

ORDER NO. 21-493

ENTERED Dec 28 2021

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

UM 2099

In the Matter of

PORTLAND GENERAL ELECTRIC  
COMPANY,

Request for Approval of Agreement for Net  
Metering and Interconnection Service.

ORDER

DISPOSITION: STAFF'S RECOMMENDATION ADOPTED

At its public meeting on December 28, 2021, the Public Utility Commission of Oregon adopted Staff's recommendation in this matter. The Staff Report with the recommendation is attached as Appendix A.



BY THE COMMISSION:

A handwritten signature in blue ink, appearing to read "Nolan Moser".

**Nolan Moser**  
Chief Administrative Law Judge

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Circuit Court for Marion County in compliance with ORS 183.484.

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: December 28, 2021**

**REGULAR** \_\_\_\_ **CONSENT**  X  **EFFECTIVE DATE**  January 1, 2022

**DATE:** December 20, 2021

**TO:** Public Utility Commission

**FROM:** Caroline Moore and Ted Drennan **SIGNED**

**THROUGH:** Bryan Conway

**SUBJECT:** PORTLAND GENERAL ELECTRIC:  
(Docket No. UM 2099)  
Request to continue the inclusion of the two-meter solution in the  
Agreement for Net Metering and Interconnection Services.

**STAFF RECOMMENDATION:**

Approve Portland General Electric's (PGE or Company) request to continue to use the temporary two-meter solution for new net-metering customers as approved in Public Utility Commission of Oregon (Commission or OPUC) Order No. 20-402, effective January 1, 2022 through December 31, 2022.

**DISCUSSION:**

Issue

Whether the Commission should approve PGE's request to continue to use the temporary two-meter solution for new net-metering customers as approved in OPUC Order No. 20-402, effective January 1, 2022 through December 31, 2022.

Under the two-meter solution, the following applies for future net metering applicants in PGE's territory who are located on a generation limited feeder:

- Allow PGE to install a second Advanced Metering Infrastructure (AMI) meter upstream of the net metering system's inverter; and
- Allow PGE to use the second meter to perform temporary remote disconnection of the net metering project during periods of high generation and low customer demand on the feeder.

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Applicable Rule or Law

Oregon Revised Statute (ORS) Section 757.300 requires electric utilities to provide net metering to customer-generators with renewable energy systems (net metering project).<sup>1</sup>

ORS 757.300(4)(b) grants the Commission authority to adopt additional control and testing requirements for net metering systems to protect public safety or system reliability.

ORS 757.300(2)(b) allows electric utilities to install additional meters, at its own expense, to monitor the flow of electricity in each direction.

Oregon Administrative Rules (OAR) Chapter 860, Division 39, outlines the Commission's net metering policies.

OAR 860-039-0030 through 860-039-0040 describe the process for utilities to identify net metering project or utility facilities necessary for a net metering project to safely interconnect with the utility's system.<sup>2</sup>

OAR 860-039-0045 requires the net metering applicant pay for the cost of any facilities required to accommodate the net metering project.

Commission Order No. 07-319, which adopted the Division 39 rules, also required PGE to file a standard form net metering agreement.<sup>3</sup> PGE filed a standard net metering agreement on September 24, 2007, and a revised version in 2008.<sup>4</sup>

Analysis

*Background*

In 2019, PGE began to identify areas of its system that could not connect additional net metering projects without the net metering customer funding the installation of cost-prohibitive protective equipment.<sup>5</sup>

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<sup>1</sup> ORS 757.300(1).

<sup>2</sup> OAR 860-039-0040 describes the level 3 interconnection process, which is for net metering applications that fail the level 1 and level 2 screening processes described in 860-039-0030 and 860-039-0035, respectively.

<sup>3</sup> See Docket No. AR 515, Commission Order No. 07-319, July 24, 2007, p. 20.

<sup>4</sup> See Docket No. AR 515.

<sup>5</sup> See Docket No. UM 2099, Staff's Comments (hereinto referred to as Staff's Comments), August 21, 2020, pp. 2-4.

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A temporary “two-meter” solution was proposed as an alternative to allocating tens or hundreds of thousands of upgrades to a residential net metering customer. Under this approach, PGE installs a second AMI meter at the customer’s site, and the customer allows PGE to remotely disconnect the net metering project from grid during times when PGE believes that generation could exceed a safe, reliable level in the local area. Consistent with statute, PGE pays for the second meter. The net metering customer is responsible for installing the second meter base on site.<sup>6</sup>

Staff supported the temporary use of remote disconnection as a relatively quick to implement alternative to halting net metering altogether, and pressed PGE to limit its use of the two-meter solution to the greatest extent possible. Staff also committed to prioritizing discussions that would accelerate long-term solutions to generation-limited feeders in scoping UM 2111.<sup>7</sup>

The Commission approved use of this two-meter solution on a temporary basis in Order No. 20-402. This included Staff’s recommendation to seek Commission approval to continue to use the two-meter solution through December 31, 2021.

*Continued use of the two-meter solution*

On December 14, 2021, PGE filed to continue to use the two-meter solution through December 31, 2022. Since approval of the two-meter solution, PGE reported two curtailment events in 2021 impacting four customers and no customer complaints concerning the curtailments. PGE briefed Staff and stakeholders on the implementation of the two-meter solution in July and November 2021. Based on these updates, it appears that the two-meter solution remains a lower-cost alternative to placing cost-prohibitive upgrades on individual net metering customers and has not led to diminished safety and reliability of the system. At the same time, Staff, PGE, and other stakeholders recognize that better permanent approaches likely exist in modern technologies, practices, and policies and that the Company should not wait any longer to begin exploring alternatives.

Due to resource constraints, Docket No. UM 2111 has not been able to advance in 2021 and a better alternative to the two-meter solution has not been identified. Therefore, Staff recommends that the Commission approve the continued use of this approach through December 31, 2022.

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<sup>6</sup> PGE considered cost sharing between affected net metering customers and the installation of other equipment that prevents net metering systems from ever exporting to the grid, such as a reverse power flow relay. These solutions were deemed less desirable than the two-meter solution, which only limits exports under specific circumstances. A reverse power flow relay with a battery was also considered, but does not minimize upfront costs like the two-meter solution.

<sup>7</sup> Staff’s Comments, p. 7.

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To ensure progress on alternatives, PGE should work to identify and submit for review an alternative method or technology for cost-effectively interconnecting net metering customers on constrained feeders by June 30, 2022. If the Company has not identified an alternative(s) by this point, PGE should submit a status update and explanation of why it has not done so.

*Interaction with other investigations*

Currently, Staff is preparing to re-launch Docket No. UM 2111 in the first quarter of 2022. In addition, Staff and stakeholders continue to review the Company's distribution system investment strategy, flexible load plan, and smart grid test bed. All of which touch on the root cause issues underlying PGE's net metering constraints, alternative technology, cost allocation, or other modern interconnection practices that could provide alternatives to the two-meter solution. To the extent possible, Staff expects the Company to align its exploration of UM 2099 issues with Docket No. UM 2111 and other open investigations to maximize the benefits across generator types and utilities.

Conclusion

PGE's proposal to continue the use of the two-meter solution will allow for continued development of net-metering facilities at lower costs for generation limited feeders. Staff finds that PGE's proposal is appropriate until long-term solutions are developed in other venues, such as Docket Nos. UM 2111, UM 2197, and UM 2141. Staff is comfortable recommending approval of PGE's request to extend the use of the two-meter solution on a temporary basis through December 31, 2022, with a requirement for PGE to file a more permanent alternative(s) or status update by June 30, 2022.

**PROPOSED COMMISSION MOTION:**

Approve Portland General Electric's request to continue to use the temporary two-meter solution for new net-metering customers as approved in OPUC Order No. 20-402, effective January 1, 2022 through December 31, 2022.