



Oregon

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Public Utility Commission

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June 1, 2021



BY EMAIL

Portland General Electric Company

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RE: Advice No. 21-09

At the public meeting on June 1, 2021, the Commission adopted Staff's recommendation in this matter docketed as ADV 1261. The Staff Report and a receipted copy of the sheets in your advice filing are attached.

Nolan Moser

Chief Administrative Law Judge

Public Utility Commission of Oregon

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**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: June 1, 2021**

REGULAR X CONSENT _____ EFFECTIVE DATE July 1, 2021

DATE: May 24, 2021

TO: Public Utility Commission

FROM: Eric Shierman

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

SUBJECT: PORTLAND GENERAL ELECTRIC:
(Docket No. ADV 1261/Advice No. 21-09)
Staff recommendation regarding new PGE Schedule 56 fleet
transportation electrification pilot program.

STAFF RECOMMENDATION:

Staff recommends the Public Utility Commission of Oregon (Commission) approve Portland General Electric's (PGE or Company) filing, Advice No. 21-09, which creates a Schedule 56 for the Company's new fleet electrification make-ready pilot.

DISCUSSION:

Issue

Whether the Commission should approve PGE's Advice No. 21-09, which creates a Schedule 56 for the Company's new fleet electrification make-ready 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 July 14, 2020, PGE filed a proposed transportation line extension allowance (TLEA) in Advice No. 20-17. To modify some of the language of the original filing and add some changes to the Company's Rule I, PGE refiled its TLEA proposal on December 1, 2020. At the January 26, 2021, Public Meeting, Staff recommended that the Commission

suspend the proposal for investigation. Staff made this recommendation based on the current framework for evaluating line extension allowances. The Commission suspended PGE's TLEA January 26, 2021, with Order No. 21-026 which called for a public process to consider a modified TLEA proposal for fleets.

PGE established a process, launched through an initial public workshop on February 3, 2021, that introduced stakeholders to key details about the Company's original filing and provided an opportunity to offer feedback. At a second workshop on February 24, 2021, PGE presented several scenarios for ratepayers to fund fleet electric vehicle service equipment (EVSE) projects. On March 22, 2021, PGE held a third workshop where the Company presented the major components of the fleet make-ready pilot proposal that PGE filed on April 20, 2021. PGE chose to file this proposal as a cost-and-time limited pilot TE Program under OAR 860-087-0030 and included the program application information in its filing as required by Division 87.

Pilot Details

PGE's proposed Fleet Electrification Make-Ready Pilot (Pilot) is for nonresidential customers that use or operate fleets within PGE's service area. To be eligible, a customer must install at least 70 kW of demand capacity charging on a site that the customer either owns or leases. Enrollment will be open for three years or until the \$9 million in funds of the Pilot are fully reserved.

The Pilot will pay up to a multiple of 15 times the applicable commercial line extension allowance for a fleet customer's make-ready - the infrastructure at the site to deliver electricity from the service point to the EVSE(s), including any panels, stepdown transformers, conduit, wires, connectors, meters, and any other necessary hardware. The size of the incentive will be based on a load forecast of the fifth year of annual energy use and will be capped at \$750,000 per site.

PGE will enter into a permanent easement on the commercial property and enter into a customer service contract with the participating customer. PGE will then locate, design, install, own, operate, and maintain the make-ready infrastructure.

EVSE(s) will be separately metered from any other load at the site. This will improve the quality of data collection. The participating customer will authorize and require the qualified electric vehicle service provider to share operational data with PGE, allowing PGE to use data gathered as part of the pilot in regulatory reporting, ordinary business use, industry forums, case studies or other similar activities, in accordance with applicable laws and regulations, and to participate in PGE-led research such as surveys.

The participating customer must maintain the EVSE on a qualified service schedule for 10 years following the activation date of the first qualified EVSE installed at the site, remain operational, and adhere to an energy usage plan. This plan states that the minimum energy usage amount will be no less than the estimated year five energy use, times six. Program participants will be committing to a minimum purchase in the next ten years of at least six times the total amount of energy deliveries forecasted in the fifth year.

In the event the participating customer breaches or terminates the participation agreement, the participating customer will reimburse PGE the pro-rata value of the custom incentive, calculated over the 10-year term. If the site changes ownership or lesseeship, participation in the pilot may be assumed by the new owner or lessee if it is willing to meet the pilot requirements. The participating customer will be responsible for any pro-rata reimbursement for estimated minimum usage deficiencies between the participating customer's original energy usage plan and the new customer's energy usage plan.

The Six Statutory Factors for the Commission

ORS 757.357(4) identifies six factors that the Commission shall consider when approving a transportation electrification program and determining cost recovery. The first consideration is whether or not the investments or other expenditures are within the service territory of the electric company. PGE's Sheet 56-1 limits the availability of this pilot to its service territory.

The second consideration is whether or not the investments or other expenditures are prudent as determined by the Commission. PGE's financial analysis shows this pilot is not expected to be cost-effective. However, Staff finds that the Pilot is likely to result in important learnings about how the electrical system can adapt to increased load from fleet charging. In PGE's program application, the Company stated that the learnings will include:

- Pilot Implementation Learnings
 - Document the successes and challenges of delivering turnkey charging installations
 - Understand impacts on local network of installers for EV infrastructure, assess workforce development needs, and potential economies of scale
 - Assess the costs and benefits of utility ownership of make-ready infrastructure
 - Identify internal and external implementation successes and challenges, as well as opportunities for process improvement

- Empirical Data
 - Develop an empirical data set to:
 - Understand and reduce grid impacts such as coincident peak load or feeder overloading
 - Support fleet managers in adopting optimized charging schedules
 - Forecast distribution system impacts and infrastructure needs
 - Inform future EV rates
 - Inform future flexible load opportunities or offerings
 - More effectively site future EV charging infrastructure.¹

PGE has shown this pilot can be reasonably expected to generate valuable learnings that will benefit ratepayers.

The third consideration is whether or not the investments or other expenditures are reasonably expected to be used and useful as determined by the commission. PGE will require participants in this pilot to enter a ten-year service agreement. The service agreement comes with a prorated claw back provision if these fleet customers fail to use this infrastructure during those first ten years.

The fourth consideration is whether or not the investments or other expenditures are reasonably expected to enable the electric company to support the electric company's electrical system. PGE's modeling indicates that, if the cost of these investments are excluded, these customers are expected to bring in more revenue than the marginal cost to serve the load.

The fifth consideration is whether or not the investments or other expenditures 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. This pilot is intended to promote the procurement of demand response (DR)-enabled EVSE. If this pilot shows these loads to be sufficiently flexible, these fleets might support PGE's electrical system as DR customers.

The sixth consideration is whether or not the investments or other expenditures are reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure and services. PGE allows pilot participants to purchase the EVSE the customer chooses. This ensures a competitive market among EVSE manufacturers to foster technological innovation.

PGE's description of its baseline market assumptions describes the nonregulated companies offering EVSE installation service:

¹ See Docket No. ADV 1261, PGE, Fleet Electrification Make-Ready Pilot Proposal, April 2021, p. 17,18.

PGE's market research indicates that multiple third parties (typically, EVSE vendors) are engaged in the "Charging as a Service" (CaaS) space. Under this model, the vendor owns the EVSE at the customer site, and the customer pays for charging service over time as an off-balance-sheet operating expense. Typically in CaaS, the vendor does not own or operate the make-ready infrastructure.

These third parties are beginning to explore and offer financing for turnkey make-ready infrastructure, acknowledging the market gap and significant cost outlay of designing, installing, and maintaining such infrastructure. However, to PGE's knowledge, entrants in this space are either start-ups, or are EVSE vendors working with financing partners that are themselves new to this type of model. Even among the more established EVSE vendors, many remain young companies, some lacking profitability. PGE continues to view these markets as immature, and PGE customers have expressed the need for solutions from trusted partners.²

Companies operating in a competitive market are also unlikely to subsidize these projects and will need to recoup all the cost of the make-ready investment. PGE's subsidy may be necessary to get private sector fleets to adopt EVs. To collect data on private fleet charging behavior before the value proposition of EVs leads to widespread private procurement, PGE may need to bring project costs down with ratepayer subsidies. Otherwise, PGE may not have any private EV fleets to collect data from for several more years. Early data collection may enable PGE to innovate in advance of a future change in EV market share.

Transportation Line Extension Allowance (TLEA)

The Pilot does not require a commercial customer to choose between accepting this make-ready incentive and getting a transportation line extension allowance. At this time, PGE does not have a TLEA.

Residential Line Extensions

Advice No. 21-09 also contains a change in PGE's Rule I that exempts residential EV owners from triggering a liability for a transformer upgrade. Staff has been under the impression this has already been the Company's policy. In our comments on PGE's 2019 Transportation Electrification Plan, Staff asked how EV-related transformer upgrade costs would be recovered.³ In reply comments, PGE stated: "Transformer upgrades (when necessary) will be capitalized and recovered through base rates."⁴ At

² See Docket No. ADV 1261, PGE, Fleet Electrification Make-Ready Pilot Proposal, April 2021, p. 12.

³ See Docket No. UM 2033, OPUC Staff, Comments, December 6, 2019, p. 12.

⁴ See Docket No. UM 2033, PGE, Reply Comments, December 31, 2019, p. 13.

the third UE 386 public workshop, Staff asked the Company if PGE has ever sought cost recovery of transformer upgrade from a residential EV owner. PGE could not cite an instance of this happening. Since the demand capacity of a Level 2 charger is similar to that of a clothes dryer, Staff asked the Company if a residential dryer installation ever caused a residential customer to become liable for a transformer upgrade. PGE could not cite an instance of this either. The proposed change in Rule I appears to merely clarify what has already been the de facto Company policy. Therefore, Staff is supportive of this change.

Conclusion

Staff recommends that the Commission approve Advice No. 21-09 because the Pilot satisfies the requirements of OAR Division 87, Section 30, and with regards to Commission approval, the proposal demonstrates specifically that:

- These services are limited to PGE's service territory;
- The Pilot is limited in cost and duration;
- Most of the investments are expected to be used and useful for at least ten years;
- Fleet customers are expected to offer more revenue than the marginal cost to serve the load and the Pilot offers important learnings for PGE's electrical system;
- The Pilot may lead to DR program participation, and;
- The competitive market is not offering project subsidies to fleet customers that may be necessary to get private fleets to procure EVs.

PROPOSED COMMISSION MOTION:

Approve PGE's Advice No. 21-09, which creates a Schedule 56 for the Company's new Fleet Electrification Make-Ready Pilot.

**SCHEDULE 56
FLEET ELECTRIFICATION MAKE-READY PILOT**

PURPOSE

This Fleet Electrification Make-Ready Pilot provides eligible customers with incentives to install Electric Vehicle (EV) charging infrastructure to support fleet vehicles. The overarching goals of the pilot are to:

- Enable and accelerate the electrification of commercial, public (municipal, county, state, federal), school, non-profit and transit fleets by reducing customer cost and complexity associated with transitioning to electric fuel;
- Create a network of demand-side resources to reduce the costs of serving EV loads by supporting efficient grid operations and future renewables integration;
- Better understand the customer and barriers and opportunities in the fleet electrification market;
- Identify areas for utility process improvement with respect to fleet electrification; and
- Generate an empirical data set that can be leveraged to inform existing utility analyses, support customers in transitioning to electric fleets, and develop future products and programs.

AVAILABLE

In all territory served by PGE.

APPLICABLE

This pilot is applicable to nonresidential customers that use or operate fleets within PGE's service area.

DEFINITIONS

Activation Date – date that PGE first determines an EVSE is Operational.

Electric Vehicle Supply Equipment (EVSE) – the device, including the cable(s), coupler(s), and embedded software, installed for the purpose of transferring electricity between the electrical infrastructure at the Site and the EV.

Electric Vehicle Service Provider (EVSP) – provider of connectivity across a network of EVSE(s).

Line Extension – has the same meaning as set forth in Rule I.

Line Extension Allowance – has the same meaning as set forth in Rule I and is calculated per Schedule 300.

Line Extension Cost – has the same meaning as set forth in Rule I.

SCHEDULE 56 (Continued)

DEFINITIONS (Continued)

Make-Ready Cost – the cost of Make-Ready Infrastructure and Line Extension, excluding those accounted for in the Line Extension Cost.

Make-Ready Infrastructure – the infrastructure at the Site to deliver electricity from the Service Point to the EVSE(s), including any panels, stepdown transformers, conduit, wires, connectors, meters, and any other necessary hardware.

Operational – an EVSE installed at the Site is able to transfer energy between the Site wiring and the EV, with any applicable payment methods (e.g., credit card, phone app, subscription card), and transmitting operational data (e.g. energy usage, session start/end times) to the Qualified EVSP.

Qualified EVSE – list of qualified EVSE(s), determined by PGE.

Qualified EVSP – list of qualified EVSP(s), determined by PGE.

Qualified Service Schedule – list of qualified service schedules, including Schedules 32, 38, 83, 85, and 89. The list of qualified service schedules may be expanded to include new rates in the future.

Service Point – has the same meaning as set forth in Rule B.

Site – has the same meaning as set forth in Rule B.

Site Owner – entity holding title to the Site.

ELIGIBILITY

Eligible customers are nonresidential customers that use or operate fleets (including, but not limited to, commercial, non-profit, public, school or transit fleets) within PGE's service territory installing a minimum of 70 kW of EV charging. Eligible Customers must own or lease the Site.

ENROLLMENT

The customer enrollment period will be open for three years, or until available funds for the pilot have been fully reserved. Eligible customers may apply at PortlandGeneral.com and enroll by signing a participation agreement.

SCHEDULE 56 (Continued)

INCENTIVE

Pilot participants will pay for the Make-Ready Cost, less a custom incentive. The custom incentive will be calculated as the lower of the following amounts:

- Estimated Year 5 EVSE annual energy use x Line Extension Allowance x 15; or
- The participant's Make-Ready Costs; or
- \$750,000.

SPECIAL CONDITIONS

1. Participation in this pilot is not mandatory to install EV charging equipment.
2. The customer's charges for electricity service under any of PGE's Standard Service or Direct Access Service schedules are not changed or affected in any way by participating in this schedule and are due and payable as specified in those schedules.
3. PGE will locate, design, install, own, operate and maintain the Make-Ready Infrastructure. EVSE(s) will be separately metered from any other load at the Site.
4. The Site Owner may be required to grant an easement to PGE to maintain PGE-owned facilities.
5. If the final design of the Make-Ready Infrastructure is estimated to cost in excess of \$15,000, PGE may require the customer to submit a deposit prior to proceeding to final design and enrollment. The deposit will be the amount of the estimated final design costs and will be applied to the Make-Ready Costs or refunded upon the participating customer's enrollment in the Pilot. If the customer does not enroll, the deposit will not be refunded.
6. If the participating customer's custom incentive is in excess of \$250,000, the participating customer agrees that PGE may verify the participating customer's creditworthiness at any time and seek financial security to ensure the Participating customer is able to meet its obligations as set forth in the participation agreement.
7. The participating customer is responsible for the procurement and installation of at least one new Qualified EVSE(s) within 6 months of PGE's completion of the Make-Ready Infrastructure.
8. The participating customer must maintain the EVSE(s) on a Qualified Service Schedule for 10 years following the Activation Date of the first Qualified EVSE installed at the Site.
9. The participating customer will ensure the EVSE(s) remain Qualified EVSE(s) and Operational for 10 years following the Activation Date of the first Qualified EVSE installed at the Site.

SCHEDULE 56 (Concluded)

SPECIAL CONDITIONS (Continued)

10. The participating customer will adhere to an energy usage plan that sets forth the minimum amount of energy the participating customer commits to using over the 10 years following the Activation Date of the first Qualified EVSE installed at the Site, but in no event will the minimum energy usage amount be less than the Estimated Year 5 energy use x 6.
11. The participating customer will authorize and require the Qualified EVSP to provide operational data (e.g. charging session data, energy interval data) to PGE. The participating customer agrees to allow PGE and its agents and representatives to use data gathered as part of the pilot in regulatory reporting, ordinary business use, industry forums, case studies or other similar activities, in accordance with applicable laws and regulations and to participate in PGE-led research such as surveys.
12. If the Site changes ownership or lesseeship, participation in the pilot may be assumed by the new owner or lessee if it is willing to meet the pilot requirements. The participating customer will be responsible for any pro-rata reimbursement for estimated minimum usage deficiencies between the participating customer's original energy usage plan and the new customer's energy usage plan.
13. In the event the participating customer breaches or terminates the participation agreement, the participating customer will reimburse PGE the pro-rata value of the custom incentive, calculated over the 10-year term.

4. **Conditions for Receiving Service**

A. **Generally**

This section describes the physical and technical requirements necessary to interconnect the Company's Facilities with the SP.

B. **Rights-of-Way and Access**

The Customer must provide, without cost to the Company, all rights-of-way and easements on the Premises to be served for the construction, maintenance, repair, replacement, or use of any or all Facilities necessary or convenient for the supply of Electricity. The Customer must grant the Company free and unrestricted access to the Premises at all reasonable times for purposes of reading meters, trimming trees, and inspecting, testing, repairing, removing or replacing any or all Facilities of the Company.

C. **Customer-Supplied Equipment**

1) **Customer's Responsibility**

The Customer will, at the Customer's risk and expense, furnish, install, inspect, and maintain in a safe condition all wiring, equipment, apparatus, protective devices, raceways, and enclosures which may be required beyond the SP for receiving and using Electricity. The Company may, at its option, install and maintain Facilities beyond the SP where deemed necessary to provide adequate Electricity Service. For service(s) that relate to Transportation Electrification (TE) and Electric Vehicle (EV), the Company may install and operate assets beyond the SP in order to facilitate the expansion of TE across the Company's service territory.

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2) **Conformance with Codes**

Before the Company will provide Electricity Service, the Customer's wiring and equipment must conform to applicable municipal, county and state requirements, and to accepted standards of the National Electrical Safety Code, the National Electric Code, the Company's published "Electric Service Requirements and Guidelines," and Company standards and practices. As required by law, the Customer or its agent must obtain a certificate of electrical inspection before the Company will provide Electricity Service.

2) **Distribution Facilities**

Distribution Facilities are all structures and devices needed to distribute Electricity at any of the primary or secondary voltages listed in Rule C. Distribution Facilities will be installed in accordance with applicable laws, codes and Company standards and practices. It is the Applicant's responsibility to provide the Company with accurate information about their usage including but not limited to nameplate ratings of major installed electrical equipment and the intent to operate equipment above or below the nameplate rating. If damage results to Facilities owned by the Company through failure of the Applicant to fully disclose its load requirement to the Company, the repair and, or replacement costs of such Facilities will be paid by the Applicant.

3) **Line Extension**

A Line Extension is the installation of new, additional or upgraded Distribution Facilities from a point on the Company's existing distribution system that the Company has determined has adequate capacity for the Applicant's planned Electricity needs to the Applicant's Service Point (SP). Where the Applicant is requesting either a new individual residential service or an upgrade to an individual residential service, upgrades to existing primary lines will not be considered part of the Line Extension. Any new primary or secondary Line Extensions, transformer additions or replacements necessary to serve the new load will be considered part of the Line Extension. However, for residential Electric Vehicle charging-related line extensions, transformer additions or replacements necessary to serve that charging load will not be considered part of the Line Extension.

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4) **Line Extension Allowance**

The Line Extension Allowance is the portion of the Line Extension Cost that the Company will provide without charge to the Applicant. Estimated annual kWh values used to calculate non-Residential Customer line extension allowances do not reflect onsite generation.

5) **Line Extension Cost**

A Line Extension Cost is the Company's total estimated cost to install new, additional, or upgraded Distribution Facilities to serve the Applicant's planned Electricity needs. Line Extension Costs are intended to recover the expenses of labor, material and equipment involved in the design, installation and inspection of the Line Extension. Line Extension Costs include, but are not limited to, labor costs, the cost of transformers, primary and secondary voltage conductors, tree trimming or tree removal, Company indirect charges and the cost of any necessary rearrangement of existing Facilities. Where the Applicant is requesting either a new individual residential service or an upgrade to an individual residential service and the transformer requires upgrading, the Line Extension Cost will be credited for the estimated original cost, less depreciation, less removal costs, of the existing transformer. However, for residential Electric Vehicle charging line extensions, any transformer additions, or replacements necessary to serve the charging load will not be considered part of the Line Extension. Estimates of Line Extension Costs provided to Applicants are valid for six months from the date of issue. After six months the Company reserves the right to provide a revised estimate. The Line Extension Cost does not include payments to a third party for easements, additional costs associated with Underground Line Extension or other additional costs described in this rule.

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6) **Long Side Service Connection**

A service connection, which runs parallel to the street, rather than perpendicular to the street.

7) **Primary Voltage Project**

A Primary Voltage Project is a planned undertaking of construction, where the Company initially installs only primary voltage facilities. Primary Voltage Projects include large lot residential subdivisions, industrial parks and other similar complexes. It is expected that within the project each Customer will be served from one or more transformers dedicated to that Customer's use.