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April 8, 2011

Via Electronic Filing and U.S. Mail

Oregon Public Utility Commission
Attention: Filing Center
550 Capitol Street NE, #215
PO Box 2148
Salem OR 97308-2148

Re: AR 548 – NET METERING - REVISIONS – AGGREGATION OF METERS

Attention Filing Center:

Enclosed for filing in are an original and five copies of:

Initial Comments of Portland General Electric Company

This document is being filed by electronic mail with the Filing Center. An extra copy of the cover letter is enclosed. Please date stamp the extra copy and return to me in the envelope provided.

This document is being served electronically upon the AR 548 service list.

Thank you in advance for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Richard George", written over a horizontal line.

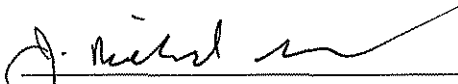
J. Richard George
Assistant General Counsel

JRG:smc
Enclosures
cc: Service List-AR 548

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused Initial Comments of Portland General Electric Company to be served by electronic mail to those parties whose email addresses appear on the attached service list for OPUC Docket No. AR 548.

Dated at Portland, Oregon, this 8th day of April, 2011.



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**BEFORE THE PUBLIC UTILITY COMMISSION
OF THE STATE OF OREGON**

AR 548

In the Matter of Revising Net Metering Rules Regarding Aggregation on Meters with Different Rate Schedules)	INITIAL COMMENTS OF PORTLAND GENERAL ELECTRIC COMPANY
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The purpose of this docket is to consider changes to Oregon Administrative Rules (OAR) Chapter 860, Division 39 related to Net Metering requirements. These proposed changes would allow customers-generators to offset usage on an electricity service schedule with excess generation from a net metering generation facility on an entirely separate, and not electrically interconnected, electrical service schedule. This paper transfer of kWh credits is designed to reduce electricity billings on additional customer meters, and is known as “net metering aggregation”. The proposed rules introduced by Oregon Public Utility Commission (Commission) Staff (Staff) addressing net metering aggregation are hereinafter referred to as the “Proposed Rules”.

The Commission issued a Notice of Proposed Rulemaking on January 14, 2011 setting forth the Proposed Rules for consideration. After review of the Proposed Rules, Portland General Electric Company (PGE) became concerned that the rules needed substantive revisions. On March 2, 2011, PGE filed a motion to postpone the rulemaking hearing and extend the comment period, which the administrative law judge (ALJ) granted on 3/2/2011. The ALJ extended the comment period until April 15, 2011, and Phil Carver of the Commission Staff has scheduled an informal rulemaking workshop on April 13, 2011 to discuss PGE’s and other party’s concerns. In an effort to inform the

Commission and parties participating in this workshop of the issues and PGE's areas of concern, we submit this *initial* set of comments addressing the Proposed Rules. Following the informal workshop, we request that the Commission establish a procedural schedule allowing parties opportunity to work together on proposed rule changes and to provide the Commission with formal comments on the various rule changes being proposed. PGE urges the Commission to adopt rule changes only after a thorough review of the impacts and implications of expanded net metering aggregation.

The Proposed Rules Require Modification

PGE appreciates the efforts of Staff and recognizes the intent of the Proposed Rules; however, we believe changes to Staff's proposed rules are necessary. In particular, the Commission must take care in promulgating rules that:

- 1) Ensure consistency with net metering as described in OAR 757.300;
- 2) Consider the effects of net metering aggregation on customers broadly, and
- 3) Consider the utility obligation to manage a potentially complex billing process.

We understand that the intent of Staff's Proposed Rules is to allow certain eligible customer-generators' separate meters on different rate schedules to be "aggregated" at the customer-generators' option. Multiple rate schedule aggregation is not allowed under current net metering rules (*see* OAR 860-039-0065).

PGE has participated in workshop discussions on this rule change. We recognize that the Proposed Rules will benefit some net metering customers; however, we are concerned that they do not assure that the changes are useful and beneficial to *all* customers. Net metering and net metering aggregation, in particular, result in transfer of costs to other customers.

PGE believes that the Proposed Rules require modification to assure compliance with ORS 757.300 broadly and to maintain internal rule consistency with OAR 860-0390-0010 and -0065. These rules must also recognize that customers have numerous physical arrangements for both generation and metered electric accounts as well as options for interconnection of their own facilities and generation. Further, some meters may be on time of use rates and others are not. These situations create complexities for tracking and billing that require utility flexibility as well as additional resources to provide the billing aggregation service.

Although this rulemaking focuses on net metering aggregation, looking ahead as customer generation and net metering moves more mainstream, we believe that the net metering rules will need to be revised to address issues such as utility cost impacts (avoided and incurred) created by serving net metering customers. Also, net metering allows a wide variety of generating technologies, and differing customer generating technologies may impact utility systems in unique ways, the full system effects of which have yet to be determined. ORS 757.300 (6) anticipated a day in the future when the Commission will have to balance interests of customer-generators and retail customers. Current trends in net metering installations suggest we may reach that point sooner than previously anticipated from trending a few years ago.¹

ORS 757.300 does not specifically pertain to meter aggregation for net metering; rather, 757.300 (1) (d) describes some of the threshold requirements for a generation facility to be a net metering facility. 757.300 (d) (B) requires that the net metering

¹ PGE currently has 1420 actively generating customers representing 15.2 MW of installed DC nameplate capacity. The number of installs in 2006 was 46, 83 in 2007, 131 in 2008, 274 in 2009, 724 in 2010 and 191 year to date in 2011.

facility be located on the customer's premises. "Premises", though, is not further defined in the statute. Commission rules, however, allow a premise to include other same-schedule customer accounts located on contiguous property. *See* OAR 860-039-0065. Thus, the key restrictions on aggregation are "same-premise" and "same-customer". These requirements must be maintained in the Proposed Rules.

PGE's Recommended Changes to the Proposed Rules

Net metering aggregation under current rules has been allowed since mid-2007. Presently, about 1,500 customer accounts are net metered with a total of about 15.2 MW DC installed nameplate capacity. Of this number, twenty customer-generators are aggregating load from other meters. The aggregation accounts are predominately commercial, with only two residential accounts that aggregate. Net metering aggregation requires additional administrative oversight beyond what is required to process a bill for a single net metered account. The current rules allow for a utility to apply a charge for aggregation billing which may be necessary to recover certain incremental billing costs from participating customers. PGE currently does not charge an administrative fee for net metering aggregation, although incremental billing costs are incurred.

To achieve a workable aggregation policy, PGE proposes several changes to the Proposed Rule. The following discussion describes the rule changes PGE proposes by rule section. Attachment 1 is a redline version of the affected sections of the current rules in Division 39 showing PGE's proposed changes and incorporating Staff-proposed changes where appropriate. Attachment 2 is a copy of the Proposed Rules as submitted in the Notice of Proposed Rulemaking (Docket No. AR 548) on January 14, 2011.

OAR 860-039-0005, Definitions

PGE agrees with the two changes proposed by Staff in this section. (See Attachment 2, OAR 860-039-0005 (d) and (e)). The addition of a reference to define “contiguous property” based on existing definitions in OAR 860-038-005 is a useful clarification for language already in the net metering aggregation rules.

Second, Staff expands the definition of a “customer-generator” to clarify that a customer-generator is a single customer of the serving utility who has installed a qualifying net metering facility behind the meter that serves the customer. This is consistent with both OAR 757.300 and PGE’s tariff definition of a customer-generator. This definition is used throughout the rule and is an important determinant for net metering aggregation.

OAR 860-039-0010, Net Metering Kilowatt Limit

PGE recommends that the Commission not adopt Staff’s proposed changes in this section (Attachment 2, OAR 860-039-0010), but rather adopt the simple changes set out below that align the language with the appropriate definitions.

OAR 860-039-0010, Net Metering Kilowatt Limit

- (1) For residential customer-generators of a public utility, these rules apply to net metering facilities that have a generating capacity of 25 kilowatts or less.*
- (2) For non-residential customer-generators of a public utility, these rules apply to net metering facilities that have a generating capacity of two megawatts or less.*
- (3) Nothing in these rules is intended to limit the number of net metering facilities per customer-generator so long as the net metering facilities in aggregate on the customer-generator’s contiguous property do not exceed the applicable kilowatt/or megawatt limit.*

Staff proposes much more extensive changes to this section for purposes of addressing net metering aggregation issues (*see* Attachment 2, OAR 860-039-0010). The changes appear to make substantive alterations to the kilowatt-hour limit established by the statute and the existing rules. We are concerned that the proposed language potentially removes any relevant distinction between residential and non-residential net metering limits. Staff proposed language also appears to create a new class of customer – a combination residential/non-residential customer-generator created by allowing residential and non-residential accounts to be aggregated. This new category of net metering customer-generators needs to be more carefully considered in context with the statute before changes are made to the rules.

Net metering as described in ORS 757.300 is intended to allow a customer-generator to partially or fully offset usage at the customer's meter – aggregation is not discussed in the statute. We are concerned that Staff's proposed language expands the scope of meter aggregation inappropriately and without regard to potential unintended consequences. Conceivably, the proposed language would allow a net metering facility on a residence to be as large as 2 megawatts – if the other aggregated utility-metered accounts have the load to receive the credits. While the example is somewhat extreme, a residential net metering facility that requires substantial interconnection review and service upgrades strictly to allow aggregation is not consistent with the fundamental application of the net metering statute.

As already discussed, PGE proposes that the customer kilowatt limits be retained with the minor changes proposed. Further, we recommend that the Commission adopt

language in OAR 860-039-0065 that looks to the customer-generator's designated meter to establish the appropriate limits. We further discuss this proposal below.

OAR 860-039-0065, Aggregation of Meters for Net Metering

This section of the rules sets out the specific conditions for mandatory net metering aggregation and a general description of the process of crediting the excess kWh generation to the aggregated meter or meters. PGE proposes several changes to the Proposed Rules, generally intended to provide further clarity.

PGE agrees with the proposed language in (1) and (1) (a) of this section. We propose changes and additions to subparts (b) through (d) of (1) that establish the conditions for aggregation.

(1) For the purpose of measuring electricity usage under the net metering program, a public utility must, upon request from a customer-generator, aggregate for billing purposes ~~a the meter to which the net metering facility that is physically attached to the net metering facility~~ (“designated meter”) with one or more meters (~~“additional aggregated meter”~~) in the manner set out in this ~~section~~ rule. This rule is mandatory upon the public utility only when:

(a) The ~~additional aggregated~~ meter is located on the customer-generator's premises or property that is contiguous to the premises associated with the designated meter property;

(b) The electricity measured by the designated meter and any aggregated meters is for the customer-generator's requirements;

(c) The designated meter ~~and the additional meter are subject to the same schedule~~ shall be the meter used to determine the applicable kilowatt limit set out in OAR 860-039-0010 (1) and (2); and

(d) The designated meter and the aggregated ~~additional~~ meter are served by the same primary feeder.

The PGE changes to (1) (b) though (d) differ from Staff-proposed language in that they are intended to be simple and clearly describe how a utility will determine

aggregation eligibility. In (b), we propose to use Staff language except that the electric vehicle restriction is removed and the word “primarily” is removed. Our proposed language is less ambiguous than that proposed by Staff. Again, we appreciate the intent of the language in (b) of Staff’s Proposed Rule related to the net metering aggregation statute and potential impact on electric vehicles, but we are not certain about the need to address that specific issue at this time and whether it is properly within the scope of this rulemaking. The prohibition of third party electric vehicle charging by net metering customers is a potentially significant issue that needs further investigation. In fact, PGE has customers that do provide public charging infrastructure connected to service with solar net metering systems, which would be affected by this rule.

In (c), the current language restricting aggregation to accounts on the same rate schedule is removed. We propose to address the kilowatt limits for aggregation at (c) for convenience and simply refer to the designated meter’s usage to determine if the meter is supplying residential or non-residential load. For purposes of this rule, residential usage is usage consistent with the utility’s definition of a residential customer, regardless of the applicable rate schedule.

The practical application of our proposed language in (1) (c) means that the designated meter (the meter where the net metering facility is interconnected) is limited to 25 kW for residential service. A non-residential designated meter is limited to a 2 MW net metering facility. This approach provides both a clear delineation for kW limits and does not restrict customer-generators from self-aggregating generation to an appropriate designated meter. PGE believes this approach is consistent with the statute.

Staff in (c) proposed specific restrictions related to the Business Energy Tax Credit (BETC). Unfortunately, this restriction, as well as the prohibition against third-party electric vehicle charging in (b), are difficult to enforce and compliance will be difficult to monitor, which is why we propose to remove those restrictions. The issues may need to be addressed by other means. While we agree with the intent of the BETC wording, a broader question emerges about how to prevent net metering aggregation from allowing customer-generators to avoid impacts of other rules' constraints, some which may apply to net metering generally.

PGE agrees with the wording changes in Proposed Rule OAR 860-0039-0065 (2) as set out in Attachment 2. Staff has clarified the process and added useful cross references.

In (3) of this rule, PGE proposes to incorporate a simple clarification identified by Staff in recent discussions. We propose language as follows:

OAR 860-039-0065 (3)

(3) The aggregation of meters will apply only charges that use kilowatt-hours as the billing determinant. All other charges applicable to each meter account will be billed to the customer-generator. The utility will first apply the kWh credits to the charges for the designated meter and then to the charges for aggregated meters in rank order.

The additional language is moved from Staff's proposed (4) for continuity and clarity. Staff submitted additional language (Attachment 2, OAR 860-039-0065 (3)) that we recommend not be adopted. The Staff-proposed language addition in (3) is "If the number of kilowatt-hours of generation applied to the meter equals the number of kilowatt-hours of use for the meter for the billing period, kilowatt-hour charges will be

zero for the meter.” This sentence is effectively redundant with OAR 860-039-0055(1) and thus potentially confusing.

Staff also added the following in (3), “Unless otherwise specified by the rate schedule for the meter, the average per kilowatt-hour charge what would have applied, absent kilowatt-hour credits for the billing period, will be used to credit kilowatt-hours to the applicable billing period in section (4) of this rule.” The intent of the addition is to describe a mechanism to handle net metering aggregation complications associated with excess generation applied to a meter with time-of-use (TOU) rates. The TOU issue is not unique to net metering aggregation. We recommend that the Commission not adopt such specific rule language. PGE currently credits TOU bills in a manner that benefits customers by first offsetting the on-peak kWh block of TOU rates. For small numbers of customers with this issue, PGE’s practice is a workable solution; however, in the future, the utilities, the OPUC staff and net metering customers will need to address the costs and benefits of an aggregation crediting methodology that applies excess generation to TOU usage.

In (4), Staff’s proposed language should be modified to clarify the process that credits excess generation to aggregated meters on a billing month basis so that excess generation from the designated meter is applied as a kWh credit to usage at the applicable aggregated meter. This language is consistent with the methodology of treating excess generation from net metering. PGE proposes the following language:

(4) If in a monthly billing period the net metering facility supplies more electricity to the public utility than the energy usage recorded by the customer-generator’s designated meter, the utility will apply kWh credits to the next monthly bill for the excess kilowatt-hours first to the designated meter, then to additional aggregated meters usage for the same billing period. Any remaining excess kWh will be applied in the next billing month. kWh credits will be applied to

aggregated meters first to the designated meter, then to additional those meters that have the same charges as the designated meter, and finally to other additional aggregated meters in rank order established by the customer-generator.

With the above changes, we believe that (5) and (6) are no longer necessary. Both the existing rule and Staff's proposed aggregated meter rank ordering are addressed sufficiently in the preceding rules.

No changes are needed for the existing (7) other than appropriate renumbering.

Testing the Rule Changes is Needed

The Proposed Rules were prompted by aggregation requests from a small number of rural installations where a net metering facility could be installed with sufficient kWh production to offset load of the interconnected meter, plus load from other electricity accounts associated with the customer-generator on the same contiguous property. At this time we only have anecdotal evidence as to the range of generation technologies and the number of aggregation requests we may receive in the future. Therefore, we believe the most prudent course of action is to first get a better understanding of the demand for net metering aggregation and the most efficient methods for billing and implementation of aggregation, prior to establishing rules for aggregating multiple rate schedules.

PGE is already aware that questions about applying net metering aggregation across multiple rate schedules are starting to emerge. For example, must the customer-generator have each account in exactly the same name or could the customer use a personal account for one meter and a corporate name for another account? The Commission may find benefit in allowing utilities to provide a limited pilot to test multi-schedule aggregation in practice. Of course, nothing in the rules prohibits a customer

from self-aggregating generation and load through their own interconnections behind PGE's meter.

The complexities of net metering aggregation with multiple rate schedules are evident in Staff's Proposed Rules. In particular, as mentioned above, Proposed Rules, Section 0065 (1) (b) and (d) adds restrictions to aggregation based attributes of the customer-generator's usage related to electric vehicles and the receipt of BETC. While PGE agrees that the intent of these restrictions is appropriate in order to avoid situations where meter aggregation could be used or viewed as a means to avoid other state rules (that is, allow an "end-run"), the Proposed Rules add too much complexity to aggregation. Further, we do not know whether the specific restrictions are sufficiently defined complete or even appropriate to be in the Proposed Rules. Consequently, we are not certain that the Proposed Rules will adequately avoid potential problems, although *are* certain that utilities cannot be placed in an investigation and enforcement role to ensure compliance with the BETC, or other rules.

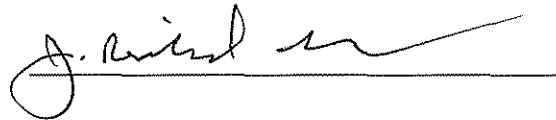
Conclusion

Expanding net metering aggregation from the current arrangement to include meters on multiple rate schedules may result in a potentially significant expansion of other customers subsidizing the distribution costs of net metered customers. These changes should occur in a thoughtful and controlled manner, allowing time to assess the benefits and costs of these changes and to ensure that their design is consistent with the original authorizing statute. This docket was initiated to address a few situations for rural customers with net metering facilities and multiple utility accounts on the property, but there may be a much larger number of customers who want to aggregate generation

between rate schedules. Fundamentally, under the Proposed Rules, these customer-generators will offset utility service charges for these other accounts, which will result in higher costs to other customers due to the loss of revenue to the utility. We understand the objective, but we also think that it is important to recognize that the end result is a transfer of costs to other customers. Small step changes or pilot programs are most appropriate where impacts of changes have not been investigated in detail.

DATED, this 8th day of April, 2011.

Respectfully submitted,



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Attachment 1

Portland General Electric Proposed Rule Changes Related to Net Metering Aggregation

OAR 860-039-0005, Definitions

(1)

(d) "Contiguous" has the meaning given on OAR 860—038-0005(60)(c)(C).

(~~e~~) "Customer-generator" means *the person who is the user of a net metering facility and who has applied for and been accepted to receive electricity service at a premises from the serving public utility.*

[note; other than renumbering no other changes are proposed]

OAR 860-039-0010, Net Metering Kilowatt Limit

(1) For residential customer-generators of a public utility, these rules apply to net metering facilities that have a generating capacity of 25 kilowatts or less.

(2) For non-residential customer-generators of a public utility, these rules apply to net metering facilities that have a generating capacity of two megawatts or less.

(3) Nothing in these rules is intended to limit the number of net metering facilities per customer-generator so long as the net metering facilities in aggregate on the customer-generator's contiguous property do not exceed the applicable kilowatt/ or megawatt limit.

OAR 860-039-0065, Aggregation of Meters for Net Metering

(1) For the purpose of measuring electricity usage under the net metering program, a public utility must, upon request from a customer-generator, aggregate for billing purposes ~~a~~ the meter to which the net metering facility that is physically attached to the net metering facility ("designated meter") with one or more meters ("~~additional aggregated~~ meter") in the manner set out in this ~~section~~ rule. This rule is mandatory upon the public utility only when:

(a) The ~~additional aggregated~~ meter is located on the customer-generator's premises or property that is contiguous to the premises associated with the designated meter property;

(b) The electricity measured by the designated meter and any aggregated meters is for the customer-generator's requirements;

(c) The designated meter ~~and the additional meter are subject to the same schedule~~ shall be the meter used to determine the applicable kilowatt limit set out in OAR 860-039-0010 (1) and (2); and

(d) The designated meter and the aggregated ~~additional~~ meter are served by the same primary feeder.

(2) A customer generator must give at least 60 days notice to the utility to request that additional meters be included in meter aggregation. The specific meters must be identified at the time of such request. In the event that more than one additional meter is identified, the customer-generator must designate the rank order for the ~~additional~~ aggregated meters to which net metering credits are to be applied, in accordance with sections (3) and (4) of this rule. At least 60 days in advance of the beginning of the next annual billing period, a customer generation may annually amend the rank order for the aggregated meters.

(3) The aggregation of meters will apply only to charges that use kilowatt-hours as the billing determinant. All other charges applicable to each meter account will be billed to the customer-generator. The utility will first apply the kWh credits to the charges for the designated meter and then to the charges for aggregated meters in rank order.

(4) If in a monthly billing period the net metering facility supplies more electricity to the public utility than the energy usage recorded by the customer-generator's designated meter, the utility will apply kWh credits ~~to the next monthly bill for the excess kilowatt-hours first to the designated meter, then to additional aggregated meters usage for the same billing period. Any remaining excess kWh will be applied in the next billing month. kWh credits will be applied to aggregated meters first to the designated meter, then to additional those meters that have the same charges as the designated meter, and finally to other additional aggregated meters in rank order established by the customer-generator.~~

~~(5) If an additional meter changes service to a rate schedule that is different than the designated meter, the additional meter is not eligible for net metering credits for the remainder of the billing year and until such time as the additional meter receives service on the same rate schedule as the designated meter.~~

~~(6) If the designated meter changes service to a different rate schedule, aggregation of net metering credits is not allowed for the remainder of the billing year and may not occur until such time as the additional meters receive service on the same rate schedule as the designated meter.~~

(7) With the Commission's prior approval, a public utility may charge the customer-generator requesting to aggregate meters a reasonable fee to cover the administrative costs of this provision pursuant to a tariff approved by the Commission.

**Attachment 2
Staff's Proposed Rules**

860-039-0005

Scope and Applicability of Net Metering Facility Rules

(1) OAR 860-039-0010 through 860-039-0080 (the "net metering rules") establish rules governing net metering facilities interconnecting to a public utility as required under ORS 757.300. Net metering is available to a customer-generator only as provided in these rules. These rules do not apply to a public utility that meets the requirements of ORS 757.300(9).

(2) For good cause shown, a person may request the Commission waive any of the net metering facility rules.

(a) A public utility and net metering applicant may mutually agree to reasonable extensions to the required times for notices and submissions of information set forth in these rules for the purpose of allowing efficient and complete review of a net metering application.

(b) If a public utility unilaterally seeks waiver of the timelines set forth in these rules, the Commission must consider the number of pending applications for interconnection review and the type of applications, including review level and facility size.

(3) As used in OAR 860-039-0010 through 860-039-0080:

(a) "ANSI C12.1 standards" means the standards prescribed by the 2001 edition of the American National Standards Institute, Committee C12.1 (ANSI C12.1), entitled "American National Standard for Electric Meters - Code for Electricity Metering," approved by the C12.1 Accredited Standard Committee on July 9, 2001.

(b) "Applicant" means a person who has filed an application to interconnect a net metering facility to an electric distribution system.

(c) "Area network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE standard 1547 Section 4.1.4 (published July 2003).

(d) "Contiguous" has the meaning given on OAR 860-038-0005(60)(b)(C).

(de) "Customer-generator" means a customer-generator as defined in ORS 757.300(1)(a) the person who is the user of a net metering facility and who has applied for and been accepted to receive electricity service at a premises from the serving public utility.

Attachment 2
Staff's Proposed Rules

(**ef**) "Electric distribution system" means that portion of an electric system which delivers electricity from transformation points on the transmission system to points of connection at a customer's premises.

(**fg**) "Equipment package" means a group of components connecting an electric generator with an electric distribution system, and includes all interface equipment including switchgear, inverters, or other interface devices. An equipment package may include an integrated generator or electric production source.

(**gh**) "Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase, and three-phase.

(**hi**) "Generation capacity" means the nameplate capacity of the power generating device(s). Generation capacity does not include the effects caused by inefficiencies of power conversion or plant parasitic loads.

(**ij**) "Good utility practice" means a practice, method, policy, or action engaged in or accepted by a significant portion of the electric industry in a region, which a reasonable utility official would expect, in light of the facts reasonably discernable at the time, to accomplish the desired result reliably, safely and expeditiously.

(**jk**) "IEEE standards" means the standards published in the 2003 edition of the Institute of Electrical and Electronics Engineers (IEEE) Standard 1547, entitled "Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 12, 2003, and in the 2005 edition of the IEEE Standard 1547.1, entitled "IEEE Standard Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electric Power Systems," approved by the IEEE SA Standards Board on June 9, 2005.

(**kl**) "Impact study" means an engineering analysis of the probable impact of a net metering facility on the safety and reliability of the public utility's electric distribution system.

(**lm**) "Interconnection agreement" means an agreement between a customer-generator and a public utility, which governs the connection of the net metering facility to the electric distribution system, as well as the ongoing operation of the net metering facility after it is connected to the system. An interconnection agreement will follow the standard form agreement developed by the public utility and filed with the Commission.

(**mn**) "Interconnection facilities study" means a study conducted by a utility for the customer-generator that determines the additional or upgraded distribution system facilities, the cost of those facilities, and the time schedule required to interconnect the net metering facility to the utility's distribution system.

Attachment 2
Staff's Proposed Rules

(no) "Net metering facility" means a net metering facility as defined in ORS 757.300(1)(d).

(op) "Non-residential customer" means a retail electricity consumer that is not a residential customer, except "non-residential customer" does not include a customer who would be a residential customer but for the residency provisions of subsection (r) of this rule.

(pq) "Point of common coupling" means the point beyond the customer-generator's meter where the customer-generator facility connects with the electric distribution system.

(qr) "Public utility" has the meaning set forth in ORS 757.005 and is limited to a public utility that provides electric service.

(rs) "Residential customer" means a retail electricity consumer that resides at a dwelling primarily used for residential purposes. "Residential customer" does not include retail electricity customers in a dwelling typically used for residency periods of less than 30 days, including hotels, motels, camps, lodges, and clubs. "Dwelling" includes, but is not limited to, single-family dwellings, separately-metered apartments, adult foster homes, manufactured dwellings, and floating homes.

(st) "Spot network" means a type of electric distribution system that uses two or more inter-tied transformers protected by network protectors to supply an electrical network circuit. A spot network may be used to supply power to a single customer or a small group of customers.

(tu) "Written notice" means a required notice sent by the utility via electronic mail if the customer-generator has provided an electronic mail address. If the customer-generator has not provided an electronic mail address, or has requested in writing to be notified by United States mail, or if the utility elects to provide notice by United States mail, then written notices from the utility shall be sent via First Class United States mail. The utility shall be deemed to have fulfilled its duty to respond under these rules on the day it sends the customer-generator notice via electronic mail or deposits such notice in First Class mail. The customer-generator shall be responsible for informing the utility of any changes to its notification address.

Stat. Auth.: ORS 183, 756 & 757
Stats. Implemented: ORS 756.040, 757.300
Hist.: PUC 8-2007, f. & cert. ef. 7-27-07

860-039-0010

Net Metering Kilowatt Limit

(1) OAR 860-039-0005 through 860-039-0080 apply to:

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~~(a) For residential customer-generators of a public utility or residential customer-generators that have an aggregated residential meter under OAR 860-039-0065 and whose net metering facilities have a generating capacity, these rules apply to net metering facilities that have a generating capacity of 25 kilowatts or less;~~

~~(b) Residential customer-generators of a public utility that have an aggregated non-residential meter under OAR 860-039-0065 and whose net metering facilities have a generating capacity of two megawatts or less; and~~

~~(c) Non-residential customer-generators of a public utility whose net metering facilities have a generating capacity of two megawatts or less.~~

~~(2) For non-residential customers of a public utility, these rules apply to net metering facilities that have a generating capacity of two megawatts or less.~~

~~(3) Nothing in these rules is intended to limit the number of net metering facilities per customer-generator so long as the net metering facilities in aggregate on the customer-generator's contiguous property do not exceed the applicable kilowatt/ or megawatt limit.~~

Stat. Auth.: ORS 183, 756 & 757
Stats. Implemented: ORS 756.040, 757.300
Hist.: PUC 8-2007, f. & cert. ef. 7-27-07

860-039-0065

Aggregation of Meters for Net Metering

(1) For the purpose of measuring electricity usage under the net metering program, a public utility must, upon request from a customer-generator, aggregate for billing purposes ~~at the meter to which the net metering facility that~~ is physically attached to the net metering facility ("designated meter") with one or more meters ("additional aggregated meter") in the manner set out in this ~~section~~ rule. This rule is mandatory upon the public utility only when:

(a) The additional aggregated meter is located on the customer-generator's premises or property that is contiguous to the premises associated with the designated meter property;

(b) The electricity measured by the designated meter and any additional aggregated meters is primarily used to measure only electricity used for the customer-generator's requirements, where requirements do not include electricity for charging electric vehicles that are not owned by or rented for the use of the customer-generator;

(c) ~~The designated meter and the additional meter are subject to the same rate schedule; and~~

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~~(d) The designated meter and the additional any aggregated meters are served by the same primary feeder.~~

(d) If any entity received an Oregon Business Energy Tax Credit for the customer-generator's net metering facility, meters beyond those in the approved tax credit are subject to a non-residential rate schedule.

(2) A customer-generator must give at least 60 days notice to the utility to request that additional meters be included in meter aggregation. The specific meters must be identified at the time of such request. In the event that more than one additional meter is identified, the customer-generator must designate the rank order within the categories in section (5) of this rule for the additional aggregated meters to which net metering credits are to be applied, in accordance with sections (3) and (4) of this rule. At least 60 days in advance of the beginning of the next annual billing period, a customer generator may annually amend the rank order for the aggregated meters.

(3) The aggregation of meters will apply only to charges that use kilowatt-hours as the billing determinant. All other charges applicable to each meter account will be billed to the customer-generator. If the number of kilowatt-hours of generation applied to the meter equals the number of kilowatt-hours of use for the meter for the billing period, kilowatt-hour charges will be zero for the meter. Unless otherwise specified by the rate schedule for the meter, the average per kilowatt-hour charge that would have applied, absent kilowatt-hour credits for the billing period, will be used to credit kilowatt-hours to the applicable billing period in section (4) of this rule.

(4) If in a monthly billing period the net metering facility supplies more electricity to the public utility than the energy usage recorded by the customer-generator's designated meter, the utility will provide apply credits to be applied to the customer's next monthly billing period for the excess kilowatt-hours. The utility will first apply the kilowatt-hour credits to the charges for the designated meter, and then to the charges for additional aggregated meters in rank order that have the same charges as the designated meter, and finally to other additional meters.

(5) The rank order of aggregated meters is as follows:

(a) All meters subject to the same rate schedule as the designated meter;

(b) All non-residential meters if the designated meter is a non-residential meter; and

(c) All other meters.

~~If an additional meter changes service to a rate schedule that is different than the designated meter, the additional meter is not eligible for net metering credits for the remainder of the billing year and until such time as the additional meter receives service on the same rate schedule as the designated meter.~~

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(6) If the designated meter ~~or an aggregated meter becomes subject changes service to~~ a different rate schedule, the utility will amend the rank order of the aggregated meters to be consistent with section (5) of this rule. If the rank order changes, the utility will provide a timely notice of the change to the customer-generator and provide an opportunity to change the rank order within the categories in section (5) of this rule. The customer-generator must notify the utility of any changes within 60 days of the notice from the utility. ~~of net metering credits is not allowed for the remainder of the billing year and may not occur until such time as the additional meters receive service on the same rate schedule as the designated meter.~~

(7) With the Commission's prior approval, a public utility may charge the customer-generator requesting to aggregate meters a reasonable fee to cover the administrative costs of this provision pursuant to a tariff approved by the Commission.

Stat. Auth.: ORS 183, 756 & 757
Stats. Implemented: ORS 756.040, 757.300
Hist.: PUC 8-2007, f. & cert. ef. 7-27-07