

**PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: December 15, 2020**

REGULAR  X  CONSENT       EFFECTIVE DATE  December 18, 2020

**DATE:** December 7, 2020

**TO:** Public Utility Commission

**FROM:** Eric Shierman

**THROUGH:** Bryan Conway, JP Batmale, and Sarah Hall **SIGNED**

**SUBJECT:** PORTLAND GENERAL ELECTRIC:  
(Docket No. ADV 1155/Advice No. 20-19)  
Schedule 52 Nonresidential Electric Vehicle Charging Pilot.

**STAFF RECOMMENDATION:**

Staff recommends the Public Utility Commission of Oregon (Commission) approve Portland General Electric's (PGE or Company) filing as described in Advice No. 20-19, which implements a new Nonresidential Electric Vehicle (EV) Charging Pilot through Schedule 52, with an effective date of December 18, 2020.

**DISCUSSION:**

Issue

Whether the Commission should approve PGE's filing that requests the adoption of Schedule 52, which establishes a new Nonresidential EV Charging Pilot.

Applicable Rule

Under ORS 757.357(3), the Commission shall direct each electric company to file applications for programs that would accelerate transportation electrification (TE). Under ORS 757.357(4), the Commission shall consider whether the program's investments and other expenditures:

1. Are within the service territory of the electric company;
2. Are prudent as determined by the commission;

3. Are reasonably expected to be used and useful as determined by the commission;
4. Are reasonably expected to enable the electric company to support the electric company's electrical system;
5. Are reasonably expected to improve the electric company's electrical system efficiency and operational flexibility, including the ability of the electric company to integrate variable generating resources; and
6. Are reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure and services.

Under OAR 860-087-0030, a Company must file an application with the Commission for each program that seeks to accelerate TE. OAR 860-087-0030(1) details what the Company must include in its Program application. Broadly, these requirements include:

- (a) A description of the program;
- (b) Data used to support the description;
- (c) A description of program coordination;
- (d) A description of the electric company's long-term strategy to accelerate transportation electrification in its service territory in an effective and efficient manner and how the proposed program fits within the long-term strategy;
- (e) A description of program costs;
- (f) A description of the expected program benefits;
- (g) A description of how the electric company will evaluate the program; and
- (h) A description of how the program addresses the considerations of Oregon Laws 2016, 028, section 20(4)(a)-(f).

Executive Order 20-04 establishes Governor Brown's new greenhouse gas emissions goals for the State of Oregon, and directs state agencies to identify and prioritize actions to meet those goals. Section 5.4(B) of the Executive Order directs the Public Utility Commission to "[e]ncourage electric companies to support transportation electrification infrastructure that: supports GHG reductions, helps achieve the transportation electrification goals set forth in Senate Bill 1044 (2019), and is reasonably expected to result in long-term benefit to customers."

## Analysis

### *Background*

On December 27, 2016, PGE first filed an application for TE programs as required by ORS 757.357. In that filing, PGE did not include proposals that were specifically targeted for commercial customers, such as workplace or fleet charging options. Parties negotiated a stipulation that included a charging option for industrial customers. On

February 16, 2018, the Commission adopted this stipulation in Order No. 18-054, which stated in relevant part that:

PGE agrees to propose a workplace charging and/or fleet charging program within one-year of the date of the Stipulation, conditioned on Commission approval of the Stipulation. The approximate total cost of the proposal will be \$1M. The program shall be open to both cost-of-service and direct access customers. The proposed \$1M results from a removal of \$1M from the PGE's proposed Education and Outreach budget in its application. PGE will also separately consider developing programs to increase access to electricity as a transportation fuel at multifamily dwellings.<sup>1</sup>

On February 15, 2019, PGE filed a business charging pilot in accordance with the stipulation adopted in Order No. 18-054. Staff found that the Company's proposed business charging pilot violated the terms of UM 1811's stipulation because the pilot exceeded the stipulated cost cap.<sup>2</sup> As a result, the parties agreed to modify the original stipulation and PGE agreed to revise its program proposal. The Commission adopted the amended stipulation on November 7, 2019, in Order No. 19-385. The amended stipulation removed capital costs from the business pilot program proposal, and directed PGE to propose a business charging pilot within one year of the date of the stipulation.<sup>3</sup> On July 17, 2020, PGE filed Advice No. 20-19 in accordance with the stipulation.

#### *OAR 860-087-0030 Requirements*

The Commission established eight requirements for a TE program application in Administrative Rule OAR 860-087-0030(1). Broadly, the requirements are:

- (a) A description of the program;
- (b) Data used to support the description;
- (c) A description of program coordination;
- (d) A description of the electric company's long-term strategy to accelerate transportation electrification in its service territory in an effective and efficient manner and how the proposed program fits within the long-term strategy;
- (e) A description of program costs;
- (f) A description of the expected program benefits;
- (g) A description of how the electric company will evaluate the program; and

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<sup>1</sup> See Docket No. UM 1811, OPUC, Application for Transportation Electrification Programs, Order No. 18-054, February 16, 2018, Appendix A, p. 7.

<sup>2</sup> See Docket No. UM 1811, OPUC, Application for Transportation Electrification Programs, Order No. 19-385, p. 2.

<sup>3</sup> *Id.* at 3.

(h) A description of how the program addresses the considerations of Oregon Laws 2016, 028, section 20(4)(a)-(f).

Staff finds that PGE provided an adequate description of the program and supporting data and fulfills the requirements of OAR 860-087-0030(1)(a)-(b). PGE will provide a \$500 standard rebate per port and up to \$2,300 per port for income-eligible multifamily housing, with a total rebate amount limited to \$50,000 for any one customer or location. The Company's objective is for ratepayers to fund 1,000 ports by the end of 2024.

The research outcomes of this pilot are to:

- Track customer participation and satisfaction levels with pilot offerings (e.g. rebates, equipment choices);
- Understand PGE's ability to influence customers' decisions to install charging equipment and/or (as appropriate) operate EV fleets;
- Document charging installation successes and challenges, and customers' perceptions of working with PGE;
- Understand the load curves of EV charging based on site type, and potential implications for the distribution grid; and
- Identify Pilot implementation successes and challenges, and improvement opportunities.<sup>4</sup>

This filing relies on a market baseline assumption from the EV charging needs assessment found in the Company's 2019 Transportation Electrification Plan (TE Plan). PGE predicted 5,626 new level 2 ports will be required in its service territory by 2025 compared to 2019.<sup>5</sup>

In contrast to its residential pilot, in this filing PGE lacks baseline knowledge of the market share of commercial EVSE products that are not demand response enabled. The Company said, "PGE does not have information on the market share of commercial Level 2 EVSE products that are incapable of being demand response enabled."<sup>6</sup> Reducing the market share of home EVSE with this deficiency was an important value in the residential pilot. It is unclear if the same need exists for this commercial pilot.

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<sup>4</sup> See Docket No. ADV 1155, Portland General Electric Company, Advice No. 20-19, NEW Schedule 52, Nonresidential Electric Vehicle Charging Rebate Pilot, July, 17, 2020, Attachment A, page 15.

<sup>5</sup> See Docket No. UM 2033, Portland General Electric Company, Transportation Electrification Plan, September 30, 2019, p. 53.

<sup>6</sup> See Docket No. ADV 1155, Portland General Electric Company, PGE Response to OPUC Information Request No. 005, November 5, 2020, p. 1.

Staff finds that PGE provided an adequate description of program coordination and fulfills the requirement of OAR 860-087-0030(1)(c). To meet requirement (c), PGE's business charging pilot requires less coordination than PGE's residential charging pilot. The residential pilot plans to work closely with auto dealers. The most apparent coordination within this nonresidential pilot will be the Company's technical assistance pilot and the program managers that administer line extension allowances. Due to the minimal coordination involved in this pilot, Staff finds the Company's description adequate

Staff finds that PGE provided an adequate description of how the proposal fits into the company's long-term strategy to accelerate transportation electrification, and therefore fulfills the requirement of OAR 860-087-0030(1)(d). To meet requirement (d), an electric company must disclose how the proposal fits into the Company's long-term strategy: "A description of the electric company's long-term strategy to accelerate transportation electrification in its service territory in an effective and efficient manner and how the proposed program fits within the long-term strategy." Staff finds that PGE provided an adequate description through a combination of its filing and information requests that Staff initiated. The Company described the accomplishments the Company expects this pilot to achieve, stating that this was discussed in its TE Plan.<sup>7</sup> PGE's strategy, as stated in its TE Plan, is to electrify other sectors of the economy with a special focus on the transportation sector.<sup>8</sup>

Staff finds that PGE provided a satisfactory description of program costs and fulfills the requirement of OAR 860-087-0030(1)(e). PGE meets requirement (e) by disclosing the pilot's cost. The total nominal cost of this pilot is \$1 million, consistent with UM 1811's stipulation.

Staff finds that PGE provided an adequate description of expected program benefits and fulfills the requirement of OAR 860-087-0030(1)(f). PGE has met requirement (f) by sending Staff an email describing the program's potential benefit. The Company's initial filing was particularly deficient in meeting OAR 860-087-0030 (1)(f)(C) which requires an electric company's program application to provide, "A discussion of how a net benefit to ratepayers is attainable." In all other UM 1811 pilot proposals, the Company has met this requirement by including a benefit/cost analysis.

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<sup>7</sup> See Docket No. ADV 1155, Portland General Electric Company, PGE Response to OPUC Information Request No. 006, November 5, 2020, p. 1.

<sup>8</sup> See Docket No. UM 2033, Portland General Electric Company, Transportation Electrification Plan, September 30, 2019, p. 10.

To help PGE meet this requirement, Staff sent an information request, asking the Company to provide an analysis similar to that of the residential rebate pilot. PGE replied:

PGE has not independently assessed the cost-effectiveness of this Pilot. The pilot is designed to meet the requirements of the amended UM 1811 stipulation, which requires PGE to propose a business EV charging pilot limited to \$1 million in nominal costs.<sup>9</sup>

Staff found this response inadequate and gave the Company another chance to meet this requirement. PGE provided the following additional information via email:

A). PGE forecasts program benefits for both residential and nonresidential customers from this pilot.

Nonresidential customers who participate in the pilot will benefit immediately from the cash rebate that will lower the cost of installing EV charging at their site. Over the medium term, pilot participants installing EV charging as an amenity may see increased customer traffic, higher employee engagement, and/or more interest from potential tenants and residents (depending on the site type). Meanwhile, pilot participants who operate business fleets will be able to transition their fleets more affordably to electric fuel.

Residential customers will benefit from the increase in charging availability in PGE's service area – the lack of charging availability remains a top 3 barrier to mass market EV adoption. This will support the transition to EVs among residential customers, especially those who may not have access to charging at home, increasing equity among EV drivers.

B). Electric transportation can increase electrical system efficiency and reduce costs for all Oregon customers. Through the proposed pilot program, the Company seeks insight into customers' energy consumption patterns and the impacts of EVSE on the grid. This program offers the customer a qualified charger product list which will allow the Company to offer demand response programs in the future. With today's technology, the power draw from a single level 2 charger is unlikely to cause adverse impacts to the electrical system. However, when multiple chargers are located together, and as new equipment becomes more powerful, there is increased potential for adverse impacts, particularly when charging occurs during peak periods. Customer usage data

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<sup>9</sup> See Docket No. ADV 1155, Portland General Electric Company, PGE Response to OPUC Information Request No. 008, November 5, 2020, p. 1.

collected will inform future system planning and the long-term strategy for how electric transportation can improve the efficiency of the electrical system and support a modern and efficient electric system.

C). If the Company is successful in increasing the adoption of electricity as a transportation fuel, benefits to the electric system may include increased operational flexibility, such as the ability to create long-term flexible loads that reduce the costs of integrating renewable resources. Given the newly developed decarbonization goals in PGE's service territory, this program can play an important role in helping many municipal customers to meet their aggressive clean energy goals, as Electric Vehicle and Electric Vehicle infrastructure to support the shift to lower or no-carbon resources. Benefits to PGE's customers will increase after the end of the pilot period as vehicles and equipment continue to generate revenue and provide electrical system benefits over their useful lives. Program evaluation efforts will estimate the benefits that can be attributed to this program to determine whether a net benefit, relative to program costs, is likely to be achieved after the pilot period.<sup>10</sup>

Staff finds this response by the Company meets the minimum requirement of the OAR by describing how a net benefit to ratepayers could be attainable.

Staff finds that PGE provided an adequate description of how it will evaluate the program and fulfills the requirement of OAR 860-087-0030(1)(g). PGE meets requirement (g) by describing how this pilot will come with a third-party project evaluator that will conduct modeling, data analysis, interviews of pilot staff, survey participants, and attribution analysis. The surveys will be conducted in 2022 and 2023. The total cost of these evaluations will be \$75,000.

Staff finds that PGE provided an acceptable description of how the program meets the statutory obligations and therefore fulfills the requirement of OAR 860-087-0030(1)(h). PGE stated that this pilot will:

- (a) only be applicable to the deployment of EVSE(s) physically located inside PGE's service territory,
- (b) is time-limited and cost-limited by the stipulated \$1 million cap,
- (c) rebates will not be paid until a site is confirmed to be commissioned,
- (d) (this consideration was missing from the original filing)
- (e) this new load may create system value for all customers by supporting flexible loads, and

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<sup>10</sup> See Portland General Electric Company, email from Teresa Tang to Eric Shierman, RE: ADV 1155 Additional Information, November 24, 2020.

- (f) allow EVSE customers to choose the charging equipment that meets their needs.<sup>11</sup>

In the filing, PGE did not directly address (d), the fourth statutory consideration, that this pilot is “reasonably expected to enable the electric company to support the electric company’s electrical system.” PGE emailed the missing information to Staff:

Through this pilot, the Company will gain deeper insight into commercial customer transportation decisions, and better understand where vehicle charging occurs and charging behaviors. The direct customer charging data collected through this pilot will allow PGE to use data from the identified candidate sites to understand the impacts on the electrical system. The Company will look for opportunities to integrate advanced technologies and increase operational flexibility to the electrical system, where appropriate.<sup>12</sup>

Staff finds this additional information meets the requirement by explaining how data collection can support PGE’s electrical system.

*Reason for Staff Recommendation*

Staff finds the details of PGE’s proposed Schedule 52 meets the terms of the stipulation adopted in Order No. 19-385. This pilot covers workplace and fleet charging, was filed within one year, has a budget of \$1 million, is available to direct access customers, and offers a separate rebate for multifamily dwellings. Additionally, Staff finds PGE’s proposal meets the application requirements detailed in OAR 860-087-0030(1) and the requirements of ORS 757.357(4).

Finally, Staff recommends the Commission approve this pilot because it contains the potential for valuable learning. We are hopeful this pilot will show a long-term nonresidential charging program can be cost-effective. The past practice in UM 1811 has been to approve pilots based on expected learnings, not the program’s expected cost-effectiveness, which is understood to be one of the lessons to be learned. This pilot will also allow more granular data collection of EV charging behavior than the Company’s advanced metering infrastructure can presently collect.

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<sup>11</sup> See Docket No. ADV 1155, Portland General Electric Company, Advice No. 20-19, NEW Schedule 52, Nonresidential Electric Vehicle Charging Rebate Pilot, July, 17, 2020, Attachment A, p. 10,11.

<sup>12</sup> See Portland General Electric Company, email from Teresa Tang to Eric Shierman, RE: ADV 1155 Additional Information, November 24, 2020.



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Conclusion

Staff recommends the Commission approve Schedule 52, PGE's nonresidential EV charging pilot.

**PROPOSED COMMISSION MOTION:**

Approve PGE's filing as described in Advice No. 20-19, which implements a new Nonresidential Electric Vehicle Charging Pilot through Schedule 52, with an effective date of December 18, 2020.

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