

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON
UM 2056**

In the Matter of

PACIFIC POWER,

OREGON TRANSPORTATION
ELECTRIFICATION PLAN

COMMENTS OF THE
NW ENERGY COALITION

I. Introduction

The NW Energy Coalition (NWECC) respectfully submits the following comments on the Oregon Transportation Electrification Plan of Pacific Power.

NWECC appreciates Pacific Power's thorough summary of their existing transportation electrification portfolio, efforts to include stakeholder input in the development of their inaugural Oregon Transportation Electrification Plan (Plan), and that Pacific Power found the development of the plan to be a valuable process (1.4).

NWECC acknowledges that electric utilities play an essential role in transportation electrification (TE) through reliably and affordably serving the needs of a growing customer base, by addressing market barriers to help expand access to electric transportation technology, and in strategically planning to ensure transportation electrification results in a net benefit to all customers. Pacific Power's Plan includes the majority of the topics required under Order No. 19-134 but falls short of comprehensively addressing each topic.¹ In order to fulfill the essential utility role in the TE market, we suggest additional perspective and modifications to bolster the Plan and help Pacific Power expand their TE portfolio in a manner that benefits their customers, as detailed below.

II. Service Area Characteristics

NWECC commends Pacific Power for acknowledging the key role they play in rural TE and electrifying highway corridors and we agree that Pacific Power's service area is geographically diverse (1.1). However, the Plan diminishes the role they also play as an urban electricity provider. Pacific Power serves both rural and urban communities with an estimated population of over 120,000 in their Portland service area.² We encourage

¹ <https://apps.puc.state.or.us/orders/2019ords/19-134.pdf>

² <https://www.pdxmonthly.com/home-and-real-estate/2018/03/portland-neighborhoods-by-the-numbers-2018-the-city>

Pacific Power to consider the key role they play in accelerating both rural and urban TE as well as the highway corridors that connect them in the development of future TE programs.

III. Proactive Utility Role in Transportation Electrification

When utilities proactively plan to integrate and help accelerate TE, investments, similar to line extension allowances, can help increase marginal revenue and put downward pressure on rates when programs are designed to ensure the incremental revenue from TE load exceeds the incremental cost to serve it. This is one crucial consideration in the design of TE programs and from our review, is only partially mentioned once in Appendix B. We strongly encourage Pacific Power elaborate on the opportunities in Pacific Power's service area to design transportation electrification programs to foster downward pressure on rates.

We also acknowledge that the TE market in Pacific Power's service area is still in early stages. Pacific Power identified three objectives guiding their work (1.4.1) to accelerate TE, implying that there are still significant barriers to overcome to achieve market transformation and realize the associated benefits of TE. The market barriers that TE is currently facing are similar to those that face new energy efficiency technology, and the rationale behind market transformation programs for energy efficiency – programs that help scale up the market. Given the state of transportation electrification in Pacific Power's service area, we recommend the Commission consider programs and intervention strategies that promote market transformation for transportation electrification and help ensure that direct and net benefits accrue to utility customers.³ These programs should not be required to meet traditional or slightly modified energy efficiency cost-effectiveness tests (i.e. revised RIM tests).

Instead, utilities should evaluate measurable metrics related to the potential benefits upon which utility investments can be justified including, but not limited to, peak-load curtailment and load shifted to off-peak periods, grid optimization, higher renewable and non-emitting resource utilization, and public interest benefits such as greenhouse gas emissions reductions and customer fuel cost savings. This set of metrics is pulled from several resources developed to evaluate transportation electrification program portfolios and analyze the respective costs and benefits.⁴⁵⁶⁷

³ Market transformation means a reduction in market barriers due to a market intervention, as evidenced by a set of market effects, that lasts after the intervention has been withdrawn, reduced, or changed (Eto, Prahl, and Schlegel 1996).

⁴ [The Future of Transportation Electrification](#): Utility, Industry and Consumer Perspectives, Future Electric Utility Regulation, 2018

⁵ [Making Electric Vehicles Work for Utility Customers](#), Synapse Energy Economics, Inc., 2019

⁶ [Beneficial Electrification of Transportation](#), Regulatory Assistance Project, 2019

⁷ [Electric Vehicle Cost-Benefit Framework](#), M. J. Bradley & Associates, LLC

IV. Section 2: EV Adoption

NWEC provides the following feedback and recommendations on specific subsections throughout section 2.

Section 2.1.3.1 introduces the light-duty EV forecast. This preliminary EV load forecast aggregates BEV and PHEV vehicle adoption. We request Pacific Power include the PHEV and BEV projections from the AEO scenario forecast.

Section 2.1.3.2 addresses medium-duty and heavy-duty EVs. Table 8 includes a note that “as transit authorities, school districts, and fleet managers begin converting vehicles, the results may not reflect a slow and smooth ramp up.” However, transit authorities and school districts within Pacific Power’s service area are already adopting and planning for electric alternatives. How does the medium-duty and heavy-duty EV forecast take this into consideration?

We appreciate the consideration given working and off-road vehicles (2.1.3.3) and we encourage Pacific Power to engage commercial, industrial, and agricultural customers to better understand the potential benefits of these electric vehicle applications and the ways Pacific Power can intervene to break down barriers to adoption.

Section 2.2.2, Charging Technology Updates, does not adequately address the full scope required of this section. We suggest Pacific Power use this opportunity to provide additional information of the following relevant subjects:

- Interoperability (network-to-charging network, charging station-to-network, and physical charging interface)
- Vehicle to grid technology, viability, and benefits
- Fleet charging optimization and management solutions (i.e. electriphi)⁸

Section 2.3 includes a summary of Pacific Power’s efforts to support public charging and a high level overview of national public charging needs however, we feel Appendix B includes critically important information that is not made apparent in Section 2.3.

Specifically, we have the follow questions related to Section 2.3 and Appendix B:

- What type of residential chargers (level 1, basic level 2, or smart level 2) are residential customers utilizing?
- How is Pacific Power using the information in Appendix B to identify additional data needs?
- What Pacific Power customers don’t have access to residential charging or reliable, convenient, and fairly priced public charging?
- What rates are charged at non-utility owned public charging stations in Pacific Power’s service area? Are those rates clearly displayed or communicated? Are the existing public charging stations reliably operational and compatible with all EV models? Do the public charging stations available to Pacific Power customers require membership in order to use the stations or specific payment

⁸ <https://www.electriphi.ai/>

options that may not be available to all customers (i.e. key fobs, cards, or apps unique to each charging provider)?

- We agree that the profile of the EV driver is changing and public charging is critical for market transformation (2.2) but how does Pacific Power plan to use the national data (2.3.1) to help evaluate the availability and adequacy of charging stations needed to accelerate TE?

Current and Projected Electric Company System Impacts, Section 2.4, is a critical area of focus for utility TE. Pacific Power includes efficient TE integration, as part of their three main objectives for TE and it is an essential component to TE program design that is aimed at providing net benefits to all ratepayers. NWECC has several questions and concerns regarding this section, including:

- It is unclear how Pacific Power “addresses” distribution and transmission system impacts through their existing large load interconnection process and we request additional information.
- Similarly, Pacific Power’s Potential System Impact Study filed in UM 1810 predicts certain overloaded conditions.⁹ While we acknowledge that there is overlap with the distribution planning study, it is unclear how Pacific Power will “mitigate” overloading issues related to transportation electrification.
- “If there is a sudden or large increase in peak load, the timeline for planned projects is accelerated to accommodate the increase in load” (p. 29). NWECC is concerned by this statement and encourages more proactive planning to mitigate the need for capital investments in the transmission and distribution (T&D) system. We strongly encourage the use of direct load control to reduce T&D constraints associated with TE loads.

Section 2.4.1 addresses opportunities for efficient grid management and renewables integration. This is a key TE component to facilitate higher renewable and non-emitting resource utilization and achieve greater GHG emissions reductions. It is unclear how Pacific Power plans to support greater renewable integration and we would appreciate additional information on this topic.

Section 2.4.1.1, Rate Design, is an important section of the plan. NWECC understands Pacific Power’s general rate case is an appropriate place to propose a residential time-of-use rate but we feel it is necessary to hold a more comprehensive discussion of this TOU rate proposal, as a means to promote TE, within the TE Plan. Resigning this proposal entirely to the next rate case could limit stakeholder input and we request Pacific Power provide additional information regarding the details of this proposal and address the following questions:

- What are some key findings from the Rocky Mountain Power pilot?
- What is the impact of TE on Rocky Mountain Power and Pacific Power’s load?
- What is Rocky Mountain Power’s summer and winter daily load profile?
What is Pacific Power’s summer and winter daily load profile?

⁹ <https://edocs.puc.state.or.us/efdocs/HAH/um1810hah12205.pdf>

- How would Pacific Power collect residential charging data to inform this pilot?

Section 2.4.1.2, Direct Load Control (DLC), indicates that Pacific Power does not have any immediate intention to utilize direct load control. In order to reduce the risk of Pacific Power moving forward with a program that could result in obsolete infrastructure and technology not capable of supporting DLC, we strongly encourage Pacific Power to consider DLC opportunities in all applicable future TE program design.

V. Section 3: Market Barriers

Section 3 includes six main areas of market barriers that Pacific Power has identified. NWECA appreciates the summary of market barriers and agrees that robust stakeholder engagement will be critical for effective design of future programs but we feel it would be helpful to have a more thorough explanation of why certain barriers exist for Pacific Power customers and to what degree they have more influence over certain barriers rather than others.

VI. Section 4: Pacific Power's Investments, Programs, and Actions

NWECA supports significant growth in Pacific Power's TE portfolio. In expanding programs, we agree with Pacific Power that parsing attribution with multiple other influences on customer behavior may be challenging. There are several factors that contribute to a customer's decision to acquire an EV and while a utility program can contribute, it is not the sole reason a customer chooses to finance their own vehicle. Transportation electrification programs should avoid seeking attribution to the adoption of an EV, as they cannot be credited solely to a utility's investment. Instead, we recommend evaluating programs on a reasonable set of metrics upon which utility investments can be justified (i.e. peak-load curtailment and load shifted to off-peak periods, grid optimization, higher renewable and non-emitting resource utilization, and public interest benefits such as greenhouse gas emissions reductions and customer fuel cost savings).

VII. Section 5: Future Intervention Strategies

NWECA strongly supports Pacific Power's proposal to incorporate transportation diversity, equity, and inclusion, coordination of programs and funding, and grid integration. We offer the following perspective for consideration:

When considering alternatives to demand charges for medium- and heavy duty fleets to reduce upfront costs (5.1.1), we encourage Pacific Power to consider rates that take into account the potential unique type of load presented by these customers and that incorporate TOU price signals.

Section 5.1.2, Sending Long-Term Signals to the Market, NWECA supports Pacific Power's plans to develop workshops to support transit agencies and we encourage Pacific

Power to include school districts. Additional, we feel an EV Market Potential and Planning Study is unnecessary as that could be included in this plan.

Section 5.1.3 introduces options to improve access and economic viability.

- NWEA encourages Pacific Power to consider an updated line extension allowance for residential customers in addition to non-residential customers.
- We are encouraged by the initial concept proposed for the residential EVSE infrastructure incentive program but we feel it is important for any residential EVSE program to include the use of smart level 2 chargers. There is significantly greater value to this technology as it can support charging data collection and facilitate various types of demand response.
- We would support the expansion of the infrastructure grant program to include technical assistance if it were to be deemed a relevant and impactful program to expand.
- We encourage Pacific Power to expand their public charging station program and additional ways to support open and accessible charging. Pacific Power mentioned that a lack of favorable EV electricity rate options can impact fuel cost savings and contribute to greater economic barriers. We support public charging efforts that help ensure EV electricity rates are fairly priced.

Section 5.1.4, Increase Awareness and Education, NWEA is supportive of prudent investments in TE awareness and education. We encourage Pacific Power to expand their technical assistance programs, broaden customer and stakeholder engagement, and support workforce training.

NWEA supports actions to assess transit fleet potential as a means to reduce operational costs and increase service hours and to encourage EV-ready new construction that would save customers money (5.1.5).

Overall, section 5 includes several potentially viable and beneficial program ideas for Pacific Power to pursue and we have outlined our high-level perspective of those programs. However, this section is lacking actionable next steps, concrete timelines, and should include more information on how Pacific Power plans to design programs to provide direct benefits to traditionally underserved communities. Without these components, this section does not create accountability, a vital element for this plan to serve as a useful guiding document.

VIII. Additional Issues: Underserved Communities

Order No. 19-134 directs utilities to include a discussion of how their programs are expected to provide benefits for and extend access to traditionally underserved communities. Traditional underserved communities, often low-income and communities of color, are disproportionately burdened by vehicle pollution and can benefit most from the cleaner air and cost savings delivered by transportation electrification. Creative approaches are needed to ensure these communities directly benefit from these investments.

Pacific Power includes, predominately in the section highlighting their Clean Fuels funded programs (4.1.2), existing efforts to expand access to traditionally underserved communities. We strongly recommend Pacific Power continue developing creative approaches to ensure traditionally underserved communities directly benefit from TE investments. Pacific Power should work with stakeholders and community members to identify and prioritize appropriate programs. If environmental health data becomes available in Oregon, similar to Washington's Environmental Health Disparities Map, prioritized projects should provide direct benefits to communities and geographic areas experiencing the highest environmental health impacts.¹⁰ Selected projects should not compete with weatherization, efficiency or bill assistance programs and should provide sustainable benefits to customers even in the event a pilot or program is terminated.

IX. Conclusion

NWEC appreciates Pacific Power's works to develop this plan and we look forward to engaging in the development of Pacific Power's future TE programs. We encourage Pacific Power to undertake a proactive strategy to effectively enable efficient grid and resource management, increase access to transportation electrification for traditionally underserved communities, advance integration of clean energy resources, and expand programs to accelerate TE market transformation.

Thank you for your consideration of NW Energy Coalition's comments.

Annabel Drayton
Policy Associate

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¹⁰ <https://fortress.wa.gov/doh/wtn/WTNIBL>