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Division of Public Utilities

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MEMORANDUM

To: Public Service Commission
From: Division of Public Utilities
Constance White, Director
Artie Powell, Manager, Energy Section
Judith Johnson, Technical Consultant

Subject: EAct 2005 Amendments to PURPA – Net Metering Standard - Docket 06-999-03

Date: February 26, 2007

ISSUE

On August 8, 2005, the President signed into law the Energy Policy Act of 2005 (EAct2005) which included amendments to the Public Utility Regulatory Policies Act (PURPA) and added five new federal standards to PURPA section 111(d) for state commissions and utilities to consider. PURPA states that “each state regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard” and “make a determination concerning whether or not it is appropriate to implement such standard”¹ The standards are regarding the following: Net Metering, Fuel Diversity, Fossil Fuel Generation Efficiency, Time-Based Metering and Communication, and Interconnection.

According to a reference manual produced by EEI and NARUC, and others, the law requires that state commissions and unregulated utilities consider the standards; they are not required to implement them. They may:

...implement any standard, decline to implement any standard, or adopt a different or modified standard from those described in the statute (PURPA section 117(b)). However, if they decline they are required to state in writing the reason for their decision and make that statement available to the public (PURPA section 111(c)). State commissions and utilities

¹ PURPA section 111(a)

may also take into account prior determination of the standards if it complies with the requirement of Title I of PURPA (PURPA section 112(a)).²

This memo is the Division of Public Utilities' recommendation regarding the Net Metering Standard which is reproduced in the following section.

PURPA Net Metering Standard

Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves. For purposes of this paragraph, the term “net metering service” means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.

RECOMMENDATION

The Division of Public Utilities (DPU) recommends that the Utah Public Service Commission (PSC) find that Utah Code, Title 54-15 is equivalent and satisfies the “grandfathered” provision of the PURPA law regarding consideration of a standard. Therefore, Utah meets the obligation regarding the Net Metering Standard under PURPA.

However, we also recommend review of Utah's net metering program. Currently, at Rocky Mountain Power, participation is relatively low and questions remain about the effectiveness of the program. On February 26, 2007, the DPU issued a report to the Utah PSC that looks at Utah's net metering program. The report discusses best practices, program barriers and makes recommendations for the PSC to consider in making improvements to the program.³ One of the recommendations is to open an investigative docket to look at costs and benefits of removing barriers to participation. We echo that proposal as part of our recommendation regarding the PURPA standard consideration.

ANALYSIS

According to “Reference Manual and Procedures for Implementation of the “PURPA Standards” in the Energy Policy Act of 2005”, on page 10,

² Reference Manual and Procedures for Implementation of the “PURPA Standards” in the Energy Policy Act of 2005, March 22, 2006. Sponsored by American Public Power Association (APPA); Edison Electric Institute (EEI); National Association of Regulatory Utility Commissioners (NARUC); National Rural Electric Cooperative Association (NRECA). Prepared by Kenneth Rose and Karl Meeusen.

³ “Utah's Net Metering Program. Best Practices, Program Barriers, and Recommendation.” Utah Division of Public Utilities, February 2007.

Prior state actions are grandfathered if (1) the state implemented the standard or comparable standard, (2) the state commission or utility has conducted a proceeding considering implementation of the standard or comparable standard, or (3) the state's legislature voted on implementation of the standard or comparable standard (section 1251(b)(3)(A) of EPAct and section 112(d) of PURPA). If these conditions are met with respect to standard, the obligation to consider the standard is waived and no new consideration process is required.

Our analysis indicates that the Utah law is equivalent in both language and intent. The law also sets out the details associated with net metering that go beyond the PURPA net metering standard, but that are consistent with the standard.

Utah Code Title 54-15, "Net Metering of Electricity", enacted in 2002, deals with, as one would expect, net metering of electricity. We believe that the Utah law is equivalent to the PURPA proposed standard in that it addresses the same services and issues that are in the PURPA standard. We have attached all of 54-15 as Attachment A.

In reading the literature about implementing net metering, the questions that need to be answered about net metering were mostly asked and meant to be addressed during the passage of 54-15. For example, questions of rate equity (what price to pay for excess energy), total participation levels, eligibility, interconnection safety, costs, types of generation allowed (only renewable?), are addressed in the Utah law.

Some questions about implementation of net metering remain, such as pricing and barriers to participation in the program. These questions have led to the recommendation to find ways to improve the effectiveness of the net metering program. Investigation would also reveal if other barriers to using the program exist. On February 26, 2007, the DPU issued a report to the Utah PSC that looks at Utah's net metering program that discusses best practices, program barriers and makes recommendations for the PSC to consider in making improvements to the program. One of the recommendations is to open an investigative docket to look at costs and benefits of removing barriers to participation which is consistent with our recommendation regarding the PURPA Standard consideration.

To illustrate our analysis that the Utah Law is equivalent to the PURPA standard, we have prepared the following chart that compares the proposed standard with excerpts from the Utah net metering law.

Utah Code Title 54-15 and PURPA Standard Comparison

TITLE 54-15	PURPA STANDARD
<p>Each electrical corporation shall: (a) except as provided in Subsection (2), make a net metering program available to the electrical corporation's customers</p>	<p>Each electric utility shall make available upon request net metering service to any electric consumer that the electric utility serves.</p>
<p>(9) "Net metering program" means a program administered by a electrical corporation whereby a customer with a customer generation system may: (a) generate electricity primarily for the customer's own use; (b) supply customer generated electricity to the electrical corporation; and</p>	<p>For purposes of this paragraph, the term "net metering service" means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and</p>
<p>(c) if net metering results in excess customer generated electricity during a billing period, receive a credit against the cost of electricity (and) (8) "Net metering" means measuring for the applicable billing period the difference between: (a) the amount of electricity that an electrical corporation supplies to a customer participating in a net metering program; and (b) the amount of customer generated electricity.</p>	<p>...delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer</p>
<p>(a) (i) the electrical corporation shall credit the customer for the excess customer generated electricity at a value that is at least avoided cost; (ii) the customer may use the credit under Subsection (3)(a)(i) to offset purchases of electricity from the electrical corporation during future billing periods during the same calendar year; and (iii) all credits that the customer does not use during the calendar year expire at the end of the calendar year;</p>	<p>...during the applicable billing period.</p>

cc: Committee of Consumer Services
 Dave Taylor, PacifiCorp

ATTACHMENT A

54-15-101. Title.

This chapter is known as "Net Metering of Electricity."

54-15-102. Definitions.

As used in this chapter:

- (1) "Customer-generated electricity" means electricity that:
 - (a) is generated by a customer participating in a net metering program from a customer generation system;
 - (b) exceeds the electricity the customer needs for the customer's own use; and
 - (c) is supplied to the electrical corporation administering the net metering program.
- (2) "Customer generation system" means a fuel cell or renewable facility that:
 - (a) has a generating capacity of not more than 25 kilowatts;
 - (b) is located on the premises of the electrical corporation's customer;
 - (c) operates in parallel and is interconnected with the electrical corporation's transmission and distribution facilities;
 - (d) is intended primarily to offset part or all of the customer's requirements for electricity; and
 - (e) is controlled by an inverter.
- (3) "Excess customer-generated electricity" means the amount of customer-generated electricity during a billing period that exceeds the amount of electricity that an electrical corporation supplies to the customer during that billing period.
- (4) "Fuel cell" means a device in which the energy of a reaction between a fuel and an oxidant is converted directly and continuously into electrical energy.
- (5) "Governing authority" means:
 - (a) for a distribution electrical cooperative, its board of directors; and
 - (b) for each other electrical corporation, the commission.
- (6) "Inverter" means a device that:
 - (a) converts direct current power into alternating current power that is compatible with power generated by an electrical corporation; and
 - (b) has been designed, tested, and UL certified to UL1741 and IEEE929 standards.
- (7) "Net electricity" means the difference between:
 - (a) the amount of electricity that an electrical corporation supplies to a customer participating in a net metering program; and

(b) the amount of customer-generated electricity.

(8) "Net metering" means measuring for the applicable billing period the difference between:

(a) the amount of electricity that an electrical corporation supplies to a customer participating in a net metering program; and

(b) the amount of customer-generated electricity.

(9) "Net metering program" means a program administered by a electrical corporation whereby a customer with a customer generation system may:

(a) generate electricity primarily for the customer's own use;

(b) supply customer-generated electricity to the electrical corporation; and

(c) if net metering results in excess customer-generated electricity during a billing period, receive a credit against the cost of electricity supplied by the electrical corporation to the customer within the same calendar year.

(10) "Renewable facility" means a facility that uses energy derived from the sun, wind, or water to generate electricity

54-15-103. Net metering program -- Metering equipment -- Interconnection agreement.

(1) Each electrical corporation shall:

(a) except as provided in Subsection (2), make a net metering program available to the electrical corporation's customers; and

(b) allow customer generation systems to be interconnected to the electrical corporation's facilities using, except as provided in Subsection (3), a standard kilowatt-hour meter capable of net metering.

(2) An electrical corporation may discontinue making a net metering program available to customers not already participating in the program as long as:

(a) the cumulative generating capacity of customer generation systems in the program equals at least .1% of the electrical corporation's peak demand during 2001; and

(b) at least half of the electricity representing the .1% figure in Subsection (2)(a) is generated by renewable facilities.

(3) (a) Notwithstanding Subsection (1)(b), an electrical corporation may require a customer participating in the electrical corporation's net metering program to use metering equipment other than a standard kilowatt-hour meter if the commission, after appropriate notice and opportunity for comment:

(i) determines that the use of other metering equipment is necessary and appropriate to monitor the flow of electricity from and to the electrical corporation; and

(ii) approves the requirement for other metering equipment, after considering the benefits and costs associated with the other metering equipment.

(b) If the commission approves the requirement for other metering equipment under Subsection (3)(a), the governing authority shall determine how the cost of

purchasing and installing the other metering equipment is to be allocated between the electrical corporation and the customer.

(4) An electrical corporation may require a customer to enter into an interconnection agreement before connecting the customer generation system to the electrical corporation's facilities.

54-15-104. Charges or credits for net electricity.

(1) Each electrical corporation with a customer participating in a net metering program shall measure net electricity during each billing period, in accordance with normal metering practices.

(2) If net metering does not result in excess customer-generated electricity during the billing period, the electrical corporation shall bill the customer for the net electricity, in accordance with normal billing practices.

(3) If net metering results in excess customer-generated electricity during the billing period:

(a) (i) the electrical corporation shall credit the customer for the excess customer-generated electricity at a value that is at least avoided cost;

(ii) the customer may use the credit under Subsection (3)(a)(i) to offset purchases of electricity from the electrical corporation during future billing periods during the same calendar year; and

(iii) all credits that the customer does not use during the calendar year expire at the end of the calendar year; and

(b) the electrical corporation may bill the customer for customer charges that otherwise would have accrued during that billing period in the absence of excess customer-generated electricity.

54-15-105. No additional fee or charge without commission approval -- Exception.

(1) An electrical corporation administering a net metering program may not charge a customer participating in the program an additional standby, capacity, interconnection, or other fee or charge unless the governing authority, after appropriate notice and opportunity for comment:

(a) determines that:

(i) the electrical corporation will incur direct costs from the interconnection or from administering the net metering program that exceed benefits, as determined by the governing authority, resulting from the program; and

(ii) public policy is best served by imposing the fee or charge on the customer participating in the net metering program rather than by allocating the fee or charge among the electrical corporation's entire customer base; and

(b) after making its determination under Subsection (1)(a), authorizes the additional fee or charge.

(2) If a cost of a net metering program is allocated among the electrical corporation's entire customer base, Subsection (1) may not be construed to prohibit an electrical corporation from charging a customer participating in the net metering program for that cost to the same extent that the electrical corporation charges a customer not participating in the program for that cost.

54-15-106. Customer to provide equipment necessary to meet applicable code requirements -- Commission may adopt additional requirements -- Testing and inspection of interconnection.

(1) Each customer participating in a net metering program shall provide at the customer's expense all equipment necessary to meet applicable local and national standards regarding electrical and fire safety, power quality, and interconnection requirements established by the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, and Underwriters Laboratories.

(2) After appropriate notice and opportunity for comment, the commission may by rule adopt additional safety, power quality, and interconnection requirements for customer generation systems that the commission considers to be necessary to protect public safety and system reliability.

(3) (a) If a customer participating in a net metering program complies with requirements referred to under Subsection (1) and additional requirements established under Subsection (2), an electrical corporation may not require that customer to:

- (i) perform or pay for additional tests; or
- (ii) purchase additional liability insurance.

(b) An electrical corporation may not be held directly or indirectly liable for permitting or continuing to permit an interconnection of a customer generation system to the electrical corporation's system or for an act or omission of a customer participating in a net metering program for loss, injury, or death to a third party.

(4) An electrical corporation may test and inspect an interconnection at times that the electrical corporation considers necessary to ensure the safety of electrical workers and to preserve the integrity of the electric power grid.