractor, in the reasonable opinion of Company, has experienced a material adverse change in Contractor's financial condition or Contractor's ability to fulfill its obligations under this Contract including, but not limited to, any such change that results in its inability to satisfy ARTICLE 10, CREDIT REQUIREMENTS or ARTICLE 11, DEFAULT SECURITY, including any event or circumstance that would give Company the right to terminate for cause pursuant to ARTICLE 55, TERMINATION FOR CAUSE.

Net Replacement Costs shall mean the "cost to cover" remedy available to Company in the event of a default by Contractor under this Contract and each Release. The Net Replacement Costs shall be calculated by: (i) subtracting the unpaid balance of the total

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price of the Work to be performed from the costs incurred by Company to obtain a replacement contractor to finish the Work that Contractor was otherwise obligated to provide under this Contract or any Release (or the costs, internal or third-party, incurred by Company to complete such remaining Work itself); and (ii) adding a sum for additional managerial, administrative, and other reasonable costs Company incurs as a result of Contractor's default.

Notice shall mean a formal written communication which, pursuant to the Contract, one Party must deliver to the other in order to invoke a Contract right set forth herein.

Personnel shall mean the employees of Contractor or any of its agents, Subcontractors, or independent contractors who are employed to perform Work under this Contract.

Project Guaranteed Dates shall mean, with respect to a given project, the Critical Contractor Milestones and the Substantial Completion Guaranteed Date.

Qualified Person shall have the meaning set forth in 29 CFR §1910.

Release shall mean any project-specific Work release or Purchase Order issued by Company from time to time pursuant to the master terms and conditions set forth in this Contract.

Scope of Work shall mean the requirements regarding the Work, as detailed in the "scope of work" or "specifications" attachment appended to (or incorporated by reference in) the Release for specific Work assignments and including any standards, specifications, drawings, permits, or other contract documents attached to or incorporated by reference.

Sensitive Personnel shall mean all Personnel with authorized unescorted physical access or authorized cyber access to Company's CIPS Covered Assets.

Subcontractor shall mean any entity or person (including subcontractors at any tier, laborers and materials suppliers) having an agreement with Contractor or any other Subcontractor to perform a portion of Contractor's obligations under this Contract.

Substantial Completion Guaranteed Date shall mean, with respect to a given project, the date specified therefore in a given Release.

Term shall mean the period commencing January 1, 2018, and continuing thereafter until December 31, 2020, unless earlier terminated as provided herein.

Unescorted Personnel shall mean all Personnel with authorized unescorted physical access to Company's Facilities.

Work shall mean all obligations, duties, requirements, and responsibilities of Contractor for the successful completion of each project described in a Release, including providing all Contractor-Furnished Materials and construction services (including obtaining all applicable licenses and permits) in accordance with the terms and conditions set forth in the Contract, and inclusive of those detailed within a project-specific Release.

Work Site shall mean the location or locations on Company's property, right of way, material loading, unloading and laydown yards, or adjacent areas where the Work is to be performed, as specified in the applicable Scope of Work.

Workers' Compensation Laws shall mean the statutory requirements of the state and/or federal regulations (e.g., FELA, USL&H, Jones Act) where the Work is to be performed.

Work Site shall mean the location or locations on Company's property, right of way, material loading, unloading and laydown yards, or adjacent areas where the Work is to be performed, as specified in each applicable Release.

ARTICLE 2. DESCRIPTION OF WORK

Contractor shall perform the Work in accordance with the Scope of Work. In addition to the Scope of Work, Contractor shall ensure that the Work is performed in compliance with all applicable construction standards, electric service requirements, materials specifications, and other engineering and construction publications (collectively the "General PacifiCorp Work Requirements") as may be effective at the time that Work is performed. On-going protected access to an electronic site will be provided to Contractor and is hereby incorporated into this Contract by reference as Exhibit A. Contractor acknowledges the separate receipt of Exhibit A. Contractor further acknowledges that revisions to the General PacifiCorp Work Requirements will be made periodically. Company may make revisions available to Contractor via dissemination through a centralized electronic database for which Contractor will be granted a login name and password. Revisions to the General PacifiCorp Work Requirements shall be effective when so disseminated or published. Contractor shall be solely responsible for informing itself as to the content of the General PacifiCorp Work Requirements. Contractor shall be responsible for complying with the most current version of the

Contract No. _____

General PacifiCorp Work Requirements, regardless of whether such General PacifiCorp Work Requirements are specifically referenced in the Scope of Work.

Any estimating Work to be performed by Contractor shall be performed in accordance with Exhibit S-1 and S-2.

Contractor shall be solely responsible for the means, methods, techniques, sequences and procedures of performing the Work, except as otherwise specifically provided in the Contract or in the applicable Release. Except as otherwise specifically provided in this Contract or in the applicable Release, Contractor shall provide all necessary utilities and support services.

ARTICLE 3. PERIOD OF PERFORMANCE

The Contract shall be effective for Work performed pursuant to a Release that is authorized during the Term of the Contract, whether or not such Work is completed prior to the expiration of such Term. The expiration of the Term shall not impact the Parties' respective rights or obligations with respect to any Work authorized pursuant to a Release executed prior to expiration. Moreover, neither the expiration of the Term nor any earlier termination of this Contract or any Release issued hereunder shall impact any warranties, indemnities, insurance requirements, confidentiality obligations, termination obligations, or other obligations which by their own terms are intended to survive the completion of the Work, all of which shall continue in full force and effect after the expiration or termination of this Contract.

The Release shall specify a completion date for the Work, and may also specify critical interim schedule milestones that must be met by Contractor. Contractor shall proceed in accordance with such schedule requirements, and shall comply (as applicable) with the detailed schedule of Work included in (or developed in accordance with) the Release. Time and schedule requirements included within the Release are of the essence. By accepting and commencing Work pursuant to a Release, Contractor confirms that the time and schedule requirements included in the Release are reasonable for performance of the Work.

ARTICLE 4. RELEASES

For each project to be performed under this Contract, the Company will submit to Contractor a Release. A unique Release, each with a corresponding unique identifying number, shall be provided for each new project issued under this Contract. The Release will identify and describe: (i) the Scope of Work for the project; (ii) the location of the Work Site; (iii) the project schedule, schedule milestones, and guaranteed dates for the Work; (iv) the fixed price, unit price or other pricing structure and payment terms that will apply to the project; (v) whether the performance of such Work will require use of Unescorted Personnel or Sensitive Personnel; (vi) the designated project representatives for each Party; (vii) project-specific invoicing instructions; (viii) whether the project or Work constitutes a Major Substation, Transmission and Distribution Project and (ix) any other project-specific terms and conditions applicable to the Work. The terms and conditions of this Contract shall apply to each Release, as supplemented by the project-specific elements of the Work identified in the Release. This Contract and the applicable Release (including the Scope of Work for the project and documents specifically incorporated into the Release by reference) shall, together, constitute the entire agreement between the Parties with respect to any specific Work assignment under this Contract, to the exclusion of any contrary or additional terms contained in any proposal, acknowledgement, confirmation statement, invoice or other document. Unless otherwise agreed between the Parties, the Release will be issued in the form of a purchase order issued through the Company's procurement system in substantially the form attached hereto as Exhibit D.

IN THE EVENT THE RELEASE IDENTIFIES THE PROJECT OR WORK AS A MAJOR SUBSTATION, TRANSMISSION AND DISTRIBUTION PROJECT, THE ADDITIONAL TERMS AND CONDITIONS IN EXHIBIT J WILL APPLY.

In the event of any Emergency, Company will provide Contractor with a verbal notice to be followed as soon as practicable thereafter by a Release.

ARTICLE 5. CONSIDERATION

One of the following pricing structures shall apply to Work issued under this Contract and the applicable pricing structure and payment terms shall be specified in the applicable Release:

- a. a unit price basis for the Work performed,
- b. an hourly rate basis for the labor and equipment furnished,
- c. a firm fixed price basis for the tasks performed, or
- d. another mutually agreed upon pricing basis,

Contract No. _____

During the Term of the Contract, the rates identified in all of the exhibits referenced below shall be adjusted annually in accordance with the attached rate schedules during the Term. The rate schedule adjustment shall be made on January 1 of each year of the Contract.

Specific pricing will be established in accordance with the applicable price schedule or method listed below:

Unit Price based consideration determined in accordance with Exhibits B-1 through B-7 as described in the Pricing Schedule notes associated with each category of units.

Time and Expense based consideration determined in accordance with Exhibit C-1 and C-2.

The rates identified in the above listed Contract Exhibit C-1 shall be, for work performed on a Time and Expense Rate basis, as detailed in the above listed Contract exhibits, in accordance with the following:

1. The rates identified in Contract Exhibit C-1 shall be applied to the hours worked in accordance with the provisions established in the applicable Bargaining Unit Agreements for the State and Local where the Work is performed; and/or in accordance with the prevailing wage rates established for the area where the work is to be performed.
2. Compensable time at the indicated rates shall commence at the Company designated starting time and at the Company designated job show-up location with equipment, material and manpower ready to start productive activity.
3. Subject to pre-authorization by the designated representative, or his designee, in addition to the rates indicated for manpower and equipment Company shall pay Contractor applicable per diem, mileage, or subsistence rates as set forth in the collective bargaining agreement or working arrangements applicable to the Work.
4. Company Customer Guarantees, as set forth in the attached Exhibit M and Exhibit Y and all associated documentation, including but not limited to Exhibit T, are required to be fulfilled.

The rates identified in the above listed Contract Exhibit C-2 shall be in accordance with the following:

1. The rates for "Equipment Mobilization" shall be a one-time charge per continuous assignment or project, applicable for Work started at a different Operations Center or Work Site show-up location on the Company Distribution and Transmission System, and includes all equipment and labor mobilization and demobilization costs and the initial setup of the equipment at the Company designated location or service area. The mobilization distances are from Contractor's nearest yard/facilities or the current location of the major equipment mobilized, whichever is less.
2. The rates listed for "Equipment Rates" apply for both daily transit time from equipment staging/storage location and actual time on the worksite.
3. Materials: Company will pay Contractor at invoiced amount to Contractor plus the Contractor mark-up percentage indicated in Exhibit C-1 for Contractor-Furnished Materials incorporated into the work, provided prior authorization has been given by Company.
4. Subcontract Work: Company will pay Contractor at invoiced amount to Contractor plus the Contractor mark-up percentage indicated in Exhibit C-1 for that portion of the work, which is subcontracted to others, provided prior authorization has been given by Company.
5. Equipment and Tool Rental: Company will pay Contractor for use of equipment and tools in performance of the work at the rates listed in Exhibit C-2, subject to the conditions listed below.
 - a. Equipment categorization designations are only intended as generic identification, different makes/models with similar ratings and/or capacities may be used instead of the indicated makes/models. Contractor will ensure all equipment; tools and communication devices are in safe and proper working condition to support the required work.
 - b. Rates indicated in Exhibit C-2 shall compensate Contractor for Contractor owned or leased equipment. For any additional equipment furnished by Contractor, which is not owned or leased by Contractor, use of which has been approved by the Company, Company shall compensate the Contractor at the actual invoice cost to

Contract No. _____

Contractor, and the Contractor markup percentage indicated in Exhibit C-2, for such Contractor-furnished equipment. Contractor shall submit with its invoices to Company documentation to support all Contractor-furnished equipment costs.

- c. Hourly rates shall apply for less than 36 hours use in a week.
- d. Weekly rates shall apply for continuous assignments of at least 36 hours in a week.
- e. Monthly rates shall apply for work assignments of four weeks or longer. Equipment rates shall include all costs to fuel and maintain the tools and equipment.
- f. No rental charges will be allowed for an item of equipment or a tool having a new cost of \$500.00 or less.
- g. Except as provided in item "j" below, rental charges will be allowed only when the tool or equipment is actually being used for the proper and efficient performance of the work, including the use of equipment for transporting other items of equipment during mobilization and demobilization.
- h. Rental charges for standby time may be allowed provided prior authorization has been given by Company. Standby rates shall be as negotiated between Company and Contractor prior to use of the tool or equipment.
- i. Contractor shall furnish each crew with an adequate stock of tools to perform work hereunder, at Contractor's expense. A normal stock of tools, to be provided by Contractor, shall include but not be limited to the items as further detailed on Exhibit I. Company shall be the sole judge as to the adequacy of the tools provided. When specialty tools are required to perform work hereunder, rental charges for specialty tools will be allowed provided prior authorization has been given by Company. Rates for specialty tools shall be as negotiated between Company and Contractor prior to the use of the tools.
- j. Contractor shall not charge Company for equipment rental, other than those items listed in Exhibit C-2, unless specialty equipment is required to perform work hereunder. When specialty equipment is required to perform work hereunder, rental charges for specialty equipment will be allowed provided prior authorization has been given by Company. Rates for specialty equipment shall be as negotiated between Company and Contractor prior to the use of the equipment.

Firm Fixed Price basis as mutually agreed prior to commencement of specific defined Work activities for an established Release.

For work to be performed on a firm fixed price basis, Company will contact Contractor and request that Contractor submit a firm fixed price for the work as detailed in the Scope of Work for the specific project.

The Firm Fixed Price agreed to with the Contractor shall be the full consideration due Contractor for the satisfactory performance of Contractor's obligations under this Contract. No other or additional compensation for labor, material, equipment, traffic control, or any other expense incurred by Contractor shall be provided.

Company may either accept Contractor's firm fixed price and have the work performed in accordance therewith, or reject it. If Company accepts, Company will issue a Work Release containing the firm fixed price and indicating that payment will be made in accordance therewith.

If Company decides not to accept Contractor's firm fixed price, Company may pursue one of the other options outlined in this Article, or elect not to have the work performed under this Contract.

Other mutually agreed upon pricing basis or such other consideration as may be mutually agreed to and identified in the applicable Work Release.

ARTICLE 6. PAYMENT

Company will pay the Contractor the consideration set forth in the above referenced exhibits within thirty (30) days upon receipt of invoice in strict accordance with the applicable pricing structure.

Contractor shall submit to Company monthly or upon project completion a proper invoice for all Work performed and expenses incurred during the preceding calendar month for each Release issued hereunder. Contractor shall itemize each invoice by applicable Release number. Immediately under each Release number, Contractor shall provide further itemization by listing the applicable activities performed, hours worked, the District and Circuit number, and

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- the specific Unit Price Schedule and Work activity item number and description in the Unit Price Schedule as identified in the applicable Release, or
- the specific rate for time and equipment expenses as show in the Rate Schedule for Time and Equipment Expenses, the documented hours of Work activity and expense items provided during the billing period as identified in the applicable Release,
- the specific Lump Sum firm fixed price for the defined Work activities established in the applicable Release, or
- invoice support documentation as required.

Costs for Work performed under one Release shall not be commingled with the costs for performing Work under any other Release and receipts, if applicable, must be attached. All undisputed invoice amounts will be paid by Company within thirty (30) days of receipt of a proper invoice and Company's acceptance of the Work.

All invoices submitted for payment of Work performed in accordance with this Contract shall be submitted either in hardcopy or electronically as directed by the Company, in the applicable release and shall adhere to the guidelines established in Exhibit F.

For Work performed on a Unit Price basis or on a Time and Expense basis, Contractor shall submit to Company within a thirty (30) day period following completion of each week in which Work was performed a correct and complete invoice for the value of the Work performed during the Work week period covered by the invoice. Each invoice submitted shall be in a format substantially as shown in Exhibit F, and shall also be accompanied by a progress report pursuant to ARTICLE 7, PROGRESS REPORTING. Weekly invoices shall contain such other supporting documents as required by Company. For any Work authorized by Company to be performed on a time and expense basis, the supporting documentation shall include, without limitation, time sheets, purchase orders for materials and similar data. Weekly invoices shall be submitted in original and one (1) copy to the individual and location identified in the Work release. Upon request by Company, Contractor shall send copies of invoices to other locations as directed.

For Work performed based on a firm fixed price, Contractor shall submit to Company monthly a proper invoice for the value of the Work performed during the preceding month. Within thirty (30) calendar days of Company's receipt and approval of a proper invoice, Company will pay all undisputed invoice amounts less retention of five percent (5%).

Payment shall be contingent upon Contractor's satisfactory compliance with all provisions of this Contract. Payments made by Company shall not be deemed acceptance of Contractor's Work. All invoices submitted for Work accomplished under this Contract shall include the applicable Release number, shall contain supporting documents and receipts as required by Company.

**INVOICES WHICH DO NOT CONTAIN THE ABOVE INFORMATION, OR ARE NOT
ADDRESSED AS ABOVE, MAY CAUSE PAYMENT DELAY.**

Contractor shall identify and clearly set forth on each invoice a discount of not less than two percent (2%) of the total amount of the invoice for payment of the invoice in not more than ten (10) calendar days from the date of receipt by the Company of the invoice. For payment beyond ten (10) calendar days following the date of receipt by the Company of an acceptable invoice payment shall be made in the full amount of the invoice.

For Work undertaken within the scope of this Contract, the final payment for an individual Release shall not become due until Contractor has furnished Company a release from all claims and demands arising out of said Release pursuant to Exhibit E attached hereto and by this reference incorporated herein. Final payment for an individual Release, including retention, if any, shall be paid upon receipt and approval of the amount due after receipt of the final invoice for each Release from the Contractor, following completion of all Work for each individual Release completed by the Contractor, and acceptance thereof by Company and (to the extent required by Company) each Subcontractor, such lien waivers to be in the form set forth in Exhibit E.

Company may offset any such payment to reflect amounts owing from Contractor to Company or its subsidiaries pursuant to this Contract or any other agreement between the Parties or otherwise. In addition, Company may withhold all payments otherwise due Contractor until such time as Contractor has provided the Letter of Credit required by this Contract.

ARTICLE 7. PROGRESS REPORTING

Contractor shall submit with each weekly invoice a weekly progress report for the applicable service territory containing copies of the current week time sheets, where applicable for hourly Work, and project status information as required.

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ARTICLE 8. TAXES

The Consideration to be paid under this Contract, as stated in ARTICLE 6, PAYMENT, includes all taxes of any nature arising out of the Contractor's performance hereunder including, without limitation, state and local sales and use taxes, value-added taxes, import duties, payroll taxes, income taxes and other taxes relating to the performance of the Work.

For purposes of the assessment of state and local sales and uses taxes, it is understood and acknowledged by the Parties that for Work performed in the states of California, Idaho, Utah, and Wyoming, the Contractor is considered to be a "contractor improving real property", as such term is used under applicable state laws, and will thus be the final consumer of all materials and tangible personal property purchased in accordance with the Work. Contractor acknowledges that sales and use taxes paid by Contractor with respect to such purchases will not be separately billed to Company nor reflected on the face of invoices issued to Company.

It is understood and acknowledged by the Parties that for purposes of Work performed in the state of Washington, sales and use taxes for the construction, repair or improvement to real property or to property treated for sales and use tax purposes as real property will be invoiced to Company and reflected as a separate line item on each invoice issued to Company.

Any portion of the Work that does not involve the construction, repair or improvement to real property shall be similarly included as a separate line item on each invoice issued to Company.

Upon request, Contractor will provide Company with additional information, in a form and format reasonably acceptable to Company, evidencing the payment of all state and local sales and uses taxes. If requested by Company Contractor shall provide a completed, notarized, Exhibit AC with the final invoice for each Release issued under this Contract. Contractor shall provide a completed, notarized, Exhibit AC within five (5) working days of Company request for any Release issued under this Contract regardless of status of the Work.

ARTICLE 9. ACCOUNTING AND AUDITING

Contractor shall keep accurate and complete accounting records in support of any cost-based billings and claims to Company in accordance with generally accepted accounting principles. Company, or its audit representatives, shall have the right at any reasonable time or times to examine, audit, and copy the records, vouchers, and other source documents which relate to any claim for compensation other than pricing elements which are fixed in amount by this Contract. Such documents shall be available for examination, audit and reproduction for three (3) years after completion or termination of this Contract.

Contractor shall assist Company with preparing necessary audit material and will allow Company to review any work papers prepared by independent auditors as allowed by professional standards.

Audit findings by Company's representative will be considered to be final and conclusive for the period audited unless Contractor within thirty (30) calendar business days after receipt of the audit findings, submits a written protest to Company pursuant to the last paragraph of ARTICLE 52, CLAIM NOTICE AND RESOLUTION PROCEDURE. Any over collections shall be returned to Company within thirty (30) calendar days from date of Notice of overcharge.

ARTICLE 10. CREDIT REQUIREMENTS

Contractor shall meet the requirements of either clause (i) or clause (ii) below: (i) Contractor maintains a senior unsecured debt rating from Standard & Poor's of BBB- or better; or (ii) if Contractor does not maintain a satisfactory debt rating, Contractor meets ALL of the following credit standards: a) tangible net worth ten (10) times the projected maximum liability of Contractor under this Contract; b) no change in the condition of its earnings, net worth, or working capital over the last twenty-four (24) months, which would reasonably be anticipated to impair Contractor's ability to meet its obligations under this Contract; and c) Contractor is not in default under any of its other agreements and is current on all of its financial obligations.

If requested by Company, Contractor shall within thirty (30) calendar days provide Company with copies of its most recent annual and quarterly financial statements prepared in accordance with generally accepted accounting principles.

ARTICLE 11. DEFAULT SECURITY

In the event Contractor is unable to satisfy the credit requirements set forth in ARTICLE 10, CREDIT REQUIREMENTS at any time during the performance of the Work, or if Contractor experiences a Material Adverse Change at any time during such performance, then Contractor shall provide Company with security against defaults by Contractor under this Contract in such form and amount as may be reasonably required by Company ("Default Security"), and pursuant to such

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additional agreements or instruments as may be reasonably required by Company, including but not limited to letters of credit, third party guaranties, escrow accounts and bonds. Company may at any time, at its own discretion or pursuant to a request by Contractor, recalculate the amount of Default Security required pursuant to this Article, in which case Company shall increase or decrease the existing amount of Default Security, as appropriate. At no time shall the amount of Default Security to which Company is entitled pursuant to this Article be less than Company's Net Replacement Costs.

The terms of any letter of credit required by Company shall conform to the attached Exhibit G, as well as the requirements of this Contract and be issued by a bank acceptable to Company. The letter of credit shall provide for payment to Company of the letter of credit stated amount if Contractor defaults under the terms of this Contract. Company shall have the right to call the entire amount of the letter of credit if Contractor has not renewed the letter of credit thirty (30) calendar days prior to its expiration.

Contractor's expenses of complying with additional Default Security obligations as set forth in this Article shall be borne by Contractor.

ARTICLE 12. WITHHOLDING PAYMENT

Company may, without limiting any other rights or remedies Company may have, withhold from payment amounts which reflect the reasonable cost to repair or replace non-conforming or defective Work or the value of any claim which Company has against Contractor under the Contract. Company may also retain from payment sufficient funds to discharge any delinquent accounts of Contractor for which liens on Company's property have been or can be filed, and Company may at any time pay therefrom for Contractor's account such amounts as are, in the reasonable opinion of Company, due thereon, including any sums due under any federal or state law.

ARTICLE 13. PERFORMANCE CRITERIA

Expected performance criteria shall be established by the Company and compared to actual performance on a regular basis. Targets for expected performance shall be established by the Company for typical Work activities and regularly communicated to the Contractor or as stated in a particular Scope of Work attached to a specific Release.

Contractor shall report all performance errors to Company using the format and protocol provided by Company. Contractor will be held accountable for performance errors and shall participate in the investigation of performance errors at its own expense. Review of performance evaluations shall be a part of the invoice approval process. Payment of invoices will be subject to meeting the standards set by the Company in the areas of timeliness, conformance to scope, design and standards, and quality of the finished product.

Contractor shall adhere to Company guarantees outlined in Exhibit M and Exhibit Y and will be charged any credits associated with non-compliance to any guarantee. Further, Contractor agrees non-compliance results in damage to the Company and Customer's relationship at a higher cost than the cost of customer credits and Company may impose additional damages and possible contract termination for habitual or intentional non-compliance.

ARTICLE 14. KEY PERSONNEL

Prior to changing any key personnel, especially those key personnel whom Company has relied upon in making this Agreement, Contractor shall notify the Company of proposed changes before reassigning key personnel; and any replacement personnel shall have capabilities comparable to those replaced. If Contractor changes or replaces any of its personnel for performance of the services hereunder, Contractor shall bear all costs associated with any and all such changes, and said costs shall not be reimbursable from Company.

Upon request from Company, Contractor shall provide résumés of any potential or replacement supervisors before they are assigned to the Work. Contractor shall establish telephone numbers at which Company and customers may contact the supervisors.

Company shall advise Contractor within thirty (30) days of any reassignment involving key Company personnel involved in the operations of its distribution and transmission system.

ARTICLE 15. DESIGNATED REPRESENTATIVE AND NOTICES

In conjunction with each Release, each Party shall designate a representative authorized to act on its respective behalf and shall advise the other Party in writing of the name, address and telephone number of such designated representative. All

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communications relating to the day-to-day activities under this Contract shall be exchanged between such designated representatives through any agreed form of communication.

Any formal Notice required to be delivered in writing under the terms of this Contract shall be delivered to the representative of the other Party as designated below. All formal written Notices shall be: (i) hand delivered; (ii) deposited in the mail, properly stamped with the required postage; (iii) sent via registered or certified mail; or (iv) sent via recognized overnight courier service. The Parties' addresses for purposes of Notice shall be as set forth below:

If to Company:

PacifiCorp

825 Multnomah Street, Suite 1700

Portland, Oregon 97232

Attn: Tim Adams

Telephone: 503-813-5816

If to Contractor:

Attn: _____

Telephone: _____

Either Party may change the name or address of the designated recipient of Notices by delivery of a Notice of such change as provided for in this Article.

ARTICLE 16. QUALITY ASSURANCE

The Contractor shall provide and maintain a system of quality assurance which will ensure that all required technical provisions and professional standards are being adhered to on a consistent basis by the Contractor and its Subcontractors in the performance of Work under this Contract. The required system of quality assurance shall include but not be limited to: (i) processes, inspections, and reporting activities needed to properly and competently perform the Work; (ii) all safety, environmental, health, and security regulations pertaining to the performance of the Work; and (iii) such other requirements as may be determined to be necessary for the successful performance of all related duties. The scope and content of Contractor's required quality assurance system shall be reviewed and approved annually by Company.

Contractor shall develop an environmental assurance program ("Environmental Assurance Program") and environmental assurance plan ("Environmental Assurance Plan") which conforms to the general content requirements of Exhibit Z and also incorporates the requirements of Exhibit K and Exhibit N. The Environmental Assurance Plan shall be customized to fully integrate all project-specific environmental requirements and demonstrate a compliance plan for such requirements, as well as the permit conditions/stipulations included or referenced in the Scope of Work and the conditions/stipulations of any permits to be secured by Contractor as part of the Work. The Environmental Assurance Plan shall be submitted to Company for review and comment and Contractor shall address any concerns provided by Company through revisions to the Environmental Assurance Plan. Contractor shall not proceed with any site clearing, grubbing, excavation, construction or other site work until the Environmental Assurance Plan has been reviewed by Company and all Company concerns have been addressed to Company's reasonable satisfaction.

Compliance with this Article in no way relieves Contractor of responsibility to furnish acceptable quality Work or Contractor-Furnished Materials as specified in this Contract.

ARTICLE 17. INSPECTION AND TESTING

All Work will be subject to inspection and testing at any reasonable time or times by Company, which shall have the right to reject nonconforming Work. Any inspection and testing performed by Company shall be performed solely for Company's benefit. Neither inspection and testing of Work nor the lack of same nor acceptance of the Work by Company nor payment therefore shall relieve Contractor from any of its obligations under this Contract. Contractor shall cooperate with any inspection and testing performed by Company.

If required for the Work, all equipment installation, testing and commissioning shall be performed in accordance with Exhibit O. The Contractor shall at all times, adhere to all the provisions described in Exhibit O unless otherwise agreed to in writing. The equipment specific installation procedures and forms referenced in Exhibit O are listed in the document Sub Equipment-Comprehensive List of Installation and Testing Documents. The specific breakdown of responsibilities for the various commissioning tasks are described in the Equipment Commissioning Summary document that is issued for each project. Contractor agrees to abide by commissioning Personnel qualification requirements as defined in Exhibit O, 1.7 in addition to

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all requirements of this Contract.

ARTICLE 18. CORRECTION OF WORK

Any time prior to final completion of any Work and acceptance by Company, Company may reject Work which fails to conform to this Contract and the applicable Release. Contractor, at its sole expense, shall: (i) promptly re-perform or replace or re-execute the Work so as to conform with the requirements of this Contract and the applicable Release; and (ii) remove from the Work Site all Work and Contractor-Furnished Materials rejected by Company, whether incorporated in the Work or not.

To the extent that Company incurs additional costs as the result of non-conforming Work, Contractor shall be responsible for such costs. Additional costs may include, without limitation, additional Company inspection personnel or extended inspection durations resulting from the nonconforming Work, the costs or any third party testing necessary to confirm the sufficiency of the non-conforming Work, and the costs or removing and restoring any facilities that must be disturbed to accommodate corrective actions.

If Contractor fails to promptly remedy rejected Work, Company may, without limiting or waiving any other rights or remedies it may have, correct the Work and remove and dispose of rejected Contractor-Furnished Materials at the expense of Contractor, and may deduct from amounts due Contractor any cost so incurred by Company.

ARTICLE 19. CHANGES

Company may at any time in writing direct additions, deletions or modifications to the Work set forth this Contract and any Release issued hereunder. If any such direction results in a material change in the amount or character of the Work, an equitable adjustment in the price and/or other such provisions as may be affected shall be made and this Contract or the applicable Release shall be modified in writing accordingly. Any claim by Contractor for an adjustment under this Article shall be processed in accordance with the provisions of ARTICLE 52, CLAIM NOTICE AND RESOLUTION PROCEDURE.

If possible, equitable adjustments to pricing shall be made in accordance with fixed price or unit price change orders as the Parties may agree. Company may direct the Contractor to proceed with a change in Work pending negotiation of the fixed price or unit prices change order rates by completing the unilateral directive portion of the Change Order Form. After issuance of the directive, and provided that Company and Contractor are unable to agree upon a negotiated fixed price or unit price adjustment to the pricing, Contractor shall be compensated in accordance with the time and expense rates set forth in Exhibit C.

No change shall be binding upon Company until a change order is executed by an authorized representative of Company which EXPRESSLY STATES THAT IT CONSTITUTES A CHANGE ORDER TO THIS CONTRACT. THE ISSUANCE OF INFORMATION, ADVICE, APPROVALS, OR INSTRUCTIONS BY ANYONE OTHER THAN THE AUTHORIZED COMPANY REPRESENTATIVE SHALL NOT CONSTITUTE AN AUTHORIZED CHANGE ORDER PURSUANT TO THIS ARTICLE. A CHANGE ORDER SHALL ONLY MODIFY THE RELEASE PURSUANT TO WHICH IT IS ISSUED AND CHANGES TO THE MASTER TERMS AND CONDITIONS OF THIS CONTRACT REQUIRE THE EXECUTION OF CONTRACT AMENDMENT BETWEEN THE PARTIES.

ARTICLE 20. WARRANTY

Contractor warrants that: (i) all Work performed shall conform to the Scope of Work, drawings, specifications, samples, industry standards and other descriptions or requirements set forth or incorporated by reference into the applicable Release and/or this Contract; (ii) all Work shall be free of defects in workmanship; and (iii) any Deliverables shall be free from defects; and (iv) Contractor-Furnished Materials shall be of the quality specified, or of the best grade if no quality is specified, and, unless otherwise provided in this Contract, will be new and free from defects in design.

At any time for a period of one (1) year from the date of final completion of the Work and acceptance by Company, Contractor shall at its own expense promptly repair, replace and/or re-perform any portion of the Work that is defective or in any way fails to conform to the Contract requirements. Contractor shall be responsible for all costs necessary to repair, replace and/or re-perform the non-conforming Work including all material, labor and transportation costs, and further including the costs necessary to obtain access to the non-conforming materials or equipment and any resulting damage to surrounding Work and/or adjacent property, equipment and facilities. If Contractor fails to promptly make any repair, replacement or re-performance as required herein, Company may conduct the necessary Work at Contractor's expense. Contractor cannot void the warranty for repair, replacement or re-performance performed under these circumstances. Provided that such repair, replacement or re-performance is conducted in a reasonable manner and with workmanship and care consistent with industry standards, Contractor shall reimburse Company for the cost of any warranty repair, replacement or re-performance self-performed by Company.

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If any Work, Contractor-Furnished Materials or Deliverables fail to meet the foregoing warranties, Company shall have the right to self-perform Emergency warranty work as Company deems necessary. Company agrees to notify Contractor of such Emergency work within forty-eight (48) hours. Contractor cannot void the warranty for any repairs, replacement or re-performance performed under these Emergency circumstances. Provided that the Emergency repairs, replacement or re-performance is performed in a reasonable manner and with workmanship and care measured by industry standards, Contractor shall reimburse Company for the cost of any Emergency warranty work self-performed by Company.

Any repair, replacement or re-performance will meet the requirements of this Contract for a period of one (1) additional year following Company's acceptance of such repair, replacement or re-performance.

The foregoing warranties are not intended as a limitation, but are in addition to all other express warranties set forth in this Contract and such other warranties as are implied by law, custom, and usage of trade.

ARTICLE 21. INSURANCE

Without limiting any liabilities or any other obligations of Contractor, Contractor shall, prior to commencing Work, secure and continuously carry with insurers having an A.M. Best Insurance Reports rating of A-:VII or better such insurance as will protect Contractor from liability and claims for injuries and damages which may arise out of or result from Contractor's operations under the Contract and for which Contractor may be legally liable, whether such operations are by Contractor or a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Contractor shall insure the risks associated with the Work and this Contract with minimum coverages and limits as set forth below:

Workers' Compensation. Contractor shall comply with all applicable Workers' Compensation Laws and shall furnish proof thereof satisfactory to Company prior to commencing Work. If Work is to be performed in Washington or Wyoming, Contractor will participate in the appropriate state fund(s) to cover all eligible employees and provide a stop gap (employer's liability) endorsement. Coverage should also comply with applicable federal regulations (including, without limitation, FELA, USL&H and the Jones Act).

Employers' Liability. Contractor shall maintain employers' liability insurance with a minimum single limit of \$1,000,000 each accident, \$1,000,000 disease each employee, and \$1,000,000 disease policy limit.

Commercial General Liability. Contractor shall maintain commercial general liability insurance on the most recently approved ISO policy form, or its equivalent, written on an occurrence basis, with limits not less than \$1,000,000 per occurrence/\$2,000,000 general aggregate (on a per location and/or per job basis) and shall include the following coverages:

- a. Premises and operations coverage
- b. Independent contractor's coverage
- c. Contractual liability
- d. Products and completed operations coverage, maintained for at least **2 years** for post-completion losses
- e. Coverage for explosion, collapse, and underground property damage
- f. Broad form property damage liability
- g. Personal and advertising injury liability, with the contractual exclusion removed
- h. Sudden and accidental pollution liability, as applicable

Business Automobile Liability. Contractor shall maintain business automobile liability insurance on the most recently approved ISO policy form, or its equivalent, with a minimum single limit of \$1,000,000 each accident for bodily injury and property damage including sudden and accidental pollution liability, with respect to Contractor's vehicles whether owned, hired or non-owned, assigned to or used in the performance of the Work. If applicable, the automobile liability policy will include pollution liability coverage equivalent to that provided under the ISO Pollution Liability Broadened Coverage for Covered Autos endorsement (CA9948) and Motor Carrier Act endorsement (MCS90) shall be attached.

Umbrella or Excess Liability. Contractor shall maintain umbrella or excess liability insurance with a minimum limit of \$5,000,000 each occurrence/aggregate where applicable on a following form basis to be excess of the insurance coverage and limits required in employers' liability insurance, commercial general liability insurance and business automobile liability insurance above. Contractor shall provide Notice to Company, if at any time the full umbrella limit required under this Contract is not available, and will purchase additional limits, if requested by Company.

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Transit and Installation. If required or specified in the applicable Release, Contractor shall maintain transit and installation insurance covering all worldwide air, land and water shipments, and installation of plant, equipment, machinery, components, supplies and materials, and shall include loading and unloading if Work is to be conducted by Contractor or any Subcontractor, and offsite storage, if applicable. Coverage shall attach at Contractor's point of shipment and continue until installed, constructed or rigged by Contractor or its Subcontractors in conjunction with this Work. Transit insurance shall be provided on an all risk basis to include direct physical loss or damage, including but not limited to loss caused by war, terrorism, strike, riot and civil commotion, and fabrication/repairs. Losses resulting from damage during transit shall be provided to cover full replacement cost of the plant, equipment, machinery, components, supplies and materials being shipped and provide valuation of not less than CIF plus 10%.

Installation insurance shall be provided on an all risk basis with normal and customary exclusions and will include coverage for mechanical breakdown, testing and commissioning and resulting damage to the Work from faulty design, workmanship and materials on a full replacement cost basis of this property while located at any one location at any one time, and shall protect against (i) loss of Company's personal property while such property is in the care, custody or control of Contractor or its Subcontractors, and (ii) damage to the particular portion of Company's real property on which Contractor or any Subcontractors are performing the Work if the property damage arises out of the performance of Work.

Deductibles shall not be greater than \$100,000 for any loss. Contractor shall have obtained such transit or installation coverage on or prior to the date on which the exposure to the risk arises. Company will be named loss payee or additional named insured for its interest in the covered property.

Company does not represent that the insurance coverages specified herein (whether in scope of coverage or amounts of coverage) are adequate to protect the obligations of Contractor, and Contractor shall be solely responsible for any deficiencies thereof.

Except for workers' compensation, the policies required herein shall include provisions or endorsements naming Company, its parent, divisions, affiliates, subsidiary companies, co-lessees, co-venturers, officers, directors, agents, employees, servants and insurers as additional insureds or loss payees, as applicable to specific insurance coverage. The commercial general liability additional insured endorsement shall be ISO Form CG 20 10 and ISO Form CG 20 37, or their equivalents.

To the extent of Contractor's negligent acts or omissions, all policies required by this Contract shall include: (i) provisions that such insurance is primary insurance with respect to the interests of Company and that any other insurance maintained by Company (including self-insurance) is excess and not contributory insurance with the insurance required hereunder; (ii) provisions that the policy contain a cross liability or severability of interest clause or endorsement in the commercial general liability and automobile liability coverage; and (iii) provisions that such policies not be canceled or their limits of liability reduced without: (a) ten (10) calendar days prior written Notice to Company if canceled for nonpayment of premium; or (b) thirty (30) calendar days prior written Notice to Company if canceled for any other reason. Unless prohibited by applicable law, all required insurance policies shall contain provisions that the insurer will have no right of recovery or subrogation against Company, its parent, divisions, affiliates, subsidiary companies, co-lessees or co-venturers, agents, directors, officers, employees, servants, and insurers, it being the intention of the Parties that the insurance as effected shall protect all of the above-referenced entities evidenced by waiver of subrogation wording.

A certificate of insurance shall be furnished to Company through ISNetworld confirming the issuance of such insurance prior to commencement of Work by Contractor. Should a loss arise during the Term of the Contract that may give rise to a claim against Contractor and/or Company as an additional insured, Contractor shall deliver to Company (or cause to be delivered to Company) certified copies of such insurance policies. Contractor shall not cancel or reduce limits of liability without (i) ten (10) calendar days prior written Notice to Company if canceled for nonpayment of premium; or (ii) thirty (30) calendar days prior written Notice to Company if canceled for any other reason. Lack of notification shall be considered a material breach of this Contract.

Contractor shall require Subcontractors who perform Work at the Work Site to carry liability insurance (auto, commercial general liability and excess) and workers' compensation/employer's liability insurance commensurate with their respective scopes of work. Contractor shall remain responsible for any claims, lawsuits, losses and expenses included defense costs that exceed any of its Subcontractors' insurance limits or for uninsured claims or losses.

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ARTICLE 22. INDEMNIFICATION

Contractor specifically and expressly agrees to indemnify, defend, and hold harmless Company and its officers, directors, employees and agents (hereinafter collectively "Indemnitees") against and from any and all claims, demands, suits, losses, costs and damages, including attorneys' fees and/or litigation expenses, brought or made against or incurred by any of the Indemnitees arising out of death or bodily injury to persons or damage to property to the extent that the death or bodily injury to persons or damage to property arises out of the fault of Contractor or the fault of Contractor's agents, representatives or Subcontractors of any tier, their employees, agents or representatives in the performance or nonperformance of Contractor's obligations under this Contract or in any way related to this Contract. The indemnity obligations under this Article shall include without limitation:

- a. Loss of or damage to any property of Company, Contractor or any third party;
- b. Bodily injury to, or death of any person(s), including without limitation employees of Company, or of Contractor or its Subcontractors of any tier; and
- c. Claims arising out of workers' compensation, unemployment compensation, or similar such laws or obligations applicable to employees of Contractor or its Subcontractors of any tier.

Contractor's indemnity obligations owing to Indemnitees under this Article are not limited by any applicable insurance coverage identified in ARTICLE 21, INSURANCE. Contractor's indemnity obligation under this Article shall not extend to any liability caused by the negligence of any of the Indemnitees.

For Work performed in the States of Oregon and Washington, and to the limited extent that this Contract requires Contractor to perform Work meeting the statutory definition of "construction" in either of the above-referenced states, Contractor's indemnity obligations under this Article shall extend only to liability for damage arising out of death or bodily injury to persons or damage to property to the extent that the death or bodily injury to persons or damage to property arises out of the fault of Contractor, or the fault of Contractor's agents, representatives or Subcontractors.

To the extent applicable, Contractor specifically and expressly waives any immunity under either Industrial Insurance, Title 51, RCW, or Workers' Compensation Law, Chapter 656, ORS, and acknowledges that this waiver was mutually negotiated by the Parties herein.

The invalidity, in whole or in part, of any of the foregoing paragraphs will not affect the remainder of such paragraph or any other paragraphs in this Article.

ARTICLE 23. ACCESS TO COMPANY'S FACILITIES

23.1 Requirements for Unescorted Personnel and Sensitive Personnel

Access to Company controlled areas is granted on an as-needed basis only in accordance with Company's internal badge and access policy. Additionally, Company is required to comply with certain of NERC's federally mandated Critical Infrastructure Protection Standards (CIPS) adopted to ensure that electric utilities, as part of the nation's critical infrastructure, are able to sustain and secure against vulnerabilities that may threaten the bulk electric system and the utilities that operate it. Company shall specify in the Release or Scope of Work whether or not the Work under this Contract requires either: (i) authorized unescorted physical access to Company's Facilities (*i.e.*, use of Unescorted Personnel); or (ii) authorized unescorted physical access or authorized cyber access to Company's CIPS Covered Assets (*i.e.*, use of Sensitive Personnel). For all Personnel who require either such access, Contractor shall:

- a. Conduct, at Contractor's cost and expense, a Personnel risk assessment to include at a minimum an identity verification and seven-year criminal background check for the current residence and past locations of residence of all Unescorted Personnel and Sensitive Personnel. All background checks will be conducted in accordance with federal, state, provincial and local laws, and subject to existing collective bargaining unit agreements or other agreements, if any. A background check completed within two (2) years prior to the date the Contractor signed a Contractor/Vendor Information Form for each such person will be considered valid. Following the initial background check, updates shall be performed no less frequently than every seven (7) years or upon request by Company. In the event Company notifies Contractor of impending expiration of the background check of any Unescorted Personnel or Sensitive Personnel, Contractor shall provide an updated Contractor/Vendor Information Form reflecting a refreshed background check within twenty (20) days of receipt of the Notice in order to avoid revocation of such person's access. An appropriate authorization form must be signed by each of the Unescorted Personnel and Sensitive Personnel prior to a background check being conducted,

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acknowledging that the background check is being conducted and authorizing the information obtained to be provided to Company;

- b. Ensure that Unescorted Personnel and Sensitive Personnel have passed the background checks outlined in subsection 23.1(a) prior to requesting unescorted physical access and/or cyber access to Company's Facilities and/or CIPS Covered Assets, as applicable. In the event any such person: (i) is currently under indictment for a crime punishable by imprisonment for a term exceeding one year; (ii) has been convicted (within the past seven years) in any court of a crime punishable by imprisonment for a term exceeding one year; (iii) is currently a fugitive of justice; or (iv) is an alien illegally or unlawfully in the United States, such person shall be considered a "restricted person" and may not be Unescorted Personnel or Sensitive Personnel without prior written consent from Company. In the event any such person's background check reveals any residency gap of six (6) consecutive months or more, Contractor shall review, evaluate, and document any such residency gap to ensure that it does not pose a risk to Company's CIPS Covered Assets, prior to making a determination that Unescorted Personnel and Sensitive Personnel have passed the background check;
- c. Ensure that Unescorted Personnel and Sensitive Personnel complete Company provided or approved initial CIPS and Standards of Conduct compliance training prior to requesting unescorted physical access and/or cyber access to Company's Facilities and/or CIPS Covered Assets, as applicable;
- d. Ensure that Unescorted Personnel and Sensitive Personnel have passed Contractor's drug and alcohol exam and are in compliance with Contractor's substance abuse/drug and alcohol policy as outlined in ARTICLE 24, SUBSTANCE ABUSE; DRUG AND ALCOHOL POLICY; and
- e. Keep accurate and detailed documentation to confirm completion dates for background checks and all CIPS and Standards of Conduct compliance training (initial and annual training, to the extent applicable), and certify to Company such documentation by completing a Contractor/Vendor Information Form, attached as Exhibit R, hereto, for each Unescorted Personnel or Sensitive Personnel. Company has the right to audit Contractor's records supporting each Contractor/Vendor Information Form submitted to Company and to verify that the requisite background checks and CIPS and Standards of Conduct compliance training were performed. Contractor shall provide Company with all requested records supporting Contractor/Vendor Information forms within a reasonable time after receiving such a request, and in the form requested by Company, but not longer than three (3) business days following the date of such request.

Contractor shall not allow any Unescorted Personnel or Sensitive Personnel who have not met the foregoing requirements of this subsection 23.1 to perform Work, unless Contractor has received prior written consent from Company.

23.2 Additional Access Requirements Specific to Sensitive Personnel

In addition to the access requirements outlined in subsection 23.1, with respect to all Sensitive Personnel, Contractor also shall:

- a. Ensure that Sensitive Personnel (and any Personnel with access to BCSI) are informed of and comply with Company's BCSI requirements contained in any confidentiality agreement previously executed by Contractor as well as the BCSI requirements set forth herein in ARTICLE 67, CONFIDENTIAL INFORMATION; NONDISCLOSURE;
- b. In addition to the initial CIPS and Standards of Conduct compliance training requirement outlined in subsection 23.1(c), ensure that Sensitive Personnel complete annual Company provided or approved CIPS compliance training within Company's prescribed training window; and
- c. Immediately upon either (i) Sensitive Personnel termination actions or (ii) all other changes in the status of Sensitive Personnel who no longer require access, report such termination or change in status to the Company's Enterprise Service Desk (ESD). The ESD is available 24 hours a day by calling either (503) 813-5555 or (801) 220-5555.

Contractor shall not allow any Sensitive Personnel who have not met the foregoing requirements of this subsection 23.2 to perform Work, unless Contractor has received prior written consent from Company.

ARTICLE 24. SUBSTANCE ABUSE; DRUG AND ALCOHOL POLICY

- a. Contractor shall have in place and ensure that all Personnel comply with a substance abuse and drug and alcohol policy that meets or exceeds the requirements of all applicable federal, state and/or local statutes and regulations. Contractor shall subject each of the Personnel to a drug test at Contractor's sole cost and expense. Such drug test shall, at a minimum, be a nine (9) Panel Drug Test, which should be recognizable at testing labs as a "SamHSA9 panel at 50NG – THC cut-off."

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- b. For any Personnel who have had a recent drug test, such recent drug test shall be documented pursuant to the previous paragraph. Contractor warrants that Contractor and the Personnel are in compliance with Contractor's substance abuse and drug and alcohol policy.
- c. During the course of Work performed under this Contract, Contractor shall keep accurate and detailed documentation of its drug policy and Personnel drug tests, which it shall submit to Company upon request.
- d. Contractor shall designate one (1) person to be responsible for compliance with the requirements of this Article and all reporting and inquiries shall be made to a duly authorized representative of Company in a timely manner.

ARTICLE 25. CONTRACTOR'S PERSONNEL; DRUGS, ALCOHOL AND FIREARMS

Contractor shall employ in the performance of the Work only persons qualified for the same. Contractor shall at all times enforce strict discipline and good order among its employees and the employees of any Subcontractor of any tier. Contractor shall not permit or allow the introduction or use of any firearms, illegal drugs or intoxicating liquor upon the Work under this Contract, or upon any of the grounds occupied, controlled, or used by Contractor in the performance of the Work. Contractor shall immediately remove from the Work, whenever requested by Company, any person considered by Company to be incompetent, insubordinate, careless, disorderly, in violation of the above restriction on firearms, illegal drugs or intoxicating liquor, or under the influence of illegal drugs or intoxicating liquor, and such person shall not again be employed in the performance of the Work herein without the consent of Company.

ARTICLE 26. DEPARTMENT OF TRANSPORTATION

Contractor shall ensure Department of Transportation compliance including, but not limited to, valid driver's license, equipment inspections, hours of service and all appropriate documentation for any Personnel who may drive in the performance of Contractor's obligations under this Contract. Company may, at its discretion, check Personnel at the Work for a valid driver's license.

ARTICLE 27. BUSINESS ETHICS

Contractor, its employees, officers, agents, representatives and Subcontractors shall at all times maintain the highest ethical standards and avoid conflicts of interest in the performance of Contractor's obligations under this Contract. In conjunction with its performance of the Work, Contractor and its employees, officers, agents and representatives shall comply with, and cause its Subcontractors and their respective employees, officers, agents and representatives to comply with, all applicable laws, statutes, regulations and other requirements prohibiting bribery, corruption, kick-backs or similar unethical practices including, without limitation, the United States Foreign Corrupt Practices Act, the United Kingdom Bribery Act 2010, and the Company Code of Business Conduct. Without limiting the generality of the foregoing, Contractor specifically represents and warrants that neither Contractor nor any Subcontractor employees, officers, representatives or other agents of Contractor have made or will make any payment, or have given or will give anything of value, in either case to any government official (including any officer or employee of any governmental authority) to influence his, her, or its decision or to gain any other advantage for Company or Contractor in connection with the Work to be performed hereunder. Contractor shall maintain and cause to be maintained effective accounting procedures and internal controls necessary to record all expenditures in connection with this Contract and to verify Contractor's compliance with this Article. Company shall be permitted to audit such records as reasonably necessary to confirm Contractor's compliance with this Article. Contractor shall immediately provide Notice to Company of any facts, circumstances or allegations that constitute or might constitute a breach of this Article and shall cooperate with Company's subsequent investigation of such matters. Contractor shall indemnify and hold Company harmless from all fines, penalties, expenses or other losses sustained by Company as a result of Contractor's breach of this provision. The Parties specifically acknowledge that Contractor's failure to comply with the requirements of this Article shall constitute a condition of default under this Contract.

ARTICLE 28. RISK OF LOSS

Contractor assumes risk of loss and full responsibility for the cost of replacing any Contractor-Furnished Materials and Company-Furnished Materials (including any insurance deductibles and uninsured losses) while under the care, custody and control of Contractor. This provision shall apply regardless of whether Company holds legal title to such materials. This provision shall not apply to the extent such loss or damage is a result of the negligence or intentional misconduct of Company or Company's agents.

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ARTICLE 29. LABOR

Contractor shall be aware of, and familiar with, all collective bargaining agreements, where applicable, which do or may pertain to or affect the Work under this Contract or other work at the Work Site. Contractor shall plan and conduct its operations so that its employees and Subcontractors of any tier will work harmoniously with Company employees and other workers employed on the same or related projects to ensure that there will be no delays, work stoppages, excessive labor costs, or other labor difficulties.

ARTICLE 30. CONTRACTOR-FURNISHED MATERIALS

Contractor shall provide Company for its approval the names of the manufacturer(s) of all Contractor-Furnished Materials which Contractor contemplates incorporating in the Work, together with their performance capacities and other pertinent information upon request. Where Contractor-Furnished Materials are referred to in the Scope of Work or General PacifiCorp Work Requirements as "equal to" any particular standard, Company shall decide the question of equality. Contractor-Furnished Materials installed or used without Company's approval shall be at the risk of subsequent rejection. Samples of Contractor-Furnished Materials shall be submitted for approval when so directed.

ARTICLE 31. COMPANY-FURNISHED MATERIALS

Contractor shall be required to accept delivery of Company-Furnished Materials as described in the Scope of Work and to deliver them to the Work Site.

Contractor shall be required to execute a receipt for all items received from Company. Execution of a receipt without reservation incorporated therein shall bar a subsequent claim by Contractor that materials were received from Company in a damaged condition. Upon receipt by Contractor of Company-Furnished Materials, Contractor shall become solely responsible for their care and protection. In the event any materials are damaged, lost, stolen or destroyed, by reason of any cause, whether within or beyond the control of Contractor, the materials shall be repaired or replaced entirely and solely at Contractor's expense. The materials required to be replaced may be furnished by Company at its sole option. Contractor will be charged the amount the materials cost Company at place of delivery to Contractor. Contractor shall return to Company's facility all unused Company-Furnished Materials, along with a complete inventory of all materials returned. All returned materials shall be boxed or bundled in a manner acceptable to Company and neatly stacked in the facility as directed by Company.

Contractor shall notify Company forty-eight (48) hours prior to arriving at Company's facility before taking delivery of Company-Furnished Materials.

The Company project manager or other on-site Company project supervisory personnel (hereinafter, Company Supervisor) may require identification of persons entering or leaving Company sites or project sites. Company may also require searches of vehicles entering or leaving its sites or project sites. Company-owned project materials may only be removed from project sites with prior express written approval from the Company Supervisor.

Contractor shall each day provide the Company Supervisor the number of Personnel working on the project and when, where, and what work will occur.

ARTICLE 32. TEMPORARY CONSTRUCTION FACILITIES AND UTILITIES

Except as otherwise specifically provided in a Release, Contractor shall be required to provide, at its expense, all temporary facilities and utilities that may be necessary for the performance of the Work under this Contract. This includes temporary storage or office space as Contractor may require. The installation and maintenance of all temporary facilities and utilities shall be subject to the approval of Company, and unless authorized in writing by Company, all such facilities shall be removed from the Work Site at the completion of the Work. In the event Contractor provides space suitable for office or storage, a portion of such space if requested shall be made available for Company's representative.

ARTICLE 33. REVIEW OF DELIVERABLES

Review by Company of any Deliverables submitted by Contractor is only to determine the general conformance with the design concepts and shall not relieve Contractor of its responsibility to comply with all requirements of the Contract and for the accuracy of the Deliverables or the materials fabricated from such Deliverables.

The Contractor shall maintain at the Work Site, a copy of the drawings and specifications kept current with all changes and modifications, shall at all times give Company access and shall deliver a copy to Company upon request or upon termination or completion of the Work.

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Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be considered as if shown or mentioned in both. In case of a difference between drawings and specifications, a discrepancy in figures or any other discrepancy or conflict in Contract documents, the matter shall be promptly submitted to Company, which shall promptly issue a determination in writing. Any interpretation by Contractor without this determination shall be at Contractor's own risk and expense.

ARTICLE 34. ALLOCATION

Notwithstanding any other provision of this Contract, in the event of a partial or total failure of Contractor's sources of supply, including but not limited to failures arising from or related to storms, natural disasters or other occurrences that require emergency restoration of Company's services anywhere in Company's service area, Contractor will first meet all of Company's requirements hereunder prior to any allocation among other customers. In such event, the requirements of the Company shall be the first priority of Contractor. Contractor shall utilize all available resources of manpower and equipment at its disposal in order to meet Company's requirements hereunder in order to assist with such restoration, and shall not divert any of its available resources to other work until such services have been fully and completely restored, as determined by Company in its sole discretion, or until otherwise directed by Company.

ARTICLE 35. SITE REGULATIONS

Contractor, while performing Work at the Work Site, shall make itself aware of and adhere to Company Work Site regulations, if any, including without limitation environmental protection, loss control, dust control, safety, and security including, but not limited to, the provisions outlined in Exhibit K (including incident reporting and violation reporting forms contained therein).

ARTICLE 36. HEALTH, SAFETY AND ENVIRONMENTAL; INCIDENT, ACCIDENT AND DAMAGE PREVENTION

Contractor shall be solely responsible for being aware of and initiating, maintaining and supervising compliance with Exhibit K and with all health, safety and environmental laws, regulations, precautions, and programs in connection with the performance of the Contract. Prior to the start of any Work required by this Contract, Contractor shall ensure that each of its own employees, together with all employees of its Subcontractors of any tier, are fully informed concerning all health, safety, environmental and security regulations pertaining to their Work. Any project specific environmental requirements, beyond those stated herein under the terms of this Contract and associated exhibits, will be identified and detailed in the project scope and bid package and applicable Release. In the event any requirements are omitted, it does not relieve the contractor from complying with applicable environmental laws and regulations.

Contractor shall conduct all Work in such a manner as to avoid the risk of bodily harm to persons including the public or risk of damage to any property and the environment.

Contractor shall maintain an accurate record of and shall promptly report to Company all cases of property damage in excess of \$100 and of death, environmental breaches, occupational diseases, or injury to employees or any other third parties and incident to performance of Work under this Contract. Contractor shall promptly notify Company and provide a copy of any citation issued by any governmental entity.

Contractor and its Subcontractors shall maintain accurate and current safety and environmental records consistent with industry practice during the performance of Work under this Contract. Contractor and its Subcontractors shall immediately, and in no event more than twenty-four (24) hours, report to Company all cases of death or injury to Contractor or Subcontractor employees or any other third parties during or related to the performance of Work under this Contract. Contractor shall provide such notice to the Company project manager and PacifiCorp Grid Operations (800-732-8728), which notification shall include, but is not limited to, notice of all vehicle accidents, electrical contacts, electrical flashes, OSHA recordable incidents and environmental incidents. Within forty-eight (48) hours of any safety incident reported to Company, Contractor shall provide Company project manager with a preliminary accident investigation report detailing the facts of the incident, any known root cause, and action steps being taken by Contractor to further investigate the incident and mitigate future occurrences.

In the event Contractor fails to promptly correct any violation of health, safety or environmental regulations, Company may suspend all or any part of the Work. Contractor shall not be entitled to any extension of time or reimbursement for costs caused by any such suspension order. Failure of Company to order discontinuance of any or all of Contractor's operations shall not relieve Contractor of its responsibility for the safety of personnel and property.

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Contractor shall perform regular safety training sessions on not less than an annual basis for all personnel involved in the performance of Work covered by this Contract. Personnel who have not successfully completed the required annual safety training shall not be employed in the performance of Work covered by this Contract.

As a condition to the continued receipt of Releases under this Contract, Contractor must maintain its subscription with Company's third-party safety and loss information reporting service.

ARTICLE 37. HAZARDOUS MATERIALS

Contractor shall comply with, and cause all Subcontractors to comply with, all applicable statutes, laws, rules, regulations, codes, ordinances, decrees, writs, orders or similar requirements concerning Hazardous Materials. Without limiting the generality of the foregoing provision, Contractor shall comply with the following sections of Company's hazard communication program:

- a. Safety Data Sheets ("SDS") for all Hazardous Materials that Contractor or its Subcontractors plan to bring to the Work Site shall be made readily available for review by Company's manager, applicable safety coordinator or industrial hygienist. Contractor or its Subcontractors shall notify Company of potential exposure to Hazardous Materials to be used by Contractor or its Subcontractors if Company employees are present at the Work Site.
- b. Contractor shall furnish SDS and appropriate labels with all Hazardous Materials brought to the Work Site. All Hazardous Materials will be contained so as to meet applicable legal requirements.
- c. Contractor will cause all of its employees, and the employees of its Subcontractors, to review the SDS of Hazardous Materials and to follow the requirements of the OSHA Hazard Communication Standard.

Contractor is responsible for all applicable training and adherence to the OSHA Hazard Communication Standard and SARA Title III, Emergency Planning and Community Right-to-know Act (EPCRA) rules by their Personnel.

Contractor shall be solely responsible for all losses arising from Hazardous Materials brought to the Work Site by Contractor or its Subcontractors during the performance of the Work, including the storage, transportation, processing and disposal of Hazardous Materials. Contractor shall be solely responsible for all losses related to the Hazardous Materials brought to the Work Site by Contractor or its Subcontractors including, without limitation: (i) the remediation of any environmental condition caused by such Hazardous Materials, and (ii) any fines or penalties imposed by any governmental authority having or asserting jurisdiction with respect to the Hazardous Materials or Work. Contractor shall be solely responsible for the removal of all Hazardous Materials rough to the Work Site by Contractor or its Subcontractors.

ARTICLE 38. PROTECTION OF EXISTING FACILITIES

Contractor shall protect existing equipment and facilities, and avoid interference with Company's operations. Contractor shall not remove or alter any part of the existing structures, equipment or facilities without the prior knowledge and consent of Company.

In the event that it becomes necessary to interrupt or impose abnormal operating conditions upon any of the systems, notification must be submitted by Contractor well in advance of the time scheduled and a complete agreement must be reached with Company as to the definite date, time of day, length of time required, and specific details of the interruption.

ARTICLE 39. PRESERVATION OF PUBLIC/PRIVATE ACCESS

Contractor shall not damage, close, or obstruct any highway, road, or other public or private easement, except to the extent allowed by permits. If such facilities are closed, obstructed, damaged, or made unsafe by Contractor, Contractor shall, at its sole expense, make such repair as necessary and shall also provide such temporary guards, lights, and other signals as necessary or required for safety or as reasonably requested by Company. Contractor shall comply with all traffic control best practices and laws.

ARTICLE 40. DISTRIBUTION AND TRANSMISSION FACILITIES ACCESS

Access to the distribution and transmission facilities wherever possible will be from intersecting or adjacent public streets and roads. In the event access to Company right-of-way requires access across private property, such access shall be arranged and documented by the Contractor with the property owner in advance of accessing the right-of-way. Permission from the property owner to traverse private property shall be documented, and such documentation shall be retained by the Contractor. Contractor shall be solely responsible for the use and occupancy of any private lands crossed or otherwise occupied by it in securing additional access to the Company right-of-way across private property from public streets or roads.

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The easement or right-of-way for the distribution and transmission system facilities may cross grazing lands or cultivated areas, and Contractor shall take all necessary precautions to prevent damage to such lands and areas. Gates shall be kept at all times in the position encountered except when required to be opened for the immediate passage of personnel and equipment. A closed gate shall be kept in the closed position, and an open gate shall be kept in the open position. The position of the gate shall be documented and such documentation shall be retained by the Contractor. Contractor shall confine traffic to roads and lanes as may exist on the easement or right-of-way and shall maintain any such roads as are used by it and leave them in good condition on completion of the Work.

ARTICLE 41. SURVEYING

Contractor is responsible for performing all construction layout surveying required for execution of the Work.

Contractor shall be held responsible for preserving all established project control monuments unless their removal is requested by Contractor and authorized in writing by Company. Any costs incurred by Company to reestablish control monuments destroyed by Contractor will be for Contractor's account.

ARTICLE 42. PROGRESS MEETINGS

Company will conduct meetings at regular intervals agreed by the Parties, with Contractor to inspect facilities and discuss any unusual conditions or critical items which have affected or could affect the Work.

In addition, a joint Company and Contractor business process and performance review team will be established within thirty (30) calendar days of the date of execution of the Contract. This team will consist of a Company management representative with Contract management responsibility, a Company sourcing representative with Contract management responsibility, and a Contractor management representative with decision making and implementation authority for all areas of Contractor activity. This group will meet as needed at Company or Contractor discretion to discuss outstanding business process and performance issues. Any change in the general operational direction of Company or Contractor activity, forecast of Company resource needs, or other future considerations shall be periodically reviewed and discussed by this group.

ARTICLE 43. SUPERINTENDENCE BY CONTRACTOR

Contractor shall have competent supervisory Personnel satisfactory to Company and with authority to act for Contractor present at the Work Site at all times the Work is in progress.

Contractor will work with the Company's designated representative in coordinating and performing its Work. Failure of Contractor to do so shall be considered a default under this Contract. However, in no event shall the Company's designated representative have direction over means and methods used by Contractor in performance of the Work.

ARTICLE 44. USE OF PREMISES AND TRESPASS

Contractor shall confine the storage of materials and construction equipment to locations acceptable to Company and in accordance with all applicable ordinances, regulations, or laws. Contractor shall provide adequate safety barriers, signs, lanterns, and other warning devices and services to properly protect any person having access to or near the Work Site. Contractor shall be solely responsible for any act of trespass or any damage to adjacent property resulting from or in connection with its operations under this Contract.

Contractor agrees to abide by Company's Exhibit K, Part 9. No individuals, whether employees, Contractor, vendors, visitors or guests, are allowed to smoke or use tobacco products on the premises of any Company facility or property, whether owned or leased. This prohibition includes offices, field facilities, company vehicles and aircraft, garages, parking lots, lawns and sidewalks.

ARTICLE 45. UNDERGROUND OBSTACLES

Contractor shall be responsible for ascertaining the location of and avoiding damage to all underground installations including without limitation cable, gas, water pipes, telephone lines, and other underground installations, whether the location of the excavation, digging, or trenching required for performance of the Work is fixed by Company or by Contractor. Contractor shall comply with Blue Stake or One Call laws.

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ARTICLE 46. COOPERATION WITH OTHERS

Contractor shall fully cooperate and coordinate with Company employees and other contractors who may be awarded other work. Contractor shall not commit or permit any act, which will interfere with the performance of work by Company employees or other contractors.

ARTICLE 47. CLEANUP

Contractor shall keep each Work Site, including storage areas used by it, free from accumulation of waste materials or rubbish arising out of the Work, and prior to completion of the Work, shall remove and properly dispose of any such rubbish from and about the Work Site, as well as remove all tools and equipment not property of Company. Upon completion of the Work, Contractor shall leave each Work Site in a condition satisfactory to Company. In the event of Contractor's failure within a reasonable time to comply with any of the foregoing, Company may, after written Notice to Contractor of such failure, perform the cleanup and removal at the expense of Contractor. Contractor shall be responsible for the management and disposal of wood waste generated at the Work Site as set forth in the attached Exhibit N.

ARTICLE 48. LIENS

Contractor shall: (i) indemnify, defend, and hold harmless Company from all laborers', materialmen's and mechanics' liens or claims made or filed against Company or upon the Work or the property on which the Work is located on account of any labor performed or labor, services, and Contractor-Furnished Materials provided by Subcontractors of any tier; and (ii) keep the Work and said property free and clear of all liens or claims arising from the performance of any Work covered by this Contract by Contractor, its Subcontractors of any tier.

If any lien arising out of this Contract is filed, before or after Work is completed, Contractor, within ten (10) calendar days after receiving from Company written Notice of such lien, shall obtain release of or otherwise satisfy such lien. If Contractor fails to do so, Company may take such steps and make such expenditures as in its discretion it deems advisable to obtain release of or otherwise satisfy any such lien or liens, and Contractor shall upon demand reimburse Company for all costs incurred and expenditures made by Company in obtaining such release or satisfaction. If any non-payment claim is made directly against Company arising out of non-payment to any Subcontractor, Contractor shall assume the defense of such claim within ten (10) calendar days after receiving from Company written Notice of such claim. If Contractor fails to do so, Contractor shall upon demand reimburse Company for all costs incurred and expenditures made by Company to satisfy such claim.

Contractor's obligation to indemnify, defend and hold harmless Company from liens and claims shall not in any way be rendered unenforceable, or altered, amended, eliminated or otherwise conditioned by any laws and regulations related to processing such liens. Company shall have no obligation to deliver a copy of any notice of claim or right to a lien to Contractor or any other person or entity.

ARTICLE 49. CONFLICTS, ERRORS, OMISSIONS, OR DISCREPANCIES IN CONTRACT DOCUMENTS

Contractor shall advise Company in writing of all conflicts, errors, omissions, or discrepancies among the various documents comprising this Contract immediately upon discovery and prior to Contractor's performing the affected Work. Company shall resolve such conflicts and such resolution shall be final. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be considered as if shown or mentioned in both.

ARTICLE 50. LIQUIDATED DAMAGES

The amount of liquidated damages shall be specified within each project bid package and imposed in its corresponding Release.

If Contractor fails to perform the Work in accordance with the Project Guaranteed Dates specified in a Release, Company will incur some degree of damages. The Parties expressly acknowledge and agree that it would be difficult or impossible to determine with absolute precision the amount of damages that would be incurred by Company as a result of Contractor's failure to perform the Work in accordance with the Project Guaranteed Dates. The Parties accordingly agree, having taken into account all factors that they deem appropriate, including all of the respective rights and obligations under this Contract, that liquidated damages are in lieu of actual damages and are the Parties' reasonable estimate of fair compensation for the losses that are reasonably anticipated to be incurred by Company from Contractor's failure to timely perform in accordance with the Contract, and do not constitute a penalty. The payment of liquidated damages (and, to the extent applicable, termination of the Contract and/or Release by Company for default in accordance with the terms hereof) shall be Contractor's

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sole and exclusive obligations and Company's sole and exclusive remedy with respect to the failure to timely perform in accordance with the Project Guaranteed Dates set forth in the specified Release. The sole and exclusive remedy provision set forth in this Article applies only to delay claims and not to any other damage claims Company may have under this Contract.

In the event that the provisions for the payment of liquidated damages as specified in a Release are held to be unenforceable as a matter of law, Contractor shall be liable for all actual damages that may be available at law for late delivery, including loss of profit or income, loss of use, loss or production, loss of contracts, incidental damages and consequential damages, but subject to the maximum amounts which would have been payable if the liquidated damages provision had been enforceable.

WITH THE EXCEPTION OF CONSEQUENTIAL DAMAGES THAT ARE PERMITTED PURSUANT TO THE SECOND PARAGRAPH OF THIS ARTICLE IN THE EVENT THAT LIQUIDATED DAMAGES ARE HELD TO BE UNENFORCEABLE AS A MATTER OF LAW, THE PARTIES WAIVE CLAIMS AGAINST EACH OTHER FOR CONSEQUENTIAL DAMAGES ARISING UNDER OR RELATING TO THIS CONTRACT.

ARTICLE 51. PAYMENT BONDS

At Company's sole option to be exercised by the time of execution of a Release in accordance with this Contract, Contractor shall furnish a Labor and Material Payment Bond with the penal sum of one-hundred (100) percent of the Release price. The bond shall be issued concurrently with the execution of the Release and shall cover full and faithful performance of all conditions and provisions hereunder, including the payment of all materials and labor incurred by Contractor in the performance of the Release, including changed Work as provided in ARTICLE 19, CHANGES. Said bond shall be issued on a form acceptable to Company.

ARTICLE 52. CLAIM NOTICE AND RESOLUTION PROCEDURE

In the event Contractor has a claim or request for a time extension, additional compensation, any other adjustment of the Contract terms, (in which event notice will be provided on the form included as Exhibit W), Contractor shall provide Company with Notice of such Claim within five (5) business days following the occurrence of the event giving rise to the Claim. Contractor's failure to give Notice as required will constitute a waiver of all of Contractor's rights with respect to the Claim.

As soon as practicable after Claim notification, Contractor shall submit the Claim to Company with all supporting information and documentation. Contractor shall also respond promptly to all Company inquiries about the Claim and its basis.

Any Claim that is not disposed of by mutual agreement between the Parties shall be decided by Company, which shall provide a written decision to Contractor. Such decision shall be final unless Contractor, within thirty (30) calendar days after such receipt of Company's decision, provides to Company a written protest, stating clearly and in detail the basis thereof. Contractor's failure to protest Company's decision within that time period shall constitute a waiver by Contractor of its right to dispute the decision. Even if a Claim arises, Contractor shall continue its performance of this Contract.

ARTICLE 53. SUSPENSION OF WORK

Company may, by written Notice, direct Contractor to suspend performance of any or all of the Work for a specified period of time. Upon receipt of such Notice to suspend, Contractor shall: (i) discontinue the applicable Work; (ii) place no further orders or subcontracts with respect to the suspended Work; (iii) suspend all orders and subcontracts with respect to the suspended Work; (iv) protect and maintain the suspended Work; and (v) otherwise mitigate Company's costs and liabilities for those areas of Work suspended. Company shall pay Contractor an equitable amount for incremental costs incurred by Contractor as a result of the suspension; provided, however, that if the suspension is due to Contractor's failure to comply with the Contract, no such payment shall be made.

ARTICLE 54. TERMINATION FOR CONVENIENCE

Company may terminate this Contract in whole or in part at any time without cause prior to its completion by sending to Contractor written Notice of such termination. Upon such termination, Company shall pay to Contractor, in full satisfaction and discharge of all liabilities and obligations owed Contractor, an equitable amount for all Work satisfactorily performed by Contractor as of the date of termination, plus an equitable termination fee to address Subcontractor termination charges and other out-of-pocket costs incurred by Contractor as the result of the termination provided that such costs cannot be reasonably mitigated. Company shall not be liable for anticipated profits based upon Work not yet performed.

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ARTICLE 55. TERMINATION FOR CAUSE

1. For purposes of this Contract, a default by Contractor shall be the occurrence of any of the following:
 - a. A breach by Contractor of any of its material obligations under the Contract, if such breach continues uncured for a period of seven (7) days after receipt of Notice from Company, unless Company agrees, in writing, to grant Contractor an extension of such seven (7) day period for a period of time to be determined at Company's sole discretion. In such circumstance, Company shall prescribe the new cure period in writing. For purposes of the Contract, a default by Contractor shall be deemed to include, without limitation, Contractor's refusal or neglect to supply sufficient and properly skilled Personnel, materials or Deliverables of the proper quality or quantity, or equipment necessary to perform the Work described in the Contract properly, or Contractor's failure in any respect to prosecute the Work described in the Contract or any part thereof with promptness, diligence and in accordance with all of the material provisions hereof;
 - b. Contractor fails in any material respect to comply with any laws, ordinances or regulations pertaining to safety or environmental compliance;
 - c. A determination that any representation, statement or warranty made by Contractor in this Contract, Release or any other statement, report or document which Contractor is required to furnish to Company, was false or misleading in any material respect;
 - d. The occurrence of any of the following: (i) the filing by or against Contractor of a proceeding under any bankruptcy or similar law, unless such proceeding is dismissed within thirty (30) calendar days from the date of filing; (ii) the making by Contractor of any assignment for the benefit of creditors; (iii) the filing by or against Contractor for a proceeding for dissolution or liquidation, unless such proceeding is dismissed within thirty (30) calendar days from the date of filing; (iv) the appointment of or the application for the appointment of a receiver, trustee or custodian for any material part of Contractor's assets unless such appointment is revoked or dismissed within thirty (30) calendar days from the date thereof; (v) the attempt by Contractor to make any adjustment, settlement or extension of its debts with its creditors generally; (vi) the insolvency of Contractor; or (vii) the filing or recording of a notice of lien or the issuance or the obtaining of a levy of execution upon or against a material portion of Contractor's assets, unless such lien or levy of execution is dissolved within thirty (30) calendar days from the date thereof;
 - e. A Material Adverse Change has occurred with respect to Contractor and Contractor fails to provide such performance assurances as are reasonable requested by Company, including without limitation the posting of additional Default Security pursuant to ARTICLE 11, DEFAULT SECURITY.
 - f. The Substantial Completion Date has not occurred on or before the date that is thirty (30) calendar days after the Substantial Completion Guaranteed Date;
 - g. Failure to develop a reasonably acceptable Schedule Recovery Plan pursuant to ARTICLE 56, SCHEDULE;
 - h. Following approval of a Schedule Recovery Plan pursuant to ARTICLE 56, SCHEDULE Contractor's unexcused failure to comply with the schedule set forth in the Schedule Recovery Plan (as determined from the revised Critical Path Schedule established by the Schedule Recovery Plan); or
 - i. Contractor suspends or abandons the Work.
2. Upon the occurrence of a breach or material default specified in this Article, Company shall have the right to terminate this Contract for cause.
3. Upon the occurrence of any such material default, following the applicable process described in this Article, Company shall be entitled upon Notice to Contractor and without notice to Contractor's sureties and without limiting any of Company's other rights or remedies, to terminate this Contract or to terminate Contractor's right to proceed with that portion of the Work affected by any such material default and collect the Net Replacement Costs incurred to complete the Work.
4. Upon termination of this Contract or any portion of this Contract upon a material default by Contractor, Company shall be entitled to pursue any and all rights and remedies that it may have against Contractor under this Contract or at law or in equity.

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5. Upon receipt of any such Notice of termination of the entire Contract or of any right to proceed with any portion of the Work following the applicable process described in this Article, Contractor shall, at its expense, for that portion of the Work affected by any such termination:
 - a. Assist Company in making an inventory of all Contractor-Furnished Materials and Company-Furnished Materials in storage at Contractor's facility, en route to Contractor's facility, in storage or manufacture elsewhere, en route to Company and on order from the suppliers;
 - b. Assess the status of any Deliverables still due and preserve any Work performed; and
 - c. To the extent that they are assignable, assign to Company any and all subcontracts and equipment rental agreements as designated in writing by Company.
6. In the event of such termination, Company may, for the purpose of completing the Work or enforcing these provisions, take possession of all equipment, tools, appliances, documentation, software source media, flow charts, documents and other Deliverables at Company's Work Site belonging to or under the control of Contractor, and may use them or may finish the Work by whatever method it may deem expedient including: (i) Company may hire a replacement contractor or contractors to complete the remaining Work that Contractor was otherwise obligated to complete under the Contract using such form of agreement as Company may deem advisable; or (ii) Company may itself provide any labor or materials to complete the Work. Contractor shall cooperate with and assist Company in attempting to acquire from Contractor's Subcontractors the right to take possession of and use any and all proprietary materials in the event of such termination. All proprietary materials of Contractor or Subcontractors shall remain subject to the provisions herein, and Company shall not have any broader rights to use or disclose such proprietary materials as a result of such termination. Any software embodying any of Contractor's proprietary materials shall also be subject to the provisions herein. In the event of such a termination, Contractor shall not be entitled to receive any further payment until the Work is completed, and such amounts may be offset against Company's Net Replacement Costs.
7. All rights and remedies provided in this Article are cumulative, and are not exclusive of any other rights or remedies that may be available, whether provided by law, equity, statute, in any other agreement between the Parties or otherwise. Upon the occurrence of any such default, following the applicable process described in this Article, Company shall be entitled to pursue any and all other rights and remedies, including without limitation damages, that Company may have against Contractor under this Contract or at law or in equity (provided, however that Company shall not be entitled to collect any damages at law attributable to late delivery, performance or any other item for which this Contract specifically provides liquidated damages as an exclusive remedy).

ARTICLE 56. SCHEDULE

For Releases issued in accordance with this Contract for which completion of the Work shall require thirty (30) calendar days, or more, the Contractor shall submit, within seven (7) business days after the Release effective date and prior to the start of the Work, a detailed bar chart type schedule for this Work. Contractor agrees to provide whatever management, administration, and control of its own Work or the Work of its Subcontractor of any tier which may be required to insure completion of the Work in accordance with this schedule.

Contractor shall perform and complete each segment of the Work in accordance with the schedule, unless otherwise approved in writing by an authorized representative of the Company.

Contractor shall commence performance of the applicable Work upon execution by Company and Contractor of a Release to be issued under the Contract. Each Release will include Project Guaranteed Dates. Contractor shall perform the Work under each Release in accordance with the Project Guaranteed Dates. Time is of the essence with respect to the performance by Contractor of its obligations hereunder.

Unless otherwise excused by the terms of this Contract, Contractor's failure to timely complete Work in accordance with the Project Guaranteed Dates set forth in the applicable Release shall result in the assessment of liquidated damages as set forth in ARTICLE 50, LIQUIDATED DAMAGES and at the rates and subject to the maximum liability caps set forth in the applicable Release. In addition, Contractor's failure to timely complete Work in accordance with the Project Guaranteed Dates may constitute, as provided in ARTICLE 55, TERMINATION FOR CAUSE, a Contractor event of default.

Contractor shall develop (before or after the execution of a Release) and thereafter maintain and manage a comprehensive Critical Path Schedule for Contractor's performance of the Work, which Critical Path Schedule shall meet the minimum requirements of Exhibit U and be approved by Company. Utilizing the critical path method, Contractor shall continually be

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aware of factors that are delaying or that could delay the timely achievement of the Project Guaranteed Dates, and shall take all remedial actions within its control to eliminate or minimize schedule delays, including overtime for the employees of Contractor and Subcontractors and the assignment of additional Personnel and/or other resources.

Except as specifically excused pursuant to the terms of this Contract, if: (i) Contractor fails to comply with the schedule for achieving Substantial Completion on or before the Substantial Completion Guaranteed Date, (ii) Contractor fails to timely complete a Contractor Critical Milestone, or (iii) Company has reasonable cause to believe that Contractor's ability to meet any of the critical path items on the Critical Path Schedule has been substantially impaired, then (in any of the above-referenced events) Contractor shall, within ten (10) calendar days after Contractor becomes aware of such delay, or within ten (10) calendar days after receiving written request from Company, submit for approval by Company, a written plan to complete all necessary Work to achieve Substantial Completion by the Substantial Completion Guaranteed Date (the "Schedule Recovery Plan"). If Contractor does not believe it is reasonably possible to achieve Substantial Completion on or before the Substantial Completion Guaranteed Date, then the Schedule Recovery Plan must demonstrate how Contractor will complete all necessary Work to achieve Substantial Completion prior to the default deadline set forth in Section 55.1(f). Contractor's failure to demonstrate its ability to achieve Substantial Completion prior to the default deadline set forth in Section 54.1(f) shall constitute a Contractor Event of Default as set forth in Section 54.1(g). Within fifteen (15) calendar days after receipt of the Schedule Recovery Plan, Company shall deliver Notice of approval or disapproval of the Schedule Recovery Plan to Contractor, the approval thereof not to be unreasonably withheld. If Company disapproves all or any portion of the Schedule Recovery Plan, Company shall approve those portions of the Schedule Recovery Plan that are acceptable and provide comments to those portions of the Schedule Recovery Plan that have been disapproved. Contractor shall then resubmit a revised Schedule Recovery Plan addressing such comments as shall have been provided by Company within five (5) additional calendar days and, upon approval by Company, promptly proceed with such additional Work as may be required under the Schedule Recovery Plan. Contractor's failure to develop a reasonably acceptable Schedule Recovery Plan shall constitute a Contractor Event of Default as set forth in Section 54.1(g). Approval by Company of a Schedule Recovery Plan shall not be deemed in any way to have relieved Contractor of its obligations under the Contract including, without limitation, Contractor's obligations to comply with the Project Guaranteed Dates. Approval by Company of a Schedule Recovery Plan shall not be a basis for an increase in the Contract Price, or limit the rights of Company under ARTICLE 50, LIQUIDATED DAMAGES. Contractor's unexcused failure to comply with the revised Critical Path Schedule established by the Schedule Recovery Plan shall constitute a Contractor event of default as set forth in Section 54.1(h).

ARTICLE 57. DELAYS

Force Majeure. Neither Party shall be liable for delays caused by a Force Majeure Event; provided, however, that both Parties agree to seek to mitigate the potential impact of any such delay. Any delay attributable to a Force Majeure Event shall not be the basis for a request for additional compensation. In the event of any such delay, the required completion date may be extended for a reasonable period not exceeding the time actually lost by reason of the Force Majeure Event. The imposition of any liquidated damages, if applicable, for performance or completion of the Work under a specific Release shall be extended by an amount of time equivalent to the length of time of the Force Majeure Event.

Company-Caused Delay. If Contractor is actually delayed in its performance of the Work by the actions or omissions of Company (excluding Company's good faith exercise of rights and remedies provided under the Contract), or by changes ordered with respect to the Work, and if Contractor is able to prove that it has used all reasonable means to avoid or minimize the effects of the delay, then Contractor's guaranteed completion dates shall be equitably adjusted to reflect the impacts of such Company-caused delays. To the extent reasonably possible, Company may, at its discretion, and in lieu of granting an extension of time, require Contractor to regain the schedule whereby Company shall compensate Contractor for all additional costs reasonably incurred thereby. No adjustment under this Article shall be made for any delay to the extent that it is caused or contributed to by Contractor or performance would have otherwise been delayed by any other cause, including the fault or negligence of Contractor.

Contractor Caused Delays. . In the event the Work is not delivered in accordance with and within the time specified in the Release, and the failure to timely perform is in no way related to either a Force Majeure Event or Company-caused delay, Contractor shall pay liquidated damages as indicated in ARTICLE 50, LIQUIDATED DAMAGES.

Request for Time Extension. Any request for time extension or additional compensation shall be made in accordance with ARTICLE 52, CLAIM NOTICE AND RESOLUTION PROCEDURE.

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If, at any time, Company determines the progress of the Work is unsatisfactory, Contractor may be directed to work overtime, increase its workforce, work additional shifts, add supervision or take other corrective actions to ensure the timely and orderly prosecution of the Work, at no additional cost to Company.

ARTICLE 58. SCHEDULED OUTAGES

Contractor shall coordinate with Company to schedule outages required for the completion of the Work. Company will exert every reasonable effort to secure required outages during Contractor's normal work week schedule. Requests for outages shall be given to Company with the greatest lead time possible, but not less than seventy-two (72) hours.

Contractor shall be aware that Company may not be able to guarantee the scheduled outages or duration of outages due to unforeseen circumstances, severe weather, or system requirements.

Contractor shall plan its Work activities to keep each outage time to a minimum. Contractor shall perform as much preliminary Work as possible before scheduling each outage.

ARTICLE 59. SITE INVESTIGATION

With respect to each project, Contractor will satisfy itself as to the nature and location of the Work, the general, local, physical and other conditions of the Work, particularly those bearing upon transportation, access, disposal, handling and storage of materials, availability and quality of labor, water, electric power, roads, uncertainties of weather, including flash floods or similar physical conditions at the Work Site, the character of conditions on the ground, the character, quality and quantity of surface and subsurface material to be encountered; the character of equipment and facilities needed preliminary to and during the prosecution of the Work, and all other matters which could in any way affect the Work or the cost thereof under this Contract. The failure of Contractor to, prior to the effective date of any Release, adequately investigate and acquaint itself with the available information concerning these conditions and all other matters which could in any way affect the Work or the cost thereof under this Contract shall not relieve Contractor from its responsibility for properly estimating the difficulties and costs of successfully performing the Work and completing the Work as specified in a Release under this Contract, and shall not be grounds for adjusting either the price or the schedule. Company assumes no responsibility for any understanding or representation made by any of its officers or agents during or prior to the negotiations and execution of this Contract or any Release.

ARTICLE 60. CHANGED CONDITIONS

Contractor shall immediately and before such physical conditions are disturbed, provide Notice to Company of: (i) subsurface or latent physical conditions at any Work Site differing materially from those indicated in this Contract and the applicable Release and which could not have been discovered pursuant to the site investigations for which Contractor is responsible under ARTICLE 59, SITE INVESTIGATION; or (ii) unknown physical conditions at the Work Site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in this Contract and the applicable Release and which could not have been discovered pursuant to the site investigations for which Contractor is responsible under ARTICLE 59, SITE INVESTIGATION. Company will promptly investigate the conditions, and if it finds that such conditions do materially differ and cause an increase or decrease in the cost of, or the time required for performance of this Contract, an equitable adjustment shall be made and this Contract modified in writing accordingly. Any claim by Contractor for adjustment hereunder shall be made pursuant to ARTICLE 52, CLAIM NOTICE AND RESOLUTION PROCEDURE.

ARTICLE 61. CYBER SECURITY

I. OBJECTIVE AND SCOPE OF THIS ARTICLE

Managing supply chain cyber security risk requires Company's contractors and suppliers to meet minimum obligations to maintain the integrity of Company's systems, facilities, and Confidential Information. This Cyber Security Article ("Article") applies to any contractor or supplier (collectively, "Contractor" for purposes of this Article) (and its Personnel and Subcontractors) that may store, process, or have access to Company's information systems, networks, services, or applications, and may impact the integrity, availability, or confidentiality of Company's Confidential Information or systems for the term of the Contract.

II. DEFINED TERMS

"Confidential Information" shall have the meaning as defined in the Contract and in addition include any information that identifies an individual or customer of Company, including but not limited to customer account numbers, customer addresses,

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customer energy usage information, credit or bank account numbers, social security numbers, passport or driver's license numbers, or any information not otherwise classified as public information by Company.

"Data" shall mean any information, formulae, algorithms, or other content that the Company or the Company's employees, agents and end users upload, create or modify using any software provided pursuant to the Contract. Data also includes user identification information and metadata which may contain Data or from which the Company's Data may be ascertainable.

"Security Breach" shall mean any act or omission that compromises either the security, confidentiality, or integrity of Company's Confidential Information, Data, systems and facilities or Company's physical, technical, administrative or organizational safeguards and controls relating to the protection of Company's Confidential Information, Data, systems, and facilities.

Any capitalized terms not otherwise defined herein shall have the meaning in the Contract.

III. COMPLIANCE WITH INDUSTRY BEST PRACTICES AND STANDARDS

Without limiting Contractor's obligations elsewhere in this Article or the Contract, Contractor shall implement baseline security safeguards and controls to protect Company's Confidential Information, Data, and systems that are no less rigorous than accepted industry practices, specifically those set forth in the latest published version of (i) National Institute of Standards and Technology Special Publication 800-53, Recommended Security Controls for Federal Information Systems or (ii) ISO 27001-Information Security Management.

IV. INFORMATION AND SYSTEMS SECURITY PROGRAM

(a) Confidential Information. Contractor represents and warrants that its collection, access, use, storage, disposal, and disclosure of Company's Confidential Information and Data does and will comply with all applicable federal and state privacy and data protection laws, regulations, and directives. Contractor's safeguards shall include limiting access to Company systems and Confidential Information to Contractor's Personnel who have a "need to know" or otherwise access Company's systems and Confidential Information to enable Contractor to perform Work or Services under the Contract. Articles of the Contract, concerning (i) Contractor's Personnel and their access to Company's facilities and (ii) the handling of Confidential Information, respectively, shall apply to this Article as applicable. These provisions included herein apply to all Subcontractors to the extent and during such periods as they are in possession of Confidential Information or Data.

(b) Data and Information Security Program. Contractor shall develop a data and information security program that documents the policies, standards, and controls in use, including organizational, administrative, technical, and physical safeguards and standards. The data and information security program must be reasonably designed to achieve the objectives to:

- (i) ensure the confidentiality, availability, and integrity of Company's Confidential Information;
- (ii) protect against any anticipated threats or hazards to the confidentiality, availability, or integrity of such information; and
- (iii) protect against unauthorized access to or use of such information or information systems.

Contractor shall ensure that it produces and communicates a comprehensive, documented data and information security program to all Personnel with access to Company's Confidential Information, Data, and systems.

(c) Information Systems Acquisition, Development and Maintenance. Contractor shall utilize a comprehensive application security program to help ensure that applications are consistent with industry security requirements. This shall include full application compliance testing and software development reviews.

(d) Vulnerability Testing and Remediation. Contractor shall ensure systems are regularly scanned for compliance with industry security standards, and that any applicable detected vulnerabilities are remediated. Contractor shall ensure that application security vulnerabilities are assessed for business risk and impact, and have a vulnerability remediation plan.

(e) Secure System Configuration. Contractor shall establish, implement, and actively manage (track, report on, and correct) the security configuration of laptops, servers, and workstations using a rigorous configuration management and change control process in order to prevent attackers from exploiting vulnerable services and settings.

(f) System Patching. Contractor shall implement an effective software update management process to ensure the most relevant, up-to-date, approved patches are installed for all authorized software. This process shall also include weighing the benefit associated with installing a patch to resolve a vulnerability against other factors, including the potential impact to

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system stability.

(g) Security Review of Internal and External Applications. Contractor shall perform security reviews of applications developed internally, as well as third party applications that process, store or transmit data.

(h) Application Security Awareness Program Content. Contractor shall ensure that the content of its application security awareness program incorporates current and relevant security attacks and vulnerabilities mitigation.

(i) Disaster Recovery and Business Continuity. Contractor shall develop a comprehensive IT disaster recovery and business continuity program and plan that is accessible by Company, supported by contingency arrangements, and tested periodically.

(j) Remote Access. Contractor shall follow all applicable Company requirements for all remote access to Company resources and systems. To the extent Contractor's Personnel will have interactive remote access to Company's networks, systems or applications, such access must be performed on a secure connection. Contractor shall utilize multi-factor authentication (e.g., two-factor or token) to provide an additional level of security for Contractor's Personnel with such access. Contractor shall maintain an accurate record of Personnel or Subcontractors who will have remote access to Company resources and systems, and the country of origin of individual remote access, and Contractor shall name its personnel and Subcontractors given remote access to Company's systems. Company reserves the right to deny individual remote access connection at Company's sole discretion.

V. SECURITY OF CONFIDENTIAL INFORMATION AND DATA

(a) Any Confidential Information and Data provided by Company to Contractor (electronically or otherwise) and used by the Contractor directly or indirectly in the performance of this Contract shall remain at all times the confidential property of Company. Contractor shall not use Confidential Information or Data, and shall not permit any Subcontractor to use Confidential Information or Data, for any purpose other than the purpose of performing the Work or Services set forth in this Contract.

(b) During the term of the Contract, Contractor shall provide Company with Notice if Confidential Information or Data will be physically located outside the United States at least forty-eight (48) hours in advance.

(c) Contractor shall be responsible for preserving the integrity (i.e., completeness and accuracy) of, and preventing any unauthorized access, corruption, loss, damage and/or destruction to, Confidential Information or Data.

VI. OVERSIGHT OF COMPLIANCE

Company reserves the right to conduct an assessment, audit, examination, or review of Contractor's security controls to confirm Contractor's adherence to the terms of this Article, as well as any applicable laws, regulations, and industry standards, not more than once per year or upon notification of any Security Breach or complaint regarding Contractor's privacy and security practices. Company may elect to obtain the services of a third party to conduct this assessment, audit, examination, or review on behalf of Company. Company shall give Contractor no less than thirty (30) calendar days' notice of its intent to conduct such assessment, audit, examination, or review. As part of this assessment, audit, examination, or review, Company may review all controls in Contractor's physical and/or technical environment in relation to all Confidential Information being handled and/or services being provided pursuant to this Article. Contractor shall fully cooperate with such assessment by providing access to knowledgeable personnel, physical premises, documentation, infrastructure, and application software that processes, stores, or accesses Company's Confidential Information or systems pursuant to the Contract. Vendor grants the Company the right to perform network-based vulnerability scans of any Internet-reachable websites or devices used for the provision of services or support under the Contract.

VII. SECURITY BREACH PROCEDURES; EQUITABLE RELIEF

(a) Contractor shall:

(i) provide Company with the name and contact information for any Personnel who shall serve as Contractor's primary security contact and shall be available to assist Company twenty-four (24) hours per day, seven (7) days per week as a contact in resolving obligations associated with a real or emerging Security Breach;

(ii) notify Company of a real or emerging Security Breach as soon as practicable, but no later than 24 hours after Contractor becomes aware of it; and

(iii) notify Company of any real or emerging Security Breach by telephone at the following number: (503) 813-5555.

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(b) Immediately following Contractor's notification to Company of a real or emerging Security Breach, the Parties shall coordinate with each other to investigate such Security Breach. Contractor agrees to fully and promptly coordinate with Company in Company's handling of the matter, including, without limitation: (i) assisting with any investigation; (ii) providing Company with physical access to the facilities and operations affected; (iii) facilitating interviews with Contractor's Personnel and other employees or agents involved in the matter; and (iv) making available all relevant records and other materials required to comply with applicable law, regulation, industry standards, or otherwise reasonably required by Company.

(c) Contractor shall use best efforts to immediately remedy any real or emerging Security Breach and prevent any further Security Breach at Contractor's expense in accordance with applicable privacy laws, regulations, and standards. Contractor shall reimburse Company for actual reasonable costs incurred by Company in responding to, and mitigating damages caused by, any real or emerging Security Breach, including all costs of notice and/or remediation pursuant to this section. In the event of a Security Breach, Contractor shall promptly use its best efforts to prevent a recurrence of any such Security Breach.

(d) Contractor agrees that it shall not inform any third party of any Security Breach without first obtaining Company's prior written consent other than to inform a complainant that the matter has been forwarded to Company's legal counsel. Further, Company shall have the sole and exclusive right to determine: (i) whether notice of the Security Breach is to be provided to any individuals, regulators, law enforcement agencies, consumer reporting agencies, or others as required by law or regulation, or otherwise in Company's discretion; and (ii) the contents of such notice.

(e) Contractor shall fully cooperate at its own expense with Company in any litigation or other formal action deemed reasonably necessary by Company to protect its rights relating to the use, disclosure, protection, and maintenance of its Confidential Information and Data.

(f) Contractor shall follow the same notice procedures above as applicable if it becomes aware of any significant emerging cyber security issues involving any Subcontractors that may result in a Security Breach involving the Company.

(g) Contractor acknowledges that any breach of Contractor's obligations set forth in this Article may cause Company substantial irreparable harm for which monetary damages would not be adequate compensation and agrees that, in the event of such a breach or threatened breach, Company is entitled to seek equitable relief, including a restraining order, injunctive relief, specific performance and any other relief that may be available from any court, in addition to any other remedy to which Company may be entitled at law or in equity. Such remedies shall not be deemed to be exclusive but shall be in addition to all other available remedies at law or in equity, subject to any express exclusions or limitations in the Contract to the contrary.

VIII. MATERIAL BREACH OF CONTRACT

Contractor's failure to comply with any of the provisions in this Article is a material breach of the Contract; in such an instance Company may terminate the Contract for cause in a manner consistent with this Contract. In such an event, Company may terminate the Contract effective immediately upon written Notice to the Contractor without further liability or obligation to Contractor notwithstanding any provision to the contrary in the Contract.

IX. NETWORK SECURITY & PRIVACY LIABILITY

If the Work or Services under the Contract involves the rendering of IT services including, but not limited to: software, software or hardware or systems development or consulting services; internet/application services (e.g., web hosting); providing content; connections to systems, technology or network(s); or if Contractor in any way collects, obtains, maintains or in any way accesses or uses Confidential Information or Data, then Contractor, and its Subcontractors, shall maintain Network Security & Privacy Liability coverage, which can be included via evidenced endorsement to Professional Errors & Omissions coverage, throughout the term of this Contract and for a period of two (2) years thereafter, with a minimum required limit of \$5,000,000 Each Claim.

X. CYBER INDEMNIFICATION

To the fullest extent permitted by the law, Contractor shall defend, indemnify, and hold harmless Company and Company's affiliates, respective officers, directors, employees, agents, and successors (each an "Indemnitee") from and against all losses, damages, liabilities, actions, judgments, interest, awards, penalties, fines, costs or expenses, including reasonable attorneys' fees, arising out of or resulting from any third-party claim against any Indemnitee arising out of or resulting from Contractor's action or omission that represents a failure to comply with any of its obligations under this Article

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ARTICLE 62. USE OF PORTIONS OF THE WORK

Company may take possession of and use any portion of the Work performed by Contractor. Such action by Company shall not be construed as constituting final acceptance and shall neither relieve Contractor of any of its responsibilities under this Contract, nor act as a waiver by Company of any of the conditions hereof, provided that Contractor shall not be liable for the cost of repairs or any rework made necessary as a result of such use. If such action increases the cost or delays the completion of remaining portions of Work, Contractor shall be entitled to such extra compensation or extension of time, or both, as Company may determine to be proper.

ARTICLE 63. HISTORICAL ARTIFACTS

In the event that any Native American relics or items with archaeological or historical value are discovered by Contractor or any of its Subcontractors of any tier or any of their representatives or employees, Contractor shall leave said items undisturbed and shall immediately notify Company and await its direction before proceeding with any Work in the vicinity. Under no circumstances will Contractor take possession of any item discovered.

ARTICLE 64. COMPLIANCE WITH LAWS

Contractor shall at all times comply with all laws, statutes, regulations, rules, executive orders, ordinances, codes, and standards applicable to Contractor's performance of the Work including, without limitation, those governing health and safety, wages, hours, employment of minors, desegregation and employment discrimination, as each may be applicable to the Work performed hereunder, and based on total anticipated dollar value of this Contract. Contractor further confirms that its employees and the employees of all Subcontractors employed under the Contract may legally work in the United States.

Without limiting the generality of the foregoing, Contractor and any Subcontractors shall abide by the requirements of 41 CFR §§60-1.4(a), 60-300.5(a) and 60-741.5(a). These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity national origin or discussion of compensation. Moreover, these regulations require that covered prime contractors and Subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability. Contractor and any Subcontractors shall also abide by the requirements of Executive Order 11246, as amended, to develop and maintain a written affirmative action program (AAP) and Executive Orders 11625 and 13170 (utilization of disadvantaged business enterprises) and the Small Business Act. To the extent applicable, the employee notice requirements set forth in 29 CFR Part 471, Appendix A to Subpart A, are hereby incorporated by reference into this Contract.

Contractor shall indemnify, defend and hold harmless Company, its directors, officers, employees and agents from all losses, costs and damages by reason of any violation thereof and from any liability, including without limitation fines, penalties and other costs arising out of Contractor's failure to so comply.

ARTICLE 65. INDEPENDENT CONTRACTOR

Contractor is an independent contractor and all persons employed by Contractor in connection herewith shall be employees of Contractor and not employees of Company in any respect. Contractor shall maintain complete control over Contractor Personnel.

ARTICLE 66. RELEASE OF INFORMATION – ADVERTISING AND PROMOTION

Contractor shall not publish, release, disclose or announce to any member of the public, press, official body or any other third party any information concerning this Contract and/or the Work, or any part thereof, without the express prior written consent of Company, except as required by law. Neither the names of Company, nor the Work Site shall be used in any advertising or other promotional context by Contractor without the express prior written consent of Company.

ARTICLE 67. CONFIDENTIAL INFORMATION; NONDISCLOSURE

Definition of Confidential Information. The term "Confidential Information" means: (i) proprietary information of Company; (ii) information marked or designated by Company as confidential; (iii) BES Cyber System Information of Company; (iv) information, whether or not in written form and whether or not designated as confidential, which is known to Contractor as being treated by Company as confidential; (v) information provided to Company by third parties which Company is obligated to keep confidential (including but not limited to information relating to an identified or identifiable natural person, whether or

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not such information is publicly available); and (vi) information developed by Contractor in connection with the performance of this Contract.

BES Cyber System Information. Confidential Information of Company labeled as BCSI shall be protected consistent with the following requirements: (a) BCSI shall be protected at all times, either by appropriate storage or having it under the personal observation and control of a person authorized to receive it; (b) each person who works with protected BCSI is personally responsible for taking proper precautions to ensure that unauthorized persons do not gain access to it; (c) reasonable steps shall be taken to minimize the risks of access to BCSI by unauthorized personnel (when not in use, BCSI shall be secured in a secure container, such as a locked desk, file cabinet or facility where security is provided); (d) documents or material containing BCSI may be reproduced to the minimum extent necessary, consistent with the need to carry out the Work, provided that the reproduced material is marked and protected in the same manner as the original material; (e) material containing BCSI should be disposed of through secured shredding receptacles or other secured document destruction methods; (f) BCSI shall be transmitted only by the following means: (i) hand delivery; (ii) United States first class, express, certified or registered mail, bonded courier, or through secure electronic means; (iii) e-mail with encrypted file (such as, WinZip with password) (the password should not be included in e-mail, but should be delivered by phone or in an unrelated e-mail not mentioning the document name; password-protected Microsoft Office documents do not meet the encryption requirements); and (g) documents or material containing BCSI shall be returned to Company or certified destroyed upon completion of the Work.

Nondisclosure. Contractor agrees that it will not disclose Confidential Information, directly or indirectly, under any circumstances or by any means, to any third person without the express written consent of Company.

Nonuse. Contractor further agrees that it will not use Confidential Information except as may be necessary to perform the Work called for by this Contract.

Protection. Confidential Information will be made available by Contractor to its employees only on a "need to know" basis and only after notifying such employees of the confidential nature of the information and after having obligated them to the nonuse and nondisclosure obligations of this Contract. Contractor agrees to take all reasonable precautions to protect the confidentiality of Confidential Information and, upon request by Company, to return to Company any documents which contain or reflect such Confidential Information.

Federal Defend Trade Secrets Act. The Federal Defend Trade Secrets Act of 2016 provides immunity from civil or criminal liability for any employee or contractor who discloses a trade secret "in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney" where the disclosure by the employee or contractor is "solely for the purpose of reporting or investigating a suspected violation of law" or "is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal." 18 U.S.C. § 1833(b). Nothing in this Contract is intended to conflict with 18 U.S.C. § 1833(b) or create liability for disclosures of trade secrets that are expressly allowed by 18 U.S.C. § 1833(b).

Unless waived by Company, Contractor shall require its employees and Subcontractors of any tier to adhere to these confidential information and nondisclosure terms.

ARTICLE 68. OWNERSHIP OF DESIGNS, DRAWINGS, AND WORK PRODUCT

All materials prepared or developed hereunder by Contractor or its employees, or Subcontractors or their employees or agents, including documents, calculations, maps, sketches, designs, tracings, notes, reports, data, computer programs, models and samples, shall become the property of Company when prepared, whether delivered to Company or not, and shall, together with any materials furnished Contractor and its employees by Company hereunder, be delivered to Company upon request, and, in any event, no later than 30 days upon termination or final acceptance of the Work. Contractor agrees that all Work prepared by it, or its employees, agents or Subcontractors of any tier, or their employees, under this Contract which is subject to protection under copyright laws constitutes "work made for hire," all copyrights to which belong to Company. In any event, Contractor assigns to Company all intellectual property rights in such Work whether by way of copyright, trade secret or otherwise, and whether or not subject to protection by copyright laws. Contractor shall retain all rights to its preexisting standard details, specifications, computer software or other intellectual property. Such preexisting materials are hereby licensed to Company, through a fully paid perpetual license, for Company's own use for the Work that is the subject of this Contract to the fullest extent necessary to accomplish the purposes of this Contract any future use, maintenance or repair of the Work.

ARTICLE 69. AS-BUILT DRAWINGS

Contractor shall maintain a set of Contract drawings at the Work Site, with all changes or deviations from the original drawings neatly marked hereon in a contrasting color, as well as prints of working drawings prepared by Contractor. This shall

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be a separate set of drawings, not used for construction purposes, which shall be kept up-to-date daily as the job progresses and shall be made available for inspection by Company at all times. This set of "as-builts" shall be delivered to Company no later than 30 days at or prior to final completion.

ARTICLE 70. PATENT AND COPYRIGHT INDEMNITY

Contractor shall indemnify, defend, and hold harmless Company, its directors, officers, employees, and agents against and from all claims, losses, costs, suits, judgments, damages, and expenses, including attorneys' fees, of any kind or nature whatsoever on account of infringement of any patent, copyrighted or uncopyrighted work, including claims thereof pertaining to or arising from Contractor's performance under this Contract. If notified promptly in writing and given authority, information and assistance, and contingent upon Company not taking any position adverse to Contractor in connection with such claim, Contractor shall defend, or may settle at its expense, any suit or proceeding against Company so far as based on a claimed infringement which would result in a breach of this warranty and Contractor shall pay all damages and costs awarded therein against Company due to such breach.

In case any Contractor-Furnished Materials, products, services or combination thereof are in such suit held to constitute such an infringement and the use of said Contractor-Furnished Materials, products or services is enjoined, Contractor shall, at its expense and through mutual agreement between Company and Contractor, either procure for Company the right to continue using said Contractor-Furnished Materials, products or services or replace same with non-infringing Contractor-Furnished Materials, products or services.

ARTICLE 71. NONEXCLUSIVE RIGHTS

Nothing in this Contract is to be construed as granting to Contractor an exclusive right to provide any or all of the Work anticipated herein. The use of Contractor's services is completely discretionary with Company. This Contract shall not be construed in any way to impose a duty upon Company to use Contractor.

ARTICLE 72. ESTIMATED REQUIREMENTS

This Contract is not a commitment for a specific quantity of Work to be performed during a given period of time, or in any given geographical area. There shall be no commitment by Company to Contractor of either a specific quantity of Work to be performed, or of financial expectations to be realized under this Contract.

ARTICLE 73. ASSIGNMENT

Contractor shall not assign this Contract or any part hereof, or any rights or responsibilities hereunder without the prior written consent of Company, and any attempted assignment in violation hereof shall be void.

ARTICLE 74. SUBCONTRACTS

Contractor shall not subcontract any or all of the Work without prior written consent of Company which shall not be unreasonably withheld. Contractor shall be fully responsible for the acts or omissions of any Subcontractors of any tier and of all persons employed by them, shall maintain complete control over all such Subcontractors, and neither the consent by Company, nor anything contained herein, shall be deemed to create any contractual relation between the Subcontractor of any tier and Company.

ARTICLE 75. NONWAIVER

The failure of Company to insist upon or enforce strict performance by Contractor of any of the terms of this Contract, or to exercise any rights herein shall not be construed as a waiver or relinquishment to any extent of Company's right to enforce such terms or rights on any future occasion.

ARTICLE 76. SEVERABILITY

Any provision of this Contract prohibited or rendered unenforceable by operation of law shall be ineffective only to the extent of such prohibition or unenforceability without invalidating the remaining provisions of this Contract.

ARTICLE 77. APPLICABLE LAW AND VENUE

This Contract shall be interpreted in accordance with the substantive and procedural laws of the state in which the project Work Site is located (or, for Releases providing construction extending across state lines, the state in which the majority of the Work Site is located), as designated in the applicable Release for such project. Any litigation between the Parties arising out of or relating to this Contract will be conducted exclusively in appropriate federal or state courts of such state, and Contractor consents

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to jurisdiction by such courts. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS CONTRACT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

FOR WORK PERFORMED IN CALIFORNIA, THE FOLLOWING JURY TRIAL WAIVER AND ARBITRATION PROVISION APPLIES. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS CONTRACT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED. IF A WAIVER OF JURY TRIAL IS DEEMED BY ANY COURT OF COMPETENT JURISDICTION TO NOT BE ENFORCEABLE FOR ANY REASON, THEN TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO AGREE TO BINDING ARBITRATION. SUCH ARBITRATION SHALL BE IN ACCORDANCE WITH THE RULES AND PROCEDURES OF THE AMERICAN ARBITRATION ASSOCIATION (AAA). NOTWITHSTANDING ANY AAA RULES AND PROCEDURES, OR ANY OTHER PROVISION OF ANY STATE OR FEDERAL LAWS, THE PARTIES AGREE THAT THE ARBITRATORS SHALL NOT CONSIDER OR AWARD PUNITIVE DAMAGES AS A REMEDY. UPON THE COMPANY'S REQUEST, AAA SHALL PROVIDE THE PARTIES A LIST OF ARBITRATORS EACH OF WHOM HAVE EXPERIENCE AND EXPERTISE APPLICABLE TO THE WORK. UPON EACH OF THE PARTIES' RECEIPT OF SUCH LISTS, EACH PARTY SHALL HAVE TEN (10) DAYS TO SELECT AN ARBITRATOR. THE TWO SELECTED ARBITRATORS SHALL THEN SELECT A THIRD ARBITRATOR WITHIN THIRTY (30) DAYS FROM THE DATE THE INITIAL TWO ARBITRATORS WERE SELECTED AND THE MATTER SUBJECT TO ARBITRATION SHALL BE ARBITRATED AND A DECISION OF THE ARBITRATORS ISSUED WITHIN SIXTY (60) DAYS AFTER THE SELECTION OF THE THIRD ARBITRATOR.

ARTICLE 78. BUY AMERICA CLAUSE

To the extent that a Release or the Scope of Work for a Release indicates that the Contractor-Furnished Materials must meet "Buy America" requirements, then Contractor shall be responsible for ensuring that applicable Contractor-Furnished Materials comply with 23 USC §313 and/or 23 CFR 635.410. Without limiting the foregoing, Contractor shall furnish a signed certification (the "Buy America Certification") in conjunction with the below-specified Contractor-Furnished Materials. The Buy America Certification shall be in the format of, and according to the specific instructions set forth in, the attached Exhibit P. Such obligation shall include, without limitation, providing all supplemental and supporting documentation identified in the instructions to the Buy America Certification. A Buy America Certification is required only for the following specific items of Contractor-Furnished Materials (as applicable to the Release): (i) steel transmission or distribution pole structures (exclusive of any cross arms, guy wires and anchors, transformers, insulators, cutouts, surge arrestors, switches, hardware, fasteners, brackets, base plate, conductor or other separately-provided attachments to be ordered separately and thereafter affixed to the poles structures); (ii) steel or iron conduit and risers; (iii) steel rebar to be furnished in conjunction with: concrete foundations, concrete transmission or distribution pole structures, or any pre-fabricated concrete vaults or similar concrete structures; (iv) grates and covers for utility vaults and similar structures; and (v) steel culverts. Electronic copies of all required Buy America Certifications shall be emailed to BuyAmericaCert@pacificorp.com prior to installation of the Contractor-Furnished Materials. Hard copies of all required Buy America Certifications shall be delivered in accordance with the instructions specified in the applicable Release or Scope of Work. Contractor's performance in accordance with the requirements and timetables set forth above is a condition precedent to the payment for the Contractor-Furnished Materials identified above. Contractor shall itemize in writing any project pricing impacts incurred with respect to the Release as a result of Contractor's compliance with this Article.

ARTICLE 79. ENTIRE CONTRACT; DOCUMENTS INCORPORATED BY REFERENCE

This Contract, including any referenced exhibits and attachments, and the Release constitute the complete agreement between the Parties with respect to any transaction. All understandings, representations, warranties and agreements, if any, existing between the Parties regarding the subject matter hereof are merged into and superseded by this Contract, which fully and completely expresses the agreement of the Parties with respect to the subject matter hereof. Any Scope of Work, specifications, drawings, schedules or other documents listed in this Contract are incorporated by reference into this Contract. In the event of a conflict between any Scope of Work, specifications, drawings, schedules or other attachment or exhibit to this Contract and the above terms and conditions of this Contract, the above terms and conditions of this Contract shall take

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precedence and control. In the event of a conflict between the terms and conditions of this Contract and the terms and conditions of any Release, the terms of the Release shall take precedence and control.

Company assumes no responsibility for any understanding or representation made by any of its employees, officers or agents during or prior to the negotiations and execution of this Contract, unless such understanding or representation is expressly stated in the Contract.

ARTICLE 80. EXECUTION AND EFFECTIVE DATE

This Contract has been executed by duly authorized representatives of the Parties and shall be effective as of date of execution by Company.

CONTRACTOR:

By: _____

(Signature)

Name: _____

(Type or Print)

Title: _____

(Date Executed)

**COMPANY:
PacifiCorp**

By: _____

(Signature)

Name: _____

(Type or Print)

Title: _____

(Date Executed)

REDACTED

Rocky Mountain Power

Docket No. 17-035-40

Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Second Supplemental Direct Testimony of Rick T. Link

February 2018

1 **Q. Are you the same Rick T. Link who previously provided testimony in this case on**
2 **behalf of Rocky Mountain Power, a division of PacifiCorp?**

3 A. Yes.

4 **PURPOSE AND SUMMARY OF TESTIMONY**

5 **Q. What is the purpose of your second supplemental direct testimony?**

6 A. I summarize the updated results of the 2017R Request for Proposals (“RFP”). I also
7 provide updates to the economic analysis that demonstrate increasing customer benefits
8 from the new wind resources (“Wind Projects”) and construction of the Aeolus-to-
9 Bridger/Anticline line and network upgrades (“Transmission Projects”) (collectively,
10 the “Combined Projects”). I also provide information required by Public Service
11 Commission of Utah (“Commission”) Rule R746-430-2(1)(a), (b), (c), and (d) and
12 Rule 746-440-1(1)(e) and (f).

13 **Q. Please summarize your second supplemental direct testimony.**

14 A. The updated 2017R RFP final shortlist replaces the company’s McFadden Ridge II
15 benchmark bid with the Ekola Flats benchmark bid. All of the other winning bids
16 included in the original final shortlist remain in the updated final shortlist. The total
17 capacity of the winning bids in the updated final shortlist is 1,311 MW, which includes
18 three of the benchmark facilities (TB Flats I and II, now combined as a single project,
19 and Ekola Flats), and two new facilities (Cedar Springs and Uinta). Uinta is a build-
20 transfer agreement (“BTA”) totaling 161 MW, Cedar Springs is one-half BTA and one-
21 half power-purchase agreement (“PPA”), for a total of 400 MW, and TB Flats I and II
22 and Ekola Flats are company-built facilities, totaling 500 MW and 250 MW,
23 respectively.

24 The updated results of the 2017R RFP and the extensive modeling that supports
25 it continue to confirm that the Combined Projects are the least-cost, least-risk path
26 available to serve the company's customers by meeting both near-term and long-term
27 needs for additional resources. My second supplemental direct testimony explains the
28 following:

- 29 • The Combined Projects continue to provide net customer benefits under all
30 scenarios studied through 2036, and in seven of the nine scenarios through
31 2050.
- 32 • Customer benefits increase to \$196 million in the medium case through 2050
33 (as compared to \$177 million in the supplemental direct filing), and range from
34 \$333 million to \$405 million in the medium case through 2036.
- 35 • The analysis reflects consideration of an interconnection-restudy process, that:
36 1) eliminated certain bids, including the company's McFadden Ridge II
37 benchmark bid, from consideration in the 2017R RFP; and 2) supported an
38 increase to the assumed level of interconnection capacity in the constrained area
39 of PacifiCorp's system in eastern Wyoming.
- 40 • Sensitivity analysis continues to show substantial benefits of the Combined
41 Projects persist when paired with PacifiCorp's wind repowering project and are
42 not displaced or reduced when considering the potential procurement of solar
43 PPA bids, updated with best-and-final pricing, submitted into the on-going RFP
44 for solar resources, the 2017S RFP.

UPDATED 2017R RFP FINAL SHORTLIST

Q. Did the company update the list of winning bids from the 2017R RFP?

A. Yes. The company's 109 MW McFadden Ridge II benchmark resource was removed from the final shortlist and replaced with the company's 250 MW Ekola Flats benchmark resource. All of the other winning bids included in the original final shortlist remain in the updated final shortlist. The total capacity of the winning bids in the updated final shortlist is 1,311 MW. The winning bids included in the updated final shortlist are listed in Table 1-SS.

Table 1-SS. Updated 2017R RFP Final Shortlist

Project Name (Bidder)	Location	Capacity (MW)
TB Flats I & II (PacifiCorp)	Carbon & Albany Counties, WY	500
Cedar Springs (NextEra Energy Acquisitions)	Converse County, WY	400
Ekola Flats (PacifiCorp)	Carbon County, WY	250
Uinta (Invenergy Wind Development)	Uinta County, WY	161

The TB Flats I & II and Ekola Flats projects are company-benchmark resources that will be developed under engineer, procure, and construction ("EPC") agreements. The Uinta project is being developed by Invenergy Wind Development under a BTA. The Cedar Springs project is being developed by NextEra Energy Acquisitions as a 50-percent BTA and a 50-percent PPA. In total, the updated final shortlist includes 361 MW that will be developed under BTAs, 750 MW of benchmark capacity that will be developed under EPC agreements, and 200 MW that will deliver energy and capacity under a PPA.

62 **Q. Please summarize the cost-and-performance attributes of the winning bids.**

63 A. The total in-service capital cost for the winning bids is \$1.46 billion. Considering that
64 the winning bids represent an increase in total owned-wind capacity (from just over
65 860 MW in the company's initial filing to approximately 1,111 MW), the per-unit
66 capital cost for the updated final shortlist is down approximately 18 percent from
67 \$1,590/kW to \$1,310/kW.

68 In addition to these capital costs, the PPA price that will be paid to NextEra
69 Energy Acquisitions for 50 percent of the output from the Cedar Springs project is
70 expected to add approximately [REDACTED] to total-system net power
71 costs ("NPC") [REDACTED]. These costs are
72 significantly lower than proxy PPA costs that were based off of certain qualifying
73 facility ("QF") projects that were included in the company's initial filing, which were
74 assumed to add [REDACTED] to total-system NPC beginning 2022,
75 rising to [REDACTED] by the end of 2041. This proxy QF project, which
76 requires interconnection facilities beyond the Aeolus-to-Bridger/Anticline
77 transmission line that cannot be built until 2024, is no longer included in the company's
78 economic analysis of the Combined Projects.

79 In aggregate, the winning bids are expected to operate at a capacity-weighted
80 average annual capacity factor of 39.4 percent.

81 The in-service cost for network upgrades required to interconnect the final
82 shortlist projects total [REDACTED], and the cost to build the Aeolus-to-
83 Bridger/Anticline transmission line remains at [REDACTED]. The expected cost-and-

performance attributes for the winning bids and the Transmission Project is summarized in more detail in Confidential Exhibit RMP__(RTL-1SS).

Q. Why was the 2017R RFP final shortlist updated?

A. The 2017R RFP final shortlist was updated to account for the results of an interconnection-restudy process. As described in Mr. Rick A. Vail's second supplemental direct testimony, the company completed an interconnection-restudy process to ensure that interconnection studies reflected the most current long-term transmission plan to construct the Aeolus-to-Bridger/Anticline D.2 segment of the Energy Gateway project by the end of 2020. PacifiCorp transmission restudied, in serial interconnection-queue order, interconnection requests that do not already have an interconnection agreement to determine whether the staging of the Energy Gateway West project would affect the cost or timing of projects whose previous interconnection studies depended on Gateway West in its entirety. Affected projects located in the constrained area of PacifiCorp's transmission system in eastern Wyoming were restudied through the point in the interconnection queue where additional segments of the Energy Gateway project beyond just the Aeolus-to-Bridger/Anticline D.2 segment would be required to interconnect.

PacifiCorp transmission posted the restudied system-impact studies ("SISs") on PacifiCorp's open access same-time information system ("OASIS") on January 29, 2018, as well as certain updated restudied SISs on February 9, 2018.

Q. How did the interconnection-restudy process affect 2017R RFP winning bid selections?

A. As described by Mr. Vail, the interconnection-restudy process confirmed that 2017R

RFP bids located in eastern Wyoming with an interconnection-queue position greater than Q0712 trigger the need for Energy Gateway South, which is not planned to be placed in service by the end of 2020. Consequently, any bid proposing a project in the constrained area of PacifiCorp's transmission system with an interconnection-queue position greater than Q0712 cannot receive interconnection service and achieve commercial operation by the end of 2020 as required in the 2017R RFP. This includes the company's McFadden Ridge II benchmark bid that was originally selected to the final shortlist. All other bids originally selected to the final shortlist can secure interconnection service either because they hold an interconnection-queue position that does not require Energy Gateway South (Ekola Flats, TB Flats I and II, and Cedar Springs) or because the project is not located in the constrained area of the company's eastern Wyoming transmission system (Uinta).

Q. Were there other findings from the interconnection-restudy process that affected selection of winning bids to the updated 2017R RFP final shortlist?

A. Yes. As noted by Mr. Vail, the interconnection-restudy process shows that the Aeolus-to-Bridger/Anticline transmission line will enable interconnection of up to 1,510 MW of new wind capacity within the constrained area of PacifiCorp's transmission system in eastern Wyoming. This is up from the 1,270 MW assumed in the bid-selection process summarized in my supplemental direct testimony.

As stated in my supplemental direct testimony, there is a 240 MW qualifying facility ("QF") project with an executed interconnection agreement that does not require construction of Energy Gateway West and South to accommodate the QF's interconnection. To honor this agreement, the company must reserve sufficient

130 interconnection capacity for this interconnection customer. After setting aside
131 interconnection capacity for this interconnection customer, the interconnection-restudy
132 process shows that the Aeolus-to-Bridger/Anticline transmission line can enable
133 interconnection of up to 1,270 MW of new wind located in the constrained area of
134 PacifiCorp's transmission system in eastern Wyoming. This is up from the 1,030 MW
135 assumed in the bid-selection process summarized in my supplemental direct testimony.

136 **Q. Why did the company not consider the interconnection-queue position of bids**
137 **when it originally identified bids selected to the final shortlist?**

138 A. The company has been aware that it would need to factor interconnection requirements
139 into its evaluation of the 2017R RFP bids since the beginning of the RFP process.
140 Indeed, the company originally included a completed SIS as one of the minimum bid-
141 eligibility requirements. In response, however, to recommendations from the Utah
142 independent evaluator ("IE"), as supported by other parties in the 2017R RFP approval
143 process in Docket 17-035-23, the company agreed to remove the requirement that a
144 bidder have a completed SIS to be eligible to submit a proposal.

145 **Q. Did elimination of the SIS requirement benefit the 2017R RFP process?**

146 A. Yes. While the removal of the SIS requirement meant that the company could not fully
147 evaluate the relative interconnection requirements of the bids early in the process, it
148 agreed to relax the requirement that bidders have a completed SIS to broaden market
149 participation in the 2017R RFP because bidders could participate without regard to their
150 interconnection queue position. This enhances competition and provides an incentive
151 for bidders to offer low-cost proposals. In addition, the interconnection queue can
152 change over time as generator-interconnection customers change project details,

153 request commercial operation date extensions or suspensions, or even withdraw from
154 the queue altogether.

155 Had the requirement that bidders have a SIS been retained, the pool of eligible bidders
156 would have been limited based on the then-current snapshot of the interconnection
157 queue, which would have reduced competitive forces that drive least-cost bidding.

158 **Q. How did the company establish its updated final shortlist that accounts for the**
159 **findings from the interconnection-restudy process?**

160 A. The company produced updated portfolio-development studies using the System
161 Optimizer (“SO”) model to create a bid portfolio containing the least-cost combination
162 of viable bids. In choosing the least-cost combination of bids, the SO model was
163 configured to select from all viable bid alternatives, excluding bids located in the
164 constrained area of PacifiCorp’s transmission system in eastern Wyoming, that have an
165 interconnection-queue position greater than Q0712. Consistent with the increased
166 interconnection capability identified during the interconnection-restudy process, the
167 SO model was also configured to select up to 1,270 MW of bids located in this area of
168 PacifiCorp’s transmission system. The updated portfolio-development studies were
169 developed under two price-policy scenarios-low natural gas, zero CO₂ and medium
170 natural gas, medium CO₂.

171 **Q. Did the company update its price-policy scenario assumptions?**

172 A. No. The price-policy scenario assumptions summarized in my supplemental direct
173 testimony remain valid and were not updated for this analysis.

174 **Q. Why did the company update its portfolio-development studies using only the low**
175 **natural gas, zero CO₂ and medium natural gas, medium CO₂ price-policy**
176 **assumptions?**

177 A. As described in my supplemental direct testimony, the company originally produced
178 least-cost bid portfolios for all nine price-policy scenarios. That analysis identified a
179 bid portfolio that included the original final shortlist of projects plus an additional bid.
180 The additional bid was included in the bid portfolio only in the medium natural gas,
181 high CO₂ price-policy scenario and in the three price-policy scenarios that assume high
182 natural gas price assumptions. The bid portfolio with the incremental bid did not
183 generate favorable net benefits for customers relative to the portfolio containing the
184 original final shortlist of projects when applying low natural gas price-policy
185 assumptions or when applying price-policy assumptions paring medium natural gas
186 prices with zero or medium CO₂ prices. Based on these results, the company evaluated
187 bid selections assuming base case (medium natural gas, medium CO₂ price) and worst
188 case (low natural gas, zero CO₂) price-policy assumptions.

189 **Q. Did the company update any bid-cost assumptions when developing its updated**
190 **portfolio-development studies?**

191 A. Yes. The company updated bid-cost assumptions to align interconnection network
192 upgrade costs with those identified in the SISs posted on PacifiCorp's OASIS. The
193 company also updated sales-tax estimates for all bids submitted by [REDACTED]
194 [REDACTED]-replacing the company's sales-tax estimates assumed when establishing
195 the original final shortlist with sales-tax costs supplied by the bidder.

196 **Q. What bids were selected by the SO model in the updated portfolio-development**
197 **studies?**

198 A. The SO model selected the same four bids, included in the company's updated final
199 shortlist as summarized in Table 1-SS, in the low natural gas, zero CO₂ and the medium
200 natural gas, medium CO₂ price-policy scenarios.

201 **Q. Did the company update its economic analysis to account for the updated final**
202 **shortlist?**

203 A. Yes. The economic analysis among all nine price-policy scenarios was refreshed to
204 reflect those bids selected in the updated 2017R RFP final shortlist. This analysis was
205 updated using the SO model and the Planning and Risk model ("PaR"). I describe the
206 company's updated economic analysis later in my testimony.

207 **Q. Did the company inform the Utah and Oregon IEs of changes to the 2017R RFP**
208 **final shortlist resulting from the interconnection-restudy process described**
209 **above?**

210 A. Yes. On January 19, 2018, the company discussed the potential impacts of the
211 interconnection-restudy process with the Utah and Oregon IEs. Specifically, the
212 company explained that, although no definitive determinations could be made until
213 restudy process was completed, certain bids with a relatively high interconnection-
214 queue position located in eastern Wyoming, including the company's McFadden Ridge
215 II benchmark, may not be viable. On February 12, 2018, after the interconnection-
216 restudy process and bid-selection analysis was completed, the company submitted its
217 updated final shortlist recommendation to the Utah and Oregon IEs.

218 **Q. Did the Utah and Oregon IEs request any additional sensitivity studies as the**
219 **company was finalizing its updated final shortlist recommendation?**

220 A. Yes. The Utah and Oregon IEs requested a sensitivity to assess how projected net
221 benefits from the updated final shortlist would be affected if [REDACTED]

222 [REDACTED]

223 The Utah and Oregon IEs requested that this sensitivity be developed using the SO
224 model with medium natural gas, medium CO₂ price-policy scenario assumptions.

225 **Q. What were the findings from this IE sensitivity?**

226 A. The present-value revenue requirement differential (“PVRR(d)”) based on SO model
227 results through 2036 under the IE sensitivity showed a \$25 million reduction in net
228 customer benefits if [REDACTED]

229 [REDACTED]. The IE sensitivity also showed customer
230 costs would increase over both the near term and long term if [REDACTED]

231 [REDACTED].

232 **Q. Did the company change its updated 2017R RFP final shortlist based on the IE**
233 **sensitivity?**

234 A. No.

235 **Q. Does the Utah IE report on the 2017R RFP final shortlist, dated February 15,**
236 **2018, support the final shortlist?**

237 A. Yes. The IE concluded that the Company conducted the 2017R RFP in a consistent and
238 fair manner and agreed that the Company’s final shortlist was reasonable.

UPDATED ECONOMIC ANALYSIS

239

240 **Q. Did the Company refresh any other assumptions not already identified above in**
241 **the updated final shortlist economic analysis?**

242 A. No.

243 **Q. Did the company continue to apply production tax credit (“PTC”) benefits**
244 **applicable to BTAs and benchmark-EPC bids on a nominal basis in its system**
245 **modeling using the SO model and PaR configured to forecast system costs through**
246 **2036?**

247 A. Yes. As described in my supplemental direct testimony, this approach better reflects
248 how the federal PTC benefits for these bids will flow through to customers and aligns
249 the treatment of federal PTC benefits in the system modeling results extending out
250 through 2036 with the nominal revenue requirement results extending out through
251 2050. It also ensures the 2017R RFP bid selections from the SO model more accurately
252 reflect the difference in how BTA and benchmark-EPC bids are expected to impact
253 customer rates.

254 **Q. Did the company continue to apply revenue requirement associated with capital**
255 **costs on a levelized basis in its system modeling using the SO model and PaR**
256 **configured to forecast system costs through 2036?**

257 A. Yes. As discussed in my supplemental direct testimony, when setting rates, revenue
258 requirement from capital costs is depreciated over the book life of the asset, effectively
259 spreading the cost of capital investments over the life of the asset. Because revenue
260 requirement from capital projects is spread over the life of the asset in rates, these costs
261 continue to be treated as a levelized cost in the SO model and PaR simulations.

262 **Q. Did the company update its revenue-requirement modeling among different price-**
263 **policy scenarios to reflect the updated final shortlist and modeling updates**
264 **described above?**

265 A. Yes. Using the same annual revenue-requirement modeling methodology described in
266 my direct and supplemental direct testimony, the company updated its forecast of the
267 change in nominal annual revenue requirement due to the Combined Projects. As was
268 done in the economic analysis summarized in my direct and supplemental direct
269 testimony, revenue requirement from capital associated with the Combined Projects is
270 treated as a nominal cost when the results are extrapolated out through 2050.

271 **UPDATED SYSTEM MODELING PRICE-POLICY RESULTS**

272 **Q. Please summarize the updated PVRR(d) results calculated from the SO model and**
273 **PaR through 2036.**

274 A. Table 2-SS summarizes the updated PVRR(d) results for each price-policy scenario
275 alongside the same results summarized in my supplemental direct testimony. The
276 PVRR(d) between cases with and without the Combined Projects, reflecting the
277 updated final shortlist from the 2017R RFP, are shown for the SO model and for PaR,
278 which was used to calculate both the stochastic-mean PVRR(d) and the risk-adjusted
279 PVRR(d). The data used to calculate the updated PVRR(d) results shown in the table
280 are provided as Exhibit RMP____(RTL-2SS).

**Table 2-SS Updated SO Model and PaR PVRR(d)
(Benefit)/Cost of the Combined Projects (\$ million)**

Price-Policy Scenario	Second Supplemental Direct (Updated Final Shortlist)			Supplemental Direct (Original Final Shortlist)		
	SO Model PVRR(d)	PaR Stochastic Mean PVRR(d)	PaR Risk- Adjusted PVRR(d)	SO Model PVRR(d)	PaR Stochastic Mean PVRR(d)	PaR Risk- Adjusted PVRR(d)
Low Gas, Zero CO ₂	(\$185)	(\$126)	(\$132)	(\$145)	(\$104)	(\$109)
Low Gas, Medium CO ₂	(\$208)	(\$155)	(\$164)	(\$186)	(\$124)	(\$131)
Low Gas, High CO ₂	(\$370)	(\$313)	(\$331)	(\$297)	(\$258)	(\$272)
Medium Gas, Zero CO ₂	(\$377)	(\$295)	(\$310)	(\$306)	(\$246)	(\$258)
Medium Gas, Medium CO ₂	(\$405)	(\$333)	(\$362)	(\$343)	(\$311)	(\$327)
Medium Gas, High CO ₂	(\$489)	(\$424)	(\$445)	(\$430)	(\$388)	(\$406)
High Gas, Zero CO ₂	(\$699)	(\$545)	(\$572)	(\$619)	(\$509)	(\$535)
High Gas, Medium CO ₂	(\$716)	(\$579)	(\$609)	(\$636)	(\$539)	(\$567)
High Gas, High CO ₂	(\$781)	(\$671)	(\$705)	(\$696)	(\$605)	(\$636)

Over a 20-year period, the Combined Projects reduce customer costs in all nine price-policy scenarios. This outcome is consistent in both the SO model and PaR results. Under the central price-policy scenario, when applying medium natural gas, medium CO₂ price-policy assumptions, the PVRR(d) net benefits range between \$333 million (up from \$311 million), when derived from PaR stochastic-mean results, and \$405 million (up from \$343 million), when derived from SO model results. Net benefits increase relative to those shown in my supplemental direct testimony. This is driven by the increased interconnection capacity associated with the Aeolus-to-Bridger/Anticline transmission line, which enables selection of the Ekola Flats benchmark resource. Without this update, there was not sufficient interconnection capacity to accommodate the Ekola Flats benchmark with the TB Flats I & II and Cedar Springs bids.

293 **Q. Did you update the potential upside to these PVRR(d) results associated with**
294 **renewable energy credit (“REC”) revenues?**

295 A. Yes. Consistent with my direct and supplemental direct testimony, the PVRR(d) results
296 presented in Table 2-SS do not reflect the potential value of RECs generated by the
297 incremental energy output from the updated final shortlist projects. Accounting for the
298 performance estimates from the updated final shortlist projects, customer benefits for
299 all price-policy scenarios would improve by approximately \$34 million (up from \$31
300 million in my supplemental direct analysis) for every dollar assigned to the incremental
301 RECs that will be generated from the winning bids through 2036. Quantifying the
302 potential upside associated with incremental REC revenues is simply intended to
303 communicate that the net benefits from the winning bids could improve if the
304 incremental RECs can be monetized in the market.

305 **Q. Did you update the potential upside to these PVRR(d) results associated with**
306 **reduced operations & maintenance (“O&M”) costs?**

307 A. Yes. Consistent with my supplemental direct testimony, projects with large wind
308 turbines are expected to require less O&M costs because there are fewer turbines on a
309 given site. The default O&M assumptions applied to BTA and benchmark-EPC bids in
310 the updated economic analysis are based on the company’s experience in operating and
311 maintaining the existing fleet of owned-wind facilities, and do not reflect expected cost
312 savings associated with operating and maintaining wind facilities proposing to use
313 larger wind turbines. Three of the winning bids--Invenergy Wind Development's Uinta
314 project, the company’s TB Flats I & II project, and the company’s Ekola Flats project--
315 -will use larger equipment for a portion of the wind turbines at each facility. If the O&M

316 cost elements applicable to the larger-turbine equipment are reduced by 42 percent,
317 which is equivalent to an approximately 18-percent reduction in total O&M costs,
318 beyond the proposed O&M agreement period, customer benefits calculated through
319 2036 for all price-policy scenarios would improve by approximately \$19 million (up
320 from \$13 million in my supplemental direct testimony).

321 **Q. Is there additional upside to the net benefits shown in Table 2-SS?**

322 A. Yes. The CO₂ price assumptions used in the updated economic analysis were
323 inadvertently modeled in 2012 real dollars instead of nominal dollars. Consequently,
324 the PVRR(d) net benefits in the six price-policy scenarios that use medium and high
325 CO₂ price assumptions are conservative.

326 **UPDATED REVENUE-REQUIREMENT MODELING PRICE-POLICY RESULTS**

327 **Q. Please summarize the updated PVRR(d) results calculated from the change in**
328 **annual revenue requirement through 2050.**

329 A. Table 3-SS summarizes the updated PVRR(d) results for each price-policy scenario
330 calculated off of the change in annual nominal revenue requirement through 2050
331 alongside the same results summarized in my supplemental direct testimony. The
332 annual data over the period 2017 through 2050 that was used to calculate the updated
333 PVRR(d) results shown in the table are provided as Exhibit RMP__(RTL-3SS).

**Table 3-SS. Updated Nominal Revenue Requirement PVRR(d)
(Benefit)/Cost of the Combined Projects (\$ million)**

Price-Policy Scenario	Second Supplemental Direct (Updated Final Shortlist)	Supplemental Direct (Original Final Shortlist)
Low Gas, Zero CO ₂	\$155	\$169
Low Gas, Medium CO ₂	\$98	\$133
Low Gas, High CO ₂	(\$176)	(\$105)
Medium Gas, Zero CO ₂	(\$121)	(\$60)
Medium Gas, Medium CO ₂	(\$196)	(\$177)
Medium Gas, High CO ₂	(\$333)	(\$301)
High Gas, Zero CO ₂	(\$477)	(\$437)
High Gas, Medium CO ₂	(\$528)	(\$479)
High Gas, High CO ₂	(\$664)	(\$585)

When system costs and benefits from the Combined Projects are extended out through 2050, covering the full depreciable life of the owned-wind projects included in the updated 2017R RFP final shortlist, the Combined Projects reduce customer costs in seven out of nine price-policy scenarios. Customer net benefits range from \$121 million in the medium natural-gas, zero CO₂ price-policy scenario (up from \$60 million) to \$664 million in the high natural gas, high CO₂ price-policy scenario (up from \$585 million). Under the central price-policy scenario, when applying medium natural gas, medium CO₂ price-policy assumptions, the PVRR(d) benefits of the Combined Projects are \$196 million (up from \$177 million). The Combined Projects provide significant customer benefits in all price-policy scenarios, and the net benefits are unfavorable only when low natural-gas prices are paired with zero or medium CO₂ prices. These results continue to show that upside benefits far outweigh downside risks.

347 As is the case with the system-modeling results, net benefits increase relative
348 to those shown in my supplemental direct testimony. As stated earlier, this is driven by
349 the increased interconnection capacity associated with the Aeolus-to-Bridger/Anticline
350 transmission line, which enables selection of the Ekola Flats benchmark resource.
351 Without this update, there was not sufficient interconnection capacity to accommodate
352 the Ekola Flats benchmark with the TB Flats I & II and Cedar Springs bids.

353 **Q. Is there additional potential upside to these PVRR(d) results associated with REC**
354 **revenues?**

355 A. Yes. Consistent with my direct and supplemental direct testimony, the PVRR(d) results
356 presented in Table 3-SS do not reflect the potential value of RECs generated by the
357 incremental energy output from the Wind Projects. Accounting for the performance
358 estimates from the updated final shortlist projects, customer benefits for all price-policy
359 scenarios would improve by approximately \$43 million (up from \$39 million in my
360 supplemental direct analysis) for every dollar assigned to the incremental RECs that
361 will be generated from the winning bids through 2050.

362 **Q. Is there additional potential upside to these PVRR(d) results associated with**
363 **reduced O&M costs?**

364 A. Yes. As discussed above, the company anticipates O&M costs for those projects that
365 will install larger-turbine equipment to be lower than what has been reflected in the
366 updated economic analysis. Accounting for these cost savings, customer benefits for
367 all price-policy scenarios would improve by approximately \$31 million (up from \$22
368 million in my supplemental direct testimony) when calculated from projected operating
369 costs through 2050.

370 **Q. Is there additional potential upside to these PVRR(d) results shown in Table 3-SS?**

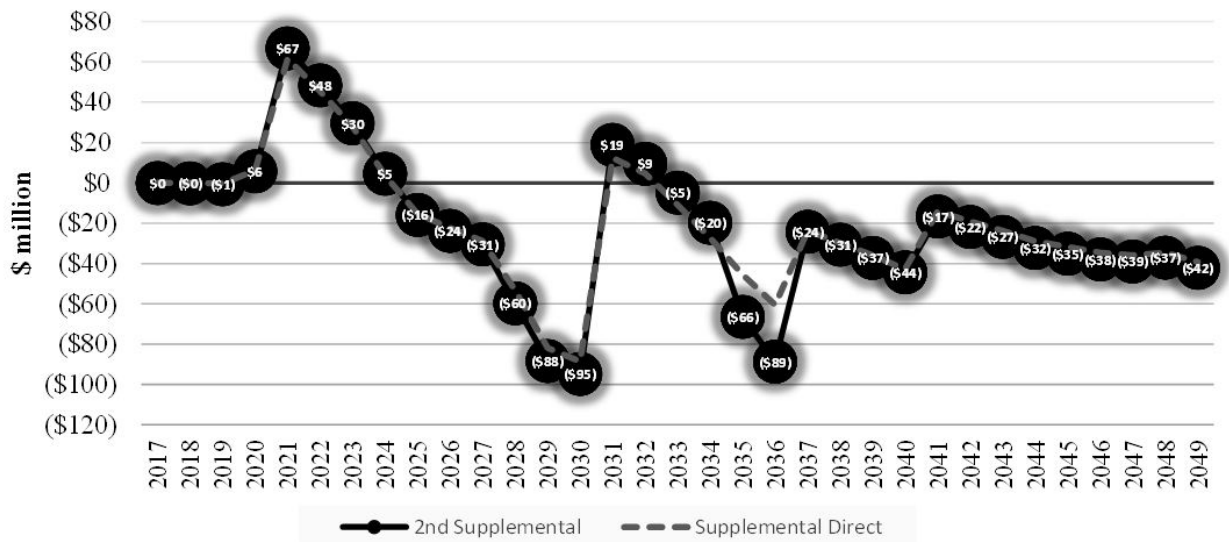
371 A. Yes. As noted earlier, the updated CO₂ price assumptions used in the updated economic
372 analysis were inadvertently modeled in 2012 real dollars instead of nominal dollars.
373 Consequently, the PVRR(d) net benefits in the six price-policy scenarios that use
374 medium and high CO₂ price assumptions are conservative.

375 **Q. Please describe the change in annual nominal revenue requirement from the**
376 **Combined Projects.**

377 A. Figure 1-SS shows the updated change in nominal revenue requirement due to the
378 Combined Projects for the medium natural gas, medium CO₂ price-policy scenario on
379 a total-system basis. These results are shown alongside the same results from the
380 economic analysis summarized in my supplemental direct testimony. The change in
381 nominal revenue requirement shown in the figure reflects updated costs, including
382 capital revenue requirement (*i.e.*, depreciation, return, income taxes, and property
383 taxes), O&M expenses, the Wyoming wind-production tax, and PTCs. The project costs
384 are netted against updated system impacts from the Combined Projects, reflecting the
385 change in NPC, emissions, non-NPC variable costs, and system fixed costs that are
386 affected by, but not directly associated with, the Combined Projects.

387

**Figure 1-SS Updated Total-System Annual Revenue Requirement
With the Combined Projects (Benefit)/Cost (\$ million)**



388

The data shown in this figure for the updated economic analysis have the same

389

basic profile as the data from the economic analysis summarized in my supplemental

390

direct testimony. Despite a reduction in PTC benefits associated with changes in federal

391

tax law, the reduced costs from winning bids from the 2017R RFP continue to generate

392

substantial near-term customer benefits and continue to contribute to customer benefits

393

over the long term. The Combined Projects produce net benefits in 23 years out of the

394

30 years that the proposed owned-wind resources selected to the 2017R RFP final

395

shortlist are assumed to operate.

396

As noted in my supplemental direct testimony, the year-on-year reduction in net

397

benefits from 2036 to 2037 is driven by the company's conservative approach to

398

extrapolate benefits from 2037 through 2050 based on modeled results from the 2028-

399

through-2036 time frame. This leads to an abrupt reduction in the benefits in 2037, and

400

a subsequent year-on-year reduction to net benefits, which breaks from the trend

401

observed in the model results over the 2035-to-2036 time frame. This extrapolation

402 methodology is conservative because it results in project benefits not matching the
403 levels observed in the model results for 2036 until 2047.

404 **SOLAR SENSITIVITY**

405 **Q. Did the company update its solar sensitivity analysis?**

406 A. Yes. The solar sensitivity analysis was updated to reflect the updated final shortlist from
407 the 2017R RFP and to reflect best-and-final pricing supplied by bidders participating
408 in the 2017S RFP on February 1, 2018.

409 **Q. Please describe the sensitivity studies that analyzed the impact of the solar bids
410 received in the 2017S RFP on the economics of the Combined Projects.**

411 A. Consistent with the methodology summarized in my supplemental direct testimony, the
412 company's solar sensitivity analysis used the SO model and PaR simulations to
413 determine the PVRR(d) based on two model runs--one with solar PPA bids and the
414 Combined Projects and one with solar PPA bids but without the Combined Projects.

415 **Q. What were the results of the solar sensitivity where solar PPA bids are assumed to
416 be pursued in lieu of the Combined Projects?**

417 A. Table 4-SS summarizes PVRR(d) results for the solar sensitivity where solar PPA bids
418 are assumed to be pursued without any investments in the Combined Projects. This
419 sensitivity was developed using SO model and PaR simulations through 2036 for the
420 medium natural gas, medium CO₂ and the low natural gas, zero CO₂ price-policy
421 scenarios. The results are shown alongside the benchmark study in which the Combined
422 Projects were evaluated without solar PPA bids.

423

**Table 4-SS Updated Solar Sensitivity with Solar PPAs Included
in lieu of the Combined Projects (Benefit)/Cost (\$ million)**

	Sensitivity	Benchmark	Change in
Medium Gas, Medium CO2			
SO Model	(\$343)	(\$405)	\$61
PaR Stochastic Mean	(\$206)	(\$333)	\$127
PaR Risk Adjusted	(\$216)	(\$362)	\$146
Low Gas, Zero CO2			
SO Model	(\$196)	(\$185)	(\$11)
PaR Stochastic Mean	(\$123)	(\$126)	\$3
PaR Risk Adjusted	(\$130)	(\$132)	\$3

424

In this sensitivity, the SO model selects 1,122 MW of solar PPA bids in the low

425

natural gas, zero CO₂ price-policy scenario and 1,419 MW of solar PPA bids in the

426

medium natural gas, medium CO₂ price-policy scenario. All of the selected solar PPA

427

bids are for projects located in Utah.

428

In the medium natural gas, medium CO₂ price-policy scenario, a portfolio with

429

the Combined Projects delivers greater customer benefits relative to a portfolio that

430

adds solar PPA bids without the Combined Projects. Customer benefits are greater

431

when the resource portfolio includes the Combined Projects without solar PPA bids by

432

\$146 million in the medium natural gas, medium CO₂ price-policy scenario based on

433

the risk-adjusted PaR results. In the low natural gas, zero CO₂ price-policy scenario,

434

the portfolio with the Combined Projects delivers slightly greater customer benefits

435

relative to a portfolio that adds solar PPA bids without the Combined Projects when

436

modeled in PaR, and slightly lower customer benefits when analyzed with the SO

437

model. The decrease in net benefits in the solar PPA portfolio is \$3 million based on

438

the risk-adjusted PaR results.

439

When analyzed without the Combined Projects, the solar PPA bids produce net

440

customer benefits that are lower than the benefits expected from the Combined Projects

in the medium natural gas, medium CO₂ price-policy scenario. While the sensitivity with a portfolio containing solar PPAs without the Combined Projects produces PVRR(d) results that are similar to the PVRR(d) results with only the Combined Projects in the low natural-gas, zero CO₂ price-policy scenario, both portfolios deliver customer benefits. This sensitivity does not support an alternative resource procurement strategy to pursue solar PPA bids in lieu of the Combined Projects. This would leave the significant benefits from the Combined Projects, which include building a much-needed transmission line, on the table.

Q. What were the results of the solar sensitivity where solar PPA bids are pursued with the Combined Projects?

A. Table 5-SS summarizes PVRR(d) results for the solar sensitivity where solar PPA bids are assumed to be pursued along with the proposed investments in the Combined Projects. This sensitivity was developed using SO model and PaR simulations through 2036 for the medium natural gas, medium CO₂ and the low natural gas, zero CO₂ price-policy scenarios. The results are shown alongside the benchmark study in which the Combined Projects were evaluated without solar PPA bids.

**Table 5-SS Updated Solar Sensitivity with Solar PPAs Included
With the Combined Projects (Benefit)/Cost (\$ million)**

	Sensitivity	Benchmark	Change in
Medium Gas, Medium CO₂			
SO Model	(\$647)	(\$405)	(\$242)
PaR Stochastic Mean	(\$455)	(\$333)	(\$122)
PaR Risk Adjusted	(\$479)	(\$362)	(\$116)
Low Gas, Zero CO₂			
SO Model	(\$312)	(\$185)	(\$127)
PaR Stochastic Mean	(\$197)	(\$126)	(\$71)
PaR Risk Adjusted	(\$206)	(\$132)	(\$74)

458 In this sensitivity, the SO model continues to choose the winning bids included
459 in the updated 2017R RFP final shortlist as part of the least-cost bid portfolio. In
460 addition to these wind resource selections, the SO model selects 1,042 MW of solar
461 PPA bids in the low natural gas, zero CO₂ price-policy scenario and 1,419 MW of solar
462 PPA bids in the medium natural gas, medium CO₂ price-policy scenario. Again, all of
463 the selected solar PPA bids are for projects located in Utah.

464 When the solar PPAs are assumed to be pursued in addition to the Combined
465 Projects, total net customer benefits increase. This result is consistent with the
466 company's expectation expressed during the 2017R RFP approval process in Docket
467 No. 17-035-23 that cost-effective solar opportunities would not displace the Combined
468 Projects, but would only potentially add to incremental resource procurement
469 opportunities that might provide net customer benefits. Importantly, this sensitivity
470 produces net benefits that are greater than the net benefits from the Combined Projects
471 without the solar PPAs. This confirms that near-term renewable procurement is not a
472 matter of whether the company should pursue the Combined Projects *or* the solar PPAs,
473 but whether the company should consider both opportunities. At this time, it is clear
474 that the Combined Projects provide significant net benefits, and that these benefits are
475 not eliminated if the company were to also pursue solar PPA bids through the 2017S
476 RFP.

477 WIND-REPOWERING SENSITIVITY

478 **Q. Has the company updated its sensitivity analysis related to the wind repowering**
479 **project?**

480 **A.** Yes. The wind repowering sensitivity was updated to reflect the updated final shortlist

and to reflect the most recent cost-and performance estimates for the wind repowering project as described in my supplemental direct testimony filed in Docket No. 17-035-39.

Q. What were the results of the updated wind-repowering sensitivity?

A. Table 6-SS summarizes PVRR(d) results for this wind-repowering sensitivity. This sensitivity was developed using SO model and PaR simulations through 2036 for the medium natural-gas, medium CO₂ and the low natural-gas, zero CO₂ price-policy scenarios. The results are shown alongside the benchmark study in which the Combined Projects were evaluated without wind repowering.

**Table 6-SS Wind-Repowering
Sensitivity (Benefit)/Cost (\$ million)**

	Sensitivity	Benchmark	Change in
Medium Gas, Medium CO₂			
SO Model	(\$608)	(\$405)	(\$204)
PaR Stochastic Mean	(\$517)	(\$333)	(\$184)
PaR Risk Adjusted	(\$543)	(\$362)	(\$181)
Low Gas, Zero CO₂			
SO Model	(\$334)	(\$185)	(\$149)
PaR Stochastic Mean	(\$257)	(\$126)	(\$131)
PaR Risk Adjusted	(\$271)	(\$132)	(\$138)

In the updated wind-repowering sensitivity, customer benefits increase significantly when the wind repowering project is implemented with the Combined Projects in both the medium natural-gas, medium CO₂, and the low natural-gas, zero CO₂ price-policy scenarios. These results continue to demonstrate that customer benefits not only persist, but also increase, if both the wind-repowering project and the Combined Projects are completed.

TURBINE-EQUIPMENT SENSITIVITY

Q. Did the company perform any other additional sensitivity analysis to support selection of bids to the updated 2017R RFP final shortlist?

A. Yes. The company produced an SO model sensitivity to analyze the PVRR(d) impact of [REDACTED] [REDACTED].

Q. Why did the company develop this sensitivity?

A. Technical discussions and preliminary modeling of [REDACTED] in the interconnection-restudy process raised concerns that a synchronous condenser or other electrical compensation equipment might be required at the Aeolus substation if the [REDACTED] to address system performance in a low stiffness-factor environment. Considering that [REDACTED] [REDACTED] [REDACTED], the company produced this sensitivity to estimate the incremental amount of network upgrade costs that would [REDACTED] [REDACTED].

Q. What were the results of this turbine-equipment sensitivity?

A. Table 7-SS summarizes PVRR(d) results for the turbine-equipment sensitivity. This sensitivity was developed using the SO model through 2036 for the medium natural-gas, medium CO₂ and the low natural-gas, zero CO₂ price-policy scenarios. The results are shown alongside the benchmark study in which the Combined Projects were evaluated with the updated final shortlist of bids.

520

**Table 7-SS Turbine-Equipment
Sensitivity (Benefit)/Cost (\$ million)**

	Sensitivity	Benchmark	Change in
Medium Gas, Medium CO ₂	(\$381)	(\$405)	\$24
Low Gas, Zero CO ₂	(\$143)	(\$185)	\$42

521

Considering that the SO model uses levelized capital costs, the reduction in

522

PVRR(d) net benefits in this sensitivity would require at least [REDACTED]

523

[REDACTED] in incremental in-service transmission upgrade costs attributable to [REDACTED]

524

525

526

The company does not anticipate that incremental in-service transmission costs

527

would exceed [REDACTED] should a synchronous condenser or other electrical

528

compensation equipment be required. Moreover, [REDACTED]

529

530

[REDACTED] Based on these findings [REDACTED]

531

[REDACTED], PacifiCorp did not [REDACTED]

532

533

COMPLIANCE WITH UTAH ADMIN. CODE RULE R746-430-2

534 **Q.**

**Does your testimony and exhibits include the information required for an
application for approval of the significant energy resource decision to acquire the
Wind Projects?**

537 **A.**

Yes. It is my understanding Utah Admin. Code Rule R746-430-2(1)(a)-(h) sets forth
the filing requirements for a request for approval of a significant energy resource

539 decision. My testimony and exhibits address the requirements in Utah Admin. Code
540 Rule R746-430-2(1)(a), (b), (c) and (d).

541 **Q. Has the company provided “[i]nformation to demonstrate that the utility has**
542 **complied with the requirements of the Energy Resource Procurement Act and**
543 **Commission rules,” as required by Utah Admin. Code Rule R746-430-2(1)(a)?**

544 A. Yes. As relevant to my testimony, the 2017R RFP was approved by the Commission
545 and executed consistent with the requirements of Part 2 of the Energy Resource
546 Procurement Act (“Act”) and consistent with the Commission’s rules implementing
547 that section of the Act. Attached to my testimony as Exhibit RMP____(RTL-4SS) is my
548 affidavit attesting that the 2017R RFP complied with the requirements of the Act.

549 **Q. Has the Company provided “[i]nformation to demonstrate whether the approval**
550 **of the selected Significant Energy Resource is in the public interest,” as required**
551 **by Utah Admin. Code Rule R746-430-2(1)(b)?**

552 A. Yes. My direct, supplemental direct and rebuttal, and second supplemental direct
553 testimony demonstrate that the procurement of the Wind Projects is expected to provide
554 substantial customer benefits and is the least-cost, least-risk resource choice to serve
555 Utah customers. In addition, Mr. Teply’s and Mr. Vail’s testimony demonstrates how
556 the company will reasonably manage the risks associated with the procurement of the
557 Wind Projects and the steps that are being taken to ensure that the Wind Projects are
558 online by the end of 2020 and therefore fully eligible to qualify for federal PTCs.

559 **Q. Please describe the filing requirements set forth in Utah Admin. Code Rule R746-**
560 **430-2(1)(c), which addresses the solicitation process.**

561 A. Utah Admin. Code Rule R746-430-2(1)(c) requires the company to provide the

562 following:

563 Information regarding the solicitation process, if the Significant
564 Energy Resource was solicited through a solicitation process,
565 including, but not limited to:
566 (i) Summaries of all bids received;
567 (ii) Summaries of the Affected Utility's rankings and evaluations
568 of bids;
569 (iii) Copies of all reports relating to the solicitation process made
570 by an independent evaluator who may have been involved with
571 the solicitation process;
572 (iv) A copy of the complete Commission approved Solicitation
573 with appendices, attachments and drafts, if applicable; and
574 (v) A signed acknowledgment from a utility officer involved in
575 the solicitation that to the best of his or her knowledge, the utility
576 fully observed and complied with the requirements of the
577 Commission's rules or statutes applicable to the solicitation
578 process

579 **Q. Has the company provided summaries of all bids received, as required by Utah**
580 **Admin. Code Rule R746-430-2(1)(c)(i)?**

581 A. Yes. Confidential Exhibit RMP____(RTL-5SS) summarizes the bids that were received
582 and reviewed as part of the 2017R RFP. The Utah IE's monthly reports, which are
583 attached as Highly Confidential Exhibit RMP____(RTL-6SS), also include a summary
584 of all of the bids that were included on the 2017R RFP initial shortlist. The non-
585 conforming bids that were received and rejected are described in Highly Confidential
586 Exhibit RMP____(RTL-7SS).

587 **Q. Has the company provided summaries of its rankings and evaluations of bids, as**
588 **required by Utah Admin. Code Rule R746-430-2(1)(c)(ii)?**

589 A. Yes. Highly Confidential Exhibit RMP____(RTL-8SS) provides a summary of the
590 company's rankings and evaluation of bids. In addition, my supplemental direct and
591 rebuttal testimony, filed January 16, 2018, and my testimony above describes how the

592 company evaluated bids using the SO model and PaR to identify the final-shortlist
593 projects.

594 **Q. Has the company provided the reports prepared by the Utah IE, as required by**
595 **Utah Admin. Code Rule R746-430-2(1)(c)(iii)?**

596 A. Yes, the Company has provided all Utah IE reports received to date. Specifically,
597 Highly Confidential Exhibit RMP____(RTL-6SS) provides copies of all the monthly
598 status reports prepared by the IE. The exhibit also includes the Utah IE's final report
599 on the assessment of the Company's benchmark resources (*i.e.*, TB Flats I and II, Ekola
600 Flats, and McFadden Ridge II), which was prepared by the IE on November 2, 2017,
601 and the Utah IE's report on the 2017R RFP final shortlist, which was prepared by the
602 IE on February 15, 2018.

603 **Q. What were the Utah IE's conclusions related to the benchmark resources?**

604 A. The IE found that the company "developed detailed cost information about the
605 benchmark resources and provided their proposals along with the background
606 information and spreadsheets detailing the cost by line item to the IEs for review and
607 assessment of the benchmark resources."

608 The IE concluded that the "benchmark proposals contain all the information
609 required of other bidders and will be evaluated consistent with the methodology used
610 to evaluate all bids submitted." According to the IE, the "level and detail of information
611 provided by [the Company] is very thorough and exceeds industry standards for
612 benchmark resources at this stage in the process." (emphasis added).

613 Regarding the cost estimates for the benchmark resources, the IE concluded
614 that, "[o]verall, we feel that the capital costs are reasonable for the benchmark resources

615 but if there is any deviation from the average we feel it would be on the low side of the
616 cost spectrum.” Similarly, the IE concluded that the O&M costs are reasonable.

617 Overall, the IE concluded that the company’s treatment of benchmark resources
618 in the 2017R RFP conformed to the requirements of Utah Admin. Rule R746-420 and
619 that the “review, assessment and scoring of the benchmark resources was conducted in
620 a fair and equitable manner with no outward perception of bias.”

621 **Q. What were the Utah IE’s conclusions related to the 2017R RFP final shortlist?**

622 A. As noted above, the IE agreed with the Company’s final shortlist and specifically
623 concluded the following:

- 624 • The response to the 2017R RFP was robust—the capacity bid into the
625 RFP was more than five times the capacity requested, and bidders
626 offered a variety of commercial structures;
- 627 • The Company’s modeling demonstrates that pursuit of the Wind
628 Projects should result in significant customer benefits, particularly in
629 the near-term as PTC benefits flow through rates;
- 630 • The Company used a consistent evaluation process and treated all
631 proposals equally;
- 632 • The final revised evaluation and shortlist is reasonable;
- 633 • The Company made a compelling case that it reasonably accounted for
634 the interconnection queue position of project bids and eliminated
635 projects with bid positions higher than Q0712.¹

¹ While the details of the IE’s report, particularly the summaries of bid information, is designated highly confidential, the IE’s conclusions are non-confidential.

636 **Q. Does Highly Confidential Exhibit RMP___(RTL-6SS) include the IE's final**
637 **report?**

638 A. No. The company has not received a copy of the IE's final report. But once the report
639 is completed, the company will ensure that it is promptly filed with the commission,
640 either by the Utah IE, or by the company. My understanding is that this approach was
641 used in Docket No. 10-035-126 when the company requested approval of the
642 significant energy resource decision to acquire the Lakeside 2 facility. In that case, the
643 company filed its application on December 21, 2010, and the IE filed its final report on
644 January 25, 2011. Despite this delay, the commission issued its final order on April 20,
645 2011-120 days after the company filed its application.

646 **Q. Has the company included any reports filed by the IE appointed by the Public**
647 **Utility Commission of Oregon (Oregon Commission)?**

648 A. Yes. The Oregon Commission appointed Bates White, LLC as its IE. At this time, the
649 Oregon IE has provided an assessment of the final draft RFP and a letter confirming its
650 agreement with changes made to the final 2017R RFP, which are provided as Exhibit
651 RMP___(RTL-9SS). The Oregon IE will file its closing report with the Oregon
652 Commission on February 16, 2017. The company will file the Oregon IE's closing
653 report with the Utah Commission once it is available.

654 **Q. Has the company provided a copy of the complete Commission-approved 2017R**
655 **RFP, with appendices, attachments, and drafts, as required by Utah Admin. Code**
656 **Rule R746-430-2(1)(c)(iv)?**

657 A. Yes. Due to its voluminous nature, the company has included the main body of the RFP
658 document as Exhibit RMP___(RTL-10SS). The appendices and exhibits to the 2017R

659 RFP main document are being provided electronically as Exhibit RMP____(RTL-11SS).

660 **Q. Is the 2017R RFP publicly available?**

661 A. Yes. The 2017R RFP, along with all appendices and exhibits, has been available on the
662 Company's website (<http://www.pacificorp.com/sup/rfps/2017-rfp.html>) since it was
663 issued. In addition, although it is not the subject of this case, the 2017S RFP and all
664 appendices are also publicly available on the Company's website
665 (<http://www.pacificorp.com/sup/rfps/2017S-RFP.html>).

666 **Q. Has the company provided a signed acknowledgment from a utility officer**
667 **involved in the solicitation that to the best of his or her knowledge, the utility fully**
668 **observed and complied with the requirements of the Commission's rules or**
669 **statutes applicable to the solicitation process, as required by Utah Admin. Code**
670 **Rule R746-430-2(1)(c)(v)?**

671 A. Yes. The signed acknowledgment is attached as Exhibit RMP____(RTL4SS). It is my
672 understanding that the Commission's final order approving the 2017R RFP, issued in
673 Docket No. 17-035-23, has been appealed. My understanding, however, is that the
674 Commission's order approving the 2017R RFP was not stayed pending the appeal and
675 therefore remains in effect.

676 **Q. Has the company provided "all information, data, models and analyses used by**
677 **the [Company] . . . to evaluate and rank bids and the selected resource," as**
678 **required by Utah Admin. Code Rule R746-430-2(1)(d)?**

679 A. Yes. My direct testimony, supplemental direct and rebuttal testimony, and second
680 supplemental direct testimony, along with the exhibits accompanying each, describe in
681 detail how the company analyzed bids using the SO model and PaR. Section 6 of the

2017R RFP, included in Exhibit RMP____(RTL10SS), also describes the company's bid-evaluation methodology. And the company's third-party capacity factor review study, which includes additional review of the Uinta project that was not included in Confidential Exhibit RMP____(RTL-2SD), is provided as Confidential Exhibit RMP____(RTL-12SS). In addition, the company has included the following information, data, models and analyses used to evaluate and rank bids and the selected resources:

- Highly Confidential Exhibit RMP____(RTL-13SS) includes electronic copies of all screening models used to establish price scores for the 2017R RFP initial shortlist.
- Confidential Exhibit RMP____(RTL-14SS) includes electronic files used to establish non-price scores for the 2017R RFP initial shortlist.
- Highly Confidential Exhibit RMP____(RTL-15SS) includes electronic copies of all screening models used to process best-and-final pricing reflecting changes in tax law.
- Highly Confidential Exhibit RMP____(RTL-16SS) includes electronic copies of all screening models used to add sales tax costs to certain bids as described in my supplemental direct testimony.
- Highly Confidential Exhibit RMP____(RTL-17SS) includes electronic copies of all screening models used to capture updated interconnection network upgrade costs and sales tax costs for certain bids as described earlier in my second supplemental direct testimony.

- Highly Confidential Exhibit RMP____(RTL-18SS) includes final shortlist recommendations delivered to the Utah and Oregon IEs.

COMPLIANCE WITH UTAH ADMIN. CODE RULE R746-440-1

Q. Does your testimony and exhibits contain the information that must be included with a voluntary request for approval of a resource decision to construct the Transmission Projects?

A. Yes. It is my understanding Utah Admin. Code Rule R746-440-1(1) sets forth the filing requirements for a voluntary request for approval of a resource decision. My testimony and exhibits address the requirements in Utah Admin. Code Rule R746-440-1(1)(e) and (f).

Q. Has the Company provided “[d]escriptions and comparisons of other resources or alternatives evaluated or considered by the [Company], in lieu of the proposed Resource decision,” as required by Utah Admin. Code Rule R746-440-1(e)?

A. Yes. My direct, supplemental direct and rebuttal, and second supplemental direct testimony, provide the information required by Utah Admin. Code Rule R746-440-1(e). Specifically, my direct testimony describes how the 2017 IRP selected new wind resources and transmission as part of the least-cost, least-risk resource portfolio to serve customers (Link Direct, lines 96-364). My supplemental direct and rebuttal testimony and second supplemental direct testimony further describe how the Company used the SO model and PaR to evaluate potential resource alternatives to the Combined Projects and demonstrate that the Combined Projects remain least-cost, least-risk resources.

725 **Q. Has the Company provided “[s]ufficient data, information, spreadsheets, and**
726 **models to permit an analysis and verification of the conclusions reached and**
727 **models used by the [Company],” as required by Utah Admin. Code Rule R746-**
728 **440-1(f)?**

729 A. Yes. The same information I describe above that satisfies the similar requirement in
730 Utah Admin. Code Rule R746-430-2(1)(d), also satisfies the requirement found in Utah
731 Admin. Code Rule R746-440-1(f).

732 **Q. Does this conclude your second supplemental direct testimony?**

733 A. Yes.

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-1SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link
Summary of the Cost and Performance Assumptions for the Combined Projects

February 2018

**THIS EXHIBIT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER
SEPARATE COVER**

Rocky Mountain Power
Exhibit RMP____(RTL-2SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

SO Model and PaR Model Annual Results (\$ million) through 2036

February 2018

SO Model Annual Results (\$ million)

Low Natural Gas, Zero CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$857)	(\$0)	\$0	\$1	(\$13)	(\$99)	(\$100)	(\$104)	(\$102)	(\$106)	(\$109)	(\$109)	(\$122)	(\$122)	(\$136)	(\$132)	(\$132)	(\$144)	(\$158)	(\$138)	(\$136)
Change in Emissions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Change in DSM	(\$92)	\$0	(\$0)	(\$1)	(\$3)	(\$4)	(\$5)	(\$6)	(\$9)	(\$11)	(\$12)	(\$14)	(\$15)	(\$15)	(\$15)	(\$15)	(\$16)	(\$17)	(\$19)	(\$23)	(\$25)
Change in System Fixed Cost	(\$100)	\$0	\$0	\$0	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$19)	(\$19)	(\$19)	(\$35)	(\$22)	(\$11)	(\$55)	(\$57)
Net (Benefit)/Cost	(\$185)	(\$0)	(\$0)	(\$0)	(\$15)	(\$46)	(\$44)	(\$49)	(\$51)	(\$52)	(\$54)	(\$69)	(\$76)	(\$61)	\$74	\$63	\$69	\$69	\$47	\$51	

Low Natural Gas, Medium CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$838)	(\$0)	(\$0)	\$1	(\$13)	(\$99)	(\$100)	(\$104)	(\$103)	(\$107)	(\$107)	(\$110)	(\$124)	(\$124)	(\$137)	(\$126)	(\$126)	(\$129)	(\$130)	(\$129)	(\$113)
Change in Emissions	(\$40)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$17)	(\$21)	(\$19)	(\$17)	(\$25)
Change in DSM	(\$84)	\$0	\$0	(\$1)	(\$3)	(\$3)	(\$4)	(\$5)	(\$7)	(\$9)	(\$10)	(\$12)	(\$12)	(\$14)	(\$14)	(\$16)	(\$18)	(\$20)	(\$21)	(\$21)	(\$22)
Change in System Fixed Cost	(\$109)	\$0	(\$0)	(\$0)	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$19)	(\$19)	(\$19)	(\$13)	(\$26)	(\$64)	(\$49)	(\$63)
Net (Benefit)/Cost	(\$208)	(\$0)	\$0	(\$0)	(\$15)	(\$45)	(\$43)	(\$49)	(\$51)	(\$52)	(\$53)	(\$53)	(\$68)	(\$76)	(\$70)	\$63	\$68	\$57	\$23	\$48	\$47

Low Natural Gas, High CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$909)	(\$0)	\$1	\$1	(\$13)	(\$100)	(\$101)	(\$104)	(\$104)	(\$109)	(\$111)	(\$119)	(\$143)	(\$151)	(\$152)	(\$138)	(\$136)	(\$156)	(\$157)	(\$156)	(\$143)
Change in Emissions	(\$145)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$11)	(\$20)	(\$17)	(\$22)	(\$37)	(\$35)	(\$60)	(\$45)	(\$42)	(\$49)	(\$63)
Change in DSM	(\$69)	\$0	(\$2)	(\$2)	(\$3)	(\$3)	(\$4)	(\$6)	(\$7)	(\$7)	(\$8)	(\$8)	(\$9)	(\$10)	(\$11)	(\$12)	(\$13)	(\$14)	(\$15)	(\$16)	(\$16)
Change in System Fixed Cost	(\$110)	\$0	(\$0)	(\$0)	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$21)	(\$21)	(\$21)	(\$21)	(\$21)	(\$57)	(\$55)	(\$56)
Net (Benefit)/Cost	(\$170)	(\$0)	(\$1)	(\$1)	(\$15)	(\$45)	(\$44)	(\$49)	(\$51)	(\$51)	(\$66)	(\$78)	(\$102)	(\$124)	(\$112)	\$15	\$16	\$16	(\$15)	(\$12)	(\$10)

Medium Natural Gas, Zero CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$1,060)	(\$0)	\$1	\$2	(\$13)	(\$104)	(\$107)	(\$109)	(\$112)	(\$125)	(\$124)	(\$128)	(\$143)	(\$159)	(\$178)	(\$195)	(\$196)	(\$204)	(\$230)	(\$208)	(\$173)
Change in Emissions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Change in DSM	(\$68)	\$0	(\$2)	(\$3)	(\$3)	(\$4)	(\$5)	(\$7)	(\$7)	(\$8)	(\$8)	(\$9)	(\$10)	(\$11)	(\$11)	(\$11)	(\$12)	(\$12)	(\$12)	(\$13)	(\$13)
Change in System Fixed Cost	(\$113)	\$0	\$0	(\$0)	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$21)	(\$21)	(\$21)	(\$19)	(\$24)	(\$7)	(\$63)	(\$115)
Net (Benefit)/Cost	(\$177)	(\$0)	(\$1)	(\$1)	(\$15)	(\$51)	(\$51)	(\$55)	(\$60)	(\$67)	(\$68)	(\$68)	(\$85)	(\$110)	(\$100)	\$14	\$19	\$12	\$7	(\$20)	(\$33)

Medium Natural Gas, Medium CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$989)	(\$0)	\$0	\$1	(\$14)	(\$105)	(\$109)	(\$111)	(\$116)	(\$128)	(\$126)	(\$130)	(\$145)	(\$161)	(\$183)	(\$203)	(\$204)	(\$199)	(\$203)	(\$81)	(\$1)
Change in Emissions	(\$12)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$7)	(\$4)	(\$5)	(\$7)	(\$8)	(\$5)	(\$2)
Change in DSM	(\$48)	\$0	(\$0)	(\$1)	(\$2)	(\$2)	(\$3)	(\$3)	(\$4)	(\$4)	(\$5)	(\$7)	(\$8)	(\$9)	(\$9)	(\$10)	(\$10)	(\$10)	(\$10)	(\$10)	(\$10)
Change in System Fixed Cost	(\$219)	\$0	\$0	\$0	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$22)	(\$22)	(\$22)	(\$22)	(\$39)	(\$45)	(\$202)	(\$299)
Net (Benefit)/Cost	(\$405)	(\$0)	(\$0)	(\$0)	(\$15)	(\$50)	(\$51)	(\$54)	(\$60)	(\$67)	(\$67)	(\$68)	(\$85)	(\$111)	(\$111)	\$2	\$5	(\$3)	(\$9)	(\$35)	(\$45)

Medium Natural Gas, High CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$910)	(\$0)	\$0	\$1	(\$14)	(\$94)	(\$97)	(\$99)	(\$103)	(\$113)	(\$111)	(\$122)	(\$126)	(\$125)	(\$172)	(\$193)	(\$207)	(\$86)	(\$90)	(\$171)	(\$177)
Change in Emissions	(\$103)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$14)	(\$18)	(\$37)	(\$50)	(\$32)	(\$14)	(\$21)	(\$22)	(\$23)	(\$21)	(\$23)
Change in DSM	(\$53)	\$0	(\$1)	(\$1)	(\$2)	(\$3)	(\$3)	(\$4)	(\$4)	(\$5)	(\$7)	(\$8)	(\$9)	(\$11)	(\$11)	(\$11)	(\$11)	(\$11)	(\$11)	(\$11)	(\$11)
Change in System Fixed Cost	(\$287)	\$0	\$0	\$0	(\$0)	(\$19)	(\$19)	(\$20)	(\$24)	(\$25)	(\$25)	(\$26)	(\$38)	(\$38)	(\$39)	(\$39)	(\$21)	(\$147)	(\$148)	(\$73)	(\$76)
Net (Benefit)/Cost	(\$489)	(\$0)	(\$0)	(\$0)	(\$15)	(\$55)	(\$55)	(\$58)	(\$64)	(\$71)	(\$85)	(\$96)	(\$122)	(\$142)	(\$143)	(\$15)	(\$13)	(\$14)	(\$14)	(\$13)	(\$19)

High Natural Gas, Zero CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$1,213)	(\$0)	\$0	\$1	(\$21)	(\$127)	(\$137)	(\$130)	(\$141)	(\$149)	(\$149)	(\$154)	(\$172)	(\$188)	(\$204)	(\$180)	(\$125)	(\$214)	(\$189)	(\$279)	(\$264)
Change in Emissions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Change in DSM	(\$48)	\$0	(\$1)	(\$1)	(\$2)	(\$2)	(\$2)	(\$3)	(\$6)	(\$6)	(\$6)	(\$6)	(\$8)	(\$8)	(\$8)	(\$8)	(\$9)	(\$9)	(\$10)	(\$10)	(\$11)
Change in System Fixed Cost	(\$303)	\$0	\$0	(\$0)	(\$0)	(\$3)	(\$3)	(\$27)	(\$30)	(\$31)	(\$32)	(\$33)	(\$41)	(\$55)	(\$92)	(\$147)	(\$57)	(\$99)	(\$141)	(\$67)	(\$67)
Net (Benefit)/Cost	(\$699)	(\$0)	(\$0)	(\$0)	(\$22)	(\$72)	(\$78)	(\$96)	(\$110)	(\$115)	(\$116)	(\$117)	(\$138)	(\$157)	(\$158)	(\$39)	(\$35)	(\$29)	(\$40)	(\$68)	(\$73)

High Natural Gas, Medium CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$1,130)	(\$0)	\$0	\$1	(\$21)	(\$127)	(\$137)	(\$118)	(\$130)	(\$131)	(\$130)	(\$134)	(\$163)	(\$181)	(\$128)	(\$142)	(\$206)	(\$198)	(\$289)	(\$305)	
Change in Emissions	(\$15)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$5)	(\$4)	(\$5)	(\$7)	(\$8)	(\$10)	(\$12)
Change in DSM	(\$51)	\$0	(\$1)	(\$1)	(\$2)	(\$2)	(\$2)	(\$3)	(\$6)	(\$6)	(\$6)	(\$7)	(\$8)	(\$8)	(\$9)	(\$9)	(\$10)	(\$11)	(\$11)	(\$12)	(\$12)
Change in System Fixed Cost	(\$383)	\$0	\$0	(\$0)	(\$0)	(\$3)	(\$3)	(\$48)	(\$52)	(\$53)	(\$54)	(\$55)	(\$56)	(\$63)	(\$76)	(\$138)	(\$129)	(\$62)	(\$83)	(\$27)	(\$25)
Net (Benefit)/Cost	(\$716)	(\$0)	(\$0)	(\$0)	(\$22)	(\$72)	(\$78)	(\$100)	(\$110)	(\$117)	(\$119)	(\$120)	(\$139)	(\$155)	(\$160)	(\$39)	(\$31)	(\$43)	(\$43)	(\$76)	(\$86)

High Natural Gas, High CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Projects	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$1,131)	(\$0)	\$0	\$1	(\$22)	(\$125)	(\$134)	(\$84)	(\$87)	(\$96)	(\$96)	(\$99)	(\$113)	(\$145)	(\$177)	(\$225)	(\$243)	(\$224)	(\$260)	(\$337)	(\$348)
Change in Emissions	(\$67)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	(\$4)	(\$8)	(\$11)	(\$16)	(\$15)	(\$8)	(\$24)	(\$22)	(\$29)	(\$30)	(\$31)
Change in DSM	(\$41)	\$0	(\$1)	(\$1)	(\$1)	(\$1)	(\$1)	(\$3)	(\$4)	(\$5)	(\$5)	(\$5)	(\$6)	(\$7)	(\$7)	(\$7)	(\$8)	(\$8)	(\$9)	(\$10)	(\$11)
Change in System Fixed Cost	(\$406)	\$0	\$0	(\$0)	(\$0)	(\$7)	(\$7)	(\$84)	(\$89)	(\$91)	(\$93)	(\$95)	(\$97)	(\$77)	(\$74)	(\$44)	(\$23)	(\$49)	(\$41)	\$17	\$13
Net (Benefit)/Cost	(\$781)	(\$0)	(\$0)	(\$0)	(\$22)	(\$73)	(\$78)	(\$107)	(\$114)	(\$120)	(\$127)	(\$131)	(\$151)	(\$165)	(\$163)	(\$44)	(\$52)	(\$52)	(\$82)	(\$97)	(\$109)

PaR Stochastic-Mean Results (\$ million)

Low Natural Gas, Zero CO2 Price-Policy Scenario

(Benefit)/Cost	PVRR(d)	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036
Cost of Project	\$864	\$0	\$0	\$0	\$2	\$60	\$64	\$64	\$66	\$71	\$71	\$76	\$75	\$80	\$109	\$241	\$246	\$251	\$257	\$263	\$268
Change in NPC	(\$757)	\$0	\$0	\$1	(\$12)	(\$89)	(\$90)	(\$92)	(\$90)	(\$94)	(\$92)	(\$92)	(\$105)	(\$109)	(\$116)	(\$119)	(\$121)	(\$127)	(\$137)	(\$124)	(\$121)
Change in Emissions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Change in VOM	(\$18)	\$0	\$0	\$0	\$0	(\$2)	(\$2)	(\$2)	(\$2)	(\$2)	(\$3)	(\$3)	(\$3)	(\$2)	(\$2)	(\$2)	(\$3)	(\$4)	(\$3)	(\$3)	(\$3)
Change in DSM	(\$108)	\$0	(\$1)	(\$2)	(\$3)	(\$5)	(\$6)	(\$8)	(\$10)	(\$13)	(\$15)	(\$16)	(\$17)	(\$18)	(\$18)	(\$18)	(\$18)	(\$19)	(\$20)	(\$25)	(\$27)
Change in Deficiency	(\$8)	\$0	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$1)	(\$1)	(\$3)	(\$4)	(\$3)	(\$2)	(\$6)	(\$2)	(\$4)
Change in PTC losses (dumped energy)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Change in System Fixed Cost	(\$100)	\$0	\$0	\$0	(\$0)	(\$3)	(\$3)	(\$4)	(\$7)	(\$7)	(\$7)	(\$7)	(\$7)	(\$19)	(\$19)	(\$19)	(\$35)	(\$22)	(\$11)	(\$55)	(\$57)
Net (Benefit) Cost	(\$126)	\$0	\$0	(\$1)	(\$15)	(\$39)	(\$36)	(\$41)	(\$44)	(\$45)	(\$45)	(\$47)	(\$57)	(\$69)	(\$49)	\$78	\$67	\$80	\$79	\$54	\$56

Rocky Mountain Power
Exhibit RMP___(RTL-3SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Estimated Annual Revenue Requirement Results (\$ million) through 2050

February 2018

Exhibit RMP__(RTL-3SS)

Estimated Annual Revenue Requirement Results (\$ million)

Low Natural Gas, Zero CO2 Price-Policy Scenario

	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
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50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79	\$77	\$75	\$73	\$71	\$69	\$67	\$65	\$63	\$62	\$58	\$56	\$54	\$53	\$51	\$50	\$50	\$49	\$48	\$47	\$46	\$45	\$44	\$43	\$42	\$41	\$40	\$39	\$38	\$38	
50	\$0	\$0	\$12	\$79																														

[illegible]

Rocky Mountain Power
Exhibit RMP___(RTL-4SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Affidavit of Rick T. Link

February 2018

BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of:

Docket No. 17-035-40

THE APPLICATION OF ROCKY
MOUNTAIN POWER FOR APPROVAL
OF A SIGNIFICANT ENERGY
RESOURCE DECISION AND
VOLUNTARY REQUEST FOR
APPROVAL OF RESOURCE DECISION

AFFIDAVIT OF RICK T. LINK

STATE OF OREGON)
) ss
County of Multnomah)

I, Rick T. Link, being first duly sworn on oath, depose and say:

1. My full name is Rick T. Link. I am employed by PacifiCorp. My present position is Vice President, Resource and Commercial Strategy. I submit this affidavit in compliance with Utah Admin. Code Rule R746-430-2(1)(c)(v).

2. In my position as Vice President, Resource and Commercial Strategy, I was involved in PacifiCorp's 2017R Request for Proposal ("RFP").

3. To the best of my knowledge, PacifiCorp fully observed and complied with the requirements of the applicable statutes, including the Energy Resource Procurement Act, and the Public Service Commission of Utah's administrative rules applicable to the 2017R RFP.

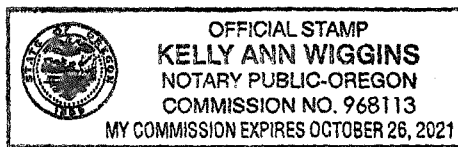
I declare under penalty of perjury under the laws of the state of Oregon that the foregoing is true and correct based on my information and belief.

SIGNED this 14th day of February, 2018, at Portland, Oregon.

Signed: [Signature]

SUBSCRIBED AND SWORN to before me this 14th day of February, 2018.

[Signature]
Notary Public, State of Oregon
My Commission Expires 10/26/2021



REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-5SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

2017R RFP Bid Summaries

January 2018

**THIS EXHIBIT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER
SEPARATE COVER**

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-6SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

UT IE Reports

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

This highly confidential exhibit contains commercially sensitive information which is considered business confidential information subject to Utah Code 63G-2-305(2) and 63G-2-305(3) to protect it from a Government Records Access and Management Act (GRAMA) request. The Company requests special handling. Please contact Jana Saba at (801) 220-2823 to make arrangements to review.

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-7SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Non-Conforming Bids

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

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REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-8SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link
Company Bid Ranking and Evaluation

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

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Rocky Mountain Power
Exhibit RMP____(RTL-9SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Oregon IE Assessment

February 2018



THE INDEPENDENT EVALUATOR'S ASSESSMENT OF PACIFICORP'S FINAL DRAFT 2017R REQUEST FOR PROPOSALS

**Presented to:
OREGON PUBLIC UTILITY COMMISSION**

**Prepared by
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August 10, 2017

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I. INTRODUCTION AND SUMMARY

Bates White, LLC (“Bates White”) was chosen by the Public Utility Commission of Oregon (“Commission”) to serve as the Independent Evaluator (“Oregon IE” or “IE”) for PacifiCorp’s (“the Company’s”) Renewable Request for Proposals (“2017R RFP” or “RFP”).¹ This report represents Bates White’s analysis of the Final Draft of the RFP as filed with the Commission on August 4, 2017.

The purpose of this report is to identify areas of concern regarding the RFP design and to recommend areas where the Company could improve the RFP to achieve a better outcome. This report complies with the requirements of the Competitive Bidding Guidelines (“Guidelines”),² which state:

The utility will consult with the IE in preparing the RFPs, and the IE will submit its assessment of the final draft RFP to the Commission when the utility files for RFP approval.³

A. Background

As a matter of record, we note that this RFP process is taking place under an accelerated schedule. PacifiCorp has requested this accelerated schedule in order to achieve the following:

1. Issue the RFP in time to allow for winning bidders to capture the full value of the Production Tax Credit (“PTC”) by placing their projects into service prior to December 31, 2020,⁴ and
2. Align with the Company’s Certificate of Public Convenience and Necessity (“CPCN”) process to expand its transmission system in Wyoming in order to accommodate projects selected in this RFP.

Specifically, we received the initial draft of the RFP from the Company after close of business on Friday, July 21. We provided comments on the initial draft RFP to the Company on Wednesday, July 26. The final draft RFP was filed on Friday August 4. This report is being provided less than a week after that filing. Typically, the review period for a final draft RFP is

¹ Bates White has significant experience as an Independent Evaluator representing state public utility commissions. We previously monitored PacifiCorp’s, 2008 All Source, 2008R-1, 2009R, 2011 All Source, and 2012 Baseload RFPs on behalf of the Oregon Commission. All this work was performed under the name of Boston Pacific Company, Inc. In November of 2016 Boston Pacific entered into a strategic combination with Bates White.

² Oregon’s Competitive Bidding Guidelines Modified, Public Utility Commission of Oregon, Order No. 14-149, Appendix A, April 30, 2014 (“Competitive Bidding Guidelines”).

³ Competitive Bidding Guidelines, item 6.

⁴ RFP, page 1.

more lengthy. For example, in PacifiCorp's 2011 All Source RFP the Final Draft was filed on October 27, 2011 and our assessment of that draft was filed on November 17, 2011.⁵ That represents three calendar weeks, as opposed to the one business week afforded here.

The typical concern with such a rushed process, particularly one in which affiliate bids are involved, is that the process is set up for the selection of the affiliate offer and competition will be less than optimal as bidders either cannot or will not offer supply. This is an understandable concern here, particularly since the Company's preferred wind and transmission additions were announced late in the IRP process and the debate over that solution is ongoing.

In this report we make several suggestions to improve participation in the RFP process and make the process more open and fair. In addition, during the process itself, we will independently monitor the process and evaluate all offers, including affiliate bids, to ensure the process is fair. However, we do not address, and take no position on, two larger questions raised by this RFP, which are: 1) is Wyoming wind (paired with transmission) the "correct" resource to acquire? and 2) does this acquisition represent a "time-limited" opportunity of unique value to customers? To us, the first question will be answered in the IRP process and, if that process produces a "no" answer, then this RFP will be moot. The second question would require a much more detailed and time-consuming analysis which would weigh the loss (or partial loss) of the Production Tax Credit ("PTC") against various alternate dispatch scenarios created by a delay in the process and require consideration of schedule delays in not just this process but also the CPCN process in Wyoming. Such an analysis is not possible within this time frame.

The Company has been responsive to our questions and we believe we have been able to make an adequate assessment of the RFP design. We note that PacifiCorp did make several productive changes in response to our initial comments.⁶ However, due to this accelerated schedule we will focus this report mainly on suggested changes to the final draft RFP rather than providing a more thorough explanation of the positive aspects of the RFP design.⁷ If the Commission feels that more time is needed for consideration of this RFP we do recommend giving more time for stakeholder feedback.

B. Three Unique Risks Present in the RFP

This RFP raises standard concerns regarding any procurement with affiliate offers and PPAs versus utility-owned resources; we make suggestions to address these concerns in this document. However, the timing of this RFP also creates unique risks that are not typically present in an RFP. Three unique risks are as follows:

- (1) The Company's 2017 Integrated Resource Plan ("IRP") has not yet been acknowledged by the Commission. As a result, there is a risk that the IRP will not acknowledge the RFP or that the action items driving this RFP may be modified or

⁵ See Docket UM-1540. This RFP was also known as the All Source RFP – Resource 2016.

⁶ Changes included: a) removing the requirement for bidders to qualify for 100% of the PTC (allowing bidders with 2017 capital purchases to compete), b) moving back the notice of intent to bid due date, and c) removing the requirement for a bidder to have a completed system impact study at bid submission.

⁷ Beyond these changes we also have noted additional typographical errors which we will inform the Company of directly.

cancelled;

- (2) It cannot be known whether winning projects in this RFP will receive the Production Tax Credit either in part or in full; and
- (3) It cannot be known whether or not the Company's proposed transmission project – the 500-kV Gateway Segment D2 Aeolus to Bridger Anticline substation and transmission system (the "Transmission Project" or "Gateway Segment D2") – will be built, and if so, whether it will be built on time.

We address each issue below.

1. Unique Risk #1: Pending IRP

This RFP is based on action items identified in the Company's 2017 IRP. In the Introduction section of the RFP, the Company states:

As stated in its 2017 Integrated Resource Plan (IRP), PacifiCorp has identified plans to add at least 1,100 megawatts (MW) of new wind resources that will qualify for full federal production tax credits (PTC) and achieve commercial operation by December 31, 2020, in conjunction with implementation of certain Wyoming transmission infrastructure projects within that same timeframe.⁸

Throughout the RFP, the Company explains that it will use the same model and similar evaluation methods to evaluate bids in this RFP as it used in developing its preferred portfolio in the IRP process.⁹

This approach is as reasonable one, and generally consistent with the Commission's Competitive Bidding Guidelines. The IRP is meant to identify needs and to develop an optimal portfolio to address those needs. Interested parties can provide comments on the utility's IRP process and results, and regulators can review and either approve or reject the IRP, depending on its merits. If accepted, RFPs are then used to competitively procure that optimal resource portfolio to meet those needs.

The issue in this case is that the IRP, while filed in Oregon, has not been acknowledged by the Commission.¹⁰ Without an acknowledged IRP, neither the Company nor bidders can know that this RFP is seeking the optimal resource portfolio for the Company's needs. Should the IRP be rejected or substantively modified, this RFP could become moot.

In their filing, PacifiCorp recognizes this issue and states that they have timed the RFP such that the Final Shortlist of bids will be approved after the acknowledgement of the IRP. We would recommend that the Company note this in the RFP document itself so that bidders are more aware of the risk. Our assessment in this RFP design report, by necessity, presumes that the relevant action items from the IRP are acknowledged as proposed. As discussed above, for

⁸ RFP, page 1.

⁹ See, for example, RFP, page 24.

¹⁰ See Docket No. LC 67.

purposes of this report, we have not conducted an analysis of the IRP, including its identification of resources sought in this RFP as part of its optimal portfolio. We take as given the Company's position that these resources are desirable, per results of the IRP process.

2. Unique Risk #2: Winning Projects' Realization of the PTC

One of the drivers for the accelerated time frame of this RFP is the expiration of the Federal PTC. However, several factors could prevent a winning supplier from realizing the PTC ranging from failure to use equipment that qualifies for a specific vintage of PTC to failure to place a project in service within the required time frame.

Generally, the draft contracts properly commit bidders to their claims regarding PTC qualification. In the case of a Build Transfer Agreement ("BTA"), the bidder pledges that the project will qualify for a given year of PTC treatment and in the Power Purchase Agreement ("PPA"), the bidder will be held to their price offered and cannot increase their price due to failure to claim the PTC.

While we find the language in the BTA and PPA above comforting, there is one additional scenario in which failure to capture the PTC worth noting. That is, a project may be prevented from capturing the PTC if it is delayed by the fact that the Company fails to build and bring online the Gateway Segment D2 Project on time, which, as we explain below, is likely needed by new wind projects to deliver power pursuant to this RFP. In this case, ratepayers must not bear the risk for a project's failure to qualify for the PTC due to PacifiCorp's failure to bring Gateway Segment D2 on line at the pledged time. Bidders – presuming they have held up their other obligations - must also not be at risk for this cost increase.

3. Unique Risk #3: Pending Transmission Project

A third unique risk present in this RFP is its reliance on the Gateway Segment D2 Project. In the RFP, the Company requires eligible projects to be:

capable of directly interconnecting and delivering energy to PacifiCorp's network transmission system in Wyoming inclusive of the proposed 500-kV Gateway Segment D2 Aeolus to Bridger Anticline substation and transmission system, or capable of delivering energy into PacifiCorp's transmission system in Wyoming with the use of third-party firm transmission service.¹¹

It is our understanding that it would be difficult, if not impossible, for new projects to interconnect to the Company's Wyoming system in the absence of the Gateway Segment D2 Project. Should the Wyoming Commission reject Rocky Mountain Power's CPCN proposal, it would create considerable uncertainty with respect to the continued viability of this RFP. Moreover, besides this regulatory risk, there is the risk noted above that, even if approved, the Company may fail to deliver the transmission facilities on time (or at all), which could have

¹¹ RFP, page 1.

serious implications for winning projects that need to be online by the end of 2020 in order to capture the PTC.

Given this risk, bidders should be allowed to terminate any contractual agreements without penalty should their project fail to become deliverable as the result of the failure of the Gateway Segment D2 Project to be constructed. Again, as noted above, ratepayers should not bear the risk of any project not being able to claim the PTC.

C. Summary

When appraising the design of any competitive procurement process, we begin with the goal of the procurement, which is to get the best deal possible for ratepayers in terms of price, risk, and reliability given market and regulatory conditions. To know if a process will satisfy this goal we look to answer four key questions. These are:

- (1) Is the process fair and transparent?
- (2) Does the process properly measure and assign risk?
- (3) Will the process likely lead to a positive result? And,
- (4) Is the process compliant with the Commission's regulatory rules and Bidding Guidelines?

These topics each serve an important function. First, fairness and transparency attract bidders and encourage them to bid aggressively. One cannot have competition without competitors, and the more competitors, the more likely that ratepayers will get a "good deal". Second, effective risk measurement and assignment assure that the winning bids will mitigate ratepayer risk and perform the best under a variety of possible future scenarios. Third, if the procurement does not produce positive results (i.e., signed contracts for new supply) then the entire process will be of marginal value, as the whole purpose of the RFP is to secure the lowest cost supply for ratepayers, when accounting for risk. Fourth, the process must be in line with Commission rules and Competitive Bidding Guidelines as those Guidelines represent the Commission's goals in terms of the type of supply procured and the method by which it is to be procured; goals which have been vetted extensively with all stakeholders. For further discussion on these topics, please see Appendix A.

Our key suggestions can be broken down into several points. We group them below by (a) Fairness and Transparency, (b) Risk Measurement and Assignment, (c) Producing a Positive Result and (d) Compliance with Commission Guidelines. All are discussed more thoroughly in Section II.

1. Fairness and Transparency

Our suggestions on this topic include:

- J The RFP should not be limited to new projects; "repowered" and uncommitted existing projects should also qualify provided they are "new" to the PacifiCorp system and can meet the other requirements to participate in this RFP, e.g.

interconnection to the Wyoming system.

-) Credit requirements should be clearly defined and account for step-in rights.
-) More information should be provided regarding QF contracts which would claim a share of the transmission capacity created by the Gateway Segment D2 Project.
-) Clarification should be provided regarding the calculation of the Success Fee.
-) The penalties in the PPA for failing to meet a project's Guaranteed Availability should be adjusted, as explained in detail below.

2. Addressing Uncertainty and Assigning Risk

We make six recommendations on this topic:

-) PacifiCorp's self-build "benchmark" bids should be held to their assumptions regarding cost and performance.
-) Bidders should not bear the risk of PacifiCorp failing to construct the Gateway Segment D2 Transmission Project.
-) If PacifiCorp receives approval to complete the Gateway Segment D2 Project, but misses the Commercial Operations Date ("COD") of the project, ratepayers and bidders should be held harmless.
-) Price scoring should not be "force ranked, as explained further below.
-) The impact of cost overruns on the Gateway Segment D2 Project should be assessed in the RFP evaluation process.
-) "Change Orders" which increase the cost of the project should not be paid for by ratepayers.

3. Producing a Positive Result

We make three recommendations on this topic:

-) Projects should be required to provide only one year of wind data, not two.
-) Stakeholders should provide comment regarding offers on Company's benchmark bid sites and PacifiCorp should provide comment regarding the impact of RFP schedule delays.

) Qualification language regarding litigation against the Company should be limited, as explained further below.

4. Compliance with Commission Competitive Bidding Guidelines

The Commission's Guidelines lay out the rules for a competitive bidding process in Oregon. All qualifying RFPs must meet the standards put forth in those guidelines. We believe the draft RFP meets most of the Guidelines. The exception, as noted above, is that the IRP which produced this procurement plan has yet to be acknowledged by the Commission.

II. DETAILED DISCUSSION OF THE RFP

The following section contains our complete review of the RFP. The review is focused on our four evaluation criteria: (a) fairness and transparency, (b) risk measurement and assignment, (c) producing a positive result, and (d) compliance with appropriate Commission Guidelines. Again, due to the limited review window we focus mainly on changes that would improve the RFP design.

A. Fairness and Transparency

Fairness, in our definition, means that all bidders are treated the same. All bidders want to know that they are competing on a “level playing field,” and that they can win the RFP by offering the best deal in terms of price and risk allocation. Transparency means that all parties can clearly understand the RFP requirements, products solicited and evaluation methods.

An important part of ensuring a fair and transparent RFP is making sure that the evaluation is based on objective criteria and that the evaluation method and criteria to be used are clearly explained to bidders. This is why “price only” procurements, where bidders all agree to sign an identical contract and price is the only deciding factor in choosing winners, are considered to be the most transparent form of procurement.

With a long-term, unit contingent procurement, a strict price-only offer is oftentimes not realistic. The procurement must account for the fact that different transaction types and technologies require different contracts and that each bidder has their own preferences and limits on terms such as liquidated damages and force majeure language.

In light of these challenges, the RFP attempts to use a “price mostly” evaluation methodology. The initial shortlist is comprised of price and non-price scores which are given weights of 80% and 20%, respectively. This means that bids with good prices will, generally speaking, be at the top of the bid ranking. The analyses applied to the final shortlist are all focused on determining which portfolios serve ratepayers at the lowest cost under a variety of different scenarios. While there is not a strict standard contract, a draft contract is presented in the RFP and bidders that propose major changes from the draft contract are penalized. In addition, the Company reserves the right to reject any bid after consultation with the IE, which could include bids with contract changes that shift excessive risk onto the ratepayer.

1. The RFP should not be limited to new projects; “repowered” and uncommitted existing projects should also qualify

The RFP currently limits participation to new wind projects only.¹² To enhance fairness, we would recommend expanding participation to uncommitted wind resources, both “repowered” wind projects and existing wind resources. Both such resources would meet PacifiCorp’s definition of “new” in the sense that these types of resources should represent an expansion of the Company’s wind portfolio. Bidders would need to substantiate the fact that they are uncommitted and meet all the other requirements of the RFP.

¹² RFP, page 1.

Given that the Company is interested in using repowered wind resources as part of its portfolio going forward it would seem to be reasonable to allow them here as well as long as they can meet the other requirements for projects in this RFP. On June 30, 2017, the Company's Wyoming affiliate, Rocky Mountain Power, filed for approval of its own proposal to repower twelve of its own wind resources, located in Wyoming, Oregon, and Washington. That portfolio – which currently has a nameplate capacity of 999.1 MW – would be increased by the repowering to 1,096.8 MW, an increase of 97.7 MW.¹³

2. Credit requirements should be clearly described and account for contractual rights

One important issue for bidders in any RFP is the amount of credit they will have to post as performance assurance for their contract. The draft RFP provides some description of the basic methodology PacifiCorp will use to determine the bidder's credit requirements, however, they have not provided a "credit matrix" which spells out specific amounts due based on project size and transaction type. Based on conversations with the Company, we understand that the Company is currently creating the credit matrix. The Company must distribute this as soon as possible so that other parties can perform their own assessment of the requirements. At a minimum, the credit matrix (as we describe it) must be part of the final RFP that is issued at the end of August.

While we cannot, at this time, provide a thorough assessment of the credit requirements, we do take note of one phrase in the RFP which causes some concern. PacifiCorp states that it views the credit exposure of PPAs as "the cost [it] would incur in the event the resource failed to reach commercial operation by December 31, 2020 or the bidder failed at any time during the life of the contract."¹⁴ Our concern is that PacifiCorp would calculate exposure (and, therefore, the credit requirement) for a PPA over the life of the entire 20-year contract. This would be, to our knowledge, at odds with past practices, which assumed that the Company could use their step-in rights laid out in the pro forma PPA to bring the project to proper commercial operation, limiting its exposure to a much smaller time frame—typically 12-18 months. We recommend the Company stay consistent with this practice in order to avoid creating a disincentive to bidders offering PPAs.

3. The Company should provide updates regarding potential QF contracts

In its June 28, 2017 IRP Update filing PacifiCorp states that the Gateway Segment D2 Project will allow for an additional 320 MW of new qualifying facility ("QF") resources to be imported into the system.¹⁵ PacifiCorp also mentioned this at the RFP stakeholder workshop.

¹³ Rocky Mountain Power, "Application of Rocky Mountain Power for an Order Approving Nontraditional Ratemaking Related to Wind Repowering," June 30, 2017 ("Repowering Proposal"), Exhibit RMP____(RTL-1) Page 1 of 1.

¹⁴ RFP Appendix D – page 5.

¹⁵ PacifiCorp 2017 Integrated Resource Plan Energy Vision 2020 Update, July 28, 2017, page 4.

Our understanding is that these new contracts – if signed – would reduce the amount of new supply the Company would take in this RFP. Assuming this is the case, we would recommend that the Company both (1) state this fact clearly in the RFP and (2) provide updates to bidders if/when these contracts are finalized. This will ensure that bidders are fully aware of a key factor in the bid selection for this RFP.

We presume here that, should these contracts be signed, PacifiCorp will simply reduce its quantity selected in this RFP by a commensurate amount. If this is not the case, then the Company should also make this clear in the RFP document.

4. The calculation of the Success Fee should be clarified and included with the Benchmark Resources

PacifiCorp claims that the winning bidders in this RFP will also pay a “Success Fee” to cover the costs of the Oregon and Utah IEs. The only guidance that the Company provides regarding this fee is that “in no event shall the success fee exceed \$300,000 dollars per successful winning bid.”¹⁶ We would recommend that the Company provide additional information regarding the calculation of this fee so that bidders can properly price it into their bids.

If this is not possible prior to price submission, for example, because the fee depends on the number of winning offers, we would then recommend that, during the evaluation process, \$300,000 be added as a line item to each the Benchmark resource bid in order to be on equal footing with other bidders.

5. The PPA should adjust penalties for failing to meet the Guaranteed Availability

Both the PPA and the BTA provide for performance incentives to deliver projects on time and within certain performance specifications. However, two clauses of the PPA – taken together – give us cause for concern. First, in section 11.1.2 of the PPA, covering “Defaults by Seller”, the contract states that the seller will be in default if “Seller fails to meet the Guaranteed Availability for two (2) consecutive years.”¹⁷ Second, the PPA defines “Guaranteed Availability” as follows:

Seller guarantees that the annual Availability of the Facility shall be at least ninety five percent (95%) of the calculated Availability...¹⁸

Together, these two clauses impose potentially onerous requirements on third-party suppliers and could serve to discourage participation or to force bidders to offer BTA agreements instead. For comparison, the PPA included with the 2008R-1 Renewables RFP featured guaranteed availability levels of 70% in year 1, 85% in year 2 and 93% thereafter, and did not terminate for failure to meet these levels.

¹⁶ RFP page 9.

¹⁷ PPA, section 11.1.2(h).

¹⁸ PPA, section 6.12.1.

Our recommendation would be to remove failure on this issue as a reason for termination. As additional protection, we recommend that the bidder be required to guarantee a level of availability each year, with a potential “ramp-up” in the early years, and provide liquidated damages if they fall short in any given year.

B. Risk Measurement and Assignment

Risk measurement and assignment is essential in any RFP. As a guiding principle, risks should be put on the party best equipped to handle them. Moreover, the evaluation should give credit to bidders who assume more risk than others. In this area, we have several suggested changes.

1. PacifiCorp's self-build "Benchmark" bids should be held to their assumptions regarding cost and operating performance

This RFP features four self-build or "Benchmark" resources that the Company will offer. As the IE, in accordance with Oregon Guidelines, we will review each offer to ensure that all cost estimates are reasonable and that no costs have been omitted from the estimates. We will also score the offers prior to the opening of market bids.

Beyond these protections, we would recommend that the Benchmark offers be held to their cost and performance assumptions as offered, the same as any third-party bidder would. This will help ensure a level playing field for all offers.

2. Bidders should not be penalized if PacifiCorp fails to construct the Gateway Segment D2 Transmission Project

A unique risk of this RFP is that any bids will likely be dependent on the Gateway Segment D2 Project to interconnect to the grid. Should this project not be approved, or fail to be constructed for another reason, bidders (or the Company) could be at risk of having a project that cannot operate. This could place the bidder in default of their contracts. For example, the BTA Agreement has a condition precedent that "PacifiCorp Transmission shall have demonstrated to PacifiCorp, in PacifiCorp's satisfaction, such satisfaction in its discretion, that the Project can be integrated with PacifiCorp Transmission's system as a network resource."¹⁹ If the Transmission Project is not present the bidder could be in violation of this clause and pay a termination payment of \$50/kW. To avoid this problem, both the BTA and the PPA should make clear that the contracts may be terminated without penalty if the Gateway Segment D2 Project fails to be constructed.

3. If PacifiCorp receives approval to complete the Gateway Segment D2 Project, but misses the Commercial Operations Date ("COD") of the project, ratepayers and bidders should be held harmless for any cost impacts

To realize the full PTC, winning suppliers will need to come online by the end of 2020. However, as is made clear in the Rocky Mountain Power Wyoming Transmission Application, winning projects in this RFP are likely to be reliant upon the Transmission Project to deliver power. Should the Transmission Project's COD slip beyond the date by which winning projects must come online to recover the PTC, PacifiCorp should hold ratepayers harmless by not passing any increased costs through to ratepayers. Bidders, provided they have done everything else to

¹⁹ BTA Agreement, section 2.7(m)

properly qualify for the PTC level they have pledged, should likewise not be held accountable for this risk.²⁰

4. PacifiCorp employs a complex, multi-step approach to select a portfolio of bids; however, the Price Scoring should not be “force ranked”

The RFP details a method for ranking qualifying proposals by a combined price and non-price score. For the price score PacifiCorp will first calculate the “net benefits” of the bid. This equals the levelized benefits of the project (in \$/MWh) less the levelized cost of the project. In this case, the benefits are the value of the energy and capacity produced by the project. The Company would then stack the bids from lowest to highest net benefit. The most beneficial bid would be “force ranked” by assigning the maximum price score of 80 points to that bid while the least beneficial bid would be assigned a score of zero. Bids in between would be scored via a linear interpolation.

Our concern with this method is that bids which are relatively similar in net benefits could receive vastly different price scores. Take, for example, the following set of six bids, where the most beneficial bid has a net benefit of \$20/MWh and the least beneficial bid has a net benefit of \$14/MWh.

Net Benefit (\$/MWh)	Price Score
\$ 20.00	80.00
\$ 18.50	60.00
\$ 16.50	33.33
\$ 15.50	20.00
\$ 15.00	13.33
\$ 14.00	-

Here the difference between the top two bids is small, \$1.50/MWh, but the score difference is large, equal to the entire non-price score. As noted earlier, the structure of this RFP requires a “price mostly” evaluation – i.e., an evaluation with greater weight on the price score; however, the manner in which this evaluation is proposed would render the non-price factors irrelevant.

To avoid this outcome, we would recommend that the Company score the bids as it has in past RFPs, by looking at the ratio of benefits to costs. For example, in the 2011 All Source RFP, the price score was calculated by dividing the bid benefits by its costs. If costs were equal to or less than 60% of the benefits the full price score was awarded, while if benefits were equal to or more than 140% of costs a score of zero was awarded, with anything in between being linearly

²⁰ We welcome comment from stakeholders on the best way to contractually mitigate this risk. Solutions may range from a set level of liquidated damages to a more specific replacement cost calculation.

interpolated. During the actual scoring these endpoints (60% and 140%) can be adjusted to provide a proper balance between price and non-price scores.

Beyond the “force ranking” issue noted above, the RFP features a strong plan for assessing risk and selecting bids that perform well given an uncertain future. Bids will be evaluated in a multi-step process based on the same analytical methods used in the Company’s IRP. For the initial shortlist evaluation a price score will be determined as noted above. Bids will then be evaluated for non-price characteristics. The non-price factors attempt to quantify some factors that are not included in the bid price. They are grouped into three categories;

-) Conformity to RFP Requirements - This category assesses the completeness of the information provided regarding the project location and technical specifications as well as the bidder’s experience related to wind projects.
-) Project Deliverability - This category assesses the likelihood that the project can be successfully developed, as proposed, meeting the December 2020 in-service date and qualifying for PTCs as promised.
-) Transmission Progression - This category examines the bidder’s likelihood of obtaining interconnection service to support their in-service date.

The first category will be worth 4 points while the next two will be worth 8 points each, for a total of 20 points. Each category will be scored at 0, 50% or 100% of the points available.

The scores from the price and non-price evaluations will be added together to establish the initial shortlist. PacifiCorp suggests a target threshold for the shortlist of 2,000 MW, recognizing the fact that the threshold is only a guideline, not an absolute limit. This works out to almost twice the targeted amount of 1,270 MW.

The final shortlist analysis will evaluate the bids using the System Optimizer and Planning and Risk (PaR) models to assess risks using both “stochastic” and “scenario” analyses. Scenario analyses examine a single path of a variable or variables while stochastic analyses examine multiple paths for key variables. This approach is appropriate as proposed and is described below.

The final shortlist analysis has three distinct steps. In the first step, the System Optimizer model will determine, for a given assumed path of certain variables (i.e. natural gas prices, carbon emission costs), the least-cost portfolio of resources that can be used to achieve a given reserve margin. PacifiCorp calls these “policy-price” scenarios. The model looks at a given “group” of resources (in this case, the bids from the initial shortlist) and tests each potential combination of resources to see which combination satisfies the Company’s need for the lowest cost.

PacifiCorp will “stress test” the selection by looking at multiple policy-price scenarios. The cases will be consistent with the latest approved IRP, but may be updated to reflect more recent data. PacifiCorp will also look at the optimal portfolio without the Gateway Segment D2 Project and new bids, to establish a baseline of additional benefit or cost in each scenario. This analysis will also be valuable in the event that any bids are provided which can interconnect to the system without the Gateway Segment D2 Project.

The key output from the System Optimizer model will be the portfolio of bids that is selected under each scenario. In the second step of the final shortlist analysis each portfolio will be further evaluated in the Planning and Risk (PaR) model via a stochastic analysis. The

stochastic analysis assesses five variables. Those five variables are (a) retail loads; (b) natural gas prices; (c) wholesale electricity prices; (d) hydroelectric generation; and (e) thermal unit availability. A possible range for each of these risks is determined based on historical experience. The output will be a range of prices which provide an assessment of the riskiness of the portfolio.

In the third step of the final shortlist analysis selected portfolios will also be re-run as a fixed selection in all the System Optimizer cases. In other words, the model will be configured to use a given portfolio instead of picking the best portfolio from a group of resources. The PVRR of the portfolio will be counted and ranked versus other portfolios. The purpose of this step is to look for portfolios which perform particularly well or badly under a given scenario. This helps evaluators better understand the strengths and weaknesses of each portfolio and avoid making a selection that could put undue risks on ratepayers.

5. PacifiCorp should assess the impact of cost overruns for the Gateway Segment D2 Project.

As noted above, during the final shortlist evaluation PacifiCorp will look at resource choices both with and without the Gateway Segment D2 Project. This is an important step because it will allow the Commission to see the total net benefit (or cost) that the new bids and transmission project provide in a given scenario.

One additional piece of information that we believe would be useful for the Commission is an assessment of the impact of cost overruns for the Transmission Project. This is important since the Company views these two items (new wind and transmission) as linked. While this RFP can be run in a clear and transparent manner resulting in the selection of wind generation projects which provide net benefits to the Company and its ratepayers, these benefits could be wiped away by cost overruns on the transmission side.

Such an assessment is not necessary if the Company agrees to be held to its cost projections regarding the Transmission Project. Absent such assurances, we will be happy to work with the Company to determine the exact form this assessment could take. Possible assessments could include additional production cost modeling or a more simple “breakeven” analysis for each scenario calculating the percentage of cost overrun required to wipe out the benefits of the new projects.

6. The Company should make clear that “Change Orders” which increase the cost of the project will not be allowed and will not be recovered from ratepayers

The draft Pro Forma BTA includes a section regarding Change Orders.²¹ While a major construction project typically needs some process for change orders, their presence in the BTA agreement suggests that a BTA bidder can adjust their price as necessary during construction while a PPA bidder cannot. This could serve to bias bidders into offering a less-risky (from their perspective) BTA project.

²¹ BTA Agreement – Article 13.

We would recommend that the Company, in the RFP or the contracts, state that no increases in offer prices will be allowed after contract signing. If PacifiCorp wishes, they could allow this option for BTA bidders, provided that ratepayers are not liable for any cost increases.

C. Producing a Positive Result

Beyond fairness and transparency, we still must consider whether there are any other requirements that could keep the RFP from producing a positive result for ratepayers. In other words, are there any barriers to entry or other requirements that would prevent the Company from contracting with resources that would form the lowest cost portfolio when adjusted for risk? This is especially important in this case where the RFP already has a tightly defined product (new Wyoming wind) and that product is dependent on a yet-to-be-built transmission.

1. Projects should have to provide only one year of wind data, not two

As one of its minimum requirements for participation, the RFP requires bidders “to provide two years of wind resource data for a proposed wind project, as validated by a third party engineering firm.”²² Typically, it has been our experience that bidders are required to provide just one year of wind data.²³ That requirement demonstrates that the bidder has developed a credible, serious proposal worth evaluating. To the extent that the project is less developed than other projects, it would be appropriately rated in the non-price evaluation.

2. Stakeholders should provide comment regarding offers on Company sites and the Company should provide feedback on the impact of schedule delays

During the August 2nd stakeholder conference several questions were raised regarding the ability of third-party bidders to make an offer utilizing the Benchmark sites. While this has, to our knowledge, not been the practice in PacifiCorp renewable RFPs, third party bidders have been able to make offers using company sites for conventional resources. For example, in past RFPs bidders could either offer an EPC agreement on a PacifiCorp site or an Asset Purchase and Sale Agreement (“APSA”) on a PacifiCorp site.

The benefits of this action are (a) potentially a stronger offer from the benchmark sites and (b) a more transparent process for benchmark development. In the 2011 All Source RFP PacifiCorp essentially moved an internal competitive process for finding an EPC contractor into the RFP itself, providing more transparency to the process.

While offering this transaction type could result in a more robust pool of responses, it is also true that it would likely require a delay in the RFP as the Company would need to prepare site-specific information for bidders to review. A further complicating factor is that PacifiCorp claims they do not have the right to extend such an offer on three of the four sites. They also claim that it is “expected” that the developer of these three sites will submit their own proposal.²⁴

²² RFP, page 10.

²³ See, for example, Public Service Company of Oklahoma 2013 Wind RFP, issued June 10, 2013, page A-3; Public Service Company of Oklahoma 2016 Wind Energy Resources RFP, issued September 28, 2016, page A-4.

²⁴ Another factor is that the conventional-site RFPs included Company sites of unique and specific value (e.g. a site with existing generation facilities that other bidders could not acquire) that were paid for by ratepayers. That, to our

Given that the Company has stated that this RFP is time-sensitive, we would recommend that, as part of this proceeding, any bidders interested in offering these types of transactions describe the type of information they would need to prepare a viable, firm offer. In response, PacifiCorp should provide an estimate of the time it would take them to gather and provide the information, and the potential impact that would have on the RFP process along with any roadblocks they see in offering the sites for bid.

3. The minimum qualification requirements regarding litigation against the Company should be modified

The RFP provides a lengthy list of reasons a bidder may find its proposal rejected. One specific reason is that “[t]he bidder, or an affiliate of bidder, is in current litigation with PacifiCorp or has, in writing, threatened litigation against PacifiCorp, respecting an amount in dispute in excess of one hundred thousand dollars.”²⁵

Our concern with this requirement is that there is no time limit regarding the latter clause and the dollar amount mentioned is quite small, especially in the context of utility projects. Therefore, a bidder could in theory find themselves removed from the process over a small-dollar issue raised years ago by an affiliate. For this reason we would suggest that PacifiCorp modify the definition to match the one used in its 2011 All Source RFP. It read:

“Bidder is in current material litigation or has threatened material litigation against PacifiCorp. The Company will work with the IE to determine if the Bidder should be excluded from the RFP in the event the Bidder is threatening or in litigation with the Company.”²⁶

Another, more precise possibility would use the definition from the final draft version of the same RFP which adds that “Material litigation” for purposes of this provision includes:

a dispute in excess of five (5) million dollars under circumstances in which the Bidder has issued a demand letter to PacifiCorp, the Bidder and PacifiCorp are currently in dispute resolution, the Bidder and PacifiCorp have an unresolved dispute pending or the Bidder has noticed a pending legal action against PacifiCorp.²⁷

knowledge, does not apply to the sites in question, meaning the Company would likely not have any unique advantage over another developer.

²⁵ RFP, page 10.

²⁶ PacifiCorp Oregon All Source Request for Proposal 2016 Resource, issued April 4, 2012. Page 34.

²⁷ PacifiCorp Final Draft Request for Proposals, Docket UM-1540, October 27, 2011. Page 33.

D. Compliance with Commission Guidelines

The final standard we examine is whether the RFP is in compliance with regulatory rules and guidelines. In Oregon, this means that the RFP is in conformance with the Commission's Competitive Bidding Guidelines, which were developed in 2006 and revised in 2014. These Guidelines are important because they were vetted with multiple stakeholders and lay out exactly how the Commission wants a procurement to operate.

Overall, we find the RFP to be in compliance with most of the Guidelines. In this section, we elaborate on each relevant Guideline and how the RFP attempts to meet that Guideline. There are a total of thirteen Guidelines, some of them, for example, the requirement for a closing report, will be complied with at a later date. Below we discuss all relevant Guidelines.

1. Guideline #1 - Need for an RFP

Guideline #1 requires that an RFP be issued for all major resource acquisitions identified within an acknowledged IRP.²⁸ This RFP is based on the preferred portfolio in the Company's 2017 IRP.²⁹ That IRP was submitted to the Commission in April and includes an action item for the procurement of 1,100 MW of new wind located in Wyoming paired with the Gateway Segment D2 Project.³⁰ This was later updated in July to 1,180 MW of new Wyoming wind capacity.³¹

The issue in complying with this Guideline is that the Company's 2017 IRP has not been officially acknowledged by the Commission. PacifiCorp anticipates, based on the procedural schedule in the case, that the IRP will be considered for acknowledgment prior to the Commission consideration of any final shortlist of bids from this RFP in March of 2018.

We believe the RFP can be compliant with this guideline so long as it reflects any Commission ordered alterations required as part of the IRP acknowledgement. This may result in the complete abandonment of the RFP process should the Commission not approve the relevant action items or reject the IRP altogether. We recommend that the Company note this risk in the RFP document so that bidders are aware of the issue.³²

²⁸ There are some exceptions, which are covered in Guideline #2.

²⁹ PacifiCorp 2017 Integrated Resource Plan ("April IRP"), April 1, 2017, page 2, and confirmed in PacifiCorp 2017 Integrated Resource Plan Energy Vision 2020 Update ("July IRP"), July 28, 2017, page 1.

³⁰ April IRP, pages 16 to 17.

³¹ July IRP, page 12, Table 2.2

³² As noted above, at this point we will not opine on whether the RFP represents a "time-limited resource opportunity of unique value to customers."

2. Guideline #3 and #4 - Affiliate bidding and self-build option

Guideline #3 is not relevant because here are no affiliate bids being offered. Guideline #4 allows for the utility to provide a site-specific self-build option, known as the Benchmark resource. In this case, the Company plans to submit four self-build bids totaling 860 MW.

The RFP calls for an identical evaluation of the Company's self-build benchmark bids and third-party bids.³³ We will work to ensure these bids are held to the same standards as third-party offers.

3. Guideline #5 - Independent Evaluator

Guideline #5 requires the use of an Independent Evaluator to ensure that all offers are treated fairly. The RFP has called for an appropriate role for the IE and IEs are retained by both the Oregon and Utah Commissions. We will work going forward to ensure that all offers are treated fairly.

4. Guideline #6 - RFP design

Guideline #6 requests that the Company provide a draft RFP to all parties and interested persons in the utility's most recent general rate case, IRP and RFP dockets and conduct a stakeholder and bidder workshop on the draft RFP. The utility will then submit the final draft RFP for approval. The IE must be consulted when preparing the RFPs and will submit a report assessing the final draft RFP.

The Company submitted a draft RFP to the IE at the close of business on July 21. We provided comments and asked questions regarding the draft on July 25. In response, the Company made several productive changes including: (1) removing the requirement for bidders to qualify for 100% of the PTC, (2) moving back the notice of intent to bid due date, (3) removing the requirement for a bidder to have a completed system impact study at bid submission. PacifiCorp submitted this revised initial draft RFP to stakeholders and held workshops with interested parties, including bidders, on August 2, 2017 prior to submitting the final draft RFP on August 4.

This Guideline also requires that the RFP set forth minimum bidding requirements and scoring criteria, which this draft RFP does. These are reasonable, subject to the changes noted above. The RFP must also have standard form contracts but allow bidders to negotiate mutually agreeable terms. The RFP does have these contracts and does contemplate this negotiation.³⁴

5. Guideline #7 - RFP approval

Guideline #7 states that Commission approval of the RFP will focus on three items: (1) the alignment of the RFP with the latest acknowledged IRP, (2) whether the RFP satisfies the Guidelines, and (3) the overall fairness of the bidding process. We presume that the Commission

³³ RFP, page 20.

³⁴ RFP, page 26.

will request comment on this RFP. PacifiCorp has built in a comment period in their schedule and has requested RFP approval at the end of August. As noted above, the comment period in this case is very brief and the Commission may wish to extend the period to obtain additional feedback from stakeholders.

6. Guideline #8 and #9 - Bid scoring

Guideline #8 requires the Company to submit a detailed score for the benchmark bids to the IE prior to opening market bids. PacifiCorp has stated that they will follow this process. We will review each offer to ensure that it is reasonable and has no omitted costs. We will work with the Company to score the bids prior to reviewing third-party offers.

Guideline #9 requires that the initial shortlist selection be based on price and non-price factors, with price scores representing a comparison of the levelized bid cost to forward market prices, and provide resource diversity. Final shortlist selection is to be based on modeling consistent with the IRP. Finally, debt imputation (also known as “debt equivalence”) is reserved for the selection of final bids.

The RFP successfully meets each of these standards. As noted above, the initial shortlist features a price and non-price score. The price score is determined by the levelized net benefit of the bid. The non-price score is based on an assessment of project development and compliance with RFP requirements. The final shortlist modeling will use current IRP inputs (in some cases, updated to the most current assumptions) and the models, process and scenarios are the same as used in the latest IRP. Diversity is provided by the fact that (1) multiple sources are allowed to offer and (2) the initial shortlist will be organized by product category, assuring that selections from each category will be considered for the final shortlist.

Finally, the debt equivalence issue is left out of the evaluation process and is instead contemplated as a potential part of the post final-shortlist considerations. Debt imputation, or debt equivalence is a controversial topic driven by the fact that some credit rating agencies view PPAs and Tolling Agreements as the functional equivalent of debt, treating a portion of the payments under these agreements as *hypothetical* debt to the Company’s balance sheet. The Commission has the power to request PacifiCorp to obtain an advisory opinion from a credit rating agency if it wishes to substantiate claims of harm from debt equivalence issues. This is a fair solution because the question of possible harm to ratepayers via this debt equivalence issue requires a broader discussion of possible balance sheet effects from self-build options and offsetting risk mitigation with third-party bids.

7. Guideline #10 through 13 - Roles and Responsibilities

The final guidelines involve items that will be addressed as we move through the RFP process. The roles of the IE and Company are laid out in the RFP similar to Guideline #10 and we will hold to these going forward. We will submit a Final Closing Report (Guideline #11) when the Company requests acknowledgement of the Final Short List (Guideline #13) and will keep information confidential (Guideline #12). If there are any issues, we will bring those to the Commission’s attention in our Final Closing Report.

APPENDIX A: KEY CRITERIA OF RFP EVALUATION

KEY CRITERIA OF RFP EVALUATION

Our starting point in reviewing any RFP is the basic premise that the purpose of any competitive solicitation should be to get the best deal possible for ratepayers in terms of price, risk, reliability, and environmental performance, given current market and regulatory conditions. In evaluating whether or not the RFP will lead to this goal, we have found it helpful to focus on four key questions: (1) Is the process fair and transparent? (2) Does the process properly measure and assign risk? (3) Will the process likely lead to a positive result? and (4) Is the process compliant with the Commission's regulatory rules and guidelines?

Following is a brief primer as to why these questions are important and some ways in which to achieve positive answers to these questions.

A. FAIRNESS AND TRANSPARENCY

Why is it important?

To achieve a positive outcome for ratepayers the methods of bid evaluation must be fair and transparent to all. Fairness means that all parties are treated equally. This includes not only third party bids, but also utility Benchmark or self-build options. Transparency means that all parties can understand the RFP requirements and evaluation methods. Only if fairness and transparency are present will a large number of competing power suppliers participate and bid aggressively.

Fairness and transparency attract bidders for several reasons. First, if a solicitation is "fair," bidders know that their bid will be considered on equal footing with other bids, and they do not have to worry about their bid losing out to an inferior offer. Second, if a process is transparent, bidders know exactly what is being solicited and how bids will be evaluated. When bidders know that no special privilege will be granted to any bidder and evaluation criteria are laid out clearly, they know that aggressive bidding is the only way to ensure that they win the RFP.

Fairness and transparency also benefit ratepayers. The more bidders, bidding aggressively, that participate in the RFP, the better chance the ratepayers have of receiving a quality offer. Transparency also has the added benefit of letting the ratepayers know just how the winning bids were chosen.

How do we achieve it?

There is no single right way to solicit power and, therefore, there is no single right way to achieve fairness and transparency. In general, a fair and transparent process would involve; (a) all parties bidding under the same terms, (b) a precisely defined product, and (c) a price only or "price mostly" evaluation. The point of these conditions is to make sure that all bidders understand what they are bidding for and how they will be evaluated and that the winner will simply be the bidder who offers the best deal for ratepayers.

An example of these principles in action can be seen in the full requirements solicitations for Standard Offer or Basic Generation Service in PJM. The product for these solicitations is

precisely defined as full requirements supply which, in essence, makes each supplier responsible for serving a percentage share of the energy, capacity, and ancillary service needs of a ratepayer class. Bidders offer an amount of supply at a stated price. The winners are simply the bidders who offer to supply at the lowest cost. All bidders, including the utility affiliate, are treated in the same manner and sign the same contracts.

This is not meant to suggest that PacifiCorp must conduct a full-requirements type solicitation, only to provide a real-world demonstration of fairness and transparency. We feel that it is important for parties to understand that these are more than just “principles” but standards that are achievable in the real world.

B. MEASURING AND ASSIGNING RISK

Why is it important?

In reviewing RFPs we look for an evaluation process which, to the best extent possible, recognizes the uncertain nature of the future, that the only thing certain is uncertainty. Today, future values of variables such as gas prices, emissions regulations, and construction cost escalations are unknown. Yet these variables will have a great impact on future ratepayer costs. The impact of new technology could also greatly affect the choice and cost of future supply.

If the exact paths of these variables were known, the selection of new resources would be relatively easy. In reality, there are no certainties about the future, which makes the evaluation process much more complex. The best evaluation process is one which acknowledges the risks that ratepayers face, and incorporates an analysis of those risks into the selection of bids which perform well under many different future scenarios.

The RFP, then, must do two things to take account of risk. First, the evaluation methods must recognize and measure risk. Second, bids must be credited to the extent that they assign risk away from the ratepayers and onto parties better equipped to manage risk.

This focus also assists ratepayers because, if the evaluation clearly accounts for risk, then credit can be given to the bidders who act to shield ratepayers from risk and the lowest-risk bids can be identified. It also encourages innovative risk management. If bidders know that they will stand a greater chance to win, all things being equal, by removing risks from the ratepayer, then they will be encouraged to come up with ways to remove or hedge risk.

How do we achieve it?

To find the best deal for ratepayers, risks must be accurately measured in the evaluation process. There are two chief ways to handle this task. One way is to assign each bidder the same risk profile through a tightly defined product, process, and a contract which holds all bidders to the same risk assignment standard. This method is used in the previously-mentioned full requirements solicitations in areas like New Jersey and Maryland, where all bidders, including utility affiliates, bid by the same rules for the same product and sign standardized contracts.

The second way to measure risk is to review the key risks inherent in each bid and attempt to value each of them separately. This requires sophisticated modeling techniques which model what costs would be incurred for each bid based on changes in key variables. This sort of modeling can take two basic forms, “scenario” modeling or “stochastic” modeling. Scenario modeling examines a single “path” for a given variable and reports what ratepayers would pay given that scenario. Stochastic modeling involves essentially creating multiple “paths” for each variable, basically hundreds of scenario runs at once, which give both an average or expected value of the bid as well as a risk metric such as standard deviation.

The ultimate goal of these exercises is to compare bids with different risk profiles. This comparison is key because the nature and extent of risk varies across technologies and transaction types. For example, for coal-fired technologies the greater risks are linked to capital costs and environmental regulations. In contrast, for natural gas, fuel price risk is the more prominent risk. Similarly, a fixed price pay-for-performance power purchase agreement puts all risks on the bidder, while a cost-plus transaction puts the risk burden on the ratepayer.

C. LEADING TO A POSITIVE RESULT

In reviewing and conducting an RFP, it is always important to keep the end goal in mind, the acquisition of the best deal for ratepayers in terms of risk, reliability, price, and environmental performance, given market conditions. The above prescriptions should aid in that goal, but they do not guarantee it. If, for example, a bidding requirement, say, a credit threshold, disqualifies a wide selection of potential participants, then the likelihood of a good result is lower. With this in mind we also review an RFP with an eye toward items which could affect the participation levels in the RFP.

We note that there are times when the goal of a positive result could come into conflict with the other goals mentioned above. For example, a bidder could present an offer that is attractive, but features a non-fixed (or indicative) price. At this point, it is up to the evaluators to decide whether allowing this bid to be evaluated is appropriate given the fact that other bidders have conformed to the requirement to submit a binding bid. In these cases Bates White views part of the IE’s job as providing advice on moving forward in the best interests of ratepayers.

D. COMPLYING WITH COMMISSION RULES AND GUIDELINES

A final topic that we review is compliance with appropriate Commission regulatory rules and guidelines. While these are usually in line with the goals of fairness and transparency and, of course, are geared toward producing a positive result we cannot simply ignore rules and guidelines because they represent the will of regulators and the ratepayers, having been vetted through a public comment process.

September 26, 2017

Bruce Griswold
Resource & Commercial Strategy
PacifiCorp
825 N.E. Multnomah St
Portland, OR 97232

Dear Mr. Griswold:

This letter is to confirm that Bates White, as the Independent Evaluator for the Oregon Public Utility Commission, has reviewed the proposed changes to PacifiCorp's 2017R RFP from the version filed in Docket UM-1845 on August 23, 2017 and approved with conditions by Commission Order 17-345. These changes were made in response to that Order, an Order from the Utah Public Service Commission, and comments from Bates White and the Utah IE.

After review, we have no objections to the changes made.

Please feel free to contact me if you have further questions.

Sincerely,



Frank Mossburg
Managing Director
Bates White, LLC
Washington, DC 20005
Phone: (202) 652-2194

Rocky Mountain Power
Exhibit RMP____(RTL-10SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

2017R RFP Main Document

February 2018



Renewable Request for Proposals

(2017R RFP)

ISSUED: Wednesday, September 27, 2017

**DUE DATE: WYOMING WIND
Tuesday, October 17, 2017 5:00 PM PPT**

**NON-WYOMING WIND
Tuesday, October 24, 2017 5:00 PM PPT**

2017 RFP Responses:

**PacifiCorp
RFP 2017R
Resource & Commercial Strategy
825 NE Multnomah, Suite 600
Portland, Oregon 97232**

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SECTION 1. INTRODUCTION

This 2017R Request for Proposals for renewable resources (2017R RFP) is seeking cost-competitive bids for up to 1,270 MW of wind energy interconnecting with or delivering to PacifiCorp's Wyoming system and any additional wind energy located outside of Wyoming that will reduce system costs and provide net benefits for customers. Bidders should assume that Wyoming projects can interconnect to, or deliver via third-party transmission to, the proposed 500-kV Energy Gateway Segment D2 Aeolus-to-Bridger/Anticline substation and transmission system.^{1,2} As assessed in its 2017 Integrated Resource Plan (IRP), Federal tax extender legislation passed in late 2015 provides an opportunity for qualifying renewable energy projects to receive the full value of the federal PTC available under Section 45 of the Internal Revenue Code up to December 31, 2020.³

PacifiCorp (sometimes also referred to herein as the "Company") is seeking proposals for competitively-priced new or repowered existing wind projects to deliver to PacifiCorp's transmission system in its west and east balancing area (PACW and PACE, respectively). Proposals for wind resources claiming PTC eligibility must demonstrate as interpreted by applicable guidance of the Internal Revenue Service (IRS), to PacifiCorp's satisfaction, that projects will qualify for the federal PTC, if applicable. Proposals must further demonstrate to PacifiCorp's satisfaction, and as determined in its sole discretion, that the proposed project can achieve commercial operation prior to December 31, 2020. PacifiCorp is not bound to accept any bids, and may cancel this solicitation at any time and at its own discretion.

Projects must be a discrete generating asset that is not located behind any load served by a utility or net-metered⁴ and can be individually metered and remotely monitored. The minimum project size is 10.0 MW⁵. PacifiCorp is not setting a maximum size limit for projects submitted in this RFP, but PacifiCorp will only consider projects that demonstrate

¹ See **Appendix O** for description of proposed Energy Gateway Segment D2 or go to the interactive Gateway project map at <http://www.gatewaywestmaps.com/>.

² Bidders submitting bids interconnecting to or delivering to Wyoming should review their technical specifications with PacifiCorp Transmission. Based on technical information received by PacifiCorp Transmission, concerns have been raised with the capability of integrating some types of wind turbine generators in the Aeolus / Freezeout / Shirley Basin / Standpipe area of the Rocky Mountain Power 230 kV Wyoming transmission system. These concerns include wind turbine will be normally operating on a weak transmission system with a steady state short-circuit ratio that is less than 2.0 in the 2020 timeframe and beyond, and with the eventual completion of the Gateway West and Gateway South Transmission Projects, the wind turbine generators will be operating on a series-compensated transmission system. Further questions should be directed to PacifiCorp Transmission.

³ As recently extended by Congress, the federal PTC currently provides a \$24 tax credit for each MWh of production from a qualifying renewable energy facility that begins construction (as interpreted by applicable guidance of the Internal Revenue Service) before January 1, 2017. The value of the PTC is reduced by 20% for projects beginning construction each year thereafter until it expires completely beginning on January 1, 2020.

⁴ Generation cannot offset retail load first and sell excess to PacifiCorp. See Pacific Power's Oregon Schedule 135, *Net Metering Service Optional for Qualifying Customers*, for additional detail on net metering.

⁵ Qualifying Facilities (QF) greater than 10.0 MW will be allowed to participate in accordance with Oregon UM 1182, Order 14-149, Competitive Bidding Guideline #6.

a unique value opportunity for its customers and achieve commercial operation by December 31, 2020, without compromising system reliability.

PacifiCorp will accept proposals for new or repowered existing wind resources capable of directly interconnecting and delivering energy to PacifiCorp's network transmission system in PACW and PACE or capable of delivering energy to PacifiCorp's transmission system in PACW and PACE with the use of third-party firm transmission service.

Bids submitted with repowered wind resources will only be allowed for an existing wind resource that currently:

- does not have a power purchase agreement with PacifiCorp for the offtake of the energy, or
- has an active power purchase agreement with PacifiCorp that naturally expires before December 31, 2020.

PacifiCorp will consider proposals for the two following transaction structures:

1. "Build-Transfer" transaction whereby the bidder develops the project, assumes responsibility for construction and ultimately transfers the operating asset to PacifiCorp upon or prior to December 31, 2020, all pursuant to the terms of a build-transfer agreement (BTA). The asset must be designed, constructed, and operating in compliance with PacifiCorp's specifications. Bidder is responsible for all development, design, wind turbine supply, balance of plant (BOP) equipment, construction, commissioning, and performance testing.
2. Power purchase agreement (PPA) for up to a thirty (30) year term with exclusive ownership by PacifiCorp of any and all environmental attributes associated with all energy generated⁶. At the bidder's option, the PPA bid submittal can include two distinct alternatives:
 - a. a proposed contract term ranging between twenty (20) and thirty (30) years, with or without the right for PacifiCorp to purchase the project assets during or at the end of the proposed contract term at fair market value (FMV) to retain the value of the site for customers, or;
 - b. a twenty (20) year PPA term with an option for PacifiCorp to extend the PPA term at a proposed fixed price (\$/MWh) for up to ten (10) years.

For longer-term contract offers (i.e., PPA terms of 25 to 30 years without PPA extensions, or PPA terms that, after consideration of extension options, would result in a PPA term of 25 to 30 years), bidders should carefully consider the potential book and tax lease accounting treatment or Variable Interest Entity (VIE) treatment implications. For these PPA offers of 25 years or greater (Long Term), bidders that are selected to the initial shortlist will required to supply projected cash flows through the life of the underlying asset so that PacifiCorp can assess potential accounting implications. Potential accounting treatment impacts will be incorporated into the bid evaluation and selection process. For instance, if

⁶ As the term, Environmental Attributes, is defined in the pro-forma transaction documents for this RFP.

PacifiCorp determines that a Long Term PPA offering would be treated as a capital lease for tax purposes, PacifiCorp would be treated as the tax owner for the proposed facility. Please also refer to Section 5.F of this RFP.

To the extent bidders propose variations of a BTA or a PPA, such proposals will be considered (or not considered) at PacifiCorp's sole discretion and PacifiCorp reserves the right to reject non-compliant bids.

PacifiCorp will submit four (4) self-build ownership proposals (benchmark resources) which are further described in **Appendix L**. PacifiCorp benchmark resource bids will be received by the independent evaluator (IE) no later than seven (7) days prior to the receipt of market bids. The market bids will not be opened until such time as PacifiCorp benchmark resource bids have been reviewed, evaluated, and validated by the IE and PacifiCorp's evaluation team.

In order to provide for a transparent and fair process, the RFP will be conducted under the oversight of two IEs. An IE has been retained by PacifiCorp on behalf of the Public Utility Commission of Oregon (Oregon Commission) as required in Order 06-046⁷. The Utah Public Service Commission (Utah Commission) has also retained their own IE consistent with Utah guidelines in Utah Admin. Code R746-420. Both IEs will be involved in development of the RFP and ensuring the RFP process is conducted in a fair and reasonable manner.⁸ Potential bidders are invited and encouraged to contact the Oregon or the Utah IE with questions or concerns. More information concerning the role of the IE is provided in **Appendix M** for both Oregon and Utah.

Contact information for the IEs is as follows:

Independent Evaluators:	
Oregon - Bates White	Frank Mossburg (202) 652-2194 frank.mossburg@bateswhite.com
Utah – Merrimack Energy	Wayne Oliver (781) 856-0007 waynejoliver@aol.com

PacifiCorp has the option of seeking regulatory acknowledgement of the final shortlist consistent with Oregon Order No. 06-446. PacifiCorp will seek rate recovery consistent with standard rate making practices in its six state jurisdictions.

⁷ Public Utility Commission of Oregon Docket UM 1182, In the Matter of an Investigation Regarding Competitive Bidding, Order 06-046.

⁸ A bidder may request the appointment of an independent third-party to assist the Washington Utilities & Transportation staff with review of any utility bids at the expense of the bidder requesting the appointment.

SECTION 2. PROCEDURAL ITEMS

PacifiCorp will evaluate proposals based on the following:

- Customer cost,
- Deliverability, including demonstration that the project's commercial operation date will be achieved by December 31, 2020,
- Transmission access and interconnection status in conformance with the 2017R RFP requirements,
- Compliance with and verification of major equipment availability defined in **Appendix A - Technical Specification**, and as outlined in **Appendices A-1 through A-10**.
- Ability to provide acceptable credit security for the bidder's proposed obligation and conformance to the *pro forma* agreements attached as **Appendices E-2 and F-2** to this RFP.

Each proposal will be prepared at the sole cost and expense of the bidder and with the express understanding that there will be no claims whatsoever for reimbursement from PacifiCorp. PacifiCorp is not liable for any costs incurred by bidders in responding to this RFP, or for any damages arising out of or relating to PacifiCorp's rejection of any proposal, or bidder's reliance upon any communication received from PacifiCorp, for any reason. bidder shall bear all costs, expenses, and bidder fees of any response to PacifiCorp in connection with its proposal for the 2017R RFP, including providing additional information, the bidder fee and the success fee, if project is selected to the final shortlist, and bidder's own expenses in negotiating and reviewing any documentation.

Appendix E-1 - PPA Instructions to bidder and **Appendix F-1 - BTA Instructions to bidder** provide additional detail on preparation of bid document deliverables.

All proposals belong to PacifiCorp and will not be returned. Confidentiality agreements (CA) and mutual nondisclosure agreements (NDAs) will be executed with projects as part of this RFP. PacifiCorp will use reasonable efforts to protect information clearly and prominently marked as proprietary and confidential on the page it appears, but PacifiCorp reserves the right to release such information to agents or contractors to help evaluate the proposal, as well as to its regulators and non-bidding parties to regulatory proceedings subject to standard protective orders or confidentiality arrangements. PacifiCorp shall not be liable for any damages resulting from any disclosure of such information, howsoever occurring.

PacifiCorp is interested in creative proposal options that add value to customers. As a result, PacifiCorp will accept offers that include several different alternatives under the same proposal. For each bid proposal, bidders must submit a bid fee of \$10,000 which allows a bidder to submit a base proposal and two (2) alternatives for the same \$10,000 bid fee. Bidders will also be allowed to offer up to three (3) additional alternatives to the base proposal at a fee of \$3,000 per alternative.

SECTION 3. LOGISTICS

A. SCHEDULE

Milestone	Date	Day of Week
RFP Issued to Market	09/27/2017	Wednesday
1st Bidder's Conference	10/02/2017	Monday
Notice of Intent to Bid Due	10/09/2017	Monday
Last Day for RFP Questions to IEs for Q&A	10/10/2017	Tuesday
Benchmark Bids Due	10/10/2017	Tuesday
RFP Bids Due - WYOMING WIND ONLY	10/17/2017	Tuesday
RFP Bids Due - NON-WYOMING WIND ONLY	10/24/2017	Tuesday
Bid Eligibility Screening Completed	10/30/2017	Monday
Initial Shortlist (ISL) Evaluation/Scoring Completed	11/12/2017	Sunday
Capacity Factor Evaluation on ISL started	11/12/2017	Sunday
IEs' Review of ISL Completed	11/17/2017	Friday
ISL Price Update	11/22/2017	Wednesday
Capacity Factor Evaluation on ISL Completed	11/27/2017	Monday
Final Shortlist (FSL) Evaluation Completed	01/08/2018	Monday
IEs' Review of FSL Completed	01/15/2018	Monday
Execute Agreements	04/16/2018	Monday

The indicative schedule above is subject to change. Actual dates may vary from the indicative schedule for reasons that include, but are not limited to, negotiation time, availability of key personnel, due diligence, the evaluation or negotiation of any issues unique to any bid, bidder, or project, bidder's willingness to agree to forms of agreements desired by PacifiCorp, PacifiCorp's evaluation of bidder's creditworthiness, and actions required by any third parties. PacifiCorp accepts no liability to the extent the actual schedule varies from the indicative schedule. PacifiCorp is not obligated to develop a shortlist of bidders, to make a final selection, or to initiate or complete negotiations on any transaction.

Bidders should note the condensed schedule and be available for calls and meetings with PacifiCorp and the IE regarding bid submittals and responsive to questions in a timely manner. PacifiCorp and the IEs will attempt to complete its bid review and screening as efficiently as possible but may require very short turnaround times on bid clarifications in order to meet its RFP milestones and schedule.

B. INTENT TO BID FORMS

Bidders who intend to be considered as part of this RFP process must return both the "Intent to Bid Form" (**Appendices B**) and the "Bidder's Credit Information" (**Appendix D**) as set forth below.

Bidders shall submit an electronic copy of Appendix B and Appendix D to the following

PacifiCorp and IE's email addresses, no later than **5:00 p.m. Pacific Prevailing Time on Monday, October 9, 2017.**

Email: rfp_2017R@pacificorp.com
frank.mossburg@bateswhite.com
waynejoliver@aol.com

C. 20017R RFP BIDDER CONFERENCE

A bidder conference will be held on **Monday, October 2, 2017** in both Utah and Oregon locations. The bidder conference will cover the 2017R RFP structure, deliverables and schedule as well as allocating specific time to cover interconnection and transmission service requirements. The bidder conference is scheduled for three (3) hours at the locations and start times below and will also be set up as a webinar for remote attendance. Additional details on the bidder conference will be posted to the PacifiCorp website.

	Oregon	Utah
Day	Monday	Monday
Date:	October 2, 2017	October 2, 2017
Time:	1:00 pm Pacific	2:00 pm Mountain
Location:	PacifiCorp Learning Center at east end of Lloyd Center Mall	Rocky Mountain Power North Temple Office
Room	Willamette Room	130k

D. SUBMISSION OF QUESTIONS

Interested parties and bidders may submit questions related to this solicitation, and PacifiCorp will respond in a timely fashion. All information, including pre-bid materials, questions, and PacifiCorp's response to questions, will be posted on the PacifiCorp website at www.pacificorp.com/sup/rfps/2017-rfp.html as well as the IE website described below.

IE Website – Merrimack Energy, the Utah IE, will host a website dedicated to information exchange and archiving information, questions and answers between the bidder, IE, and PacifiCorp. The IE site, separate from PacifiCorp's RFP website, will be used for bidder's specific questions related to their bid or the RFP. Any question submitted through the IE form will be blinded and provided to PacifiCorp for a response. The website link is shown below and will also be accessible as a link on PacifiCorp's RFP website.

<https://www.merrimackenergy.com/>

Email - Communications with the Oregon and Utah IE or PacifiCorp can also be emailed directly at the following email addresses:

Oregon IE: Bates White / Frank Mossburg – frank.mossburg@bateswhite.com

Utah IE: Merrimack Energy / Wayne Oliver - waynejoliver@aol.com

PacifiCorp: rfp_2017R@pacificorp.com

E. RFP ROLES AND TEAMS

The RFP teams will be established by PacifiCorp prior to the final approval of the RFP. The RFP teams shall consist of an evaluation team, intent to bid team, benchmark team, and IRP team. The composition of the teams and their primary roles and responsibilities are shown in the following table and further described in **Appendix N**.

Team	PacifiCorp Department	Roles
IE		The IE will ensure a fair and reasonable process is used in the RFP and will validate that PacifiCorp is following the bidder pre-approval process and monitor and document all material aspects of the solicitation, evaluation and negotiation processes. See Appendix M for the roles of the IE.
Evaluation Team:	Origination, resource development, energy supply management, and/or third-party consultants as required	Overall coordinator of the process. Bid process management for all proposals and coordination with the IE and all of the work groups. Evaluation of the non-price components of the analysis. Specifying, evaluating and confirming conformity with design specifications; conducting, as needed, technological and operational due diligence, environmental due diligence on all resources.
	Structuring and pricing, accounting, tax, and/or third-party consultants as required	Economic analysis and modeling including validation of the inputs to the production cost modeling and risk assessment of the market bids and the benchmark bids. Evaluation of the price components of the analysis. Evaluation of accounting treatment impacts of bids.

Team	PacifiCorp Department	Roles
	Environmental and wind operations	If applicable, review of local, state, and federal permits, permit applications, and supporting documentation, including: wildlife baseline study (including wildlife habitat mapping, special status species survey, and raptor nest survey); avian and bat use data analysis (including four-season study); avian and bat impact assessments; rare plant habitat assessments; wetlands survey; historic, cultural, and archaeological resources survey; Phase One environmental site assessment; and project mitigation and monitoring plan (including any proposed conservation easements).
	Credit	Evaluate credit requirements for final shortlist bidders
	Legal	Legal will confirm compliance of bids to requirements of RFP and its forms, attachments and appendices; conduct of legal process; conducting due diligence inquiries; supervising any documentation entered into as part of the RFP process.
Intent to Bid Team	Origination, legal and credit	Origination, legal and credit will work with the Oregon and Utah IEs to ensure that Appendices B and Appendix D are complete.
Benchmark Team	Resource development, wind operations, financial analysis, legal	The benchmark team prepares and submits PacifiCorp's benchmark bids.
IRP Team	IRP workgroup	The IRP team will be treated as a shared resource to perform work for the evaluation team and the benchmark team in running SO and PaR models. Consistent with PacifiCorp's identification of shared employees under FERC's Standards of Conduct, ⁹ the IRP team will not share any information it obtains from either team with the other team and the IRP team will not share any non-public transmission system information with either team at any point in the process.

⁹ See Appendix I

F. SUBMISSION OF BIDS

All submitted bids must be transmitted by express, certified or registered mail, or hand delivery to the following address:

PacifiCorp 2017R RFP

Attention: Resource & Commercial Strategy
825 NE Multnomah, Suite 600
Portland, Oregon 97232

A signed original hard copy of the bid shall be submitted prepared on standard 8 1/2 inch by 11 inch recycled paper, duplex printed (2 sided). THE BID MUST BE ORGANIZED IN THE SAME ORDER AS THE INFORMATION IS REQUESTED IN THIS RFP. The hard copy bid should also include four (4) copies of the full proposal on individual USB flash drives or disks. PacifiCorp may reject any bid that fails to follow these instructions.

In addition, bidders must submit one (1) electronic copy to PacifiCorp at: rfp_2017R@pacificorp.com.

PacifiCorp will respond with a receipt email.

Bids will be accepted until **5:00 p.m. Pacific Prevailing Time** as follows:

BENCHMARK BIDS:	Tuesday October 10, 2017
WYOMING MARKET ONLY:	Tuesday, October 17, 2017
NON-WYOMING MARKET BIDS:	Tuesday, October 24, 2017

All bid proposals shall have a bid validity date through 5:00 pm PPT, Monday, April 16, 2018. Bids selected to the initial shortlist will be asked to update their bid prices as part of the negotiation process.

Bidders must submit complete proposals that include the following items:

1. One (1) signed original hard copy of each bid and any required forms including all exhibit sheets required in **Appendix A**, and **Appendices E-1** and **E-2 (PPA)** and **Appendices F-1** and **F-2 (BTA)**.
2. One (1) electronic copy of the bid and any required forms in PDF format and Microsoft Excel format, as required, including all exhibit sheets required in **Appendix A**.
3. One (1) electronic copy of the **Appendix C – Bid Summary and Pricing Input Sheet** in original Microsoft Excel format, and a hard copy. The bidder must provide one (1) electronic and hard copy of an independent third-party wind assessment analysis/report supported by a minimum of (a) two years of wind data for BTA proposals from the proposed site or (b) one year of wind data for PPA proposals from the proposed site and one (1) electronic copy of the wind data that support the capacity factor. Wind proposals must supply a representative p-50 annual hourly (8760 hours) energy profile reflecting expected unit availability in Microsoft Excel

format.

In the event the bidder chooses to use different performance modeling software than specified, the bidder must provide sufficient data and inputs for PacifiCorp to validate the expected performance of the proposed resource.

PacifiCorp will not accept any late proposals. Any bids received after this time will be returned to the bidder unopened.

G. BID EVALUATION FEES

Benchmark and market bidders shall pay a fee (Bid Fee) of \$10,000 for each base proposal and two (2) alternatives submitted. Bidders will also be allowed to offer up to three (3) additional alternatives to the base proposal at a fee of \$3,000 per alternative. Alternatives will be limited to different bid sizes, contract terms, in service dates, and/or pricing structures. A bidder may submit more than one proposal. If a bidder submits the same proposal but with three different bid sizes, the proposal will be considered one proposal with two alternatives and the bidder will pay one bid fee. PacifiCorp's objective in offering bidders the opportunity to propose multiple alternatives is to allow PacifiCorp to optimize the benefits from the solicitation by combining proposals of different sizes, terms and in-service dates. Proposals must be submitted in the legal name of the respondent who would be bound by any agreement with PacifiCorp.

A success fee will be charged to successful winning bid(s) to cover any incremental costs of the Oregon and Utah IEs as well as serve as a bid assurance fee. The success fee applies to both benchmark and market bids. The success fee will be assessed for the purpose of ensuring that the winning bid(s) price does not change after being awarded the winning bid, provided that in no event shall the success fee exceed \$300,000 dollars per successful bid. Documentation of the calculation of the success fee will be computed in cooperation with the IEs and provided to the bidder at the time the bid is selected to final shortlist.

Payment of Bid Fees. Bid fees shall be paid by wire transfer to PacifiCorp. PacifiCorp will email wire transfer instructions to bidders who have submitted a notice of intent to bid, five (5) business days prior to October 17, 2017 for Wyoming-only bids and October 24, 2017 for non-Wyoming bids. No cashier's checks will be accepted. If a proposal is deemed "Not Complete" and the bidder elects not to cure any identified deficiencies in the allowed period of time, the bid and all bid fees will be returned to the bidder and PacifiCorp will no longer consider that bid(s). Once the bid is deemed "Complete", PacifiCorp will not refund any bid fees associated with any bid, regardless of the success or failure of that bid.

H. MINIMUM ELIGIBILITY REQUIREMENTS FOR BIDDERS

Bidders may be disqualified for failure to comply with the RFP if any of the requirements outlined in this RFP are not met to the satisfaction of PacifiCorp, as determined in its sole discretion. If proposals do not comply with these requirements, PacifiCorp has the option to deem the proposal ineligible and eliminate it from further evaluation. Reasons for rejection of a bidder or its proposal include, but are not limited to:

1. Receipt of any proposal after the response deadline.

2. Failure to meet the requirements described in this RFP and provide all information requested in **Appendix C - Bid Summary and Pricing Input Sheet** of this RFP.
3. Failure to demonstrate a commercial operation date prior to December 31, 2020.
4. Failure to permit disclosure of information contained in the proposal to PacifiCorp's agents, contractors, regulators, or non-bidding parties to regulatory proceedings under appropriate confidentiality agreements.
5. Any attempt to influence PacifiCorp in the evaluation of the proposals, outside the solicitation process.
6. Failure to provide a firm offer through the bid validity date outlined in Section 3.F. of this RFP.
7. Failure to disclose the real parties of interest in the submitted proposal.
8. Bidder is in current material litigation or has threatened material litigation against PacifiCorp. For the purpose of this provision, material litigation shall mean a dispute in excess of five (5) million dollars in which bidder has issued a demand letter to PacifiCorp, the bidder and PacifiCorp are currently in dispute resolution, the bidder and PacifiCorp have an unresolved dispute pending or bidder has noticed a pending legal action against PacifiCorp. Material litigation excludes bidder complaints before a state regulatory utility commission. PacifiCorp will consult with the IE to determine if the bidder should be excluded if the bidder is threatening litigation against or in active litigation with the company.
9. Failure to clearly specify all pricing terms for each alternative(s).
10. Failure to offer unit contingent (as generated) or system firm capacity and energy, directly interconnected with Company's network transmission system in PACW and PACE balancing areas or capable of delivering energy to PacifiCorp's transmission system with the use of third-party firm transmission service (including appropriate contract term lengths and commercial operation dates).
11. Failure to provide evidence that the proposed project has either: (1) requested a direct interconnection with PacifiCorp's system and executed an interconnection feasibility study agreement with PacifiCorp's transmission function; or (2) requested interconnection with a third party's system, executed an interconnection feasibility study agreement with the third party transmission provider, and requested long-term, firm third-party transmission service from the resource's point of interconnection with the third party's system to the proposed point of delivery on PacifiCorp's system.
12. Failure to provide interconnection costs and transmission service costs, if applicable, in bid proposal. Costs estimates shall be performed by the project if a transmission provider study has not been completed or is not available at the time of submittal.
13. Proposal presents unacceptable level of development or technology risk.
14. Failure to materially comply with technical specification requirements in **Appendix A** for proposals involving potential PacifiCorp ownership or operational control.
15. Failure to demonstrate a process to adequately acquire or purchase major equipment (i.e., wind turbines, generator step-up transformers) and other critical long lead time equipment.
16. Failure to demonstrate, to PacifiCorp's satisfaction, that it can meet the credit security requirements for the renewable resource proposed.
17. Failure to submit information required by PacifiCorp to evaluate the price and non-price factors described herein.

18. Failure to or unable to abide by the applicable safety standards.
19. Bidder submits an unacceptable contract structure.
20. Collusive bidding or any other anticompetitive behavior or conduct exists.
21. Bidder or proposed project being bid is involved in bankruptcy proceedings.
22. Failure of the bidder's authorized officer to sign the proposal.
23. Misrepresentation or failure to abide by Federal Trade Commission Green guidelines.
24. Any change in regulations or regulatory requirements that make the bidder's proposal non-conforming.
25. Any matter impairing the bidder, the specified resource or the generation of power or environmental attributes of the renewable resource.
26. Failure to provide two (2) years of wind resource data for a proposed wind project submitted as a BTA or one (1) year of wind resource data if wind project is submitted as a PPA, as validated by a third party engineering firm, as applicable.
27. Failure to provide a performance model output including hourly output values as identified in **Appendix A**.
28. Failure to provide **Exhibit D - Bidder's Credit Information**, and **Appendix H - Form 1 - Pricing Input Sheet**.
29. Failure to submit an operations and maintenance agreement materially compliant with **Appendix K** for proposals involving PacifiCorp ownership or operational control upon the commercial operation or substantial completion date.
30. Any matter impairing bidder, specified resources or the generation of power or non-power attributes therefrom.

I. COMPANY RESERVATION OF RIGHTS AND DISCLAIMERS

PacifiCorp reserves the right, without limitation or qualification and in its sole discretion, to reject any or all bids, and to terminate or suspend this RFP in whole or in part at any time. Without limiting the foregoing, PacifiCorp reserves the right to reject as non-responsive any or all bid proposals received for failure to meet any requirement of this RFP outlined herein. PacifiCorp further reserves the right without qualification and in its sole discretion to decline to enter into any agreement with any bidder for any reason, including, but not limited to, change in regulations or regulatory requirements that impact PacifiCorp, and/or any collusive bidding or other anticompetitive behavior or conduct of bidders.

Bidders who submit bid proposals do so without recourse against PacifiCorp, its parent company, its affiliates and its subsidiaries, or against any director, officer, employee, agent or representative of any of them, for any modification or withdrawal of this RFP, rejection of any bid proposal, failure to enter into an agreement, or for any other reason relating to or arising out of this RFP. Bidders will be required to execute **Appendix G - Confidentiality Agreement** after the initial shortlist is identified and **Appendix G - Non-Reliance Letter** after being selected to the final shortlist, prior to entering into final negotiations.

J. ACCOUNTING

All proposals will be assessed by PacifiCorp for appropriate accounting and tax treatment. Bidders must supply all information PacifiCorp reasonably requires in order to make these assessments if project is selected to the initial shortlist.

K. CONFIDENTIALITY

PacifiCorp will attempt to maintain the confidentiality of all bids submitted, to the extent consistent with law or regulatory order, as long as such confidentiality does not adversely impact a regulatory proceeding. It is the bidder's responsibility to clearly indicate in its proposal what information it deems to be confidential. Bidders may not mark an entire proposal as confidential, but must mark specific information on individual pages to be confidential in order to receive confidential treatment for that information.

All information supplied to PacifiCorp or generated internally by PacifiCorp is and shall remain the property of PacifiCorp. The bidder expressly acknowledges that PacifiCorp may retain information submitted by the bidder in connection with this RFP. To the extent bidder receives information from PacifiCorp, Bidder shall maintain the confidentiality of such information and such information shall not be available to any entity before, during or after this RFP process unless required by law or regulatory order.

Only those Company employees who are directly involved in the RFP process or with the need to know for business reasons will be afforded the opportunity to view submitted bids or bidder information.

Bidders should be aware that information supplied by bidders may be requested and supplied during regulatory proceedings, subject to appropriate confidentiality provisions applicable to that particular proceeding. This means that parties to regulatory proceedings may request and view confidential information. If such a request occurs, PacifiCorp will attempt to prevent such confidential bidder information from being supplied to intervening parties who are also bidders, or who may be providing services to a bidder, but PacifiCorp cannot promise success in that endeavor and accordingly cannot be held liable for any information that it is ordered to be released or that is inadvertently released.

Lastly, PacifiCorp intends to utilize its internal, proprietary models in its evaluation process. These models, the assumptions used in these models, and the bid evaluation results will not be shared with entities external to PacifiCorp or its consultants, including bidders, unless required to support regulatory proceedings, required by law, or required by regulatory order.

SECTION 4. RFP CONTENT

A. ALL PROPOSALS

This section outlines the content and format requirements for all proposal structures and alternative proposal structures. Proposals that do not include the information requested and in a form described in this section may be deemed ineligible for further evaluation unless the information is not relevant as determined by PacifiCorp in its sole discretion. All sections must be complete and in compliance with the RFP in order for the bid to be accepted. In addition to the requirements listed here, bidders must meet the requirements of **Appendix B - Information Required in Bid Proposals**.

While bidders may submit alternative ownership proposals, such alternative ownership proposals will be considered by PacifiCorp in its sole discretion to determine whether these alternatives provide an attractive benefit for customers. Each bidder must provide complete information as requested in all appendices, forms and attachments outlined in the table below that is relevant to its proposal and for any alternative, as applicable.

	2016R RFP Bid Applicability	PPA	BTA
Appendix A	Renewable Resource Technical Specification		
<i>Appendix A-1</i>	<i>Overview of Appendices</i>	--	--
<i>Appendix A-2</i>	<i>Interconnection Agreement</i>	X	X
<i>Appendix A-3</i>	<i>Permit-Matrix</i>	X	X
<i>Appendix A-4</i>	<i>Not used</i>		
<i>Appendix A-5</i>	<i>Project One-line Drawing and Layout</i>	X	X
<i>Appendix A-6</i>	<i>Division of Responsibility</i>		X
<i>Appendix A-7</i>	<i>Owner Standards and Specification</i>		X
<i>Appendix A-8</i>	<i>Performance Summary Report</i>	X	X
<i>Appendix A-9</i>	<i>Product Data- Equipment Supply Matrix</i>	X	X
<i>Appendix A-10</i>	<i>Plant Performance Guarantee</i>		X
Appendix B	Intent to Bid and Information Required in Bid Proposal	X	X
Appendix C	Bid Summary and Pricing Input Sheet for PPA and BTA Bids (including term sheets)	X	X
Appendix D	Bidder's Credit Information	X	X
Appendix E-1	PPA Instructions to Bidders	X	
Appendix E-2	PPA and Exhibits	X	
Appendix F-1	BTA Instructions to Bidders		X
Appendix F-2	BTA and Appendices (A-Q)		X
Appendix G	Confidentiality Agreement and Non-Reliance Letter	X	X
Appendix H	Reserved – Intentionally Left Blank - see Appendix C for Pricing Input Sheet		
Appendix I	FERC's Standards of Conduct		
Appendix J	QRE Agreement	X	
Appendix K	General Services Contract-Operations & Maintenance Services or other resource type		X
Appendix L	PacifiCorp's Company Alternative (Benchmark Resource)		
Appendix M	Role of Independent Evaluator	X	X
Appendix N	Code of Conduct Governing PacifiCorp's Intra-Company Relationships with RFP Process	X	X
Appendix O	Description of Gateway Segment D2		

B. BUILD-TRANSFER AGREEMENT

Appendix C - Bid Summary and Pricing Input Sheet shows the form of project information required if a bidder proposes a "Build-Transfer" transaction whereby the bidder develops the resource, assumes responsibility for construction and then ultimately transfers the project to PacifiCorp upon or prior to the operation date, all pursuant to the terms of a build transfer agreement. This is an Excel-based worksheet that covers bid summary information, energy production profile, and pricing for the BTA. The bidder's proposal must contain the information requested in **Appendix F-1 - BTA Instructions to bidders**. The bidder must provide information, representations, and warranties sufficient to assure PacifiCorp that any proposed project will successfully complete construction and

achieve full commercial operation by December 31, 2020, and that any new wind or repowered resource will be eligible to claim, as applicable, the full or partial federal PTC as interpreted by applicable guidelines and rules of the Internal Revenue Service.

The BTA *pro forma* documents are attached as Appendix F-2 - Build Transfer Agreement (BTA). Bidders should include a redlined or marked up version of **Appendix F-2 Build Transfer Agreement** showing exceptions to the terms of the pro forma BTA document. Bidders objecting to terms should provide alternate language and context to the objections for PacifiCorp to evaluate the alternate language.

The BTA is structured such that PacifiCorp makes progress payments on an agreed-upon schedule in exchange for the developer meeting certain milestones and deliverables. However, PacifiCorp is also receptive to a single lump sum payment due at a defined substantial completion date. All bidders in this category must complete the information requested in **Appendix C - Bid Summary and Pricing Input Sheet** (BTA tab). PacifiCorp will only accept BTA proposals in which the final outcome is a purchase by PacifiCorp of a fully completed project at the “substantial completion date” or “commercial operation date.”

The bidder will be responsible for all aspects of the development and construction of the facility, including, but not limited to, permitting, engineering, procurement, construction, interconnection and all related costs up to achieving commercial operation. Without limiting the foregoing, the bidder will be responsible for obtaining all permits, rights and resources required to construct and provide an operational generation resource consistent with the bidder’s proposal.

Bidders will be responsible for submitting an operation and maintenance (O&M) service proposal as part of the overall BTA bid submittal consistent with **Appendix K, General Services Contract for Operation and Maintenance Services**. **Any proposal that does not include an O&M proposal that provides pricing, scope and other key terms will be rejected as a nonconforming proposal.**

Bidders should note that any proposal submitted in this category that proposes new construction of a wind resource or a repowered wind resource must comply with the applicable technical and construction specifications contained in **Appendix A** and must utilize the services of a single primary contractor.

To the extent the bidder uses a contractor or a separate legal entity other than the bidder itself, this entity must be experienced with the type of facility being proposed and meet credit criteria, all as deemed acceptable to PacifiCorp in its sole discretion.

C. POWER PURCHASE AGREEMENT

Appendix C Bid Summary and Pricing Input Sheet (PPA tab) shows the form of project information required for a bidder offering a PPA option. This is an Excel-based worksheet that covers bid summary information, energy production profile, and pricing for the PPA. Bidder’s proposal must contain the information requested in **Appendix E-1 - PPA Instructions to bidders**. The term of the PPA shall; (i) range between twenty (20) and thirty (30) years, with or without the right for PacifiCorp to purchase the project assets

during or at the end of the proposed contract term at fair market value (FMV) to retain the value of the site for customers or, (ii) a twenty (20) year PPA term with an option for PacifiCorp to extend the PPA term at a proposed fixed price (\$/MWh) for up to ten (10) years. The bidder must agree to meet its contractual obligations within the PPA during the term of the PPA.

For longer-term contract offers (i.e., PPA terms of 25 to 30 years without PPA extensions, or PPA terms that, after consideration of extension options, would result in a PPA term of 25 to 30 years), bidders should carefully consider the potential book and tax lease accounting treatment or Variable Interest Entity (VIE) treatment implications. Bidders that make the initial shortlist and have PPA offers of 25 years or greater (Long Term), will need to supply projected cash flows through the life of the underlying asset so that PacifiCorp can assess potential accounting implications. Potential accounting treatment impacts will be incorporated into the bid evaluation and selection process. For instance, if PacifiCorp determines that a Long Term PPA offering would be treated as a capital lease for tax purposes, PacifiCorp would be treated as the tax owner for the proposed facility. Please also refer to Section 5.F of this RFP.

The bidder's proposal must contain the information requested in **Appendix E-1 PPA Instructions to bidders**. The bidder must provide documentation and information, representations, and warranties sufficient to assure PacifiCorp that any proposed project will successfully complete construction and achieve full operation by December 31, 2020, and that any new or repowered existing resource will be eligible to claim, as applicable, the full or partial federal PTC as interpreted by applicable guidelines and rules of the Internal Revenue Service. PacifiCorp reserves the right to request bid cashflow information in order to complete its evaluation for capital lease accounting for tax purposes on Long Term PPAs if necessary.

Bidders should include a redlined or marked up version of **Appendix E-2 Power Purchase Agreement** showing exceptions to the terms of the pro forma PPA document. Bidders objecting to terms should provide alternate language and context to the objections for PacifiCorp to evaluate the alternate language. Bidders should also submit comments to the pro forma agreement on issues that they have concerns with and identify alternatives to address the issues.

The bidder will be required to complete **Appendix J - Qualifying Reporting Entity (QRE) Services Agreement** as part of the PPA which establishes WREGIS registration and reporting obligations for both parties.

D. ALTERNATIVE BID PROPOSALS

As noted in Section 1, bidders may propose variations of a BTA or a PPA, such proposals will be considered (or not considered) at PacifiCorp's sole discretion and PacifiCorp reserves the right to reject non-compliant bids. Bidders must submit the appendices that are relevant to the bidder's alternative bid proposal, which will typically correspond to the requirements for a build-transfer proposal as noted herein. Such proposals must include full documentation on the proposed financing structure and the pricing associated with PacifiCorp's contemplated ownership.

SECTION 5. RESOURCE INFORMATION

A. PRICE INFORMATION

Bidders must supply **Appendix C – Bid Summary and Pricing Input Sheet** in its original Microsoft Excel format with all submitted proposals. Price information that must be supplied by the bidder includes:

Information Requested	PPA	PPA with Purchase Option	BTA
Term: start and end date of base PPA and PPA extension, if applicable	X	X	
Transmission cost assumptions	X	X	X
Point of delivery (POD) and Point of receipt (POR)	X	X	X
Expected annual dispatch pattern, or generation profile, that reflects availability ¹⁰	X	X	X
Availability rate assumed in annual dispatch or generation profile data	X	X	X
Designation of firm or unit contingent energy deliveries	X	X	
Energy price (\$/MWh) including fixed price for the term or 1 st year price with escalation for the base PPA and PPA extension, if applicable	X	X	
Price and milestone payment schedule (\$ and dates, as applicable)		X	X
Variable O&M cost (\$/MWh, as applicable) ¹¹		X	X
Fixed O&M cost (\$/Year, as applicable) ¹²		X	X
Ongoing capital (\$/Year, as applicable)		X	X
Other variable costs, <i>i.e.</i> , royalties (% of energy revenue, or \$/MWh, as applicable)		X	X
Variable energy payment, with escalation (\$/MWh escalating at X%/year, as applicable)		X	X
Fixed capacity payment, with escalation (\$/Month growing at X%/year, as applicable)		X	X
Other fixed charges, <i>i.e.</i> land leases, with escalation (\$/MWh, \$/MW or \$/Year growing at X%/year, as applicable)		X	
Buyout dates and prices (\$ or “fair market value,” as applicable)		X	
Qualifying costs and term for any incentives that reduce delivered costs, such as federal, state or local incentives including among others; federal PTC, bonus depreciation, property tax exemptions, or local economic incentives	X	X	X

¹⁰ Section 3.F.3 of the 2017R RFP describes the type of generation profiles required.

¹¹ PacifiCorp may supply certain operational and maintenance costs for consistency across similar bids.

¹² PacifiCorp may supply certain operational and maintenance costs for consistency across similar bids.

**B. DIRECT INTERCONNECTION OR THIRD-PARTY
INTERCONNECTION AND TRANSMISSION SERVICE**

PacifiCorp is seeking resources capable of: (1) directly interconnecting with PacifiCorp's system in its PACW and PACE balancing areas or (2) interconnecting with a third-party system and using third-party firm transmission service to deliver to PacifiCorp's transmission system. With either method, PacifiCorp prefers bids that will not face significant transmission costs or constraints between: (1) the resource's point of interconnection or the resource's delivery point on PacifiCorp's transmission system; and (2) PacifiCorp network load. While PacifiCorp provides these general guidelines, the available transfer capability from the project or project delivery point to PacifiCorp's network load cannot be known or estimated until the bidder identifies its proposed point of interconnection/point of delivery. Bidders are thus required to provide as much granularity and documentation as possible regarding their proposed point of interconnection/point of delivery.

As noted above, the minimum eligibility requirements for bidders include the provision of evidence that the proposed project has either: (1) requested a direct interconnection with PacifiCorp's transmission system and executed an interconnection feasibility study agreement with PacifiCorp's transmission function; or (2) requested interconnection with a third party's system, executed an interconnection feasibility study agreement with the third party transmission provider, and requested long-term, firm third-party transmission service from the resource's point of interconnection with the third party's system to the proposed point of delivery on PacifiCorp's system.

PacifiCorp requests that bidders interconnecting to or delivering to Wyoming should review their technical specifications with PacifiCorp Transmission. Based on technical information received by PacifiCorp Transmission, concerns have been raised with the capability of integrating some types of wind turbine generators in the Aeolus / Freezeout / Shirley Basin / Standpipe area of the Rocky Mountain Power 230 kV Wyoming transmission system. These concerns include wind turbines will be normally operating on a weak transmission system with a steady state short-circuit ratio that is less than 2.0 in the 2020 timeframe and beyond, and with the eventual completion of the Gateway West and Gateway South Transmission Projects, the wind turbine will be operating on a series-compensated transmission system. Further questions should be directed to PacifiCorp Transmission..

All BTA proposals that will require a new electrical interconnection or an upgrade to an existing electrical interconnection, regardless of the project's interconnection to either PacifiCorp's system or to another utility's system, must include a firm statement of the cost of interconnection (broken out between network upgrade costs and facility specific or direct assigned interconnection costs), together with a diagram of the interconnection facilities. The interconnection costs included in the bids from all bidders will be considered as firm costs and included in the bid evaluation. Interconnection costs should be clearly identified in the resource cost proposal and differentiate the portion of costs associated with network upgrades and that portion that are facility-specific.

Although not required for initial bidding eligibility, PacifiCorp will ultimately require a completed interconnection system impact study (for directly interconnected projects) or a

completed third-party interconnection system impact study and a completed third-party transmission service study (for projects using third-party transmission) to determine the actual direct assigned cost for the interconnection or transmission services. Bids will be evaluated based on the direct assigned interconnection costs submitted in the bids and considered firm costs for the initial shortlist evaluation. Bids that are selected to the initial shortlist will be held to their best and final pricing for final shortlist evaluation. If selected to the final shortlist, bidder's agreement with PacifiCorp, whether PPA or BTA, will include a condition precedent that states PacifiCorp will compare the actual direct assigned interconnection cost from the completed SIS with the bidder's firm estimate provided in their best and final price. In the event the actual SIS cost exceeds the bidder's firm interconnection cost in best and final pricing, bidder will be responsible for the cost above their best and final firm price. In the event the actual SIS cost is less than the bidder's firm interconnection cost estimate, PacifiCorp will require an adjustment of the final PPA or BTA price to reflect the reduction in interconnection costs. The Company will also compare the commercial operation date in the SIS with the commercial operation date in the agreement to confirm operation by December 31, 2020. PacifiCorp will examine critical study information such as: (1) whether the studies support a December 31, 2020 commercial operation date; (2) interconnection and/or transmission costs; and (3) whether any third-party transmission arrangements will be available to the bidder during the full term of the offer(s) proposed or include contractual roll-over options if available to the bidder.

Bidders choosing the third-party interconnection and third-party transmission option are responsible for any current or future third-party tariff requirements or tariff changes including, but not limited to, interconnection, variable energy resource, electric losses, reserves, transmission, integration, imbalance, scheduling, and ancillary service arrangements required to deliver to the point of delivery on PacifiCorp's system in its Wyoming service territory. These costs will not be included in the evaluation of PPA proposals as they are assumed to be the responsibility of the bidder.

Bidders that propose bids relying on third-party transmission should also be aware that the use of transmission that is interruptible within the hour in any segment of the schedule or tagged from the source to the point(s) of delivery will require PacifiCorp to evaluate the cost and need to carry reserves against the schedule, which can be up to 100% in the case of electricity moved from a third party control area to PacifiCorp's network transmission system.

All proposals will require firm transmission to PacifiCorp's network transmission system and proposed resources must be able to be designated by PacifiCorp's Energy Supply Management (ESM) function as a Network Resource under the network service contract between PacifiCorp Transmission (www.oasis.pacificorp.com) and PacifiCorp ESM.

C. FERC'S STANDARDS OF CONDUCT

Each bidder responding to this RFP must conduct its communications, implementation and operations in compliance with FERC's Standards of Conduct for Transmission Providers (see **Appendix I**), requiring the separation of its transmission and merchant functions. Any interconnection or transmission service is NOT a transmission service agreement with PacifiCorp's ESM merchant function; rather, it is with PacifiCorp's transmission function

or other third-party transmission provider. As such, the bidder must follow the transmission provider's OASIS process. If requested, bidders shall execute a customer consent form consistent with FERC requirements that enables PacifiCorp's ESM merchant function to discuss the bidder's interconnection and/or transmission service application(s) with the transmission interconnection or transmission service provider.

D. RESOURCE TYPES ELIGIBLE TO BID

PacifiCorp is seeking new wind energy resources or repowered existing wind resources capable of directly interconnecting and/or delivering energy to PacifiCorp's PACE and PACW network transmission system by December 31, 2020. These resources must be capable of being interconnected with PacifiCorp's transmission system, or capable of delivering energy to PacifiCorp's transmission system with the use of third-party firm transmission service. Repowered existing wind resources that currently have a PPA with PacifiCorp for the offtake of the energy will be accepted provided the existing PPA expires before December 31, 2020.

E. TAX CREDITS AND/OR PROJECT INCENTIVES

Bidders must bear all risks, financial and otherwise, associated with bidder's or the facility's eligibility to receive any state or federal energy tax credits, sales tax waivers or exemptions or any other identified tax credit or incentive, or qualify for accelerated depreciation for bidder's accounting, reporting or tax purposes, as applicable. The obligations of the bidder to perform under any executed agreement as a result of this solicitation shall be effective and binding regardless of whether the sale of or output from the bidder's facility under such agreement is eligible for, or receives production or investment tax credits, or other identified tax credits/incentives.

PacifiCorp will require written documentation of the amount, timing and control of any and all available tax credits/incentives that the bidder's facility is eligible for, applied for, and/or received. Such documentation shall include but not be limited to ownership rights to the credit, grant or incentive, timing including expiration dates and milestones to achieve the credit, grant, or incentive.

F. ACCOUNTING

All contracts proposed to be entered into as a result of this RFP will be assessed by PacifiCorp for appropriate accounting and tax treatment. Bidders shall be required to supply PacifiCorp with any and all information that PacifiCorp reasonably requires in order to make these assessments if the bid is selected to the initial shortlist. Specifically, given the term length of the PPA, or the useful life of the asset to be acquired under an asset acquisition or alternative ownership proposal, accounting and tax rules may require either: (i) a contract be accounted for by PacifiCorp as a capital lease or operating lease¹³ for book purposes pursuant to ASC 840, (ii) a contract be accounted for by PacifiCorp as a capital

¹³ "Capital Lease" and "Operating Lease" - shall have the meaning as set forth in the Accounting Standards Codification (ASC) 840 as issued and amended from time to time by the Financial Accounting Standards Board.

lease for tax purposes¹⁴, or (iii) the seller or assets owned by the seller, as a result of an applicable contract, be consolidated as a variable interest entity (VIE) onto PacifiCorp's balance sheet.¹⁵

As a result, bidders may be required by PacifiCorp to certify, with supporting information sufficient to enable PacifiCorp to independently verify such certification, that their proposals will not be subject to VIE treatment. Bidders should carefully consider the potential book and tax lease accounting treatment or VIE treatment implications associated with a Long Term PPA offers (i.e., PPA terms of 25 to 30 years without PPA extensions, or PPA terms that, after consideration of extension options, would result in a PPA term of 25 to 30 years). For these Long Term PPA offers, bidders will need to supply, with their bid, projected cash flows through the life of the underlying asset so that PacifiCorp can assess potential accounting implications. Potential accounting treatment impacts will be incorporated into the bid evaluation and selection process. For instance, if PacifiCorp determines that a Long Term PPA offering would be treated as a capital lease for tax purposes, PacifiCorp would be treated as the tax owner for the proposed facility.

Each bidder must also agree to make available in the bid evaluation process any and all financial data associated with the bidder PPA or BTA that PacifiCorp requires to determine potential accounting impacts. Such information may include, but is not limited to, data supporting the economic life (both initial and remaining), the fair market value, executory costs, nonexecutory costs, and investment tax credits or other costs (including debt specific to the asset being proposed) associated with the bidder's proposal. Financial data contained in the bidder's financial statements (e.g., income statements, balance sheets, etc.) may also be required to be supplemented.

G. COST ASSOCIATED WITH DIRECT OR INFERRED DEBT

PacifiCorp will not take into account potential costs to PacifiCorp associated with direct or inferred debt (described below) as part of its economic analysis in the shortlist evaluation. However, after completing the shortlist and before the final resource selections are made, PacifiCorp may take direct or inferred debt into consideration. In so doing, PacifiCorp may obtain a written advisory opinion from a rating agency to substantiate PacifiCorp's analysis and final decision regarding direct or inferred debt.

Direct debt results when a contract is deemed to be a capital lease pursuant to ASC 840 and the lower of the present value of the nonexecutory minimum lease payments or 100% of the fair market value of the asset must be added to PacifiCorp's balance sheet.

Inferred debt results when credit rating agencies infer an amount of debt associated with a power supply contract and, as a result, take the added debt into account when reviewing PacifiCorp's credit standing.

¹⁴ See IRS Code Section 7701(e) describing the test for capital lease for tax purposes.

¹⁵ "Variable Interest Entity" or "VIE" - shall have the meaning as set forth in ASC 810 as issued and amended from time to time by the FASB.

SECTION 6. BID EVALUATION AND SELECTION

A. OVERVIEW OF THE EVALUATION PROCESS

PacifiCorp's bid evaluation and selection process is designed to identify the combination and amount of new or repowered wind projects bid into the 2017R RFP that will maximize customer benefits. The method used to evaluate and select bids is consistent with the methods that were used to evaluate new or repowered wind resources and transmission infrastructure in PacifiCorp's 2017 IRP. The same method will be used to evaluate benchmark resources and market bids. PacifiCorp will not make any of the evaluation models available to bidders. The IEs will have full access to the inputs in all models used during the evaluation process.

The bid evaluation process will occur in two phases. In the first phase, PacifiCorp will establish an initial shortlist based on both price and non-price factors. During this phase of the bid evaluation process, PacifiCorp will not ask for, or accept, updated pricing. PacifiCorp will rely on the pricing and transaction structure as submitted into the 2017R RFP for each benchmark resource and market bid. However, PacifiCorp will contact bidders to confirm and clarify information presented in each proposal. Bids selected to the initial shortlist will be given an opportunity to provide best and final pricing, subject to certain limits as described later in this section.

In the second phase, initial shortlist bids, with updated pricing, will be analyzed with the same production cost models that were used to develop PacifiCorp's 2017 IRP preferred portfolio. These production cost models will be used to perform a net customer benefit analysis by simulating PacifiCorp's system costs with and without initial shortlist bids. PacifiCorp's production cost modeling will be used to calculate the expected net present value revenue requirement impacts, accounting for risk. The customer cost and risk analysis, along with any other factors not expressly included in the formal evaluation process, but required by applicable law or commission order, will be used by PacifiCorp, in consultation with the IEs, to establish the final shortlist.

After the final shortlist is established and acknowledged, PacifiCorp will initiate negotiations with bidders that submitted proposals for projects selected to the final shortlist. Selection of a bid to the final shortlist does not constitute a winning bid. Only execution of a definitive agreement between PacifiCorp and the bidder, on terms acceptable to PacifiCorp, in its sole and absolute discretion, will constitute a winning bid proposal. Any definitive PPA or BTA will be in the form of the PPA or BTA contracts provided in **Appendices E-2** and **F-2**, respectively. If the bidder alters the PPA or BTA, or does not use it as the underlying agreement, bid evaluation and selection can be affected. PacifiCorp welcomes bidders, at their own discretion, to provide written comments on the PPA or BTA contracts provided in **Appendices E-2** and **F-2** as part of their bid. PacifiCorp has no legal obligation to enter into any agreement of any kind with any bidder.

B. PHASE 1 – INITIAL SHORTLIST

1. Price Evaluation (up to 80%)

PacifiCorp will use proprietary models to perform financial analysis and rank benchmark resources and market bids. PacifiCorp will use a proprietary spreadsheet model to calculate the delivered revenue requirement cost of each benchmark resource and market bid, inclusive of any applicable carrying cost and net of production tax credit benefits, as applicable. The delivered revenue requirement cost will be netted against energy, capacity, and terminal value benefits, as applicable, to calculate the net cost of each benchmark resource and market bid.

In developing revenue requirement costs, PacifiCorp will use cost data for each benchmark resource and market bid. Any internal assumptions for key financial inputs (i.e., inflation, discount rates, marginal tax rates, asset lives, AFUDC rates, etc.) and PacifiCorp carrying costs (i.e., integration costs, owner's costs, etc.) will be applied consistently to benchmark resources and market bids, as applicable. The cost of the Aeolus-to-Bridger/Anticline transmission project will not be directly assigned to specific benchmark resources or market bids during the initial-shortlist price evaluation. These costs will be considered as system costs during the financial evaluation performed to establish the final shortlist, as described later in this section. However, the cost for any transmission network upgrades or required to connect to the Aeolus-to-Bridger/Anticline transmission line or other areas of PacifiCorp's transmission system will be included in the initial shortlist price evaluation. The cost for any third-party wheeling expenses required to deliver output to PacifiCorp's system will be the responsibility of the bidder and should be included in the cost proposal. All internal assumptions needed to calculate revenue requirement costs will be provided to the IEs and locked down before benchmark resource bids and market bids are received and opened.

PacifiCorp will also apply consistent assumptions associated with bid benefits (i.e., energy, capacity, terminal value, etc.), as applicable. Energy and capacity value will be based on two production cost model runs for prospective bids delivering output to varying locations on PacifiCorp's system. For each location (Wyoming, Utah, Idaho, and Washington/Oregon), one simulation will include proxy wind resources and new transmission, as applicable, at a zero cost and one simulation will exclude proxy wind resources and new transmission, as applicable. The differential in system fixed and variable costs between the two production cost model simulations will serve as the basis for expected energy and capacity benefits associated with new or repowered wind facilities at varying locations. All energy, capacity, and terminal value assumptions will be provided to the IEs and locked down before benchmark resource bids and market bids are opened.

The net cost calculation will be used to assign a price score to each benchmark resource and each market bid. This will be achieved by calculating the nominal levelized (discounted) revenue requirement cost and the nominal levelized (discounted) benefit for each benchmark resource and market bid, where revenue requirement costs are reported as a negative value and customer benefits are reported as a positive value.

2. Non-Price Evaluation (Up To 20%)

The non-price analysis will gauge the relative development, construction and operational characteristics and associated risks of each benchmark resource and market bid. A matrix will be used for each non-price factor. For each non-price factor, proposals will be assigned one of three discrete scores: (1) 100% of the percentage weight; (2) 50% of the percentage weight; or (3) 0% of the percentage weight. Benchmark and market bids will be evaluated based on their ability to demonstrate the proposal is thorough, comprehensive and provides limited risk to the buyer prior to PacifiCorp performing due diligence on any given bid. Bidders that have a demonstrated track record and bids for mature proposals will receive higher scores. The following table summarizes the basis for weighting each non-price factor.

NON-PRICE FACTOR WEIGHTING

Non-Price Factor	Non-Price Factor Weighting
<p>1. Conformity to RFP Requirements:</p> <ul style="list-style-type: none"> Bids provided all required RFP information pursuant to RFP instructions and schedule, including the accuracy of such information. Bids provided complete and accurate required RFP information of but not limited to documentation of site control and permitting process, environmental compliance plan, and interconnection or transmission arrangements. Bids in compliance with technical specifications as outlined in Appendix A (applicable primarily to BTA bids or PPA bids with a purchase option) Bidder's development and construction experience related to large scale wind projects. 	4%
<p>2. Project Deliverability:</p> <ul style="list-style-type: none"> Bids demonstrated the commercial operation date would be achieved by December 31, 2020. Bids provided sufficient detail, including schedule(s) and documentation, to demonstrate the ability of meeting all of the project's environmental compliance, permits, and equipment procurement. Bids demonstrate and provide sufficient detail regarding access to generation equipment and well defined O&M plan and financing plan. Bids included documentation that projects qualify for and would receive the full or partial value of the federal PTC as interpreted by applicable guidelines and rules of the Internal Revenue Service at commercial operation. 	8%
<p>3. Transmission Progression:</p> <ul style="list-style-type: none"> Bids provided sufficient detail, including schedule(s) and documentation for completing project interconnection and securing any required third party transmission service to support December 31, 2020 commercial operation date. 	8%

3. Initial Shortlist Selection

PacifiCorp will seek to establish an initial shortlist that includes up to approximately 2,000 MW of aggregate wind capacity for Wyoming wind projects that are reliant on the Aeolus-to-Bridger/Anticline transmission project. PacifiCorp will also seek to establish an initial shortlist that includes up to 2,000 MW of aggregate wind capacity for wind projects that are not reliant on the Aeolus-to-Bridger/Anticline transmission project. However, PacifiCorp, in consultation with the IEs, may establish an initial shortlist containing less or more aggregate capacity depending upon the relative total bid score among benchmark resources and market bids. PacifiCorp, in consultation with the IEs, may select the base proposal and one or more bid alternatives proposed with any benchmark resource or market bid, as applicable, to the initial shortlist.

PacifiCorp will use the combined price and non-price results to rank benchmark resources and market bids. Based on these rankings, PacifiCorp will select an initial shortlist based on total bid score (maximum at 100%, with a maximum of 80% for price and a maximum of 20% for non-price factors).

The calculated nominal levelized \$/MWh net benefit for each benchmark resource and market bid will be force ranked, with a maximum of 80 points to the evaluated bid with the highest calculated net benefit, a minimum of zero (0) points to the evaluated bid with the lowest calculated net benefit; and the remaining bids scored on the 0 to 80 point scale according to the relationship of their respective calculated net benefits to those of the highest and lowest bids. PacifiCorp will also rank the bids per the IE-recommended ranking methodology used in PacifiCorp's previous RFPs¹⁶ for purposes of comparison as part of the initial shortlist evaluation. If the two methodologies result in different initial shortlists, PacifiCorp will include in its initial shortlist all bids supported by both methodologies.

The non-price score will not be force ranked. Each bid will have its forced rank price score added to the non-price score. The bidders with the highest total score (price and non-price), and representing up to approximately 2,000 MW of aggregate capacity at any given location, will be considered for the initial shortlist.

PacifiCorp will engage an independent third-party expert to evaluate proposed wind generation data for each benchmark resource and market bid selected to the initial shortlist in compliance with Guideline 10(f) in Oregon Order 14-149¹⁷. In consultation with the IEs, PacifiCorp may use information provided by the independent third-party expert to adjust proposed wind generation data and projected capacity factors during the final shortlist selection process.

¹⁶ PacifiCorp has historically used a ranking methodology based on the ratio of bid benefits to costs with established bookends for the ratios. For example, PacifiCorp used a lower bookend of 60 percent and an upper bookend of 140 percent in its 2012 All-Source RFP. The bookends can be adjusted to balance between price and non-price scores.

¹⁷ Public Utility Commission of Oregon Docket UM 1182, In the Matter of an Investigation Regarding Competitive Bidding, Order 14-149.

PacifiCorp will assess initial short listed PPA bids for the appropriate accounting and tax treatment. PPA bids will be evaluated for: (i) whether a contract must be accounted for by PacifiCorp as a capital lease or operating lease pursuant to ASC 840 for book purposes, (ii) whether a contract must be accounted for by PacifiCorp as a capital lease for tax purposes, or (ii) whether the seller or assets owned by the seller, as a result of an applicable contract, be consolidated as a variable interest entity (VIE) onto PacifiCorp's balance sheet. For Long Term PPA offers (i.e., PPA terms of 25 to 30 years without PPA extensions, or PPA terms that, after consideration of extension options, would result in a PPA term of 25 to 30 years), bidders should carefully consider the potential book and tax lease accounting treatment or (VIE) treatment implications. For these Long Term PPA offers that are selected to the initial shortlist, bidders will be required to supply, with their bid, projected cash flows through the life of the underlying asset so that PacifiCorp can assess potential accounting implications. Potential accounting treatment impacts will be incorporated into the bid evaluation and selection process. For instance, if PacifiCorp determines that a Long Term PPA offering would be treated as a capital lease for tax purposes, PacifiCorp would be treated as the tax owner for the proposed facility. Please also refer to Section 5.F of this RFP.

4. Best and Final Pricing

Benchmark and market bids notified of their selection to the initial shortlist will be given an opportunity to provide best and final pricing. Best and final pricing must be provided for the same site using the same or similar technologies as original proposed. Best and final pricing, shall not exceed 10% of the original total bid cost, which PacifiCorp will assess on a present value revenue requirement basis. In the event that best and final pricing increases the total benchmark resource or market bid cost by more than 10%, PacifiCorp reserves the right to either (a) reject the best and final proposal or, (b) replace the short-listed bid or bid alternative with a final proposal solicited from another bid not originally selected to the initial shortlist. Accordingly, PacifiCorp may request that certain indicative bids, not initially selected to the initial shortlist, remain open after the initial shortlist is established and that those bidders be prepared to provide best and final pricing on an expedited basis.

C. PHASE 2 – FINAL SHORTLIST

1. Processing of Best and Final Bids

After confirming that best and final pricing meets the requirements of the 2017R RFP, as outlined above, PacifiCorp will use the same proprietary models used for the initial shortlist price evaluation, with bids updated for best and final pricing and projected performance, to process bid costs for input into IRP production cost models. In processing benchmark resource and market bid costs, PacifiCorp will convert the calculated revenue requirement associated with capital costs (i.e., return on investment, return of investment, and taxes, net of PTCs, as applicable) to first-year-real-levelized costs, consistent with the treatment of capital revenue requirement in PacifiCorp's IRP modeling. All other benchmark resource and market bid costs will be summarized in nominal dollars and formatted for input into the IRP models, consistent with the treatment of non-capital revenue requirement in PacifiCorp's IRP modeling. Projected wind resource performance data (expected hourly capacity factor information) will also be processed for input into the IRP models.

2. Bid Resource Portfolio Development

PacifiCorp will use the System Optimizer (SO) model—the same model used by PacifiCorp to develop resource portfolios in the 2017 IRP—to develop a resource portfolio containing 2017R RFP bids with the Aeolus-to-Bridger/Anticline transmission project. For purposes of the 2017R RFP, the SO model will be used to select the combination of wind projects from the initial shortlist. For Wyoming wind that requires construction of the Aeolus-to-Bridger/Anticline transmission project for interconnection, the model will be able to select up to approximately 1,270 MW of new or repowered wind capacity. For bids that are not dependent upon the Aeolus-to-Bridger/Anticline transmission project for interconnection, the model will be able to select new or repowered wind capacity at any level that reduces system costs, thereby demonstrating net benefits for customers. Bids will be available for selection to the resource portfolio for a range of different environmental policy and market price scenarios (policy-price scenarios).¹⁸ For each of these portfolios, the SO model will be configured to include the cost and incremental transfer capability associated with the Aeolus-to-Bridger/Anticline transmission project. The SO model will also be used to establish least cost resource portfolios for each policy-price scenario without any new wind and without the Aeolus-to-Bridger/Anticline transmission project.

For each policy-price scenario, PacifiCorp will calculate the present value revenue requirement differential (PVRR(d)) between the portfolio containing 2017R RFP wind resources with the Aeolus-to-Bridger/Anticline project, including the all transmission costs, and the portfolio without 2017R RFP wind resources and without incremental transmission costs.

3. Stochastic Risk Analysis

PacifiCorp will also evaluate each of the resource portfolios developed with the SO model using Planning and Risk (PaR)—the same model used in PacifiCorp's 2017 IRP to analyze stochastic resource portfolio risk. PaR captures stochastic risk in its production cost estimates, without altering the resource portfolio, by using Monte Carlo sampling of stochastic variables, which include: load, wholesale electricity and natural gas prices, hydro generation, and thermal unit outages. For purposes of the 2017R RFP, PaR will be used to calculate the stochastic mean PVRR(d) and the risk-adjusted PVRR(d) for each policy-price scenario.¹⁹

¹⁸ Policy-price scenarios will be conceptually consistent with those used in the 2017 IRP (i.e., alternative environmental policy assumptions among low, medium, and high price scenarios), but updated to reflect PacifiCorp's assessment of the most current information. Policy-price scenario assumptions will be established and reviewed with the IEs before updated bids with best and final pricing are received and opened.

¹⁹ The stochastic mean metric is the average of system net variable operating costs among 50 iterations, combined with the real-levelized capital costs and fixed costs taken from the SO model. The risk-adjusted metric adds 5% of system variable costs from the 95th percentile to the stochastic mean. The risk-adjusted metric incorporates the expected value of low-probability, high-cost outcomes.

4. Identifying Top-Performing 2017R RFP Wind Resource Portfolios

PacifiCorp will summarize and evaluate the 2017R RFP wind resource portfolios to identify the specific benchmark resources and market bid resources that are most consistently selected among the policy-price scenarios and that deliver economic benefits for customers. Based on these data, and in consultation with the IEs, PacifiCorp will select one or more 2017R RFP wind resource portfolios for further scenario risk analysis.

5. Scenario Risk Analysis

This step of the evaluation process will help identify whether top-performing portfolios exhibit especially poor performance under a range of future policy-price scenarios. PacifiCorp will develop new system resource portfolios around the top-performing 2017R RFP resource portfolios and calculate a system PVRR(d) for each policy-price scenario. Similarly, the portfolios developed in the SO model will be evaluated in PaR, and PacifiCorp will calculate a stochastic mean PVRR(d) and a risk-adjusted PVRR(d) for each policy price-scenario.

6. Other Factors

Before establishing a final shortlist, PacifiCorp may take into consideration, in consultation with the IEs, other factors that are not expressly or adequately factored into the evaluation process outlined above, particularly any factor required by applicable law or Commission order to be considered.

The Utah Energy Resource Procurement Act requires consideration of at least the following factors in determining whether a resource selected by PacifiCorp should be approved as in the public interest:

- Whether it will most likely result in the acquisition, production, and delivery of electricity at the lowest reasonable cost to the retail customers of an affected electrical utility located in this state;
- Long-term and short-term impacts;
- Risk;
- Reliability;
- Financial impacts on the affected electrical utility; and
- Other factors determined by the Commission to be relevant.

Oregon Order No. 06-446, Guideline 10(d) as modified by Order 14-149, requires, among other things, that the Oregon IE evaluate the unique risks and advantages associated with the benchmark resource, including the regulatory treatment of costs or benefits related to actual construction cost and plant operation differing from what was projected for the RFP. The IE may apply those same risks and advantages in review of the market bids.

7. Final Shortlist Selection

PacifiCorp will summarize and evaluate the results of its scenario risk analysis, considering PVRR(d) results and annual customer impacts, to identify the specific benchmark

resources and market bid resources that maximize customer benefits. Based on these data and certain other factors as described above, and in consultation with the IEs, PacifiCorp will establish a final shortlist. This final shortlist will be submitted to the Public Utility Commission of Oregon for acknowledgement. PacifiCorp will seek acknowledgment of the 2017R RFP final shortlist after acknowledgement of the 2017 IRP. Development of the resources identified in the 2017R RFP is not contingent on acknowledgement of the 2017 IRP, however, and the Company reserves the right to modify or cancel the 2017R RFP pending resolution of the 2017 IRP proceedings. PacifiCorp will also seek approval of the the final shortlist with the Utah Public Service Commission, the Wyoming Public Service Commission, and the Idaho Public Utilities Commission. Once the final shortlist is established and bidders notified, PacifiCorp will initiate negotiations with final-shortlist bidders.

SECTION 7. AWARDING OF CONTRACTS

A. INVITATION

This RFP contains only an invitation to make proposals to PacifiCorp. No proposal is itself a binding contract unless the parties execute definitive and complete documentation providing otherwise.

PacifiCorp may in its sole discretion do any one or more of the following:

1. Determine which proposals are eligible for consideration in response to this RFP.
2. Issue additional subsequent solicitations for information, and conduct investigations with respect to the qualifications of each bidder.
3. Supplement, amend, or otherwise modify this RFP, or cancel this RFP with or without the substitution of another RFP.
4. Negotiate with bidders to amend any proposal.
5. Select and enter into agreements with the bidders who, in PacifiCorp's sole judgment, are most responsive to the RFP and whose proposals best satisfy the interests of PacifiCorp and its customers, and not necessarily on the basis of price alone or any other single factor.
6. Issue additional subsequent solicitations for proposals.
7. Waive any irregularity or informality on any proposal to the extent not prohibited by law.
8. Reject any or all proposals in whole or in part.
9. Vary any timetable.
10. Conduct any briefing session or further RFP process on any terms and conditions.
11. Withdraw any invitation to submit a response.

Basis for Rejection

Proposals may be rejected for any reason including but not limited to not meeting the minimum eligibility requirements identified in Section 3.H of this RFP.

B. CONFIDENTIALITY AGREEMENT

In addition to the confidentiality provisions set forth herein, bidders should note that all parties will be required to sign **Appendix G - Confidentiality Agreement** with PacifiCorp if they qualify for the initial shortlist.

C. NON-RELIANCE LETTER

All parties will be required to sign **Appendix G - Non-Reliance Letter** if they qualify for the final shortlist prior to entering into negotiations with PacifiCorp.

D. POST-BID NEGOTIATION

PacifiCorp will further negotiate both price and non-price factors during post-bid negotiations. PacifiCorp will also include in its evaluation any factor that may impact the total cost of a resource, including but not limited to all of the factors used in the final shortlist cost analysis plus consideration of accounting treatment and potential effects due to rating agency treatment, if applicable. Post-bid negotiation will be based on PacifiCorp's cost assessment. PacifiCorp will continually update its economic and risk evaluations until both parties execute a definitive agreement acceptable to PacifiCorp in its sole and absolute discretion.

PacifiCorp shall have no obligation to enter into any agreement with any bidder to this RFP and PacifiCorp may terminate or modify this RFP at any time without liability or obligation to any bidder. In addition, this RFP shall not be construed as preventing PacifiCorp from entering into any agreement that PacifiCorp deems prudent, in PacifiCorp's sole discretion, at any time before, during, or after this RFP process is complete. Finally, PacifiCorp reserves the right to negotiate only with those entities who propose transactions that PacifiCorp believes in its sole discretion to have a reasonable likelihood of being executed.

E. SUBSEQUENT REGULATORY ACTION

Unless mutually agreed between the parties or unless required by actual (or proposed) law or regulatory order, at the time of contract execution, PacifiCorp does not intend to include a contractual clause whereby PacifiCorp is allowed to adjust contract prices in the event that an entity who has regulatory jurisdiction over PacifiCorp does not fully recognize the contract prices in determining PacifiCorp's revenue requirement. As of the issuance date for this solicitation, PacifiCorp is unaware of any such actual law or regulatory order.

Rocky Mountain Power
Exhibit RMP____(RTL-11SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link
2017R RFP Appendices and Exhibits

February 2018

**THIS EXHIBIT IS VOLUMINOUS AND IS
PROVIDED ON CD ONLY**

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-12SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Third-Party Capacity Factor Review Study

February 2018

**THIS EXHIBIT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER
SEPARATE COVER**

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-13SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Price Score Screening Models

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

This highly confidential exhibit contains commercially sensitive information which is considered business confidential information subject to Utah Code 63G-2-305(2) and 63G-2-305(3) to protect it from a Government Records Access and Management Act (GRAMA) request. The Company requests special handling. Please contact Jana Saba at (801) 220-2823 to make arrangements to review.

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-14SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Non-Price Score Screening Documentation

February 2018

**THIS EXHIBIT IS CONFIDENTIAL IN ITS
ENTIRETY AND IS PROVIDED UNDER
SEPARATE COVER**

REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-15SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Screening Models for Best-and-Final Pricing with Tax Law Changes

February 2018

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REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-16SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Screening Models for Sales Tax Additions

February 2018

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REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-17SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Screening Models for Network Upgrades and Sales Tax Updates

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

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REDACTED

Rocky Mountain Power
Exhibit RMP____(RTL-18SS)
Docket No. 17-035-40
Witness: Rick T. Link

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

REDACTED

Exhibit Accompanying Second Supplemental Direct Testimony of Rick T. Link

Final Shortlist Recommendations to IEs

February 2018

THIS EXHIBIT IS HIGHLY CONFIDENTIAL

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Rocky Mountain Power
Docket No. 17-035-40
Witness: Joelle R. Steward

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Second Supplemental Direct Testimony of Joelle R. Steward

February 2018

1 **Q. Are you the same Joelle R. Steward who previously submitted testimony in this**
2 **proceeding on behalf of Rocky Mountain Power (“the Company”), a division of**
3 **PacifiCorp?**

4 A. Yes.

5 **PURPOSE OF TESTIMONY**

6 **Q. What is the purpose of your second supplemental direct testimony?**

7 A. I update the expected costs and benefits proposed to be recovered through the Resource
8 Tracking Mechanism (“RTM”) to reflect the updated 2017R Request for Proposals
9 (“2017R RFP”) final shortlist described in the second supplemental direct testimony of
10 Company witness Mr. Rick T. Link. The Company proposed the RTM as part of its
11 request for approval of the Company’s energy resource decisions for new wind
12 resources (“Wind Projects”) and for the Aeolus-to-Bridger/Anticline line and network
13 upgrades (“Transmission Projects”) (collectively, the “Combined Projects”).

14 **SECOND SUPPLEMENTAL DIRECT TESTIMONY**

15 **Q. Have you updated the exhibits from your first supplemental testimony to reflect**
16 **the updated economic analysis for the Combined Projects summarized in Mr.**
17 **Link’s testimony?**

18 A. Yes. My original exhibits have been updated and are presented as Exhibit
19 RMP____(JRS-1SS),¹ Exhibit RMP____(JRS-2SS), Exhibit RMP____(JRS-3SS) and
20 Exhibit RMP____(JRS-4SS). These exhibits reflect the updated costs and benefits in the
21 economic analysis in Mr. Link’s testimony based on the updated 2017R RFP final
22 shortlist. The exhibits are in the same format used in my previous testimony. They

¹ Exhibit RMP____(JRS-1SS) is included but is the same as Exhibit RMP____(JRS-1SD) presented in supplemental direct testimony.

23 calculate the monthly and annual revenue requirements and show the overall net impact
24 for the Combined Projects that would be reflected in rates, including the proposed
25 RTM.

26 **Q. Please provide a summary of the updates in your revised exhibits.**

27 A. As in my previous supplemental update, my updated exhibits include changes in Utah's
28 allocated share of the updated Combined Projects' capital costs, return, depreciation,
29 Production Tax Credits ("PTCs"), taxes, and operating costs and benefits. Updated net
30 power costs associated with the updated 2017R RFP final shortlist, system dispatch,
31 and revised wind generation projections have also been included in the Energy
32 Balancing Account ("EBA") pass-through calculation.

33 **Q. What are the updated annual estimated rate impacts associated with the**
34 **Combined Projects that would be reflected in rates through the RTM, in**
35 **conjunction with the EBA?**

36 A. The Company is projecting the Combined Projects' updated annual revenue
37 requirement impact for the years 2020 to 2023 to be in the range of (\$2) million to
38 \$33 million in Utah, as shown in Table 1 of Exhibit RMP____(JRS-2SS). The net rate
39 impact would be less than 1.7 percent for the first full year of operation.

40 **Q. Has the Company's proposed ratemaking treatment for interim recovery of costs**
41 **through the RTM changed?**

42 A. No. The Company continues to propose recovery of costs through the RTM to
43 concurrently match benefits and costs in rates. Absent recovery through the RTM, the
44 Company continues to recommend symmetrical treatment of the costs and benefits of
45 the Combined Projects by excluding net power cost benefits from the EBA if costs are

46 not deferred or otherwise reflected in rates.

47 **FILING REQUIREMENTS**

48 **Q. The 2017R RFP shortlist is now final and additional information on RFP results**
49 **is available. Has the Company supplemented its filing to ensure compliance with**
50 **the filing requirements of the Act?**

51 A. Yes. Included with the filing letter is an update to Attachment A to the Application in
52 the initial filing, which is a matrix that explains, in detail, where the information to
53 demonstrate compliance with the requirements of the Act and Commission rules, as
54 required by Utah Admin. Code Rule R746-430-2(1)(a) is located in the Company's
55 filing.

56 **Q. Does this conclude your second supplemental direct testimony?**

57 A. Yes.

Rocky Mountain Power
Exhibit RMP____(JRS-1SS)
Docket No. 17-035-40
Witness: Joelle R. Steward

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony of
Joelle R. Steward

Revenue Requirement Overview

February 2018

Resource Tracking Mechanism

Revenue Requirement Overview – The Combined Projects

Category	Base	New	Deferral
Capital Investment	Zero unless the assets or part of the assets have been included in a general rate case. After a rate case, the base will be the amount included in the test period, beginning on the rate effective date of that case.	Actual monthly beginning plant in-service balances associated with the Combined Projects, beginning with first assets placed in service.	The difference between the base and new columns will be included in the mechanism calculation until the amounts are fully included in a general rate case, at which time this will end.
Accumulated Depreciation Reserve	Same as capital investment.	Monthly depreciation reserve of Combined Projects.	
Accumulated Deferred Income Tax	Same as capital investment.	Actual accumulated deferred income tax balances associated with the Combined Projects.	
Operation & Maintenance Expense	Zero unless the assets or part of the assets have been included in a general rate case. After a rate case, the base will be the amount included in the test period, beginning on the rate effective date of that case.	Actual O&M expense for the Combined Projects.	
Depreciation Expense	Zero.	Actual monthly plant in-service balances associated with the Combined Projects less the base multiplied by current depreciation rates.	
Property Taxes	Zero.	Capital Investment deferral less the Depreciation Reserve deferral multiplied by the average property tax rate from the last rate case.	
Wind Tax	Zero.	Incremental energy production MWh associated with Wind Projects subject to the Wyoming Wind tax multiplied by the wind tax rate.	
NPC Savings	The EBA tracks and captures any incremental changes to wind production between NPC in base rates and actual NPC.	The EBA has a 100% pass through of the difference between base NPC and actual NPC. The RTM will capture any savings, if any, not included in the EBA related to incremental energy production associated with the Wind Projects, and pass these savings back to customers.	Any incremental wind production associated with the Wind Projects not in base rates will be multiplied by monthly HLH and LLH prices, (Four Corners for east resources) less wind integration costs.
Wheeling Revenues	Zero unless the Transmission Projects have been included, or partially included, in a general rate case. After a rate case, the base will be the amount included in the test period, beginning on the rate effective date of that case.	The EBA has a 100% pass through of wheeling revenues. The RTM will capture any incremental Transmission Projects wheeling revenues associated with the Transmission Project not included in the EBA.	Any incremental third-party wheeling revenues associated with the Transmission Projects, if any, not included in the EBA or in base rates
PTC	Zero until the next general rate case. After a rate case, the base will be the amount included in the test period, starting on the rate effective date, associated with the Wind Projects.	Actual MWh eligible for PTC produced by the Wind Projects multiplied by the production tax rate.	Difference between the base and actual. Tracked until Wind Project PTC's have expired, and have been reset to zero in base rates.

Rocky Mountain Power
Exhibit RMP___(JRS-2SS)
Docket No. 17-035-40
Witness: Joelle R. Steward

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony
of Joelle R. Steward

Example Annual RTM Deferral Calculation – Revenue Requirement

February 2018

PacifiCorp

Utah

Combined Projects - Example Annual RTM Deferral Calculation

Revenue Requirement

Table 1

The Combined Projects Estimated Revenue Requirement Cost (Benefit)				
\$thousands				
	2020	2021	2022	2023
1 Total Company Revenue Requirement	(4,963)	77,910	62,335	45,268
2 Utah Allocated	(2,116)	33,185	26,546	19,271
3 Utah EBA	(5,889)	(39,206)	(39,662)	(40,410)
4 Utah Deferral	3,774	72,391	66,208	59,681
5 Net Customer Impact	(2,116)	33,185	26,546	19,271

Line No.	\$-Thousands	Reference	(a) Total Company	(b) Factor	(c) Energy Gateway	(d) Utah Allocated	(e) Total Company	(f) Factor	(g) Energy Gateway	(h) Utah Allocated	(i) Total Company	(j) Factor	(k) Energy Gateway	(l) Utah Allocated	(m) Total Company	(n) Factor	(o) Energy Gateway	(p) Utah Allocated
1	Plant Revenue Requirement																	
2	Capital Investment	Footnote 1	184,543	SG	42.6283%	78,668	2,243,590	SG	42.6283%	956,404	2,245,712	SG	42.6283%	957,309	2,247,493	SG	42.6283%	958,068
3	Depreciation Reserve	Footnote 1	(5,18)	SG	42.6283%	(221)	(40,825)	SG	42.6283%	(17,403)	(106,296)	SG	42.6283%	(95,312)	(171,798)	SG	42.6283%	(73,235)
4	Accumulated DIT Balance	Footnote 1	(4,85)	SG	42.6283%	(207)	(116,704)	SG	42.6283%	(49,749)	(210,979)	SG	42.6283%	(89,937)	(266,462)	SG	42.6283%	(113,588)
5	Net Rate Base	sum of lines 1-3	183,541			78,240	2,086,061			889,252	1,928,436			822,060	1,809,233			771,245
6	Pre-Tax Rate of Return	line 37	9.209%			9.209%	9.209%			9.209%	9.209%			9.209%	9.209%			9.209%
7	Pre-Tax Return on Rate Base	line 4 * line 5	16,903			7,206	192,115			81,895	177,599			75,707	166,621			71,028
8	Wholesale Wheeling Revenue	Footnote 4	(984)	SG	42.6283%	(419)	(11,057)	SG	42.6283%	(4,713)	(10,767)	SG	42.6283%	(4,590)	(10,469)	SG	42.6283%	(4,463)
9	Operation & Maintenance	Footnote 3	4,501	SG	42.6283%	1,918	25,370	SG	42.6283%	10,815	25,811	SG	42.6283%	11,003	26,201	SG	42.6283%	11,169
10	Depreciation	Footnote 3	10,840	SG	42.6283%	4,621	65,445	SG	42.6283%	27,896	65,483	SG	42.6283%	27,914	65,560	SG	42.6283%	27,944
11	Property Taxes	Footnote 3	-	GPS	42.4704%	-	17,145	GPS	42.4704%	7,281	16,677	GPS	42.4704%	7,083	16,176	GPS	42.4704%	6,870
12	Wind Tax	Footnote 3	-	SG	42.6283%	-	-	SG	42.6283%	-	-	SG	42.6283%	-	706	SG	42.6283%	301
13	Total Plant Revenue Requirement	sum of lines 6-11	31,260			13,326	289,018			123,176	274,802			117,117	264,794			112,851
14	Net Power Cost																	
15	NPC Incremental Savings	Footnote 3	(12,832)	SG	42.6283%	(5,470)	(80,916)	SG	42.6283%	(34,493)	(82,274)	SG	42.6283%	(35,072)	(84,326)	SG	42.6283%	(35,947)
16	PTC Benefit																	
17	PTC Benefit in Base Rates	Footnote 3	(17,640)	SG	42.6283%	(7,519)	(98,182)	SG	42.6283%	(41,853)	(98,182)	SG	42.6283%	(41,853)	(101,958)	SG	42.6283%	(43,463)
18	Net PTC	Footnote 3	(17,640)			(7,519)	(98,182)			(41,853)	(98,182)			(41,853)	(101,958)			(43,463)
19	Gross - up for taxes	sum of lines 14 and 15	(5,751)			(2,452)	(32,010)			(13,645)	(32,010)			(13,645)	(33,242)			(14,170)
20	PTC Revenue Requirement	sum of lines 16 and 17	(23,391)			(9,971)	(130,192)			(55,499)	(130,192)			(55,499)	(135,200)			(57,633)
21	Rev. Requirement	sum of lines 12, 13, 18	(4,963)			(2,116)	77,910			33,185	62,335			26,546	45,268			19,271
22	Adjustment for EBA Pass-through																	
23	Wholesale Wheeling Revenue	line 7				(419)				(4,713)				(4,590)				(4,463)
24	Percentage included in EBA (100%)	UT EBA Sharing %				100%				100%				100%				100%
25	EBA Pass-through	line 20 - line 21				(419)				(4,713)				(4,590)				(4,463)
26	NPC Incremental Savings	line 13				(5,470)				(34,493)	(98,182)			(35,072)	(101,958)			(43,463)
27	Percentage included in EBA (100%)	UT EBA Sharing %				100%				100%	(32,010)			100%	(101,958)			(43,463)
28	EBA Pass-through	line 23 - line 24				(5,470)				(34,493)	(130,192)			(35,072)	(135,200)			(57,633)
29	Rev. Req't. after EBA Pass-through	line 19 - line 22 - line 25				3,774				72,391	62,335			66,208	45,268			19,271
30	Total Deferral - UT Share	sum of lines 22, 25, 27				3,774				72,391	62,335			66,208	45,268			19,271
31	Net Customer Benefit					(2,116)				33,185				26,546				
32	Deferral Balance - UT Share																	
33	Beginning Deferral Balance	line 33 of previous year				-				3,779				75,335				93,948
34	Monthly Deferral	line 27				3,774				72,391				66,208				59,681
35	Deferral Collection	Footnote 3				-				(2,519)				(87,744)				(3,519)
36	Carrying Charge	Footnote 3				5				1,684				3,888				69,405
37	Ending Deferral Balance	sum of lines 29 - 32				3,779				75,335				93,948				
38	Federal/State Combined Tax Rate	JRS-4SS, line 5	24.587%															
39	Net to Gross Bump up Factor = (1/(1-tax rate))	JRS-4SS, line 6	1.3260															
40	Deferred Balance Carrying Charge	Footnote 2	4.19%															
41	Pre-tax Return	JRS-4SS, line 4	9.209%															
42	Property Tax Rate	JRS-4SS, line 14	0.77%															
43	Utah SG Factor	JRS-4SS, line 15	42.6283%															
44	Utah GPS Factor	JRS-4SS, line 16	42.4704%															

Carrying Charge Order approved in Docket Nos. 17-035-T02 and 15-035-69
13-036-184 Capital Structure & Cost - Ordered
Property Tax Expense as a percent of Net plant from 13-035-184

Footnotes:

- 1) Capital balances equal the average of the monthly balances in JRS-3SS with a one month delay
- 2) Carrying Charge (line 29) is applied to average monthly delinquent balances
- 3) Equals the sum of each year's monthly values in JRS-3SS
- 4) Includes Wholesale Wheeling Revenue offset for transmission asset credit already in base rates

Rocky Mountain Power
Exhibit RMP____(JRS-3SS)
Docket No. 17-035-40
Witness: Joelle R. Steward

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony
of Joelle R. Steward

Example Monthly RTM Deferral Calculation – Revenue Requirement

February 2018

PacifiCorp
Utah
Combined Projects - Example Monthly RTM Deferral Calculation
Revenue Requirement

Line No.	\$-Thousands	Reference	2020 January	2020 February	2020 March	2020 April	2020 May	2020 June	2020 July	2020 August	2020 September	2020 October	2020 November	2020 December
Total Company														
Plant Revenue Requirement														
1	Capital Investment		-	-	-	-	-	-	-	-	-	299,660	1,914,862	2,241,011
2	Depreciation Reserve		-	-	-	-	-	-	-	-	-	(821)	(5,391)	(10,840)
3	Accumulated DIT Balance		-	-	-	-	-	-	-	-	-	-	(5,820)	(74,957)
4	Net Rate Base	sum of lines 1-3	-	-	-	-	-	-	-	-	-	298,839	1,903,650	2,155,214
5	Pre-Tax Rate of Return	line 37	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%
6	Pre-Tax Return on Rate Base	Footnote 1	-	-	-	-	-	-	-	-	-	-	2,293	14,610
7	Wholesale Wheeling Revenue	Footnote 2	-	-	-	-	-	-	-	-	-	-	(167)	(817)
8	Operation & Maintenance		-	-	-	-	-	-	-	-	-	-	2,250	2,250
9	Depreciation		-	-	-	-	-	-	-	-	-	821	4,570	5,449
10	Property Taxes		-	-	-	-	-	-	-	-	-	-	-	-
11	Wind Tax	Prior December (line 1 + line 2) x line 37	-	-	-	-	-	-	-	-	-	-	-	-
12	Total Plant Revenue Requirement	sum of lines 6-11	-	-	-	-	-	-	-	-	-	821	8,947	21,492
Net Power Cost														
13	NPC Incremental Savings	See Exhibit JRS-4SS	-	-	-	-	-	-	-	-	-	-	(6,416)	(6,416)
PTC Benefit														
14	PTC Benefit		-	-	-	-	-	-	-	-	-	-	(8,820)	(8,820)
15	PTC Benefit in Base Rates		-	-	-	-	-	-	-	-	-	-	-	-
16	Net PTC	sum of lines 14 and 15	-	-	-	-	-	-	-	-	-	-	(8,820)	(8,820)
17	Gross-up for taxes	line 16 * (line 35 - 1)	-	-	-	-	-	-	-	-	-	-	(2,876)	(2,876)
18	PTC Revenue Requirement	sum of line 16 and 17	-	-	-	-	-	-	-	-	-	-	(11,695)	(11,695)
Rev. Requirement														
19	Rev. Requirement	sum of lines 12, 13 and 18	-	-	-	-	-	-	-	-	-	821	(9,164)	3,380
Adjustment for EBA Pass-through														
20	Wholesale Wheeling Revenue	line 7	-	-	-	-	-	-	-	-	-	-	(167)	(817)
21	Percentage included in EBA (100%)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
22	EBA Pass-through	line 20 * line 21	-	-	-	-	-	-	-	-	-	-	(167)	(817)
23	NPC Incremental Savings	line 13	-	-	-	-	-	-	-	-	-	-	(6,416)	(6,416)
24	Percentage included in EBA (100%)	line 23 * line 24	-	-	-	-	-	-	-	-	-	-	(6,416)	(6,416)
25	EBA Pass-through	line 19 - line 22 - line 25	-	-	-	-	-	-	-	-	-	821	(2,582)	10,613
26	Rev. Req't after EBA Pass-through		-	-	-	-	-	-	-	-	-	-	-	-
Utah Allocated														
27	Total Deferral - UT Share	(Ln 26 - ln 10) * ln 39 + ln 10 * ln 40	-	-	-	-	-	-	-	-	-	-	(1,101)	4,524
28	Net Customer Benefit	(line 22 + line 25) * line 36 + line 24	-	-	-	-	-	-	-	-	-	350	(3,907)	1,441
Deferral Balance - UT Share														
29	Beginning Deferral Balance	line 33 of previous month	-	-	-	-	-	-	-	-	-	-	351	(751)
30	Monthly Deferral	line 24	-	-	-	-	-	-	-	-	-	-	(1,101)	4,524
31	Deferral Collection	Footnote 3	-	-	-	-	-	-	-	-	-	-	-	-
32	Carrying Charge	(ln 29 + ln 30 + ln 31) * ln 36	-	-	-	-	-	-	-	-	-	-	1	(1)
33	Ending Deferral Balance	sum of lines 29-32	-	-	-	-	-	-	-	-	-	-	351	(751)
34	Federal/State Combined Tax Rate	JRS-4SS, line 5	24.587%											
35	Net to Gross Bump-up Factor = (1/(1-tax rate))	JRS-4SS, line 6	1.3260											
36	Deferred Balance Carrying Charge	see JRS-2SS Page 2 line 36	4.19%											
37	Pre-tax Return	JRS-4SS, line 4	9.209%											
38	Property Tax Rate	JRS-4SS, line 14	0.77%											
39	Utah SG Factor	JRS-4SS, line 15	42.6283%											
40	Utah GPS Factor	JRS-4SS, line 16	42.4704%											

Footnotes:
1) Pre-tax Return, line 6, is calculated as the rate of return (line 5) multiplied by the ending net rate base of the prior month (line 4) divided by 12
2) Includes Wholesale Wheeling Revenue offset for transmission asset credit already in base rates
3) For illustrative purposes, collection of December's balance is assumed to be collected beginning the following May 1

PacifiCorp
Utah
Combined Projects - Example Monthly RTM Deferral Calculation
Revenue Requirement

Line No.	\$-Thousands	Reference	2021 January	2021 February	2021 March	2021 April	2021 May	2021 June	2021 July	2021 August	2021 September	2021 October	2021 November	2021 December
Total Company														
Plant Revenue Requirement														
1	Capital Investment		2,241,011	2,241,011	2,241,011	2,241,011	2,245,221	2,245,221	2,245,499	2,245,499	2,245,499	2,245,499	2,245,593	2,245,593
2	Depreciation Reserve		(16,289)	(21,738)	(27,187)	(32,636)	(38,091)	(43,546)	(49,003)	(54,459)	(59,915)	(65,371)	(70,828)	(76,284)
3	Accumulated DIT Balance		(74,957)	(74,957)	(102,788)	(102,788)	(102,788)	(130,620)	(130,620)	(130,620)	(158,451)	(158,451)	(158,451)	(186,283)
4	Net Rate Base		2,149,765	2,144,316	2,111,036	2,105,587	2,104,342	2,071,055	2,065,877	2,060,420	2,027,133	2,021,676	2,016,314	1,983,026
5	Pre-Tax Rate of Return		9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%	9.209%
6	Pre-Tax Return on Rate Base		16,540	16,498	16,457	16,201	16,159	16,150	15,894	15,855	15,813	15,557	15,515	15,474
7	Wholesale Wheeling Revenue		(929)	(928)	(927)	(923)	(923)	(925)	(921)	(920)	(919)	(915)	(914)	(912)
8	Operation & Maintenance		2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114
9	Depreciation		5,449	5,449	5,449	5,449	5,455	5,455	5,456	5,456	5,456	5,456	5,457	5,457
10	Property Taxes		1,429	1,429	1,429	1,429	1,429	1,429	1,429	1,429	1,429	1,429	1,429	1,429
11	Wind Tax		-	-	-	-	-	-	-	-	-	-	-	-
12	Total Plant Revenue Requirement		24,603	24,562	24,521	24,270	24,235	24,223	23,972	23,934	23,893	23,642	23,601	23,561
Net Power Cost														
13	NPC Incremental Savings	See Exhibit JRS-4SS	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)
PTC Benefit														
14	PTC Benefit		(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)
15	PTC Benefit in Base Rates		(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)	(8,182)
16	Net PTC		(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)	(2,668)
17	Gross-up for taxes		(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)	(10,849)
18	PTC Revenue Requirement		7,010	6,970	6,929	6,678	6,643	6,631	6,380	6,342	6,301	6,050	6,009	5,969
Rev. Requirement														
19	Adjustment for EBA Pass-through		(929)	(928)	(927)	(923)	(923)	(925)	(921)	(920)	(919)	(915)	(914)	(912)
20	Wholesale Wheeling Revenue		(929)	(928)	(927)	(923)	(923)	(925)	(921)	(920)	(919)	(915)	(914)	(912)
21	Percentage included in EBA (100%)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
22	EBA Pass-through		(929)	(928)	(927)	(923)	(923)	(925)	(921)	(920)	(919)	(915)	(914)	(912)
23	NPC Incremental Savings		(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)
24	Percentage included in EBA (100%)		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
25	EBA Pass-through		(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)	(6,743)
26	Rev. Req. after EBA Pass-through		14,683	14,641	14,599	14,344	14,308	14,299	14,044	14,005	13,963	13,707	13,666	13,624
Utah Allocated														
27	Total Deferral - UT Share	(Ln 26 - ln 10) * ln 39 + ln 10 * ln 40	6,257	6,239	6,221	6,112	6,097	6,093	5,985	5,968	5,950	5,841	5,823	5,806
28	Net Customer Benefit	(line 22 + line 25) * line 36 + line 24	2,986	2,969	2,951	2,844	2,829	2,824	2,717	2,701	2,684	2,577	2,559	2,542
Deferral Balance - UT Share														
29	Beginning Deferral Balance	line 33 of previous month	3,779	10,060	16,345	22,634	28,836	34,729	40,638	46,460	52,285	58,112	63,951	69,591
30	Monthly Deferral	line 24	6,257	6,239	6,221	6,112	6,097	6,093	5,985	5,968	5,950	5,841	5,823	5,806
31	Deferral Collection	Footnote 3	-	-	-	-	-	(315)	(315)	(315)	(315)	(315)	(315)	(315)
32	Carrying Charge	(ln 29 + 6 * (ln 30 + ln 31)) * ln 36	24	46	68	90	111	131	152	172	192	213	233	253
33	Ending Deferral Balance	sum of lines 29-32	10,060	16,345	22,634	28,836	34,729	40,638	46,460	52,285	58,112	63,951	69,591	75,335
34	Federal/State Combined Tax Rate	JRS-4SS, line 5												
35	Net to Gross Bump-up Factor = (1/(1-tax rate))	JRS-4SS, line 6												
36	Deferred Balance Carrying Charge	see JRS-2SS Page 2 line 36												
37	Pre-tax Return	JRS-4SS, line 4												
38	Property Tax Rate	JRS-4SS, line 14												
39	Utah SG Factor	JRS-4SS, line 15												
40	Utah GPS Factor	JRS-4SS, line 16												

Footnotes:
1) Pre-tax Return, line 6, is calculated as the rate of return (line 5) multiplied by the ending net rate base of the prior month (line 4) divided by 12
2) Includes Wholesale Wheeling Revenue offset for transmission asset credit already in base rates
3) For illustrative purposes, collection of December's balance is assumed to be collected beginning the following May 1

Footnotes:

- 1) Pre-tax Return, line 6, is calculated as the rate of return (line 5) multiplied by the ending net rate base of the prior month (line 4) divided by 12
- 2) Includes Wholesale Wheeling Revenue offset for transmission asset credit already in place rates
- 3) For illustrative purposes, collection of December's balance is assumed to be collected beginning the following May 1

Footnotes:

1) Pre-tax Return, line 6, is calculated as the rate of return (line 5) multiplied by the ending net rate base of the prior month (line 4) divided by 12

2) Includes Wholesale Wheeling Revenue offset for transmission asset credit already in place rates

3) For illustrative purposes, collection of December's balance is assumed to be collected beginning the following May 1

PacifiCorp
Utah
Combined Projects - Example Monthly RTM Deferral Calculation
Revenue Requirement

Total Plant Revenue Requirement (Lines 1 - 12, 37):

Exhibit JRS-3SS shows the calculation of the RTM revenue requirement deferral described in my testimony. The calculation starts with total Company amounts on lines 1 - 26 to calculate the Utah specific amounts on lines 27 - 33. To calculate the return on rate base associated with the combined investment, net rate base is calculated on a monthly basis. The net rate base balance on line 4 includes the combined investment in wind and transmission resources, along with the associated impacts on the depreciation reserve and accumulated DIT Balance. The monthly beginning net rate base (the final amount from the prior month) is then multiplied by the pre-tax Weighted Average Cost of Capital ("WACC") from the last Utah general rate case, updated for the new tax law, on line 5 to determine the Company's pre-tax return on rate base on line 6. The example uses the pre-tax WACC from Docket No. 13-035-15. The total plant revenue requirement is calculated by taking the return on rate base shown on line 6 and adding wholesale wheeling revenue, O&M expense, depreciation expense, property taxes and wind tax on lines 7 - 11 to determine the total plant revenue requirement on line 12. Wholesale wheeling revenue on line 7 reflects the 3rd party wheeling revenue associated with the new transmission investment and is multiplied by one hundred percent on line 21 to determine the amount of wheeling revenue that will be returned to customers through the sharing band of the EBA.

Net Power Costs (Line 13):

The total company incremental NPC savings associated with new wind resources is shown on line 13. The incremental NPC savings associated with the new wind projects are multiplied by one hundred percent on line 24 to determine the amount of the NPC savings that will be returned to customers through the sharing band of the EBA.

PTC Benefits (Lines 14-18, 34, 35):

Lines 14-18 show the calculation of the PTC benefits associated with the new wind resources. The actual PTC sales are grossed-up for taxes using the net-to-gross bump-up factor from the Company's last general rate case (shown on line 35 - updated for the new tax law) to derive the PTC revenue requirement on line 18. The tax gross-up is necessary for customers to get the full revenue requirement benefit of the PTCs and is calculated using the federal and state combined tax rate shown on line 34, which was also included in the last general rate case.

Deferral Balance (Lines 19 - 30):

The Utah share of the net deferral begins by calculating the total combined project revenue requirement on line 19, which is the sum of Total Plant Revenue Requirement on line 12, NPC Incremental Savings on line 13, and PTC Revenue Requirement on line 18. The Wholesale Wheeling Revenue pass-through on line 22 and the NPC EBA pass-through on line 25 are subtracted to provide the Revenue Requirement after EBA Pass-through on line 26. The Net Customer Benefit (line 28) is the sum of the EBA Pass-throughs (line 22 and line 25) and the Total Deferral - Utah Share (line 27). The carrying charge, shown on line 32 is calculated using the Commission-authorized rate on line 36 from the Carrying Charge Order approved in Docket Nos. 17-035-T02 and 15-035-69. As described earlier, each month the total-Company RTM revenue requirement will be calculated as illustrated on Exhibit JRS-3SS to align with the resources included in the EBA. Once per year on a calendar-year basis, the Company will sum the monthly RTM revenue requirement entries to prepare the annual RTM application for filing with the Commission on March 15, with an interim rate effective date that corresponds with the EBA application, May 1.

Rocky Mountain Power
Exhibit RMP____(JRS-4SS)
Docket No. 17-035-40
Witness: Joelle R. Steward

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF UTAH

ROCKY MOUNTAIN POWER

Exhibit Accompanying Second Supplemental Direct Testimony
of Joelle R. Steward

Capital Structure, Property Tax Rate, and Net Power Cost Description

February 2018

**PacifiCorp
Utah**

Combined Projects - Capital Structure, Income Tax Rate, Property Tax Rate
Allocation Factors and Net Power Cost Description

13-035-184 Capital Structure & Cost

Updated with new consolidated tax rate consistent with the new tax law
Effective 9/1/2014

Line no.	Capital Structure	Capital Structure	Capital Cost	Weighted Cost	Pre-Tax Cost
1	Debt	48.556%	5.200%	2.525%	2.525%
2	Preferred	0.016%	6.753%	0.001%	0.001%
3	Common	51.428%	9.800%	5.040%	6.683%
4			TOTAL	7.566%	9.209%
5	Consolidated Tax Rate		24.587%		
6	Tax Gross-up factor for PTC = (1/(1 - tax rate))		1.3260		
Property Tax Calculation as filed in Docket Number 13-035-184					
7	Total Company				134,961,526
8	Utah GPS Factor				42.4704%
9	Utah Property Taxes				57,318,700
10	Utah Gross EPIS				10,912,081,614
11	Utah Accum. Depr.				(3,234,910,020)
12	Utah Accum. Amort.				(221,249,967)
13	Utah Net EPIS				7,455,921,626
14	Estimated Utah Property Tax Rate				0.769%
15	Utah SG Factor - Docket No. 13-035-184				42.6283%
16	Utah GPS Factor - Docket No. 13-035-184				42.4704%

Net Power Cost Incremental Savings Calculation and Definitions

Incremental Generation = Wind Plant Generation MWh – Base Wind Plant Generation MWh

NPC Incremental Savings

$$= [\text{Incremental Gen}_{HLH} \times (\text{Monthly Market Price}_{HLH} - \text{Integration Costs})] \\ + [\text{Incremental Gen}_{LLH} \times (\text{Monthly Market Price}_{LLH} - \text{Integration Costs})]$$

RTM NPC Benefit = NPC Incremental Savings × EBA Sharing Band, if applicable

Where:

Incremental Generation = The increase in generation at the wind plants due to the Wind Projects

Wind Plant Generation MWh = The wind plant generation associated with the Wind Projects

Base Wind Plant Generation MWh = The wind plant generation associated with the Wind Projects that is included in base rates.

Incremental Gen_{HLH} = The increase in generation at the wind plant due to the Wind Projects during heavy load hours

Incremental Gen_{LLH} = The increase in generation at the wind plant due to Wind Projects during light load hours

Monthly Market Price_{HLH} = Heavy load hour monthly market price

Monthly Market Price_{LLH} = Light load hour monthly market price

Integration Costs = Wind integration costs from the most recent IRP

RTM NPC Benefit = The NPC benefit absorbed by the Company in the EBA as a result of the sharing band, if applicable