

August 16, 2022

Oregon Public Utilities Commission
201 High Street SE, Suite 100
Salem, OR 97301
Docket: UM 2033

Re: FLO Comments on Portland General Electric’s Proposed Monthly Meter Charge Budget for 2022

On behalf of FLO EV Charging, I am pleased to provide our support and technical recommendations regarding Portland General Electric’s (PGE) proposed Monthly Meter Charge Budget for 2022 pursuant to House Bill 2165 (2021). We seek to inform PGE’s proposed budget to promote the co-equal goals of EV charging market development, consumer protection, and equity. Therefore, we respectfully recommend the Oregon Public Utilities Commission (OPUC) approve PGE’s proposed budget with modifications.

FLO is a leading North American electric vehicle (EV) charging network operator and a smart charging solutions provider. We fight climate change by accelerating EV adoption through a vertically integrated business model and delivering EV drivers the most dependable charging experience from curbside to countryside. Every month, we enable more than 750,000 charging events thanks to over 65,000 fast and level 2 EV charging stations deployed at public, private and residential locations. FLO operates across North America and our high-quality charging stations are assembled with care in Michigan and Quebec.

I. PGE’s proposed budget is comprehensive in nature and addresses key EV charging market barriers.

As evidenced by the Oregon Department of Transportation’s Transportation Electrification Infrastructure Needs Assessment (TEINA), the state needs to increase its charging infrastructure 44-fold over the 2020 baseline to adequately support 2.5 million EVs by 2035. As the utility with the largest service population and highest EV concentration in the state, it’s critical that PGE takes a holistic, multi-disciplinary approach to addressing EV market barriers, especially with infrastructure. TEINA showcases that there is not a “one size fits all” approach to providing charging solutions — Level 2 stations, DC fast chargers, and residential charging will all play a prominent role in serving drivers and accelerating EV adoption broadly. PGE’s approach appropriately takes TEINA’s guidance to heart by developing a proposed budget that comprehensively addresses EV charging deployment barriers. FLO particularly supports the following proposals in PGE’s budget below, and respectfully recommends OPUC approve PGE’s proposals with modifications:

- Enhancing Business Charging Rebates by increasing Level 2 non-residential charging rebates and creating DCFC rebates
- Residential Panel Upgrade Rebates
- Municipal Charging Collaborations Pilot

II. Providing incentives to upgrade residential panels is an important equity strategy to support EV adoption.

Level 2 charging at home is convenient¹, is usually less impactful on the grid (especially if it’s networked and part of a demand response program or utility time-of-use rate), and typically cheaper to

¹ California Energy Commission. *Draft Zero Emission Vehicle Infrastructure Plan*. April 2022. Page 29.

buy, install and operate than public chargers, especially direct current fast chargers. Drivers can easily “set it and forget it” with residential chargers when they come home at night until they leave for work in the morning. They also benefit from having a full charge every time they leave home, saving them time from having to track down and use public chargers. This convenience becomes an important tool to accelerating EV adoption², helping to reduce barriers to EV purchases³.

TEINA projects that 200,000 residences will need chargers at home by 2025, representing 80 percent of the EV population⁴. This number increases to 1.5 million by 2035, representing 60 percent of the population, showing that home charging will remain a critical component to EV adoption. However, many homes are older and lack the needed panel capacity to support Level 2 charging. This raises an important equity consideration — these homes face an additional barrier compared to more modern ones, and the families in these older homes likely lack the financial means to also pay for a panel upgrade. PGE’s proposed panel upgrade program will increase equitable access to home charging, especially since it provides incentive “adders” based on specified income qualifications.

III. PGE’s proposed Schedule 50 rate for pole-mounted chargers is both equitable and practical.

PGE proposes to charge drivers a flat \$3 fee for overnight use of curbside Level 2 chargers via its municipal pole-mounted charging pilot project⁵. For drivers that lack access to home charging via driveways and garages, “home-adjacent” curbside Level 2 stations become a next best alternative to serve them with overnight charging. Curbside Level 2 stations are an important tool to increasing equitable access to home charging; regardless, charging sessions at these stations typically cost more than home chargers. This proposed flat fee structure is an important tool to equitably re-create the home charging experience so that these drivers can enjoy its benefits, including reduced charging session costs. Furthermore, this has additional practical implications — creating a flat fee eliminates potential inconveniences for residents to unplug their vehicles at an inopportune time late at night.

IV. Require PGE to document the process to permit chargers in cities’ right-of-way to identify best practices.

Even though curbside charging is an important tool to increase residents’ access to overnight charging, it can be difficult to effectively scale deployments due to unknown, unclear, or complex permitting requirements and processes for the public right-of-way. There is very little data available on best practices for streamlining and standardizing public right-of-way permits for chargers. PGE’s pilot presents an opportunity to collect this data by documenting right-of-way permitting requirements and processes for each city it deploys pole-mounted chargers in. This data can serve two critical future purposes:

- (1) Enable PGE to work with stakeholders to identify opportunities for streamlining right-of-way permits to deploy future curbside charging applications more quickly, pending approval of the expanded curbside program in its upcoming 2023-2025 Transportation Electrification Plan.
- (2) Help additional Oregon municipalities outside of PGE’s territory streamline their right-of-way permitting processes to accelerate more curbside charging deployments.

² Oregon Department of Transportation. *Transportation Electrification Infrastructure Needs Assessment*. June 28, 2021. Page 20.

³ City of Richmond & BC Hydro. *Residential Electric Vehicle Charging: A Guide for Local Governments*. 2020. Page 9.

⁴ Oregon Department of Transportation. *Transportation Electrification Infrastructure Needs Assessment*. June 28, 2021. Page 10.

⁵ Portland General Electric. *Attachment B: Municipal Charging Collaboration Pilot*. July 2022. Page 17.

Documenting these processes now and identifying right-of-way permitting best practices could provide cascading benefits to municipalities within PGE’s territory, the rest of the state, and even other states to help deploy more curbside charging projects.

V. Specify a formula for PGE to measure compliance with its proposed 98 percent uptime target and apply all reliability requirements to publicly available chargers funded via the proposed budget.

PGE’s municipal pole-mounted charging program will target 98 percent uptime⁶. We strongly applaud PGE for including this uptime target, but its proposed program does not state how they intend to measure this. If PGE does not specify the formula it uses to measure uptime, OPUC, nor stakeholders, can understand the overall reliability of public charging and the impact it may have on drivers’ charging experience. We recommend OPUC require PGE to develop and implement a formula for measuring uptime that is at a minimum consistent with the Federal Highway Administration’s (FHWA) uptime formula for its National Electric Vehicle Infrastructure (NEVI) Program⁷. Aligning with FHWA’s final standard, once adopted, will help ensure a consistent measurement and understanding of charger reliability in the state, especially since Oregon’s Department of Transportation will receive \$52 million in federal NEVI funds to deploy public chargers that will have to adhere to federal uptime requirements.

PGE’s proposed 98 percent uptime target is an important first step to ensuring drivers can access reliable chargers. UC Berkeley recently conducted a study of DCFC reliability in the San Francisco Bay Area, finding that only approximately 72 percent of chargers were operating at the time they were tested⁸. This study critically underscores the extent of this problem. Given this, we encourage OPUC to direct PGE to apply uptime requirements to all public chargers it intends to fund in its proposed budget, regardless of if they are owned by PGE. Drivers do not care who owns the charging station, they just want them to work when they need them. Broken chargers at best inconvenience drivers, or at worst leave them stranded. Both experiences risk undermining EV adoption.

Thank you for your consideration,

[electronically submitted]

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⁶ Portland General Electric. *Attachment B: Municipal Charging Collaboration Pilot*. July 2022. Page 7.

⁷ Federal Highway Administration. *National Electric Vehicle Infrastructure Formula Program: Notice of Proposed Rulemaking; Request for Comments*. June 2022. Page 77.

⁸ Rempel et al. *Reliability of Open Public Electric Vehicle Direct Current Fast Chargers*. April 2022. University of California, Berkeley. Page 1.