



April 7, 2023

VIA ELECTRONIC FILING

Oregon Public Utility Commission
Attn: Filing Center
201 High Street SE, Suite 100
Salem, OR 97301-3398

Re: NW Energy Coalition's comments in Docket UM 2056, PacifiCorp's Draft 2023 Oregon Transportation Electrification Plan

The NW Energy Coalition (NWEK or Coalition) appreciates the opportunity to provide comments on PacifiCorp's (Pacific Power or the Company) draft 2023 Oregon Transportation Electrification (TE) Plan. The TE Plan filed February 14, 2023, provides a comprehensive overview of current market conditions, forecasted infrastructure needs, and the proposed program portfolio. Considering the amount of new information, these comments are not meant to be exhaustive, and we plan to continue engaging as the PUC considers the proposed TE Plan and throughout program implementation. The Coalition's comments focus on: (1) Pacific Power's proposed budget; (2) technical requirements; (3) the proposed program portfolio; and (4) stakeholder review of the TE Plan.

Pacific Power's Proposed Budget

Pacific Power's proposed budget is primarily funded using Clean Fuels Program (CFP) credit revenue and System Benefits Charge (SBC) revenue.¹ The total proposed budget falls within the \$23.9 to \$66.2 million range for forecasted charging infrastructure needs at \$30.1 million. Considering the sources of funding, Pacific Power's budget barely exceeds their statutory requirements and regulatory obligations. While NWEK does not oppose the proposed scale of investment, this standard for investments may not be sufficient to meet growing customer needs and should not set a precedent for the scale of Pacific Power's investments in the future.

For the portion of the proposed budget that exceeds CFP and SBC revenue, Pacific Power is proposing to fund the remainder of the budget, less than \$1 million, using ratepayer dollars. NWEK supports this proposal, however, we are concerned about the proposed method for recovering these costs. The Company has indicated that these incremental costs could be recovered through "incremental SBC collections."

¹ PacifiCorp uses the term System Benefits Charge to refer to the Monthly Meter Charge, defined in OAR 860-087-0010 (4).

Adjusting the SBC is not the appropriate method to recover these costs. The total amounts collected through the SBC “must be set to one quarter of one percent of the total revenues collected by the electric company from all retail electricity consumers.”² The SBC is set at one quarter of one percent of the total revenues and is not designed to be adjusted above or below this amount. The Company should consider alternative methods when seeking to recover these costs.

Technical Requirements

NWEC, along with Climate Solutions, Green Energy Institute at Lewis & Clark Law School, Oregon Citizens’ Utility Board, The Environmental Center, and Verde, submitted comments regarding the draft technical requirements for Pacific Power’s TE Plan on February 1, 2023 (see attached). The TE Plan includes the Company’s response to stakeholder comments, and we appreciate the changes made to incorporate stakeholder input.³ As a result, we support the changes made to the payment method requirements as well as Pacific Power’s commitment to explore income-eligible rates at utility-owned EVSE and efforts to support ADA and multilingual accessibility.

To address electric vehicle supply equipment (EVSE) reliability, Pacific Power plans to include uptime standards under the respective tariff terms and conditions, utilize qualified products lists to ensure timely response times, and create a dashboard to track reported data. We agree with this approach and want to recognize the importance of EVSE reliability.

Insufficient and unreliable charging infrastructure, a barrier to EV adoption identified in the Stakeholder Engagement Report, also indicates that customer access to electricity as a transportation fuel is often limited. While this helps justify specific TE investments, it also demonstrates the need to maintain a reliable EVSE network. As a utility, Pacific Power has an obligation to provide reliable service and the Company’s proposed uptime standard and reporting requirement approach is an appropriate place to start. As more data becomes available, it will be important to compare reliability data against customer experiences and satisfaction. If customer satisfaction remains low and unreliable charging infrastructure continues to be a concern while a significant number of EVSE maintains a minimum uptime of 97%, then the methodology to calculate uptime is likely not representative of the average customer experience. Ensuring reliable service for customers relying on electricity as a transportation fuel will likely be an iterative process. To address this, we encourage Pacific Power to continuously evaluate data, monitor customer experiences, and adopt an adaptive management approach to EVSE reliability.

Proposed Program Portfolio

² Oregon Laws 2021, chapter 95 Section 2

³ Appendix H: Technical Requirements Stakeholder Feedback

I. Residential Managed Charging Pilot Program

NWEC supports the intent of the proposed Residential Managed Charging Pilot Program as well as the provision that allows customers to participate without requiring participation in a time-of-use (TOU) rate or EVSE rebate program. Based on our initial review, we would appreciate clarity on the means for calling a demand response event. Specifically, is Pacific Power planning to initiate demand response events through an opt-in process or opt-out process?

II. Public Utility-Owned Infrastructure Pilot Program

NWEC acknowledges that there is a need for more affordable and accessible EV charging options across Pacific Power's Oregon service territory. The Public Utility-Owned Infrastructure Pilot Program is one pathway to help address this. Given that the budget for this pilot will result in a limited number of EVSE installations, we recommend developing a site selection process that further prioritizes underserved communities, beyond the 97% that already meet this designation. One way to do this could be to adopt a site selection process, similar to a process utilized by Seattle City Light, and then develop evaluation criteria with stakeholders and the appropriate advisory groups (e.g., the Community Benefits and Impacts Advisory Group).⁴

III. Municipal and Community Grants

NWEC supports the proposed Municipal and Community Grant Program. The Company's previous grant programs funded by CFP credit revenue have helped distribute benefits to a diverse group of customers utilizing a variety of transportation electrification technologies. We look forward to seeing this continue with a focus on electric school buses and micro-mobility.

Stakeholder Review of the TE Plan

This is Pacific Power's first TE Plan following the adoption of revised Division 87 rules, Order No. 22-336, and complementary guidance, Order No. 22-314, that outline the process for the development and implementation of utility transportation electrification portfolios.^{5, 6} We commend Pacific Power for moving forward a TE Plan, budget, and program proposal in a timely manner. The initial filing contains a wealth of information which is helpful but can also be a lot for stakeholders to review. For future filings, one option the Company could consider to reduce the amount of material for stakeholders to review is to create concise program application summaries and include the draft tariff sheet. This is similar to how the Utilities and Transportation Commission reviews TE program proposals.

⁴ <https://www.seattle.gov/city-light/in-the-community/current-projects/curbside-level-2-ev-charging>

⁵ <https://apps.puc.state.or.us/orders/2022ords/22-336.pdf>

⁶ <https://apps.puc.state.or.us/orders/2022ords/22-314.pdf>

Lastly, we appreciate the discussion of how programs and infrastructure measures in the TE Plan holistically advance performance areas. For subsequent TE Plan Reports, we request the Company include a table clearly displaying metrics consistent with Order No. 22-314.

Conclusion

NWEC acknowledges that electric utilities play an essential role in transportation electrification. It is critically important that investments are in the public interest and that programs result in an equitable distribution of benefits. We encourage the Oregon Public Utility Commission to consider the role of electric utilities, especially in providing reliable and affordable electricity service, when evaluating Pacific Power's proposed TE Plan.

Respectfully submitted,

Annabel Drayton
Senior Policy Associate
NW Energy Coalition

February 1, 2023

Kate Hawley
EV Senior Product Manager
Pacific Power

Dear Kate Hawley,

Climate Solutions, Green Energy Institute at Lewis & Clark Law School, NW Energy Coalition, Oregon Citizens' Utility Board, The Environmental Center, and Verde appreciate the opportunity to provide feedback on the draft technical requirements for Pacific Power's Oregon Transportation Electrification (TE) Plan, distributed to stakeholders on January 12, 2023. We've provided input on several of the technical requirements, as detailed below.

Charger Uptime and Reliability

Pacific Power has proposed achieving a minimum uptime requirement of 97% per National Electric Vehicle Infrastructure (NEVI) standards.¹ We generally support a minimum uptime requirement of 97% in accordance with NEVI standards.² However, we have several questions regarding the applicability of the NEVI uptime standard, interpretation of the stated exclusions, the need for additional refinement of the calculation, reporting requirements, and whether Pacific Power intends to require electric vehicle supply equipment (EVSE) operators to use equipment and systems that will reduce outages.

First, we seek clarification that the 97% uptime requirement will apply to DCFC and Level 2 chargers. Under the NEVI program, the Federal Highway Administration (FHWA) proposes an "average annual uptime of greater than 97%" . . . "to provide a reliable national network for EV charging."³ The FHWA has prioritized the installation of DCFC ports under the NEVI program; therefore, FHWA requires only DCFC ports to meet the proposed 97% uptime requirement.⁴ Pacific Power will provide make-ready installations for public DCFC and Level 2 chargers in its service area. We ask that Pacific Power confirm that the 97% uptime requirement will apply to both DCFC and Level 2 chargers.

¹ Pacific Power, Oregon Transportation Electrification Plan Proposed Draft Technical Requirements 5, 11 (Jan. 2023) [hereafter Pacific Power Proposed Draft Tech. Reqs.].

² 87 FR 3762-37280 (June 22, 2022) (to be codified at 23 CFR § 680.116(b)), <https://www.federalregister.gov/documents/2022/06/22/2022-12704/national-electric-vehicle-infrastructure-formula-program> [hereinafter Proposed NEVI standards § 680.116(b)].

³ *Id.*

⁴ Proposed NEVI standards § 680.106(b).

Second, a well-defined uptime formula is necessary to achieve (1) transparent and accurate uptime reporting and (2) enforcement of the uptime standard. FHWA proposes calculating uptime as follows:

$$\mu = ((8760 - (T_{\text{outage}} - T_{\text{excluded}})) / 8760) \times 100$$

where:

μ = port uptime percentage;

T_{outage} = total hours of outage in previous year; and

T_{excluded} = total hours of outage in previous year for reasons outside the charging station operator's control, such as electric utility service interruptions, internet or cellular service provider interruptions, and outages caused by the vehicles, provided that the Charging Station Operator can demonstrate that the charging port would otherwise be operational.⁵

Based on the NEVI calculation, “ T_{outage} ” is not further defined and “ T_{excluded} ” includes outages that are outside of the charging station operator’s control, “such as electric utility service interruptions, internet or cellular service provider interruptions, and outages caused by vehicles.”⁶ We would like to understand Pacific Power’s interpretation of each stated excluded type. For example, “outages caused by the vehicles” could be read to mean a vehicle hit an EVSE, causing an outage, or a vehicle connected to the EVSE caused an outage related to the electrical current, or it could be read to include both outage categories. We would like to understand which category would include payment issues. Similarly, would “electric utility service interruptions” include delivery of less-than-advertised electrical current? In sum, we would appreciate clarification on how Pacific Power interprets T_{outage} and the stated outage categories in T_{excluded} in the NEVI formula.

In a recent study, *Reliability of Open Public Electric Vehicle Direct Current Fast Chargers*, the authors evaluated the reliability of 657 DCFC EVSEs in the Greater Bay Area.⁷ The study found that 72.5% of the chargers were functional when evaluated for reliability.⁸ Of the 22.7% non-functional EVSEs, the authors experienced “unresponsive or unavailable screens, payment system failure, charge initiation failures, network failures, or broken connectors.”⁹ Based on on-the-ground observations of non-functional DCFCs, we recommend Pacific Power examine other

⁵ Proposed NEVI standards § 680.112(b). The proposed regulations state that this section “only applies to NEVI Formula Program project.”

⁶ *Id.*

⁷ David Rempel, et. al., *Reliability of Open Public Electric Vehicle Direct Current Fast Chargers* (Apr. 7, 2022), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4077554.

⁸ *Id.* at 6. The remaining 4.9% of non-functional ports were due to cables that were too short to reach the testing vehicle.

⁹ *Id.* at 8.

studies and surveys (including of Level 2 chargers) to identify causes of non-functional EVSE ports so the causes may be categorized and included in the NEVI formula as T_outage or T_excluded.¹⁰ Establishing a detailed uptime formula will support transparency and accurate reporting, and enable Pacific Power to better enforce its uptime requirement on EVSE operators.

We are also concerned with the potential for vandalism of the EVSE equipment, e.g., cord cutting. We ask Pacific Power to assess how it will categorize and calculate vandalism that causes an outage and any measures it will require of EVSE operators to reduce the potential for vandalism.

Third, NEVI standards propose that charging station use, reliability, and maintenance data are collected quarterly.¹¹ Does Pacific Power intend to meet this proposed standard? If not, what reporting timeframe and mechanism does it intend to utilize? We support the quarterly reporting standard. At a minimum, this data should be included in Pacific Power's annual TE report. In providing this data, we ask that Pacific Power provide the data in a user-friendly format, e.g., aggregated data, summarized in the utility's annual report with worksheets available upon request.

Finally, we ask for information on how Pacific Power intends to reduce the most common EVSE outages, such as recognizing a lack of power to the EVSE, a circuit breaker trip, or a communications integration issue within the charger.¹² Specifically, does Pacific Power plan to require EVSE operators to use an EVSE system that will allow it or third parties to monitor and control its charging ports remotely? Will Pacific Power require its EVSE operator customers to have the ability to power cycle (turn off and on again) the charging ports remotely? Requiring Pacific Power's customers to address outages remotely will likely save Pacific Power and customers funds that could be used to support transportation electrification elsewhere.

Enforcement Mechanisms to Support Uptime Standard

Pacific Power seeks feedback on appropriate benchmarking metrics with potential enforcement mechanisms. Studies reveal a disconnect between EV owner user uptime experience compared to uptime reporting by EVSE operators.¹³ To ensure EV owners in Pacific Power's service area experience reliable EV charging, the uptime formula must be detailed and transparent as

¹⁰ See *Id.* at 9 for a discussion on establishing when a T_outage could start.

¹¹ Proposed NEVI standards § 680.112(b).

¹² See 2 NEVI hurdles: Uptime and Bottlenecks, Utility Dive (Oct. 31, 2022), <https://www.utilitydive.com/spons/2-nevi-hurdles-uptime-and-bottlenecks/634971/>.

¹³ Rempel, et. al., *supra* note 6, at 9.

discussed above. Once the uptime formula is established, ideas to support the enforcement of uptime requirements include:

1. **Outage recovery timeframe, cost-to-cover charge, and penalty.** Pacific Power should contractually establish an outage recovery timeframe, i.e., the EVSE port must be fixed within 24 or 48 hours, to support uptime reliability. If the EVSE operator does not fix the outage in the set time frame, then, where possible, Pacific Power should fix the outage issue and charge the EVSE operator the cost of addressing the outage– the “cost-to-cover” charge. Finally, the EVSE operator would be charged a penalty for failing to fix the outage. Combined, the cost-to-cover and the penalty would incentivize the EVSE operator to address the outage within the set timeframe. Penalties should increase based on the number of similar outages defined in the contract. To ensure Pacific Power would be able to recover its cost-to-cover or the penalty, it should require a financial instrument, e.g., a letter of credit or a surety bond, and file a claim against the instrument when appropriate.
2. **Improvement benchmarks.** Pacific Power should contractually establish improvement benchmarks for common outage types. For example, if a common outage occurs, the EVSE operator would be required to show it is taking steps to fix the problem so that within a set time frame, e.g., six months, that outage type happens at an agreed-upon reduced rate.
3. **Establish third-party field audits.** Pacific Power should require third-party audits to encourage reliability and public awareness. The audits could be conducted at the installation of the EVSE and then at unannounced periodic intervals. The audit results should be made public through the annual TE Report and/or 3-year TE Plan.
4. **Publicly available real-time data.** Pacific Power should support and work towards ensuring that accurate, real-time data on EVSE port status (functional vs. non-functional) should be made publicly available.

Pricing for Electric Vehicle Drivers

Pacific Power is proposing to allow (utility make-ready) customers who own and operate EV chargers to set access to their chargers according to their business needs (within the limits of the law) and set their pricing schedule. These customers will also be required to share pricing data with Pacific Power over the lifetime of the charging stations.

Pacific Power’s proposal for ownership and price control appears reasonable, but we request Pacific Power ensure reasonable rates, clarification on the collection method, additional data

on usage, and data transparency. This data will support metrics tracking and transparency of the EV charging landscape.

First, we request that Pacific Power review rates set at program-enabled EVSEs to ensure they are reasonable. In the alternative, Pacific Power could establish a rate cap as other utilities have done to ensure reasonable rates are charged.¹⁴ We recommend Pacific Power establish a method to ensure reasonable rates throughout its service territory.

Second, we ask that Pacific Power identify how and when it will collect pricing data from customers to report the price (\$/kWh) to charge at program-enabled ports by use case. We also request that any user data that Pacific Power collects, i.e., amount and duration of charge, be collected. With regards to the data, we ask Pacific Power to make the data collected from customers available in annual reports to maximize transparency and inform the development of future programs and rates, such as time-of-use rates for specific use cases. We believe this data will help stakeholders understand business charging patterns and needs, track metrics, and increase transparency.

Payment Methods

While we support prohibiting membership requirements to initiate a charging session, we have significant concerns with Pacific Power's minimum payment methods proposal. With the proactive minimum payment method standards that have been established in California and Washington, two states that Pacific Power already serves, we are disappointed that the Company is proposing less accessible standards for Oregon.¹⁵ Currently, California and Washington require that publicly available EVSE, installed after a specific date, include a credit card reader with chip technology, a mobile payment device, and a toll-free number.^{16,17} While Pacific Power is planning to comply with the California and Washington standards, the payment methods they are proposing to make available would be more restrictive for their Oregon customers.

Specifically, the Company is proposing to follow the NEVI program standards. The NEVI standards only require a contactless payment method and Plug and Charge capabilities. This is not sufficient to support equitable and fair access and we recommend aligning with the California and Washington standards for the following reasons.

¹⁴ See, e.g., Puget Sound Energy Electric Tariff G: Schedule 552 Electric Vehicle Residential Charging Products and Services, § 4.G ("Hosts may not set EV Charging prices per kWh more than their average electric charges per kWh of their Electric Service from the Company for the site.")

¹⁵ Pacific Power Proposed Draft Tech. Reqs. at 7, 13.

¹⁶ Cal. Code Regs. tit. 13, div. 3, ch. 8.3, § 2360.2.

¹⁷ Wash. Admin. Code § 16-662-210.

The California Air Resources Board (CARB) released an Electric Vehicle Supply Equipment Standards Technology Review (Review) on February 7, 2022.¹⁸ CARB's Review is significant because it provides a comprehensive analysis of payment methods frequently used by consumers and necessary to support access for unbanked, underbanked, or low-moderate income consumers. The Review confirms that EMV chip card readers provide the broadest convenient and reasonable access to EV charging. According to CARB's Review, over 85% of all card-present transactions globally used EMV chip technology and EMV chip cards will continue to be the foundation for payment processing. Further, 43% of drivers with incomes less than \$50,000 do not have a tap card and 30% of drivers with incomes less than \$50,000 do not have access to smartphones with contactless payment ability. Additionally, the Review states that "staff have not seen any evidence that this cost is reducing the number of EVSE units installed in California."

For these reasons, **we request Pacific Power amend the proposed payment methods offered at program enabled chargers to include a credit card reader with chip technology, a mobile payment device, and a toll-free number.**

ADA Accessibility

We appreciate Pacific Power's efforts to incorporate ADA standards at new EV charging installations, especially in the absence of ADA guidance in Oregon. Given that we have limited knowledge regarding ADA, we support aligning with the ADA standards put forth by the NEVI program. This position may evolve as more information becomes available and customer experiences are shared. We encourage Pacific Power to continue to monitor ADA best practices and propose changes as needed.

Multilingual Accessibility

Regarding multilingual options to facilitate a charging session,¹⁹ we recommend Pacific Power align with Washington's multilingual requirements. This would ensure that customers using program-enabled chargers in Pacific Power's service area could initiate a charging session in at least one language other than English. Pacific Power should consider the demographics and the languages commonly spoken in the area as well as consult American Community Survey data as

¹⁸ EVSE Standards 2022 Technology Review, California Air Resources Board (February 2022), available at https://ww2.arb.ca.gov/node/18496?utm_medium=email&utm_source=govdelivery.

¹⁹ Pacific Power Proposed Draft Tech. Reqs. at 8.

needed.²⁰ Oregon's EV charging infrastructure must work for the drivers of tomorrow and we encourage Pacific Power to continue assessing language access to help conduct charging sessions, in languages other than English, in a manner that supports all drivers.

Updated Schedule 60

We appreciate that Pacific Power's proposed update to Schedule 60 shifts from a time based rate structure to a unit of fuel based rate structure.²¹ Charging by the minute can result in discriminatory pricing and is unfair because it results in older vehicles, less expensive vehicles, or vehicles that are almost fully charged paying more per unit of fuel than newer cars, luxury cars or vehicles that are running on empty. For this reason, we support this component of the proposed rate.

However, having looked at Schedule 4, residential service, and Schedule 5, separately metered electric vehicle service for residential consumers, it is not immediately apparent how the proposed Schedule 60 level 2 rate compares to residential rates. For example, Schedule 4 and Schedule 5 include a basic charge, demand charge, and a volumetric rate whereas the proposed Schedule 60 has only a volumetric rate. With this in mind, we would appreciate more detail explaining how this rate compares to residential rates before the company files a revision to Schedule 60. This could be in writing or in a brief stakeholder meeting.

Lastly, we want to recognize that low-income rates do not appear to extend to public EV charging. This is a gap that warrants attention. To address this, we recommend Pacific Power work with stakeholders to develop a low-income rate for income-qualified customers at utility-owned charging stations.

Conclusion

We are grateful for the opportunity to comment on Pacific Power's proposed EVSE technical requirements. We support several of the company's initial proposals, particularly its use of the NEVI uptime standard and enforcement mechanisms to support it. Additionally, we generally support the utility's make-ready pricing program, modifications to Schedule 60, and efforts to incorporate ADA standards into its EVSE installations. However, we encourage Pacific Power to amend the proposed payment methods to include a credit card reader with chip technology so customers can use a commonly accepted payment method. We also encourage Pacific Power to

²⁰ The Oregon Secretary of State has published a list of the five most commonly spoken languages in each county, other than English, using American Community Survey data. This list is available at <https://www.oregon.gov/languages/pages/common-language-county.aspx>.

²¹ Pacific Power Proposed Draft Tech. Reqs. at 12.

align with Washington’s multilingual requirements. We ask for additional details and data sharing specific to each of these topics. We recognize this is an evolving and iterative process and look forward to future refinements and dialogue during Pacific Power’s upcoming Transportation Electrification Plan submission.

Respectfully,

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