

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: June 28, 2022**

REGULAR ___ CONSENT ___ X ___ EFFECTIVE DATE June 29, 2022

DATE: June 21, 2022

TO: Public Utility Commission

FROM: JP Batmale

THROUGH: Bryan Conway and Sarah Hall **SIGNED**

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. ADV 1393/Advice No. 22-09)
Schedule 8 - Residential Electric Vehicle Charging Pilot Update.

STAFF RECOMMENDATION:

Approve Portland General Electric's (PGE or Company) Advice No. 22-09, authorizing updates to Schedule 8, with Less than Statutory Notice (LSN).

DISCUSSION:

Issue

Whether the Oregon Public Utility Commission (Commission) should approve updates to Schedule 8, PGE's Residential Electric Vehicle Charging Pilot, which pilots incentives for telematics-based Level 2 chargers.

Applicable Rule

Under ORS 757.205(1):

Every public utility shall file with the Public Utility Commission, within a time to be fixed by the commission, schedules, which shall be open to public inspection, showing all rates, tolls and charges which it has established and which are in force at the time for any service performed by it within the state, or for any service in connection therewith or performed by any public utility controlled or operated by it.

OAR 860-022-0025(2) specifically requires that each energy utility changing existing tariffs or schedules must include in its filing a statement plainly indicating the increase, decrease, or other changes made with the filing, the number of customers affected by the proposed change and the resulting change in annual revenue; and, the reasons or grounds relied upon in support of the proposed change.

Under ORS 757.357(3), the Commission shall direct each electric company to file applications for programs that would support transportation electrification (TE). Under ORS 757.357(6), the Commission shall consider whether the program's investments and other expenditures are:

1. Within the service territory of the Company;
2. Are prudent;
3. Are reasonably expected to be used and useful;
4. Are reasonably expected to improve the Company's electrical system efficiency and operational flexibility, including the Company's ability to integrate variable generating resources; and
5. Are reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure 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).

Analysis

Background

PGE's residential EV charging pilot was first approved by the Commission on February 16, 2018. In Order No. 18-054, the Commission approved a stipulation whereby PGE

would later file a residential home charging pilot with a rebate program.¹ Following a second negotiated stipulation, Order No. 19-385, PGE's residential EV charging pilot for Level 2 chargers was established, with an optional TOU rate and a mandatory demand response (DR) component.² In July 2020, PGE expanded the cap on pilot participants from 3,600 to 5,000.³ The pilot's launch was delayed initially by six months and then further by the COVID-19 pandemic.⁴ As a result, the pilot has had a slow start and the Commission accepted PGE's proposal to move the interim report on the pilot and other TE activities from the fall of 2021 to the end of 2023, with an update to be included in the Company's forthcoming 2022 TE Plan.⁵

Currently the pilot provides a \$500 standard rebate and \$1,000 low-income rebate for customers who purchase a qualified Level 2 home charging station and are automatically enrolled in an EV DR program. The pilot's goal is to sign up 5,000 customers by February 22, 2024. At this time, PGE has 1,120 vehicles enrolled.⁶ During this time, PGE expects to sign up an additional 1,340 residential customers in the DR program on a Bring-Your-Own Charger (BYOC) basis. PGE has several research outcomes associated with this pilot, mostly focused on learning how to increase adoption of electric vehicles and grid-connected home charging stations and decreasing the costs to serve EV loads.

PGE estimates that between Q4 2020 and Q1 2023 there will be 17,000 incremental EV sales in the Company's service area. PGE assumes 7,700 will be equipped with EV home chargers that will qualify for participation in this pilot. The total pilot cost was proposed to be approximately \$16,986,000 (nominal) and did not include the participants' cost of approximately \$9,950,000 for the rest of the qualified EV service equipment installation cost.⁷

Proposed Pilot Expansion and Extension

In this advice filing, PGE seeks to add an incentive to access and use on board telematics-based EV charge management software for Tesla vehicles and extend the pilot by ten months. With regards to the pilot overall, Tesla owners are underrepresented in the PGE residential EV charging pilot, despite the fact that Tesla

¹ See Docket No. UM 1811, Portland General Electric Company, Application for Transportation Electrification Programs, Order No. 18-054, February 16, 2018, p. 5.

² *Ibid* at p. 7.

³ See ADV 1151/Advice No. 20-18, July 15, 2020 and corresponding Oct. 20, 2020 public meeting memo.

⁴ See ADV 1151/Advice No. 20-18 Addendum, Dec. 20, 2021

⁵ See ADV 1151/Advice No. 20-18 Letter from Commission Chief Administrative Law Judge, Jan. 5, 2022

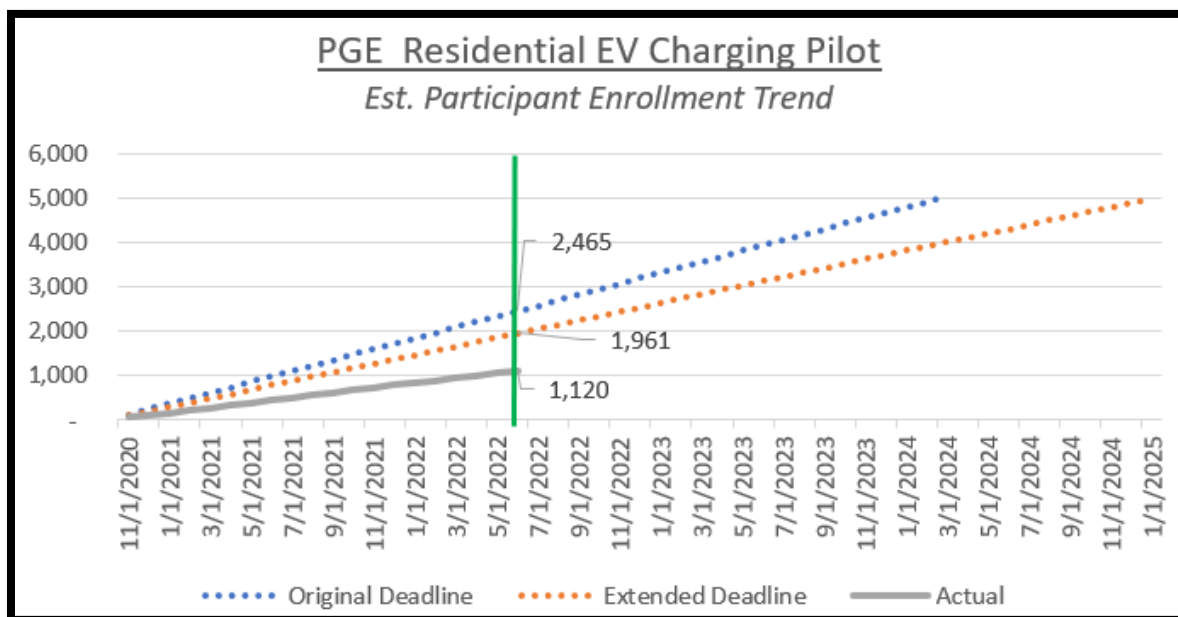
⁶ PGE communication with PUC staff, June 6, 2022, Attachment A.

⁷ A customer's portion of the installation cost after receiving a standard rebate, amounts to eight percent of the price of a new Chevy Bolt, one of the less expensive electric vehicles.

are believed to represent nearly half of all EV sales in the Portland area.⁸ These vehicle owners tend to purchase Level 2 home EV charging equipment that lacks the DR-enabled capabilities necessary to participate in the Schedule 8 pilot.⁹ However, PGE has recently determined that Tesla has established a telematics pathway for utilities to control a Tesla vehicle’s charging through the vehicle itself, rather than through the EV charger. This pathway would allow PGE to enroll more Tesla vehicles. At this point, PGE reports that 500 Teslas are enrolled in another telematics pilot through the Smart Grid Test Bed. These 500 Teslas represent approximately 45 percent of current participants.¹⁰ PGE believes that by adding an incentive to utilize telematics-based charging, the Company can raise the number of enrolled Teslas to a full 50 percent of forecasted 5,000 participants by the end of 2024.¹¹

In addition to the incentive change, PGE is requesting that the tariff be extended from February 22, 2024 to December 31, 2024. The additional ten months would give the Company more time to enroll customers, as the current enrollment trend appears to place the pilot on a path to missing the 5,000 participant goal by February 2024. Staff estimates that participant enrollments will need to nearly double to meet the 5,000 participant goal by the extended deadline of December 31, 2024, shown in Table 1.

Table 1.



⁸ ADV 1393 / Adv No. 22-09, Initial Filing, May 3, 2022.

⁹ *Ibid.*

¹⁰ See June 6, 2022 email communication from PGE staff to PUC staff, Attachment A.

¹¹ *Ibid.*

The combination of the additional incentive to enroll more Teslas and extending the pilot date could help the pilot meet its goal of 5,000 participants, giving it more data on residential charging to draw meaningful learnings.

Cost-Effectiveness

Currently, PGE offers a \$50 incentive for telematics under this pilot.¹² In its filing, PGE proposes a new incentive that is up to \$150 for customers who install a telematics pathway to enable their Tesla to participate in this pilot. Customers would receive the new \$150 incentive in lieu of the \$500 incentive PGE would grant for the installation of an eligible Level 2 charger, which can only be used by non-Tesla EV owners as described above. Due to this smaller incentive cost per vehicle, PGE anticipates that the overall cost of the pilot will not change. In theory, Staff believes this change to the program should improve the overall cost-effectiveness of the pilot and associated DR program, which was estimated to be a combined 1.04 benefit/cost ratio using the Total Resource Cost (TRC) test in October 2019, as noted in the final approval memo.¹³

Reason for Staff Recommendation

Staff believes the low-cost and unique method to better access a larger portion of the EV market, as proposed in this filing, is valuable to the pilot. It also benefits PGE's capacity and the Company's effectiveness at supporting sustainable EV growth in its territory. The ten-month extension could also give PGE enough additional time to make up for the lower level of initial enrollments and achieve its targeted goal of 5,000 participants by December 31, 2024. Staff is hopeful this update to the residential EV charging pilot will enable a more robust set of learnings from the pilot, while potentially lowering the total cost of pilot operation.

Conclusion

Staff recommends the Commission approve the update to Schedule 8, PGE's residential charging pilot.

PROPOSED COMMISSION MOTION:

Approve PGE's filing as described in Advice No. 22-09, with Less than Statutory Notice.

¹² *Ibid.*

¹³ See Staff's Public Meeting Memo, ADV 1151 / Adv. No. 20-18, October 12, 2020.

Docket No. ADV 1393
June 21, 2022
Page 6

Attachment A – PGE Communication to Staff

From: Teresa Tang <teresa.tang@pgn.com>
Sent: Monday, June 6, 2022 2:47 PM
To: BATMALE JP * PUC <JP.BATMALE@puc.oregon.gov>; Rob Macfarlane <Rob.Macfarlane@pgn.com>
Subject: RE: Quick Questions for ADV 1393/Advice No. 22-09 Memo
Importance: High

Hello Good Morning JP,

The responses are in Purple. Please let me know if you have any further questions. Also, we will file a second supplemental filing about Schedule 8 tomorrow 6/7 (or Wednesday) to make a clarifying language change in the tariff. The first supplemental was filed last week to extend the effective date to June 29th.

Thanks,
Teresa

From: BATMALE JP * PUC <JP.BATMALE@puc.oregon.gov>
Sent: Wednesday, June 1, 2022 5:52 AM
To: Teresa Tang <teresa.tang@pgn.com>; Rob Macfarlane <Rob.Macfarlane@pgn.com>
Subject: Quick Questions for ADV 1393/Advice No. 22-09 Memo

*****Please take care when opening links, attachments or responding to this email as it originated outside of PGE.*****

Teresa and Rob –

Hello. I have a few quick questions on Schedule 8 to round out the memo. I'm sorry to be getting these questions to you so late in the game. Could you answer these?

1. How many customers are currently enrolled in pilot? **Total enrollments to date are 1,120 (that includes 500 Teslas, from the SGTB enrollment. We have another 280 on the waitlist).**
2. Is the \$150/Tesla incentive for telematics in leu of the \$500 installation rebate or in addition to it? **Yes. The incentive will actually be \$50 per connected Tesla.**
3. The Schedule 8 pilot budget will remain the original estimated total of ~\$17 M despite the additional incentive? **That's correct. Schedule 8 budget will remain unchanged.**

Docket No. ADV 1393
June 21, 2022
Page 7

4. How many Tesla's does the pilot hope to enroll by 2024? ***We plan to add 2,500 Teslas by Dec 31, 2024. That will represent half of the pilot total. 2,500 level 2 chargers and 2,500 Teslas, for a pilot total of 5,000.***

If you can get the responses to me ASAP, that would be great. Again my apologies for not sending these sooner.

Thanks!

JP Batmale (he/him)
Division Administrator
Energy Resources & Planning
Oregon Public Utility Commission
201 High St. SE, Suite 100
Salem, OR 97308-1088
503.551.9926 (Office & Mobile)