

August 12, 2022

***VIA ELECTRONIC FILING***

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

Attention: Gary Widerburg  
Commission Administrator

**Re: Docket No. 21-035-52**  
**In the Matter of Rocky Mountain Power's Application for Approval of a Solicitation Process for 2022 All Source Request for Proposals**  
*Motion to Amend Appendix O of the 2022 All Source Request for Proposals*

Pursuant to Utah Admin. Code 746-1-301 and the April 22, 2022, order of the Commission approving Rocky Mountain Power's 2022 All Source Request for Proposals ("2022AS RFP"), PacifiCorp dba Rocky Mountain Power ("Company" or "RMP") hereby submits this motion to amend Appendix O to the 2022AS RFP ("Motion") to the Public Service Commission of Utah ("Commission").

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](mailto:datarequest@pacificorp.com)  
[jana.saba@pacificorp.com](mailto:jana.saba@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,



Joelle Steward  
Senior Vice President, Regulation

cc: Service List Docket No. 21-035-52

**CERTIFICATE OF SERVICE**

Docket No. 21-035-52

I hereby certify that on August 12, 2022, a true and correct copy of the foregoing was served by electronic mail to the following:

**Utah Office of Consumer Services**

Alyson Anderson [akanderson@utah.gov](mailto:akanderson@utah.gov)  
Bela Vastag [bvastag@utah.gov](mailto:bvastag@utah.gov)  
Alex Ware [aware@utah.gov](mailto:aware@utah.gov)  
[ocs@utah.gov](mailto:ocs@utah.gov)

**Division of Public Utilities**

Madison Galt [mgalt@utah.gov](mailto:mgalt@utah.gov)  
[dpudatarequest@utah.gov](mailto:dpudatarequest@utah.gov)

**Assistant Attorney General**

Patricia Schmid [pschmid@agutah.gov](mailto:pschmid@agutah.gov)  
Robert Moore [rmoore@agutah.gov](mailto:rmoore@agutah.gov)

**Interwest Energy Alliance**

Lisa Tormoen Hickey [lisahickey@newlawgroup.com](mailto:lisahickey@newlawgroup.com)  
Nate Blouin [nate@interwest.org](mailto:nate@interwest.org)

**Utah Association of Energy Users**


Phillip J. Russell [prussell@jdrslaw.com](mailto:prussell@jdrslaw.com)  
Kevin C. Higgins [khiggins@energystrat.com](mailto:khiggins@energystrat.com)

**Western Resource Advocates**

Sophie Hayes [sophie.hayes@westernresources.org](mailto:sophie.hayes@westernresources.org)  
Nancy Kelly [nkelly@westernresources.org](mailto:nkelly@westernresources.org)  
Callie Hood [callie.hood@westernresources.org](mailto:callie.hood@westernresources.org)

**Rocky Mountain Power**

Data Request Response Center [datarequest@pacificorp.com](mailto:datarequest@pacificorp.com)  
Jana Saba [jana.saba@pacificorp.com](mailto:jana.saba@pacificorp.com)  
[utahdockets@pacificorp.com](mailto:utahdockets@pacificorp.com)  
Emily Wegener [emily.wegener@pacificorp.com](mailto:emily.wegener@pacificorp.com)

  
Carrie Meyer  
Adviser, Regulatory Operations

Emily Wegener (12275)  
Rocky Mountain Power  
1407 W North Temple, Suite 320  
Salt Lake City, UT 84116  
Telephone: (801) 220-4526  
Facsimile: (801) 220-4615  
[emily.wegener@pacificorp.com](mailto:emily.wegener@pacificorp.com)  
*Attorney for Rocky Mountain Power*

**BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH**

---

	)	
	)	Docket No. 21-035-52
	)	
In the Matter of the Application of	)	<b>MOTION FOR APPROVAL OF</b>
Rocky Mountain Power for Approval of a	)	<b>CHANGES TO APPENDIX O TO</b>
Solicitation Process for 2022 All Source	)	<b>THE 2022 ALL SOURCE</b>
Request for Proposals	)	<b>REQUEST FOR PROPOSALS</b>
	)	
	)	
	)	

---

Pursuant to Utah Admin. Code 746-1-301 and the April 22, 2022, order of the Commission approving Rocky Mountain Power’s 2022 All Source Request for Proposals (“2022AS RFP”), PacifiCorp dba Rocky Mountain Power (“Company” or “RMP”) hereby submits this motion to amend Appendix O to the 2022 All Source Request for Proposals (“Motion”) to the Public Service Commission of Utah (“Commission”).

**INTRODUCTION**

On April 22, 2022, the Company received Commission approval to conduct a solicitation process pursuant to Utah Code section 54-17-201–202 and Utah Administrative Code R746-420-1–6 for approximately 1,345 MW of renewable and non-renewable resources and 600 MW of battery storage to be delivered to RMP’s system for service on or before December 31, 2027. The

Commission's Order stated: "RMP will not add or subtract a benchmark option for Appendix O of the RFP or submit a final list of benchmark resources that is inconsistent with the information disclosed in Appendix O without first seeking and obtaining approval from the PSC to do so." Since the Company's Application was filed on January 26, 2022, the composition of benchmark resources the Company intends to submit to the 2022AS RFP has changed. Specifically, the Company is no longer considering 21 resources that were included in Appendix O and has added 14 resources that were not originally included in Appendix O. The Company decided to remove certain resources from Appendix O due to lack of continued interest from third-party developers and/or lack of project readiness. Projects added to Appendix O were identified as potential opportunities after the Company's Application was originally filed.

The Company does not anticipate adding any additional resources before the November 21, 2022, date for submission of benchmark resources. However, it is possible that the negotiations with some of the resources included in the revised Appendix O will not result in a benchmark resource or a resource may receive an unfavorable interconnection cluster study, which may render such projects undesirable as a benchmark resource. Therefore, in addition to seeking approval for the revised Appendix O, the Company also seeks permission from the Commission for the ability to subtract resources from the final benchmarks without seeking prior approval should negotiations with those resources fall through.

## **BACKGROUND**

The Company is a public utility that provides electric service to retail customers through its Rocky Mountain Power division in the States of Utah, Wyoming, and Idaho, and through its Pacific Power division in the states of Oregon, California and Washington. Rocky Mountain Power is subject to the Commission's jurisdiction with respect to its prices and terms of electric service

to retail customers in Utah. The Company serves approximately 948,000 customers in Utah. Rocky Mountain Power's principal place of business in Utah is 1407 West North Temple Street, Salt Lake City, Utah 84116.

The Application notified the Commission of the Company's intent to propose certain self-build and purchase resource options and "benchmark" resources. Under Utah Code § 54-17-102, a "benchmark option" is an energy resource that could be constructed or owned by the Company, and against which bids in an open bid process may be evaluated. A benchmark option may be a purchase of electricity, electric generating capacity, or both. The Company included a list of benchmark resources in Appendix O to the 2022AS RFP.

In comments relating to the Company's 2022AS RFP, the Office of Consumer Services and the Division of Public Utilities each addressed benchmark resources in their comments, concerned that the Company had not provided the requisite information about the benchmark resources in Appendix O of the 2022AS RFP. PacifiCorp disagreed and the Commission upheld the Company's position. However, the Commission noted that the listed resources "should be reasonably representative of the benchmark options actually bid into the RFP by the November 2022 deadline." Order at 7. Accordingly, the Commission ordered that: "RMP will not add or subtract a benchmark option from Appendix O of the RFP or submit a final list of benchmark resources that is inconsistent with the information disclosed in Appendix O without first seeking and obtaining approval from the PSC to do so."

### **MOTION**

The Company moves for approval to substitute Amended Appendix O, attached hereto as Exhibit 1, for the Appendix O originally included with the 2022AS RFP. Given the length of time that the solicitation process has spanned, it makes sense that project economics for some of the

original Appendix O benchmarks would shift. The Company has also become aware of additional options that it previously had not considered or included in Appendix O. There are still three months remaining before benchmark bids must be submitted through the 2022AS RFP. Therefore, this Amended Appendix O gives ample notice to other bidders about the projects the Company intends to include as benchmark resources. As required by Utah Admin. Code R746-420-3(4)(f), the Company will make no modifications to any benchmark option after it submits the benchmark options in November 2022. The benchmark options will continue to be overseen by the Independent Evaluator to ensure fair treatment of all bid submissions.

While the Company is committed to not adding resources to its proposed Amended Appendix O, not all negotiations with the benchmark resources included in Amended Appendix O are complete, and some resources are dependent upon favorable interconnection cluster study results. It is possible that the Company will choose not to submit some of these projects to the 2022AS RFP. Allowing the Company the ability to remove projects without approval from the Commission will avoid administrative burden to both the Company and Commission without harming other 2022AS RFP bidders since removing projects would not negatively affect other bidders. Therefore, in addition to approving the substitution of Amended Appendix O, the Company also seeks a ruling that it may subtract resources from Amended Appendix O without Commission approval.

### **CONCLUSION**

WHEREFORE, based on the foregoing and by this Motion, the Company respectfully requests that the Commission issue an order approving the Company's revised Appendix O and allowing the Company to remove resources from Appendix O if it determines not to include them as benchmark options by the November 21, 2022 submission deadline.

DATED this 12<sup>th</sup> day of August, 2022.

Respectfully submitted,

ROCKY MOUNTAIN POWER

A handwritten signature in blue ink that reads "Emily Wegener". The signature is written in a cursive style with a small dot above the 'i' in "Emily".

---

Emily Wegener

*Attorney for Rocky Mountain Power*

EXHIBIT 1  
REDLINE APPENDIX O



**APPENDIX O**

**PacifiCorp’s Company Alternative (Benchmark Resources)**

**Proposed 2022AS RFP Company Benchmark Resources**

- PacifiCorp intends to submit up to thirty-seven (307) individual Benchmark Resources. Benchmark Resources will be comprised of Market Options and Owned Options. For each of the Market Options, PacifiCorp will have a purchase option to purchase the entire project outright. Market Option resources will not be eligible to be bid into the RFP separately as either PPA or BTA bids.
- These will be new greenfield resources that will be constructed across PacifiCorp’s transmission system.
- To be built on property either currently owned or leased by PacifiCorp, or on property that PacifiCorp will acquire rights to develop.
- Prospective Benchmark Resource sizes and tie-in locations as shown below:

Size (MW)	Technology	Benchmark Option Type	Location (POI)	Interconnection Status	Expected Life	Expected Efficiency	State
80	Wind	Market	BPA- Schultz Switchyard	N/A	30	TBD	WA
100	Solar	Market	Grandview 115kV Substation	N/A	25	TBD	WA
120	Wind	Market	Whitney 138kV Tap	LGIA Signed	30	32-36%	WY
150	Wind	Market	Colstrip Substation	LGIA Signed	30	33-37%	MT
150	Storage	Market	Troutdale Substation	N/A	20	TBD	OR
199	Solar	Market	Diamond Hill Substation	Studied in 2021 Interconnection Cluster	25	27-31%	OR
199	Solar	Market	Fry Substation	Studied in 2021 Interconnection Cluster	25	27-31%	OR
199	Solar	Market	Black Rock Substation	Studied in 2021 Interconnection Cluster	25	28-32%	UT
200	Solar	Market	Yamsay – Klamath 230kV Tap	N/A	25	TBD	OR
199.9	Storage	Market Owned	Clover Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster Submitted on 4/1/22	20	89-92%	UT
200	Storage	Market	Mercer Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster To be studied in 2022 Interconnection Cluster	20	TBD 85-90%	UT
200	Solar	Market	Mercer Substation	Under study in PacifiCorp’s 2021 Interconnection	25	28-32% 27-31%	UT

				<u>Cluster Studied in 2021 Interconnection Cluster</u>			
302	Solar	Market	Clover 345kV Substation	N/A	25	TBD	UT
330	Wind	Market	IPC- Boise Bench-Midpoint #2-230kV	N/A	30	TBD	ID
400	Solar	Market	Summer Lake-Burns 500kV Tap	N/A	25	TBD	OR
600	Wind	Market	Midpoint Substation	N/A	30	TBD	ID
600	Solar	Market	Borah Substation	N/A	25	TBD	ID
800	Wind	Market	Rogerson Substation	N/A	30	TBD	ID
30	Solar	Owned	Gunnison-Sigurd #1 Tap	LGIA Signed	25	27-31%	UT
35	Solar	Owned	Ponderosa Substation	LGIA Signed	25	28-32%	OR
5099	Solar	Owned	Horseshoe - Jensen 138kV Tap	<u>To be studied in 2022 Interconnection Under study in PacifiCorp's 2022 Interconnection Cluster</u>	25	<u>28-32% 27-31%</u>	UT
80	Solar	Owned	Bar Nunn Substation	<u>Submitted LGIA Signed</u>	25	26-30%	WY
100	Wind	<u>Owned Market</u>	Evanston-Anschutz Tap	LGIA Signed	30	31-34%	UT
<u>119101.2</u>	Solar	Owned	Windstar Substation	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 3/4/2022</u>	25	19-23%	WY
160	Solar	Owned	Casper Substation	LGIA Signed; <u>Submitted</u>	25	26-29%	WY
178	Solar	Owned	Emery Substation	LGIA Signed	25	27-31%	UT
199.9	Storage	Owned	Aeolus Substation	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 4/1/22</u>	20	88-92%	WY
199.9	Storage	Owned	Anticline Substation	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 4/1/22</u>	20	88-92%	WY
199.9	Storage	Owned	Mona Substation	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 4/1/22</u>	20	88-92%	UT
199.9	Storage	Owned	Snow Goose Substation	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 4/1/22</u>	20	88-92%	OR
<u>26648.4</u>	Solar	Owned	Shirley Basin Substation	<u>Under study in PacifiCorp's 2022</u>	25	20-24%	WY

				<u>Interconnection Cluster Submitted on 3/4/2022</u>			
<u>450</u>	<u>Wind</u>	<u>Owned</u>	<u>Goshen-Jefferson Tap</u> <u>Goshen-Antelope Tap</u>	<u>To be studied in 2022 Interconnection Cluster</u>	<u>30</u>	<u>33-36%</u>	<u>N/A</u>
<u>4648.4</u>	<u>Solar</u>	<u>Owned</u>	<u>Dunlap Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster Submitted on 3/4/2022</u>	<u>25</u>	<u>17-21%</u>	<u>N/A</u>
<u>393</u>	<u>Pumped Storage</u>	<u>Market</u>	<u>Malin Substation</u>	<u>LGIA Signed</u>	<u>50</u>	<u><del>79-83</del>70-80%</u>	<u>OR</u>
<u>400</u>	<u>Pumped Storage</u>	<u>Market</u>	<u>New Loco Mountain Substation</u>	<u>LGIA anticipated to be executed in April 2022 Signed</u>	<u>50</u>	<u><del>70-80</del>79-83%</u>	<u>NMT</u>
<u>500</u>	<u>Pumped Storage</u>	<u>Market</u>	<u>Rocky Reach-Columbia line (BPA or PSE)</u>	<u>BPA Interconnection Study in process</u>	<u>50</u>	<u><del>70-80</del>79-83%</u>	<u>WA</u>
<u>500</u>	<u>Pumped Storage</u>	<u>Market</u>	<u>Oquirrh Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster To be studied in 2022 Interconnection Cluster</u>	<u>50</u>	<u><del>70-80</del>79-83%</u>	<u>UT</u>
<u>199</u>	<u>Wind</u>	<u>Market</u>	<u>Union Gap – Midway 230kV tap</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>30</u>	<u>28-33%</u>	<u>WA</u>
<u>150-300</u>	<u>Wind</u>	<u>Market</u>	<u>New Loco Mountain Substation</u>	<u>Interconnection request currently being studied</u>	<u>30</u>	<u>33-38%</u>	<u>MT</u>
<u>87</u>	<u>Solar</u>	<u>Market</u>	<u>Mathington Substation</u>	<u>LGIA Signed</u>	<u>25</u>	<u>27-31%</u>	<u>UT</u>
<u>456</u>	<u>Wind</u>	<u>Market</u>	<u>Red Butte – Sigurd #2 345kV tap</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>30</u>	<u>27-32%</u>	<u>UT</u>
<u>153</u>	<u>Wind</u>	<u>Market</u>	<u>Bonneville-Goshen 161kV</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>30</u>	<u>31-36%</u>	<u>ID</u>
<u>206</u>	<u>Wind</u>	<u>Market</u>	<u>Goshen-Antelope 161kV</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>30</u>	<u>31-36%</u>	<u>ID</u>
<u>194</u>	<u>Solar</u>	<u>Owned</u>	<u>Dunlap Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>25</u>	<u>15-19%</u>	<u>WY</u>
<u>96.8</u>	<u>Solar</u>	<u>Owned</u>	<u>Bowler Flats Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>25</u>	<u>22-26%</u>	<u>MT</u>
<u>70</u>	<u>Solar</u>	<u>Owned</u>	<u>Emery-Clawson 138kV</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>25</u>	<u>29-33%</u>	<u>UT</u>
<u>125</u>	<u>Solar</u>	<u>Owned</u>	<u>Huntington – Pinto 345kV</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>25</u>	<u>29-33%</u>	<u>UT</u>
<u>199.9</u>	<u>Storage</u>	<u>Owned</u>	<u>Emery Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>20</u>	<u>88-92%</u>	<u>UT</u>
<u>199.9</u>	<u>Storage</u>	<u>Owned</u>	<u>Emery Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>20</u>	<u>88-92%</u>	<u>UT</u>

<u>199.9</u>	<u>Storage</u>	<u>Owned</u>	<u>Huntington Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>20</u>	<u>88-92%</u>	<u>UT</u>
<u>199.9</u>	<u>Storage</u>	<u>Owned</u>	<u>Huntington Substation</u>	<u>Under study in PacifiCorp's 2022 Interconnection Cluster</u>	<u>20</u>	<u>88-92%</u>	<u>UT</u>

- Benchmark Resource bids will include costs assumptions consistent with the main RFP document Section 6.C, and specifically Table 4, where the Company lists the characteristics which will be used to determine the Net Cost of benchmark bids. These inputs will be provided to the IEs for review and comment.
- PacifiCorp will administer a competitive supply solicitation(s), on a case-by-case basis, for the wind turbines, solar panels, and battery systems required for all Owned Benchmark Resources. Procurement of equipment for Market Benchmark Resources will be conducted by third-party developers in coordination with PacifiCorp.
- PacifiCorp will administer a separate competitive solicitation(s) to secure firm fixed pricing to engineer-procure-construct and commission the balance of plant for Owned Benchmark Resources. Agreements with contractors for engineering, procurement, construction, and commissioning for Market Benchmark Resources will be conducted by third-party developers in coordination with PacifiCorp.
- All projects are expected to be able to be placed in service no later than December 31, 2027 with the exception of long-lead time resources which will be bid with commercial operations dates no later than December 31, 2028.
- All solar generating resources noted above may be bid as collocated battery storage component up to 100% of the nameplate capacity of the solar project and a four (4) hour duration and may be bid separately as standalone solar subject to applicable bid fee requirements.
- Project efficiencies will be evaluated in coordination with experienced third-party engineers for Owned Benchmark Resources, and by third-party developers for Market Benchmark Resources in coordination with PacifiCorp.
- Transmission requirements, operating requirements, and dispatch requirements for Benchmark Resources will be evaluated pursuant to applicable Large Generator Interconnection Agreements and necessary Transmission Service Agreements for each resource.
- The Benchmark Resources will be constructed in compliance with PacifiCorp's specifications and technical standards.
- The Benchmark Resources will also include an operations and maintenance (O&M) building at each site or an addition to an existing PacifiCorp O&M facility.

- Benchmark Resources will include the following pro forma estimates for operations, maintenance and on-going capital expenditures:
  - Wind: 30 years
  - Solar & Solar plus Battery: 25 years
  - Battery: 20 years
  - Pumped Hydro Storage: 40-50 years (or federal license term)
- The Benchmark Resources costs will include allocated development costs, fees, permitting, project management and equipment costs.

EXHIBIT 1  
APPENDIX O

## APPENDIX O

### PacifiCorp’s Company Alternative (Benchmark Resources)

#### Proposed 2022AS RFP Company Benchmark Resources

- PacifiCorp intends to submit up to thirty (30) individual Benchmark Resources. Benchmark Resources will be comprised of Market Options and Owned Options. For each of the Market Options, PacifiCorp will have a purchase option to purchase the entire project outright. Market Option resources will not be eligible to be bid into the RFP separately as either PPA or BTA bids.
- These will be new greenfield resources that will be constructed across PacifiCorp’s transmission system.
- To be built on property either currently owned or leased by PacifiCorp, or on property that PacifiCorp will acquire rights to develop.
- Prospective Benchmark Resource sizes and tie-in locations as shown below:

Size (MW)	Technology	Benchmark Option Type	Location (POI)	Interconnection Status	Expected Life	Expected Efficiency	State
199.9	Storage	Owned	Clover Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	89-92%	UT
200	Storage	Market	Mercer Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	85-90%	UT
30	Solar	Owned	Gunnison-Sigurd #1 Tap	LGIA Signed	25	27-31%	UT
99	Solar	Owned	Horseshoe - Jensen 138kV Tap	Under study in PacifiCorp’s 2022 Interconnection Cluster	25	27-31%	UT
101.2	Solar	Owned	Windstar Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	25	19-23%	WY
178	Solar	Owned	Emery Substation	LGIA Signed	25	27-31%	UT
199.9	Storage	Owned	Aeolus Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	88-92%	WY
199.9	Storage	Owned	Anticline Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	88-92%	WY
199.9	Storage	Owned	Mona Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	88-92%	UT
199.9	Storage	Owned	Snow Goose Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	20	88-92%	OR
48.4	Solar	Owned	Shirley Basin Substation	Under study in PacifiCorp’s 2022 Interconnection Cluster	25	20-24%	WY

48.4	Solar	Owned	Dunlap Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	25	17-21%	N/A
393	Pumped Storage	Market	Malin Substation	LGIA Signed	50	70-80%	OR
400	Pumped Storage	Market	New Loco Mountain Substation	LGIA Signed	50	70-80%	MT
500	Pumped Storage	Market	Rocky Reach-Columbia line (BPA or PSE)	BPA Interconnection Study in process	50	70-80%	WA
500	Pumped Storage	Market	Oquirrh Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	50	70-80%	UT
199	Wind	Market	Union Gap – Midway 230kV tap	Under study in PacifiCorp's 2022 Interconnection Cluster	30	28-33%	WA
150-300	Wind	Market	New Loco Mountain Substation	Interconnection request currently being studied	30	33-38%	MT
87	Solar	Market	Mathington Substation	LGIA Signed	25	27-31%	UT
456	Wind	Market	Red Butte – Sigurd #2 345kV tap	Under study in PacifiCorp's 2022 Interconnection Cluster	30	27-32%	UT
153	Wind	Market	Bonneville-Goshen 161kV	Under study in PacifiCorp's 2022 Interconnection Cluster	30	31-36%	ID
206	Wind	Market	Goshen-Antelope 161kV	Under study in PacifiCorp's 2022 Interconnection Cluster	30	31-36%	ID
194	Solar	Owned	Dunlap Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	25	15-19%	WY
96.8	Solar	Owned	Bowler Flats Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	25	22-26%	MT
70	Solar	Owned	Emery-Clawson 138kV	Under study in PacifiCorp's 2022 Interconnection Cluster	25	29-33%	UT
125	Solar	Owned	Huntington – Pinto 345kV	Under study in PacifiCorp's 2022 Interconnection Cluster	25	29-33%	UT
199.9	Storage	Owned	Emery Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	20	88-92%	UT
199.9	Storage	Owned	Emery Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	20	88-92%	UT
199.9	Storage	Owned	Huntington Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	20	88-92%	UT
199.9	Storage	Owned	Huntington Substation	Under study in PacifiCorp's 2022 Interconnection Cluster	20	88-92%	UT



- Benchmark Resource bids will include costs assumptions consistent with the main RFP document Section 6.C, and specifically Table 4, where the Company lists the characteristics which will be used to determine the Net Cost of benchmark bids. These inputs will be provided to the IEs for review and comment.
- PacifiCorp will administer a competitive supply solicitation(s), on a case-by-case basis, for the wind turbines, solar panels, and battery systems required for all Owned Benchmark Resources. Procurement of equipment for Market Benchmark Resources will be conducted by third-party developers in coordination with PacifiCorp.
- PacifiCorp will administer a separate competitive solicitation(s) to secure firm fixed pricing to engineer-procure-construct and commission the balance of plant for Owned Benchmark Resources. Agreements with contractors for engineering, procurement, construction, and commissioning for Market Benchmark Resources will be conducted by third-party developers in coordination with PacifiCorp.
- All projects are expected to be able to be placed in service no later than December 31, 2027 with the exception of long-lead time resources which will be bid with commercial operations dates no later than December 31, 2028.
- All solar generating resources noted above may be bid as collocated battery storage component up to 100% of the nameplate capacity of the solar project and a four (4) hour duration and may be bid separately as standalone solar subject to applicable bid fee requirements.
- Project efficiencies will be evaluated in coordination with experienced third-party engineers for Owned Benchmark Resources, and by third-party developers for Market Benchmark Resources in coordination with PacifiCorp.
- Transmission requirements, operating requirements, and dispatch requirements for Benchmark Resources will be evaluated pursuant to applicable Large Generator Interconnection Agreements and necessary Transmission Service Agreements for each resource.
- The Benchmark Resources will be constructed in compliance with PacifiCorp's specifications and technical standards.
- The Benchmark Resources will also include an operations and maintenance (O&M) building at each site or an addition to an existing PacifiCorp O&M facility.
- Benchmark Resources will include the following pro forma estimates for operations, maintenance and on-going capital expenditures:
  - Wind: 30 years
  - Solar & Solar plus Battery: 25 years
  - Battery: 20 years
  - Pumped Hydro Storage: 40-50 years (or federal license term)

- The Benchmark Resources costs will include allocated development costs, fees, permitting, project management and equipment costs.