



Oregon

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Via Electronic Filing and Hand Delivery

OREGON PUBLIC UTILITY COMMISSION
ATTENTION: FILING CENTER
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RE: **Docket No. AR 515**- In the Matter of a Rulemaking to Adopt Rules Related to Net Metering.

Enclosed for filing in the above-captioned docket are the supplemental comments of the Staff of the Oregon Public Utility Commission. This document is being filed by electronic mail with the PUC Filing Center. Courtesy copies are being provided by email to participants listed on the Commission's service list.

/s/ Diane Davis

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**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

AR 515

A Rulemaking to Adopt Rules Related to
Net Metering.

STAFF'S SUPPLEMENTAL COMMENTS

Staff offers the following supplemental comments on its proposed net metering rules (AR 515).

Size Limits (860-039-0010)

Staff's opening comments distinguish between net metering facilities under Oregon law and Qualifying Facilities (QFs) under the federal Public Utility Regulatory Policies Act (PURPA). We noted the different purposes of these statutes — allowing a customer-generator to offset its load vs. providing a market for small power producers and cogenerators. In doing so, we stated that the opportunities available through PURPA should not be used as an argument against staff's proposal to increase net metering facility size for nonresidential customers to 2 MW. At the same time, there are circumstances where a PURPA arrangement may offer the only solution, as discussed below.

Several commenters present various factual scenarios to illustrate their concerns about the possible scope, and limitations, presented by staff's proposed rules related to size limits. Such examples include the application of proposed rules 860-039-0010(3) and 860-039-0065 to the owner of an apartment building or to the owner of a winery with multiple residences on the premises. See, e.g., Comments filed by Ernest Munch (dated May 2, 2007). Similarly, in his opening comments, Steven McGrath of Sustainable Solutions Unlimited, LLC, raised a concern that under OAR 860-039-0010(3) adjacent state buildings could be considered to serve the same customer-generator, even though the agencies or branches of state government using the buildings are different. Thus, the net metering systems serving the different buildings and agencies could be limited to a combined 2 MW.

In response, staff initially observes there are numerous possible conditions that could be considered in applying size limits to the statutory definition of customer-generator (the topic addressed by proposed rule 860-039-0010) and the aggregation of multiple meters (the subject of rule 860-039-0065). Clearly, staff's proposed rules cannot encompass all possible factual scenarios, and some questions may ultimately have to be decided only after a hearing before the Commission, where the unique facts behind each scenario are fully presented and considered. However, as a guide, the following principles underlie proposed rules 860-039-0010 and 860-039-0065.

1. ORS 757.300(1)(d) requires that the net metering facility be (1) located on the customer-generator's premises and (2) intended primarily to offset part or all of the customer-generator's requirements for electricity. Accordingly, the net metering law does not allow either (a) aggregation of meters for multiple customers residing on different (e.g., adjacent) premises or (b) aggregation of meters for a single customer-generator where the meters are located on the customer-generator's non-contiguous property.
2. A "customer-generator" must be both a "user of a net metering facility" and actually "generate" electricity with the net metering facility. See ORS 757.300(1)(a) and (1)(c). As such, a *casual* tenant in an apartment building, or a home located on a winery, cannot be considered a "customer-generator" under the net metering law because, while the tenant may be a "user" of the net metering facility, in the typical case the tenant will not itself be "generating electricity" with the net metering facility.
3. Building on the principle stated in (2) above, staff's counsel advises a strong argument may be made that ORS 757.300 was meant to be applied so that there is only one customer-generator per net metering facility. This conclusion draws support from the structure of ORS 757.300, which seems to discuss the customer-generator as a single entity throughout the statute. As further support for the one customer-generator per net metering facility interpretation, the opposite conclusion (i.e., that multiple customer-generators may be affiliated with a single net metering facility) raises numerous difficult questions. A key preliminary issue would involve determining the nature of the interest that would allow an additional person to claim status as a customer-generator in relation to a designated person's net metering facility. Must the additional person have an equity interest in the net metering facility? If so, how much of an interest is sufficient? If a sufficient equity interest is not the test, then what are the criteria? Must the residences or businesses be under common ownership — for example, a member of the same family as the owner of the net metering facility? Then what does "a member of the same family" mean? Further, would it be consistent with the statute's intent of having a size limit for the net metering facility to allow numerous persons to be affiliated in some manner with the same net metering facility, thus correspondingly multiplying the size limit by the number of such persons? For example, if there are 1,000 tenants in an apartment building with "some interest" in the building owner's net metering facility, does the size limit then become (1,000 X 25 kW)? That such questions are numerous and difficult to resolve supports the conclusion that ORS 757.300 was intended to be applied so that there is only one customer-generator per net metering facility.

These three principles apply to the commenters' various scenarios as follows:

In Mr. Munch's apartment building example, the one and only customer-generator is the person who uses, and generates electricity with, the net metering facility. If meters in the building owner's name serve individual apartments, or common areas with sufficient load to support a generating facility, net metering may work well. Further, the building owner typically would be a nonresidential customer, subject to staff's proposed 2 MW limit. However, multi-family buildings often have individually-metered residences, and even if the tenant could qualify as a customer-generator under ORS 757.300, individual net metering facilities for each residence typically are not practical. In this situation, the building owner or a third party may install and operate a solar electric system or wind turbine at the building, sell the electricity to any number of residents without being subject to the Commission's regulation,¹ and sell any excess energy to the utility under a PURPA contract.²

For Mr. Munch's issue regarding multiple homes on contiguous property, if the homes can reasonably be considered to be serving the same customer-generator — for example, the associated meters are in a single customer's name — the meters can be aggregated for billing purposes under proposed rule OAR 860-039-0065. However, under OAR 860-039-0010(3), the (residential) customer-generator would be subject to the 25 kW limit for net metering. As above, an alternative may be a PURPA agreement with the utility.

For the multiple state office buildings scenario raised by Mr. McGrath, staff's intent in this case is that each building would have its own 2 MW limit, to the extent the users who generate electricity with the net metering facility could reasonably be considered to be different and the other requirements of ORS 757.300 are satisfied.

Ultimately, to address such issues, the Commission must take into account the extent to which the proposed users of a net metering facility can reasonably be considered to be the same or different. Staff's three principles may assist in this determination. But to the extent they do not resolve all questions, a hearing before the Commission may be necessary.

Finally, Mr. Christopher Dymond of the Oregon Department of Energy and Mr. Munch raised the issue of differentiation of power sources in application of net metering facility size limits, pointing in part to the benefits of solar energy in meeting energy needs during peak hours. Staff notes that all residential and small nonresidential customers of Portland General Electric (PGE) and Pacific Power have the option to choose a time-of-use rate. Under this option, rates are higher during on-peak periods and lower during off-peak periods.³ Net metering participants who install a solar electric system can evaluate whether this option is advantageous for their particular circumstances.

¹ See ORS 757.005(1)(b).

² If excess energy will never be delivered to the utility system, no PURPA arrangement is needed.

³ See PGE Schedules 7 and 32; Pacific Power Schedule 210.

PGE has filed an application for advanced metering infrastructure throughout its service area that would facilitate voluntary time-varying pricing options for all customers.⁴ In a separate investigation, the Commission will be addressing whether all customers should have meters that record energy usage by time of day as well as time-varying rate options, or credits for reducing load during peak hours.⁵ Through these and other proceedings, staff expects that additional time-varying rate options will become available that work well for certain types of net metering systems and customers.

Disconnecting the Net Metering Facility From the Utility System (860-039-0015)

Whole Service Disconnect

Staff agrees with the proposal by Mr. McGrath to allow a “whole service disconnect” for an entire residence, commercial building, or other facility to serve as the utility’s disconnecting means for the net metering facility. See Mr. McGrath’s Opening Comments at 2. This proposal would allow the customer to save costs associated with a separate utility-accessible disconnect for the net metering facility while at the same time allowing the utility to isolate the customer’s generation from the utility’s network.

The whole service disconnect would allow the utility to disconnect (i.e., lock out and tag out) the net metering facility to prevent the release of energy back into the utility’s network. This would safeguard utility employees from the unexpected release of hazardous energy during service, maintenance or emergency activities. Per OAR 860-039-0015(3), a customer choosing this option is putting the premises at greater risk of electric power interruption by the utility.

Staff recommends the words “and the customer-generator’s electric service” be deleted in Section (2) of proposed rule OAR 860-039-0015, as shown in Appendix A.

Disconnect Switch Exemption

Mr. Jon Miller of Oregon Solar Energy Industries Association and Mr. McGrath commented at the hearing that Pacific Gas and Electric Company (PG&E) in California does not require customers to have a separate disconnect switch for inverter-based net metering facilities. Staff notes that PG&E customers have different electrical connection requirements than what is required in Oregon. For example, more residential customers in California have electrical disconnects on the exterior of their homes that allow disconnection by the utility and local fire department. Consequently, California net metering interconnection standards may not be appropriate for Oregon. Staff believes the recommendation made above, allowing a whole service disconnect accessible to the utility, provides the latitude these participants are seeking.

Excess Energy Credits (860-039-0060)

Staff’s proposed rules would grant kilowatt-hour credits remaining at the end of the annual billing cycle to the utility’s low-income energy assistance program. Staff

⁴ See Docket No. UE 189.

⁵ See Docket No. UM 1188.

thoroughly discussed in opening comments the reasons for our proposed treatment of excess energy credits. Many utility and state net metering programs grant excess energy to the utility at the end of the annual billing period.⁶

Customers who wish to oversize an on-site generating system relative to their *annual* on-site load may execute a PURPA contract with the utility. The Commission's updated PURPA policies for QFs 10 MW or less provide standard avoided cost rates and a thoroughly vetted standard contract for up to 20 years. No insurance is required for QFs 200 kW or smaller.

The same remedy is available for customers concerned about potential future reductions in load, whether due to tenant vacancies, types of tenants, business downturns, closures or conservation measures. Such customers can enter into PURPA contracts at the outset or at the time of the change in on-site load. There are no term requirements for net metering agreements, and customers can choose to enter into short-term or long-term PURPA contracts. PURPA is designed for customers who want to use some or all of the electricity they generate to offset the energy they use on-site, as well as independent power producers who want to sell all of a facility's output to the utility.

Thus, a customer can execute a PURPA agreement for the first several years of facility operation, and execute a net metering agreement after growing into its projected on-site load. Conversely, a customer can enter into a PURPA contract if it faces a short- or long-term loss of load and receive avoided cost rates for all excess energy delivered to the utility.

Errata

1. Regarding 860-039–0025(1)(e), only equipment certifications should be required at the interconnection *application* stage. “[A]greements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information” are executed when the customer-generator executes the utility's interconnection agreement. PGE pointed out this issue to staff. Staff requests the Commission correct this error by making the following change to 860-039-0025(1)(e):

~~Equipment Certifications and agreements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information;~~

⁶ See Interstate Renewable Energy Council, “Connecting to the Grid” Project, State and Utility Net-Metering Rules and Regulations (October 2006), available at: http://www.irecusa.org/fileadmin/user_upload/ConnectDocs/SatebyStateNetMeteringTable1006.pdf.

2. Mr. Miller is correct that there is an error in the rules at 860-039-0030(4). The original rule that parties reviewed, based on the New Jersey standards for interconnecting net metering facilities, stated:

Within 10 business days after the public utility notifies the applicant that the application is complete under (9) above, the public utility will notify the applicant that:

- a. The net metering facility meets all of the criteria at (3) through (7) above that apply to the facility, and the interconnection will be finally approved upon completion of the process set forth at (11) through (15) below; or
- b. The net metering facility has failed to meet one or more of the applicable criteria at (3) through (7) above, and the interconnection application is denied.

Emphasis added. See 860-022-XX12(10), draft rules circulated on January 23 and February 28, 2007, at

http://www.puc.state.or.us/PUC/admin_rules/workshops/Workshop.shtml.

Staff requests the Commission correct this error by making the following change to 860-039-0030(4):

Within ~~10~~ **14 10** business days after the public utility notifies a level 1 applicant that the application is complete, the public utility must notify the applicant that:
(a) The net metering facility meets all applicable criteria and the interconnection will be approved upon completion of any required inspection of the facility and fully executed interconnection agreement; or
(b) The net metering facility has failed to meet one or more of the applicable criteria and the interconnection application is denied.

3. Paragraphs in 860-039-0030 should be renumbered. This section inadvertently skips from paragraph (2) to paragraph (4).
4. 860-039-0035(2)(j) inadvertently implies that a net metering facility on a spot or other network need not meet other relevant provisions in paragraph (2) in order to qualify for Level 2 interconnection review. Staff requests the Commission correct this error by making the following change to the introductory sentence of 860-039-0035(2)(j):

If a net metering facility's proposed point of common coupling is on a spot or area network, the interconnection will meet the following **additional** requirements, ~~in~~ **addition to the requirements in sections (3) through (7) of this rule:**

Respectfully submitted:

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Appendix A

860-039-0015

Installation, Operation, Maintenance, and Testing of Net Metering Facilities

(1) Except for customer-generators established as net metering customers prior to July 1, 2007, a customer-generator of a public utility must install, operate and maintain a net metering facility in compliance with the IEEE standards.

(2) Except for customer-generators established as net metering customers prior to July 1, 2007, a customer-generator of a public utility must install and maintain a manual disconnect switch that will disconnect the net metering facility from the public utility's system ~~and the customer-generator's electric service~~. The disconnect switch must be a lockable, load-break switch that plainly indicates whether it is in the open or closed position. The disconnect switch must be readily accessible to the public utility at all times and located within 10 feet of the public utility's meter.

(a) For customer services of 600 volts or less, a public utility may not require a disconnect switch for a net metering facility that is inverter-based with a maximum rating as shown below.

<u>Service Type</u>	<u>Maximum Net Metering Facility Size (kW)</u>
<u>240 Volts, Single-phase, 3 Wire</u>	<u>7.2</u>
<u>120/208 Volts, 3-Phase, 4 Wire</u>	<u>10.5</u>
<u>120/240 Volts, 3-Phase, 4 Wire</u>	<u>12.5</u>
<u>277/480 Volts, 3-Phase, 4 Wire</u>	<u>25.0</u>

For other service types, the net metering facility must not impact the customer-generator's service conductors by more than 30 amperes.

(b) The disconnect switch may be located more than 10 feet from the public utility meter if permanent instructions are posted at the meter indicating the precise location of the disconnect switch. The public utility must approve the location of the disconnect switch prior to the installation of the net metering facility.

(3) The customer-generator's electric service may be disconnected by the public utility entirely if the net metering facility must be physically disconnected for any reason.