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September 19, 2025

Public Utility Commission of Oregon
Attention: Filing Center
PO Box 1088
Salem, OR 97308-1088

Via email: puc.filingcenter@puc.oregon.gov

Re: Docket UM 2033, PGE Transportation Electrification Plan for 2026-2028

Dear Commissioners and Staff:

SWTCH respectfully submits these comments to provide feedback on the Draft Transportation Electrification Program (Draft TEP) filed by Portland General Electric (PGE, or the Company) in the above-referenced docket.

SWTCH commends the State of Oregon and its Public Utility Commission for their ongoing commitment to cleaner transportation. Both from a policy standpoint and a program standpoint, Oregon remains a national leader in setting bold climate commitments and taking concrete actions to achieve those commitments.

About SWTCH

With more than 15,000 chargers deployed, SWTCH is a leading provider of electric vehicle (EV) charging and energy management solutions for multifamily, commercial, and workplace properties across Oregon and North America. SWTCH's end-to-end solution optimizes EV charging usage and manages load to benefit drivers, property owners, and the grid. SWTCH's charging management system (CMS) is built on a foundation of open communication standards and interoperability to ensure future flexibility, scalability, and innovation.

Recommendations

SWTCH offers three recommendations below to the Draft TEP to help the Commission and the Company better meet their shared objectives to support equitable transportation electrification across the Company's service territory.

- 1. Support the simplified Business EV Charging Rebates and increase rebate levels to align with the ten-year operational requirement.*

SWTCH supports the proposal to wind down the company-owned make-ready infrastructure and construction support incentive (Business and Multifamily

Make-Ready Solutions), and instead offer incentive support through the Business EV Charging Rebate. This incentive, for which multifamily, workplace, fleet, and other commercial customers are eligible, takes a more streamlined and flexible approach that is intended to address the complexity and deployment challenges associated with the prior incentive. SWTCH is pleased that the Company is appropriately planning to expand its budget for this rebate program to help offset the installation costs that previously would have been eligible for the make-ready program.¹ SWTCH is also pleased that the Company plans to continue its rebate reservation system which helps provide financial predictability for customers.

SWTCH supports continuation of the data sharing requirement for chargers that the Company incentivizes. Data sharing – provided that the reporting requirements align with other common utility and governmental reporting standards – is an industry-wide best practice that enables shared learnings and transparency.

SWTCH notes that the Business EV Charging Rebate requires a ten-year customer commitment to maintain the equipment and share usage data with the Company.² SWTCH recommends the Company set the funding level of its rebate accordingly, both on a per-port and per-site basis.

Industry pricing for charging management system (CMS) network service and ongoing care and maintenance can vary based on a number of factors. These can include different tiers of service level agreements (SLAs); the scope and size of the installation including chargers, communications equipment and other infrastructure; differences between charging companies; and other factors.

These factors make it infeasible to state a definitive market price for a ten-year network service plan and a ten-year care and maintenance plan. However, based on generic industry pricing today, the Draft TEP's \$2,000 per-port rebate amount for workplace and fleet Level 2 chargers is inadequate to reflect the purchase price of a commercial-grade, software-enabled charger and the ten-year operational requirement for network service and care and maintenance.³

Many EV charging providers offer bundled network service and care and maintenance plans that enable the customer to pay a one-time fee up front for multiple years of service.

Recommendation: SWTCH recommends increasing the per-port levels in the Business EV Charging Rebate program to account for both the charger purchase price and the required ten years of network service and care and maintenance.

¹ Draft TEP at page 33.

² Draft TEP, Table 3 at page 24.

³ Draft TEP, Table 46 at page 86.

2. Support flexibility in charger deployment and ownership structures.

EV charging industry experience shows there is no one-size-fits-all approach to installing, owning, and operating chargers. For both public sector and private sector entities, reasons for installing chargers vary, as do their interest in, expertise, and capacity for owning and operating the chargers. The industry has evolved over the years to accommodate different customer preferences. SWTCH, for example, offers different deployment options for a customer interested in offering EV charging services at its location:

- Customer ownership – in which a customer (e.g., school, government agency, multifamily apartment community, shopping center) purchases the chargers and pays for the infrastructure and installation as a capital expense, and usually purchases multi-year network service and care and maintenance plans.
- Charging-as-a-Service (CaaS) – in which a customer operationalizes all of the expenses from a budget standpoint by bundling the upfront capex and ongoing opex into a recurring monthly fee that covers purchase, installation, network service, operation, and maintenance.
- SWTCH ownership – in which a customer that wants to offer EV charging services but avoid the responsibility and financial exposure associated with owning and/or operating the chargers executes a lease or similar agreement with SWTCH to deploy chargers on site, operate, and maintain them.

Recommendation: SWTCH recommends the Company ensure eligibility for different charger deployment and ownership structures. This will enable charger deployments that are better suited to the business needs of the host entities, and as a result, will help position those deployments to be successfully operated and maintained.

3. To ensure true interoperability and avoid stranded assets, require that chargers support functional Open Charge Point Protocol (OCPP).

PGE relies on the Electric Power Research Institute (EPRI)'s Vetted Product List (VPL) to qualify eligible hardware and software for its incentive programs. SWTCH shares EPRI's perspective that its VPL is a "comprehensive and consolidated resource for industry stakeholders, to include utilities and state

agencies, to vet products and equipment for the deployment of electric vehicle charging and hardware systems.”⁴

However, SWTCH views the VPL as only a first step to ensure that charger hardware and software support the Company’s and the Commission’s long-term goals for EV charging. The next step — to ensure future flexibility and avoid stranded assets — requires that any ratepayer-funded chargers support true functional interoperability. This can be accomplished through OCPP, but not by merely accepting OCPP-capable or compatible chargers. True functional interoperability requires that the charging provider have an operational commitment to interoperability.

The Open Charge Point Protocol (OCPP) is developed and maintained by the Open Charge Alliance (OCA), a global non-profit EV charging industry foundation dedicated to the advancement of open standards and sustainable charging solutions. It describes the goal of OCPP as follows:

“The goal of (OCPP) is to provide a uniform method of communication between charge points and central systems. This protocol makes it possible to connect any central system with any charge point, regardless of the vendor. A uniform approach helps prevent coordination problems and therefore benefits the entire electric vehicle market.”⁵

One way of thinking about OCPP is as a common interface or language by which different makes and models of chargers can communicate with different back-end networks, often referred to as charging management systems (CMS). As a simple illustration, OCPP enables a CMS to issue a command for a charger to commence a charging session, and the charger will receive and understand that command regardless of its manufacturer. Providing this common interface is only one aspect of OCPP.

The real value of OCPP lies in how it enables a charger to be truly interoperable and avoid becoming a stranded asset. This type of “functional interoperability” requires that the hardware provider enables its charger to operate on multiple networks, without locking it into a particular CMS.

Recent industry experience demonstrates the hazard of lacking true functional interoperability. In the past year, two high-profile North American charging

⁴ Electric Power Research Institute: <https://www.epri.com/vpl>

⁵ Open Charge Alliance: <https://openchargealliance.org/protocols/open-charge-point-protocol/>

networks announced they were terminating network services for their public-facing chargers. Although these chargers were “OCPP capable” and shared OCPP’s common interface language, the two companies’ back end CMS posed challenges to the chargers’ owners in simply swapping out the original CMS for another. In some cases, owners were able to successfully transfer the units to another CMS, but sometimes the economics led to other results. In many instances the costs that would have been incurred to migrate the unit were not economically feasible for the owners to absorb. As a result, some owners were left with a choice of either “ripping and replacing” the existing units (which were otherwise still functional aside from the unsupported CMS platform) and paying for new units, or simply decommissioning the units without replacing them.

The implications of OCPP interoperability are especially acute for publicly funded chargers. Public agencies often take extra precautions to ensure public investments do not become stranded assets. Unfortunately, many of the chargers impacted by these two recent network terminations were publicly funded by various utility ratepayers or state taxpayers. This precautionary experience is both timely and instructive as the Commission considers approving PGE’s next TEP.

Recommendation: SWTCH recommends the Company ensure its funded chargers support true functional OCPP interoperability by requiring that hardware and software vendors seeking to become eligible:

- Provide documentation of OCPP certification (not simply affirm OCPP capability or compliance);
- Commit that the CMS and firmware do not require owners to pay a penalty or otherwise prevent migration of chargers to other CMS platforms; and,
- Provide the Company with site and contact information to validate where its hardware is operating on at least three different CMS networks, or, alternatively, its CMS is operating at least three different brands of chargers.

In Closing

SWTCH appreciates the Commission’s and the Company’s longstanding, shared commitment to advancing electric mobility. SWTCH’s recommendations in this letter are intended to help improve the outcomes of the Company’s TEP for Program Years 2026-2028 and help Oregon achieve its goals for equitable charging deployment in a manner that mitigates the risk of future stranded assets.

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Please contact me at josh.cohen@swtchenergy.com if I can provide more information or if it would be helpful to have a deeper conversation about any of these comments.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Josh Cohen', with a long horizontal stroke extending to the right.

Josh Cohen
Head of Policy