



July 13, 2023

Eric Shierman
Senior Utility Analyst
Oregon Public Utilities Commission
201 High Street SE, Suite 100
Salem, OR 97301
Docket: UM 2033

Re: Portland General Electric should align its payment method requirements with California's EV Charging Station Open Access Regulation

Dear Mr. Shierman,

We, the undersigned organizations, represent businesses that design, manufacture, install, operate, and maintain electric vehicle (EV) charging station software, hardware, and services. We appreciate the Oregon Public Utilities Commission's (OPUC) and Portland General Electric's (PGE) extensive work engaging stakeholders in the design of its Transportation Electrification Plan (TEP) to date. To further align the TEP with Oregon's broader TE goals and support widespread, convenient, and accessible EV charging, we recommend that OPUC require PGE to:

- Align TEP EV charger payment and connector requirements with the Federal Highway Administration's (FHWA) National Electric Vehicle Infrastructure (NEVI) Program.

- Update the Schedule 50 pricing schedule for utility-owned chargers to align with competitive market pricing for EV charging services.
 - Establish a widely available commercial EV rate to support additional investment in non-residential EV charging infrastructure.
 - Create a new direct current fast charging (DCFC) incentive program to support deployment of fast charging infrastructure in line with near-term demand in PGE’s service area.
1. *Align TEP EV charger payment and connector requirements with the Federal Highway Administration’s (FHWA) National Electric Vehicle Infrastructure (NEVI) Program*

As businesses that deploy EV charging stations, it is important to align federal, state, and local technical specifications for our software and hardware. While this enables us to create economies of scale more effectively when selling our products in a given market, it also creates a more consistent charging experience for drivers across multiple states. These combined market forces help drive EV adoption in Oregon.

In PGE’s draft TEP, it proposes to align with “Washington State Department of Agriculture’s (WSDA) standards...on payment methods”¹. As PGE may already know, WSDA’s payment methods regulation mirrors a similar regulation by California, known as the EV Charging Station Open Access Act. While WSDA adopted its regulation in December 2022, California originally adopted its regulation in 2019.

In the intervening years since California first adopted its regulation, payment technology trends have evolved. Recognizing this, in 2023, the FHWA’s NEVI Program proposes multiple payment method requirements that both match current technology trends and provides a safety net for consumers who may not have access to all these technologies. The NEVI Program requires chargers to offer:

- A contactless card reader that accepts debit, credit and smart cards via RFID and NFC technology.
- Either an automated toll-free number or an SMS messaging system to accept payment.
- Plug and Charge payment capabilities for DCFCs specifically.

As a result of the new federal payment standards, California updated its requirements via Senate Bill 123² to align with the NEVI Program, which the Governor just signed into law. As such, Washington will be the only state with payment requirements misaligned with the federal standard and 49 other states. We are hopeful that Washington aligns its payment standard with California and the NEVI Program so there is standardization across the United States.

Further, though the WSDA standards require all public charging stations to accept specific payment methods, including Europay, Mastercard, and Visa (EMV) chips, PGE intends to grant itself an exception.

¹ Portland General Electric. Transportation Electrification Draft Plan 2024-2026. Page 135

² Senate Bill 123 (Skinner). Page 12. [Bill Text - SB-123 Energy. \(ca.gov\)](#)

Because EMV chip readers pose electric code violations around climbing space on utility poles, the pole-mounted chargers installed through the proposed Municipal Charging Collaboration Pilot Program will process payment through a smartphone app. Such selective application of the WSDA standard creates a tilted playing field to the disadvantage of all non-utility providers of charging services, inhibiting both innovation and competition. By contrast, the adoption of the NEVI Program requirements would establish equal footing across the industry and maintain payment accessibility for EV drivers in Oregon.

If PGE plans to institute payment method requirements via its TEP, we strongly urge OPUC and PGE to align with the NEVI Program's requirements. Furthermore, if PGE chooses to adopt Washington's regulation, it risks locking itself into a standard that will quickly become outdated, creating unnecessary increased costs for industry and consumers, and leading to an inconsistent charging experience along the west coast. Conversely, adopting the NEVI Program's payment requirements will facilitate a more convenient, consistent, and reliable charging experience that begets further EV adoption necessary to support Oregon's TE goals.

PGE also seeks to require that all fast chargers supported by its TEP provide both CCS and CHAdeMO connectors. We recommend that PGE align with NEVI standards and not require CHAdeMO connectors, as CHAdeMO is no longer compatible with the overwhelming majority of EVs on the market and unnecessarily adds costs that diminish the efficacy of PGE's programs.

Of the 100+ EV models available today, the Nissan LEAF is the only new EV that continues to use the CHAdeMO standard. Nissan LEAFs make up approximately 10% of EV registrations in Oregon³ and are already served by Oregon's existing fast charging network: of the 307 non-Tesla fast charging ports in Oregon, 150 ports are CHAdeMO.⁴ In other words, nearly half of Oregon's public non-Tesla DCFC infrastructure can only be used by approximately 10% of the EVs on the road.

Requiring fast chargers to provide both CCS and CHAdeMO connectors also increases charger deployment costs in a manner that may reduce uptake of PGE's TEP programs. At a time when deployment of DCFC infrastructure must scale rapidly to meet near-term charging needs, we encourage PGE to focus on supporting infrastructure that will be used by and useful to EVs on the road today.

2. *Update the Schedule 50 pricing schedule for utility-owned fast chargers to align with competitive market pricing for EV charging services.*

To support greater private investment in EV charging infrastructure, we recommend that the Commission direct PGE to analyze competitive pricing for fast charging services in its service territory and modify its Schedule 50 tariff for its utility-owned fast chargers that follows market pricing.⁵

³ <https://www.oregon.gov/energy/Data-and-Reports/Pages/Oregon-Electric-Vehicle-Dashboard.aspx>

⁴ https://afdc.energy.gov/stations#/analyze?fuel=ELEC&ev_levels=dc_fast®ion=US-OR&ev_connectors=CHADEMO

⁵ https://assets.ctfassets.net/416ywc1aqmd/2hNjMQ203TEcCmZttyKCTt/60e36b07499f89b45856a4576d4107ec/ched_050.pdf

Owner-operators of public charging infrastructure need to price their services to align with their costs, which include but are not limited to electricity, equipment, site construction, network operations, and maintenance. EV service providers rely on charger utilization to offset capital and operational costs and sustain the economic viability of their networks. In contrast, some utilities have opted to charge a lower price for EV charging at utility-owned stations because they can recoup costs through utility customers—even customers that do not frequent utility-owned charging stations. Because private sector DCFC providers do not have that ability, a below-market pricing schedule, such as PGE’s preferential flat fee in Schedule 50, creates an unlevel playing field that can adversely affect existing chargers already deployed by the competitive market and deter the future private capital investment needed to support Oregon’s state policy goals. This dynamic also increases rate pressure for utility customers because the pricing at PGE’s utility-owned stations may not reflect the full cost of EV charging services - including the cost of electricity on PGE’s current commercial rates.

Other utilities and public utility commissions have already approved pricing schedules for utility-owned chargers that reflects competitive market pricing, including Xcel Energy⁶ and Puget Sound Energy⁷. We recommend the Commission direct PGE to perform an analysis of competitive market pricing for fast charging services in its service area and use this analysis to update its time-of-use pricing schedule.

3. *Establish a widely available, voluntary commercial EV rate to support additional investment in non-residential EV charging infrastructure.*

In its TEP, PGE states an intent to propose a commercial EV rate to lower the total cost of ownership of operating EVs.⁸ We support PGE’s intent to propose a commercial EV rate and encourage the Commission to direct PGE to establish one in this proceeding that is in line with its approval of other commercial EV rates as well as with other public utility commissions across the country.

Demand charges pose a barrier to the economics of DCFCs at this stage of the market when utilization of EV charging is relatively low. PGE recognizes that “[d]emand charges are often a deterrent to commercial customer adoption of EV charging due to the low overall utilization of EV chargers combined with the significant power draw when used simultaneously.”⁹

⁶ RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE CONOR F. FARLEY ACCEPTING THE NONUNANIMOUS PARTIAL STIPULATION ADDRESSING THE RATES AND CHARGES FOR NEW SCHEDULES S-EV AND S-EV-CPP, ACCEPTING THE NONUNANIMOUS PARTIAL STIPULATION ADDRESSING THE RATES AND CHARGES FOR PUBLIC SERVICE-OWNED DC FAST CHARGERS, GRANTING-IN-PART AND DENYING-IN-PART THE JOINT MOTION FOR APPROVAL OF NON-UNANIMOUS COMPREHENSIVE SETTLEMENT AGREEMENT (JOINT MOTION TO APPROVE SETTLEMENT AGREEMENT), AND PROVIDING INSTRUCTIONS, Colorado Public Utilities Commission, Decision R22-0378 at 45, Proceeding 21AL-0494E, filed June 24, 2022.

⁷ Schedule 551, Puget Sound Energy, Washington Utilities and Transportation Commission Filing UE-230287, filed April 20, 2030. <https://apiproxy.utc.wa.gov/cases/GetDocument?docID=11&year=2023&docketNumber=230287>

⁸ TEP at 116.

⁹ *Id.*

The Commission has already authorized a commercial EV rate for customers in Pacific Power's service area, which has been in effect since 2017.¹⁰ Regulators in Washington¹¹, California,¹² Arizona,¹³ Utah,¹⁴ and other states have also approved a variety of rates specific to commercial EV charging, as well as technology-neutral low load factor rates. Extending a similar rate to PGE's service area will provide more options for utility customers seeking to invest in EV charging. We assert that this proceeding is the appropriate venue to support the development of a commercial EV rate for PGE customers.

4. Create a new direct current fast charging (DCFC) incentive program to deploy DCFCs in line with near-term demand in PGE's service area.

Based on the Oregon Department of Transportation's Transportation Electrification Infrastructure Needs Analysis (TEINA) included in PGE's TEP, PGE's service area only contains 9% of the public DCFCs it needs to support expected EV demand in 2025.¹⁵ At the same time, all of PGE's newly proposed programs in its TEP are exclusively focused on Level 2 charging, except for fast charging for fleets.¹⁶

PGE's existing Business EV Charging Rebates Pilot Expansion (Schedule 52) provides a \$350 per kW incentive for DCFC equipment, but it is capped at \$25,000 per port.¹⁷ This cap does not reflect the costs of fast charging infrastructure today. In 2019, the International Council on Clean Transportation (ICCT) estimated that the hardware cost for a single-port 150 kW DCFC unit was \$75,000 and \$140,000 for a single-port 350 kW unit.¹⁸ Estimated installation costs varied depending on the number and power levels of chargers but ranged from \$28,000-\$39,000 for three to five 150-350 kW chargers. Therefore, according to ICCT, a four-stall DCFC site could cost between \$328,000 and \$599,000. Therefore, a \$25,000 per port cap is insufficient to deploy DCFCs. Moreover, PGE's existing incentive pilot is sunseting and only expected to support the deployment of 20 DCFC ports, or 1% of the 2,000 DCFC ports needed in PGE's service area by 2025.¹⁹

¹⁰https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/045_Public_DC_Fast_Charger_Optional_Transitional_Rate_Delivery_Service.pdf

¹¹ https://www.myavista.com/-/media/myavista/content-documents/our-rates-and-tariffs/wa/wa_013.pdf

¹² [https://www.sce.com/sites/default/files/inline-files/TOU-EV-7_8_9%20Rate%20Fact%20Sheet_WCAG%20\(2\).pdf](https://www.sce.com/sites/default/files/inline-files/TOU-EV-7_8_9%20Rate%20Fact%20Sheet_WCAG%20(2).pdf)

¹³ <https://www.aps.com/-/media/APS/APSCOM-PDFs/Utility/Regulatory-and-Legal/Regulatory-Plan-Details-Tariffs/Business/Rate-Riders/dcf DirectCurrentFastCharging.ashx?la=en>

¹⁴ https://www.rockymountainpower.net/content/dam/pcorp/documents/en/rockymountainpower/rates-regulation/utah/rates/006A_General_Service_Energy_Time_of_Day_Option.pdf

¹⁵ TEP at 59.

¹⁶ TEP at 7.

¹⁷ TEP at 107.

¹⁸ MICHAEL NICHOLAS, ESTIMATING ELECTRIC VEHICLE CHARGING INFRASTRUCTURE COSTS ACROSS MAJOR U.S. METROPOLITAN AREAS, (The International Council on Clean Transportation, August 2019) at 2-4, available at <https://theicct.org/publication/estimating-electric-vehicle-charging-infrastructure-costs-across-major-u-s-metropolitan-areas/>

¹⁹ TEP at 220.

Utilities in other states such as Utah,²⁰ Nevada,²¹ and Arizona²² have accounted for the higher costs of DCFC equipment, which are reflected in their incentive programs. To align with these comparable programs and support fast charging deployment, we recommend that PGE provide incentives to deploy DCFCs at scale to achieve the 2025 deployment need, retain its existing \$350 per kW incentive, and remove the per port cost cap to reflect the current range of DCFC technology and costs. To be clear, we recommend this program as a supplement to the other proposed incentives in the TEP, rather than instead of.

PGE and the OPUC have a significant opportunity to accelerate widespread transportation electrification with effective programs, regulations, and rates. To further improve upon the proposed TEP, we recommend that OPUC require PGE to:

- Align TEP EV charger payment and connector requirements with the Federal Highway Administration's (FHWA) National Electric Vehicle Infrastructure (NEVI) Program.
- Update the Schedule 50 pricing schedule for utility-owned chargers to align with competitive market pricing for EV charging services.
- Establish a widely available commercial EV rate to support additional investment in non-residential EV charging infrastructure; and
- Create a new direct current fast charging (DCFC) incentive program to support deployment of fast charging infrastructure in line with near-term demand in PGE's service area.

Thank you for your consideration.

Respectfully submitted,

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²⁰ See <https://www.rockymountainpower.net/savings-energy-choices/electric-vehicles/utah-incentives.html> and Rocky Mountain Power Schedule 120:

https://www.rockymountainpower.net/content/dam/pcorp/documents/en/rockymountainpower/rates-regulation/utah/rates/120_Plug-in_Electric_Vehicle_Incentive_Pilot_Program.pdf

²¹ \$400/kW up to a cap of the lesser of \$40,000 per Charging Station (\$200,000 for the maximum 5) or 50% of project costs. More info avail:

https://www.nvenergy.com/publish/content/dam/nvenergy/brochures_arch/cleanenergy/handbooks/electric-vehicle-charging-station-incentives-programs-handbook.pdf at 10.

²² See TEP EV Smart Charging Program Requirements available at <https://www.tep.com/smart-ev-charginnrofzram/>

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