



October 21, 2010

## VIA ELECTRONIC FILING AND HAND DELIVERY

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

Attention: Julie P. Orchard

**Commission Secretary** 

Sandy Mooy

**Commission Administrator** 

Re: In the Matter of the Rocky Mountain Power Proposed Standardized Interconnection and Net Metering Service Agreements and Net Metering Facilities, Docket No. 10-035-44; In the Matter of the Rocky Mountain Power Proposed Standardized Non-Net Metering Agreements, Docket No. 10-035-45

PacifiCorp, d/b/a Rocky Mountain Power ("RMP" or the "Company"), hereby submits for filing to the Public Service Commission of Utah (the "Commission") an original and five (5) copies each of the following standard forms and agreements applicable to generating facilities pursuant to Utah Administrative Code Rule R746-312, "Electrical Interconnection" ("R746-312" or "Rule"):

Enclosure 1	Application for Electrical Interconnection, Generating Facility – Level 2 or 3 Interconnection Review (For Generating Facilities with Electric Nameplate Capacities above 25 kW and no Larger than 20 MW)
Enclosure 2	Generating Facility Electrical Interconnection Agreement, Level 1, 2 or 3 Interconnection (hereafter referred to as "Generating Facility Interconnection Agreement")
Enclosure 3	Interconnection and Net Metering Service Agreement for Net Metering Facility Level 1 Interconnection
Enclosure 4	Interconnection and Net Metering Service Agreement for Net Metering Facility Level 2 Interconnection
Enclosure 5	Interconnection and Net Metering Service Agreement for Net Metering Facility Level 3 Interconnection (Enclosures 3, 4, and 5 collectively

	hereafter referred to as "Net Metering Interconnection Agreements" 1)
Enclosure 6	Utah Interconnection Level 3 Feasibility Study Agreement
Enclosure 7	Utah Interconnection Level 3 System Impact Study Agreement
Enclosure 8	Utah Interconnection Level 3 Facilities Study Agreement
Enclosure 9	Application for Electrical Interconnection, Certified Inverter-Based Generating Facility – Level 1 Interconnection Review (For Generating Facilities with Electric Nameplate Capacities no Larger than 25 kW)

These documents (in clean and red-lined versions, where applicable) are being submitted in response to the Commission's August 31, 2010 Report and Order and Notice of Technical Conference ("Order"), Docket Nos. 10-035-44 and 10-035-45, showing potential revisions to RMP's proposed standard electrical interconnection agreements and forms. These resubmitted standard forms and agreements are also intended to address the Commission's conclusions in the Order and discussions held during the September 23, 2010 technical conference with Commission staff.

## I. Background

On February 1, 2010, RMP filed with the Commission five proposed standard net metering interconnection forms pursuant to R746-312: (1) Interconnection Facilities Study Agreement Level 3 Net Metering Interconnection Review; (2) Impact Study Agreement Level 3 Net Metering Interconnection Review; (3) Interconnection and Net Metering Service Agreement for Net Metering Facility Level 1 Interconnection; (4) Interconnection and Net Metering Service Agreement for Net Metering Facility Level 2 Interconnection; and (5) Interconnection and Net Metering Service Agreement for Net Metering Facility Level 3 Interconnection. This filing became Docket No. 10-035-44. On April 27, 2010, the Company filed revisions to each of the standard net metering interconnection forms in response to comments received by the Division of Public Utilities (the "Division").

Also on April 27, 2010, the Company filed five standard interconnection forms applicable to reflect interconnections that are not eligible for net metering, pursuant to R746-312: (1) Non-Net Metering Electrical Interconnection Agreement, Level 1, 2 or 3 Interconnection; (2) Non-Net Metering Level 3 Facilities Study Agreement; (3) Non-Net Metering Level 3 Feasibility Study Agreement; (4) Non-Net Metering Level 3 System Impact Study Agreement; and (5) Application for Electrical Interconnection Non-Net Metering Level 1, 2 or 3 Interconnection This filing became Docket No. 10-035-45.

On August 31, 2010, the Commission issued its Order in these proceedings requiring the Company to review and revise its agreements and forms for increased consistency with the Rule. The Commission ordered that RMP: (1) submit for review a net metering interconnection

<sup>1</sup> For each of the Net Metering Interconnection Agreements, the application serves as an appendix thereto.

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feasibility study agreement and forms similar to its Federal Energy Regulatory Commission ("FERC")-approved "Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW" and "Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10 kW" for non-net metering interconnections; (2) attend a technical conference held on September 23, 2010, in order to discuss the Company's proposed interconnection forms; and (3) file revised standard forms within 30 days after the technical conference. The Division was ordered to complete its review of the revised forms within two weeks after RMP's filing.

This filing serves to address all of the issues raised in the Order and during the technical conference. The Company has carefully reviewed and modified the standard forms to reflect the Commission's directive that they be revised, both for substance and format. These revised forms provide both the Company and customers with the benefit of clear, concise interconnection forms that will comply with the Rule and be consistently applied across all customers.

## II. RMP Response to Order

In the Order, the Commission noted seven issues that the Company must address in its revised filing. This section of the transmittal letter addresses each of these issues.

In the April 27, 2010 filings, the Company proposed two sets of standard interconnection agreements: one for net metering interconnection customers and one for "non-net metering" interconnection customers. The Company continues to propose using two sets of standard interconnection agreements – one set for net metering facilities, and one set for all other generating facilities, which will be referred to as "generating facilities." This change was made to reflect the defined terms of "generating facility" and "net metering facility" in the Rule (R746-312-1). The forms and agreements applicable to generating facilities have been drafted in order to apply to all customers whose facilities are not eligible for net metering.

## A. Explanation for Two Sets of Standard Interconnection Forms

The Commission found that the Company did not provide a sufficient explanation for proposing two sets of interconnection forms. As such, the Commission directed the Company to explain its rationale for preparing two sets of interconnection agreements and the differences in the specific agreement terms. Order at 7. The Company discussed this issue with Commission staff at the technical conference, and provides a summary of the highlights of that discussion below.

While the Rule applies similarly to new generating facilities eligible for net metering and all other generating facilities, the processes for interconnecting these facilities is very distinct; as such, they require separate forms in order to provide the best service to customers. A significant difference between interconnections with generating facilities and net metering facilities is the size of the facilities. Generating facilities can be as large as 20 MW and on the average range from 5-10 MW. Because of the impact that these facilities can have on the safety and reliability of the distribution system, it is appropriate to include additional provisions addressing these operational matters in the interconnection agreement. Net metering facilities, on the other hand,

are rarely larger than 40 kW and thus do not require the same types of provisions addressing system safety and reliability in their interconnection agreements. This means that many net metering facilities will require only a Level 1 interconnection review, while other generating facilities will regularly exceed the 2 MW threshold for a Level 3 interconnection review. Because the Net Metering Interconnection Agreements are distinct for each level of review, and the Generating Facility Interconnection Agreement covers Levels 1, 2, and 3, there will be obvious differences in the treatment of certain of these issues among the agreements as well as the sophistication of the applicant-customers.

The benefits of utilizing two sets of forms generally fall in the following areas:

- <u>Customer Service</u>: in order to lessen the confusion on the customers' part, the Company has created separate forms and agreements that contain the information and requirements specific to each category of customer based on the process they are undertaking (as a generating facility or net metering facility).
- <u>Efficiency</u>: the Company believes that multiple sets of forms improve the efficiency for all parties involved. The customer would only be required to review information that would be applicable to their respective facility. Additionally, the Company will have greater certainty as to the information required for a specific type of facility, thereby also increasing efficiency.
- <u>Consistency</u>: separate forms can ensure that each similarly-situated customer is treated alike and that each request is processed in the same manner.

Some of the major differences between net metering and other generating facility interconnections are reflected in the sets of standard forms and agreements, including in the following areas below. In some cases, the Rule itself contemplated differences in the types of interconnections:

- Existing Service: net metering facilities are eligible customer-owned generation systems that are located on, or adjacent to, the premises of the customer, typically operated in parallel and interconnected with the public utility's distribution facilities, and intended primarily to offset part or all of the customer's requirements for electricity. *See* Utah Code § 54-15-102. Net metering facilities are interconnected behind the meter of an existing service. "Generating facilities" refer to the rest of the facilities interconnecting with a public utility's system, and are often a new connection to the distribution grid.
- Point of Common Coupling: the voltage level at the point of common coupling (*i.e.*, the point at which the interconnection between the utility's system and the customer's equipment interface occurs) is distinctly different for each process. A generating facility customer has the obligation to interconnect at the primary voltage level, which requires that the output of the plant be stepped-up to match the voltage at the point of common coupling. A net metering facility customer does not have this same obligation and may interconnect on the secondary side of the service behind an existing service.
- <u>Purchase of Generation Output:</u> the interconnection agreement for generating facilities is simply an agreement to interconnect the generating facility to the electrical distribution system. The purchase of the output of the generation facility is handled through a separate power purchase agreement. However, a net metering agreement concerns not

only interconnection but also the offset of output against customer usage. If net metering results in excess customer-generated electricity during a monthly billing period, the public utility will credit the customer for such excess electricity at a value of at least avoided cost or as determined by the Commission. (Utah Code § 54-15-104). *See* Article 1.3 of Generating Facility Interconnection Agreement and Net Metering Interconnection Agreements.

- Metering Equipment: the responsible entity that must pay for the actual metering equipment may be different for each set of customers. For generating facilities not eligible for net metering, interconnection customers are responsible for the cost of any special metering equipment deemed necessary by the interconnection agreement, unless the utility determines otherwise (pursuant to R746-312-11(1)). See Article 1.7 of the Generating Facility Interconnection Agreement. For net metering facilities, RMP installs necessary metering equipment at its expense. See Article 1.7 of the Level 1 and Level 2 Net Metering Interconnection Agreements, Article 1.9 of the Level 3 Net Metering Interconnection Agreement.
- <u>Contract Term:</u> the contract term is different for each process. A generating facility customer typically will have a contract term of 10 years set forth in the interconnection agreement. *See* Article 3.2 of the Generating Facility Interconnection Agreement. A net metering facility customer will have a contract in place for the life of the facility, unless terminated through other means. *See* Article 3.2 of the Net Metering Interconnection Agreements.
- <u>Maintenance and Testing</u>: a public utility may not require either (i) Level 1 or Level 2 generating facilities or (ii) net metering customers whose generating facility complies with Utah Code § 54-15-106(1) (requiring satisfaction of standards related to operation and maintenance) to perform or pay for additional tests (pursuant to R746-312-14(1)). No such limiting provision exists for Level 3 generating facilities.
- <u>Insurance</u>: as identified in the Rule, any interconnection customer with generating facilities 2 MW or less in size are not required to purchase additional liability insurance upon compliance with the interconnection agreement, the request for interconnection, and the standards identified in Utah Code § 54-15-106(3)(a)(ii); this will cover all net metering facilities. Generating facilities exceeding 2 MW, however, have significant insurance requirements pursuant to R746-312-17(e)(ii). *See* Attachment A.
- <u>Disconnect Switch:</u> this is not a major consideration for generating facilities, and therefore not treated in the Generating Facilities Interconnection Agreement except to reference the requirements from the Rule. However, disconnect switches are a major point of customer concern in the system design of net metering facilities. Emphasizing this issue in the net metering agreements is important and assists these customers in clarifying the proper requirements. *See* Article 2.2 of Net Metering Interconnection Agreements.

As discussed throughout this letter, while the Company recognizes that there are differences in the processes requiring separate forms, the Company has made a concerted effort where applicable to ensure that the forms and agreements are consistent with each other and the Rule's provisions (such as the language regarding the minimum provisions of interconnection agreements set forth in the Rule).

## B. <u>Study Agreements</u>

The Commission directed the Company to develop and file a net metering feasibility study agreement, as no such agreement was provided with the initial filing for review and approval. Order at 7.

As indicated above, in the April 27, 2010 filings, the Company submitted a separate facilities study agreement applicable to net metering and non-net metering interconnections, a separate system impact study applicable to net metering and non-net metering interconnections, and a feasibility study agreement applicable only to non-net metering interconnections. RMP intentionally did not submit a feasibility study agreement applicable to net metering customers because it was determined that such an agreement would not be necessary based on the unique characteristics of net metering facilities.

In response to the Commission's directive, the Company re-evaluated the study agreements submitted for review and approval and determined that it was appropriate to consolidate the interconnection study agreements so that there was one study agreement of each kind applicable to both generating facilities and those facilities eligible for net metering upon Level 3 interconnection review.

As such, the Company has submitted the following revised study agreements: (i) Utah Interconnection Level 3 Feasibility Study Agreement (Enclosure 6); (ii) Utah Interconnection Level 3 System Impact Study Agreement (Enclosure 7); and (iii) Utah Interconnection Level 3 Facilities Study Agreement (Enclosure 8). In each case, the Company has maintained the framework of the initial study agreements applicable to non-net metering interconnections and revised them to also reflect net metering interconnections where appropriate.<sup>2</sup>

## C. Minimum Standard Provisions in Interconnection Agreements

The Order notes that R736-312-17 of the Rule requires the inclusion of specific provisions in every standard interconnection agreement. The Commission directed the Company to review the provisions and revise the interconnection agreements as necessary to ensure that each provision is clearly included in each such form. RMP was also directed to include in its updated filing a reference table indicating the specific provisions and where they can be found in each agreement. Order at 8.

The Company performed a careful review of the required minimum provisions for all standard form interconnection agreements, set forth in R736-312-17. The Company revised the Generating Facility Interconnection Agreement (Enclosure 2) and Net Metering Interconnection Agreements (Enclosures 3-5) to ensure that each of these minimum provisions are properly included. In addition, where practicable, the Company made an effort to conform these provisions across interconnection types. The Company's reference table indicating the specific minimum provisions in each interconnection agreement is included herewith as Attachment A to this letter.

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<sup>&</sup>lt;sup>2</sup> Because of the consolidation of the study agreements, certain of the Commission's suggested revisions in Appendix A of the Order were not individually addressed.

#### D. References to Documents

The Commission noted several references to other documents throughout the standard forms and agreements. The Commission directed that all referenced documents should either be publicly-available (*e.g.*, through an internet link) or attached to the agreements. Order at 8.

In the revised interconnection agreements referencing the IEEE standards, the Company has added language indicating that IEEE Standard 1547 is available for purchase at the following link: <a href="http://standards.ieee.org/index.html">http://standards.ieee.org/index.html</a>. The Company does not have access rights to the IEEE standards, and therefore this language provides the appropriate means for obtaining such information. In the revised Generating Facility Interconnection Agreement, the Company also included the existing link to the Operating Requirements on the Company's website. The Company maintains and updates the internet version of the Operating Requirements from time-to-time as needed. The Company also added internet links for customers to access the standards of the following: the National Electrical Safety Code, the American National Standards Institute, and Underwriter's Laboratory Inc.

# E. Section 12.9 of Generating Facility Electrical Interconnection Agreement

The Commission found that Section 12.9 of the Non-Net Metering Electrical Interconnection Agreement (*Security Arrangements*) appears more appropriate for transmission system interconnection customers than distribution system customers, as presently written. The Commission directed the Company to provide an explanation of its rationale for including this provision as applicable to distribution interconnections, how the Company complies with the President's Critical Infrastructure Protection Board ("CIP Board") recommendations, and how this information is made available to interconnection customers. Order at 8-9.

Concerns over security arrangements are legitimate. Upon further review of Section 12.9 of the revised Generating Facility Interconnection Agreement (Enclosure 2), the Company determined that the provision as written could not apply to all distribution system customers. It was intended to mirror the language of Section 12.9 of PacifiCorp's Small Generator Interconnection Agreement, included as part of its Open Access Transmission Tariff ("OATT") approved by FERC. As such, the Company revised the language in Section 12.9 while maintaining the concept that public utilities and customers are expected to meet basic standards for system infrastructure and operational security, including physical, operation, and cybersecurity practices.

The provision was revised to provide that the Company and those customers that are responsible entities subject to the mandatory reliability standards enforced by the North American Electric Reliability Corporation ("NERC") and the governing electric reliability authority, the Western Electricity Coordination Council ("WECC"), are expected to comply with the reliability standards on critical infrastructure protection. These revisions address the Commission's concerns over applicability and enforcement, while also ensuring that certain individual larger facilities whose owners are responsible entities comply with any existing

reliability obligations concerning cyber security.<sup>3</sup> Because the revisions to this Section 12.9 adequately address the Commission's concerns, the Company respectfully requests that it not be required to provide a response to the Commission's questions regarding its compliance with the CIP Board recommendations or the manner in which this information is available to interconnection customers.

## F. <u>Inverter-Based Facility Standard Forms</u>

The Commission directed the Company to include among its non-net metering interconnection forms its FERC-approved OATT "Application for Interconnecting a Certified Inverter-Based Small Generating Facility No Larger than 10 kW" and "Terms and Conditions for Interconnecting an Inverter-Based Small Generating Facility No Larger than 10 kW," revised to reflect the provisions of the Rule. The Commission also directed RMP to either increase the level of the applicability of these forms to 25 kW or provide an explanation of why the increase is inappropriate in this context. Order at 9-10.

Appendix 5 to PacifiCorp's Small Generator Interconnection Procedures, in the FERC-approved OATT, serves as the Application, Procedures, and Terms and Conditions for Interconnecting a Certified Inverter-Based Small Generating Facility no Larger than 10 kW. In response to the Commission's directive, the Company has reviewed the Terms and Conditions and determined that these provisions cover the same issues that are already addressed in the Generating Facility Interconnection Agreement (*e.g.*, construction, interconnection and operation, safe operations, access, disconnection, indemnification, and insurance). Because the Generating Facility Interconnection Agreement already applies to Level 1 interconnections, the Company believes that it would actually create confusion to provide certain customers with an additional document covering similar terms and conditions. The Company respectfully requests waiver of the Commission's requirement in the Order to submit this standard form.

However, the Company has drafted an interconnection application applicable to certified inverter-based generating facilities and increased the threshold to 25 kW; this was appropriate to be consistent with the forms applicable to net metering interconnections and the Rule's provisions on Level 1 interconnection review. As such, this filing includes the Application for Electrical Interconnection, Certified Inverter-Based Generating Facility – Level 1 Interconnection Review (For Generating Facilities with Electric Nameplate Capacities no Larger than 25 kW) (Enclosure 9).

# G. <u>Attachment 5 of Generating Facility Electrical Interconnection Agreement</u>

The Commission found that Attachment 5 to the Non-Net Metering Interconnection Agreement (Additional Operating Requirements to the Public Utility's Distribution System and

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<sup>&</sup>lt;sup>3</sup> Most customers interconnecting with the Company's distribution system will not be registered entities because the NERC definition of "bulk electric system" includes generation resources, transmission lines, interconnections with neighboring systems, and associated equipment, generally operated at voltages of 100 kV or higher. However, this language could apply to the extent customers are currently registered as generator owners or operators on a case-bycase basis or if the cybersecurity mandates in the reliability standards are eventually pushed down to those parts of the distribution system that could potentially impact bulk electric system reliability.

Affected Systems Needed to Support the Interconnection Customer's Needs) contained many provisions not addressed by the Rule. Lacking a record on which to base a decision, the Commission directed RMP to provide an explanation for each requirement, why it is necessary, any applicable standard upon which it is based, and whether the provisions contained therein are consistent with other interconnection agreements issued by the Company. Order at 10.

The Company included the original Attachment 5 in order to provide that interconnection customers are subject to compliance with the IEEE standards and the Company's Operating Requirements. The Operating Requirements are intended to provide a day-to-day operational guide for customers interconnecting their generating facilities to the Company's distribution system. The additional requirements initially included in Attachment 5 were selected provisions from the Operating Requirements, to reflect areas in which customers have previously experienced operational issues. The Company shortened Attachment 5 to the revised Generating Facility Interconnection Agreement (Enclosure 2) in order to simply incorporate by reference the customers' responsibility to comply with the the Operating Requirements (with a link to the internet address). Certain of the provisions from the original Attachment 5 concerning customers' operation and maintenance responsibilities were incorporated into the body of the interconnection agreement to the extent they reflect R746-312-17(1)(c).

It is the Company's practice to incorporate by reference in interconnection agreements the Operating Requirements applicable to both large and small generator interconnections. The applicable procedures documents are used for customers in all six states in which PacifiCorp operates. Please note that the Operating Requirements provide that if there is a conflict between the Requirements and the respective state rules, the state rules will prevail As part of this exercise, the Company reviewed those provisions from the Operating Requirements that were incorporated into the original Attachment 5 in order to confirm that the provisions are consistent with the provisions of the interconnection agreement, including the provisions on reactive power requirements.<sup>4</sup>

### H. Appendix A

Appendix A of the Order outlined a variety of representative corrections and suggestions for formatting and consistency improvements between and among the standard forms and agreements. Order at 10, 14-22. The revised standard forms and agreements reflect the Company's review and consideration of the suggested revisions. As indicated above, the Company also made an effort to increase consistency between the sets of forms applicable to generating facilities and net metering facilities, as well as conform the standard agreements to the Rule's provisions, where practicable.

In only a few cases did the Company's revised forms and agreements not reflect the Commission's suggestions. For example, the Commission requested that the Company revise certain reactive power requirements in the Non-Net Metering Electrical Interconnection Agreement in part to reflect distribution system requirements. The Company removed Sections

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<sup>&</sup>lt;sup>4</sup> In addition, it is the Company's normal practice to require a customer generator to incur costs for the modification of interconnection facilities if the Company opts to change the nominal operating voltage at the point of common coupling.

1.8.2 and 1.8.3 of the Generating Facility Interconnection Agreement as it currently does not have a rate schedule on file with the Commission to provide payment to customers for reactive power service.

Also, the Commission noted that the agreements and forms often reference the Rule or specific sections therein, although there appears to be an inconsistent approach in the references. The Company includes specific references to the Rule where it would be most beneficial. In certain circumstances, it is more beneficial to generally reference the Rule. Further, the Company did not revise Section 20 (*Subcontractors*) of the study agreements after a determination that the provision is consistent with the Rule. These agreements contain separate provisions that address applicable fees.

#### III. Enclosures

Enclosures 1 through 8 above are being submitted as clean and red-lined versions of the revised form or agreement, while Enclosure 9 is a new form being submitted pursuant to a Commission directive. RMP respectfully requests Commission acceptance of the revised standard forms and agreements enclosed herewith as consistent with the Rule and the Commission's Order.

Please contact me directly at (801) 220-4014 if you have any questions.

Respectfully submitted,

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cc: Dave Taylor
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Service List

<sup>&</sup>lt;sup>5</sup> See Order, Appendix A, Section 1.B.8.