

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**In the Matter of PacifiCorp's
Transportation Electrification Plan**

DOCKET UE-220359

**COMMISSION STAFF COMMENTS REGARDING
PACIFICORP'S TRANSPORTATION ELECTRIFICATION PLAN
SUBMITTED IN COMPLIANCE WITH
CHAPTER 80.28.365 RCW**

October 7, 2022

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Introduction

PacifiCorp d/b/a Pacific Power and Light Company (PacifiCorp or Company) provides electric service to approximately 137,000 customers in six Washington counties.¹ PacifiCorp filed its 2022 transportation electrification plan (TEP or plan) with the Washington Utilities and Transportation Commission (Commission) on May 20, 2022. After Staff’s initial review of the plan, Staff requested that PacifiCorp file additional information, including an updated electric vehicle (EV) forecast, the electric vehicle supply equipment (EVSE) deployment goals or targets the Company hopes to achieve through its TEP, a more detailed reporting framework, clarifications on how EVs will impact the distribution grid, and information on how the Company will approach interoperability. The Company filed this information in the form of an addendum (addendum), along with various workpapers, in Docket UE-220359, in late September 2022.

The Commission must issue an acknowledgment of an electrification of transportation plan within six months of the submittal of the plan, which in this docket falls on November 20, 2022.²

This document provides an overview of the enabling legislation, followed by Staff’s review of the findings and forecasts in the plan, Staff’s suggestions for the Company as it implements its 2022 TEP, and a summary of public comments from other interested parties involved throughout the TEP development process.

Background and Regulatory Compliance

RCW 80.28.365, which the Governor signed into law in April 2019, authorizes (but does not require) electric utilities to file an “electrification of transportation plan.”³ The purpose of the plan is to describe how the utility intends to deploy EVSE or other “programs, services, or incentives to support electrification of transportation.”⁴ The plan may also include proposed programs, their costs, and the anticipated benefits of transportation electrification.⁵

¹ Docket UE-220359, “Washington State Transportation Electrification Plan” (Plan), at 6 (filed May 20, 2022).

² RCW 80.28.365(3).

³ RCW 80.28.365(1): “An electric utility...may submit to the commission an electrification of transportation plan...”

⁴ *Id.*

⁵ *Id.*

If a utility elects to submit a TEP, the Commission must issue an acknowledgement of the plan within six months of its submission.⁶ The statute does not specify a process that the Commission should follow when acknowledging a TEP. As such, the Commission elected to offer a public comment period and require the Company to make an open meeting presentation prior to the Commission issuing an acknowledgement.⁷

The 2022 PacifiCorp TEP is the first that the Company submitted under RCW 80.28.365.

Plan Overview

In this section, Staff describes the key findings and planned activities included in PacifiCorp's TEP. The TEP covers the years 2023-2027, after which the Company tentatively plans to submit a new TEP.

Planning Context

PacifiCorp's Washington service territory lies in the rural south-southeastern parts of Washington. Rural areas have tended to lag urban ones in EV adoption.⁸ The Company's Washington territory is no different. As cited in the plan,⁹ as of December 2021, the territory was home to only 605 of the more than 83,000 EVs registered in the state. Likewise, as of late 2021, the territory had a mere 25 public charging stations, with 63 charging ports total.¹⁰ The state's other two investor-owned utilities (IOUs), particularly Puget Sound Energy (PSE), have significantly higher numbers of both EVs and public EVSE. PacifiCorp therefore must plan for different challenges and with different expectations than PSE or Avista.

⁶ RCW 80.28.365(3).

⁷ The presentation is scheduled for October 27, 2022.

⁸ Viswanath, T. "Co-op Evolution – Bridging the Rural-Urban Divide on EV Adoption" (2021). Available from: <https://www.cobank.com/documents/7714906/7715341/KED-Report-Electric-Vehicles-June2021.pdf/f36a0724-62da-97f4-1615-002b893e68b0?t=1623252540572>.

⁹ Plan at 7.

¹⁰ *Id.*, at 8.

Plan Objectives and Goals

The Company discusses four primary objectives that it hopes to meet through this TEP:¹¹

- *Improve access to charging:* PacifiCorp intends to improve upon the “relatively immature” charging infrastructure landscape, focusing on several sectors, such as multifamily housing, workplace charging, and charging for named communities.¹²
- *Reduce costs of electric transportation:* PacifiCorp hopes to lower the cost of EV ownership by providing convenient charging options for its EV drivers.
- *Electrify equitably:* The Company intends to promote equity as a “key consideration” as it crafts its programs.
- *Reduce carbon dioxide (CO₂) emissions and grid impacts:* The plan recognizes the role that EV adoption can play in reducing CO₂ and other greenhouse gas (GHG) emissions, but also notes that managing the grid impacts caused by increasing EV penetration will be an important factor in reducing emissions without costly grid upgrades.

Planned Programs and Activities

The Plan describes three strategies, each with three specific “tactics” (essentially planned programs or activities) that the Company intends to pursue to implement those strategies successfully.¹³ Staff describes those strategies and tactics in brief below.

- *Strategy 1: Expand and improve past programs.* PacifiCorp conducted a pilot EV program from early 2019 until the end of 2021.¹⁴ The pilot included three separate programs: an optional “make-ready” tariff for publicly available direct current fast charging (DCFC); a program providing competitive grants for EVSE for commercial customers; and an education and outreach program. The first TEP strategy (to be implemented by mid-2023¹⁵) is to continue and expand upon these existing programs, with some adjustments. Those adjustments include:
 - Improving education and outreach through technical assistance, including direct engagement with auto dealerships, and online tools;

¹¹ *Id.* at 9.

¹² “Named communities” here refers to the highly impacted communities and vulnerable populations defined in RCW 19.405.020. *See* Plan at fn. 23.

¹³ *See* Plan, Table 14, at 43.

¹⁴ Docket UE-180757.

¹⁵ *See* Plan, Figure 14, at 53, for a schedule with milestones.

- Improving outreach for the Company’s existing (non-EV specific) time of use (TOU) rates;¹⁶ and
- Re-establishing the grant program specifically for members of named communities. The Company plans to issue 8-10 of these grants as part of this TEP.¹⁷
- *Strategy 2: Launch new programs.* The Company intends to kick off new programs targeting new customers, specifically commercial and multifamily customers. Further, PacifiCorp plans to investigate programs that would help it manage the growing EV load on its system. These programs are expected to be in place by the middle of 2024, with a target of as many as 33 Level 2 charging ports for workplace and multifamily customers, and up to 150 managed charging participants.¹⁸
- *Strategy 3: Establish a public charging and highway corridors initiative to support public EV infrastructure.* The goal of this strategy is to improve the public charging infrastructure in PacifiCorp’s service territory. The Company notes that the territory has only 25 public charging stations, and only 15 DCFC charging ports, half of which are part of Tesla’s proprietary charging network.¹⁹ This public charging infrastructure needs to be built out further to promote EV ownership in the area. The TEP envisions a planning effort that would ultimately result in a program to install public charging infrastructure. The planning effort would coordinate with, and leverage funds from, other state-level efforts.²⁰ The Company expects to begin installing infrastructure by early 2024 and plans to install as many as 21 DCFC charging ports and up to seven Level 2 ports.²¹

Equity

The TEP highlights equity concerns in many places, including barriers to participation in transportation electrification (TE) programs, installation of EVSE, and adoption of EVs. Equity

¹⁶ Those schedules include the whole home/business TOU Schedules 19 and 29, as well as the DCFC transitional rate in Schedule 45.

¹⁷ Docket UE-220359, “Washington Transportation Electrification Plan Addendum” (September 2022) (“Addendum”), at 9, Table 8.

¹⁸ *Id.*

¹⁹ Plan at 50.

²⁰ Such efforts include the publicly available EV mapping and forecasting tool being developed by the Washington Department of Transportation (WSDOT) per RCW 47.01.520, and the statewide “Washington State Plan for EV Infrastructure Deployment.” Plan at 51. The latter has been developed through the federal National Electric Vehicle Infrastructure (NEVI) Formula Program, which will provide the state with \$71 million over the next five years to deploy EV charging infrastructure. See: <https://wsdot.wa.gov/construction-planning/statewide-plans/washington-state-plan-electric-vehicle-infrastructure-deployment>.

²¹ Addendum at 9, Table 8.

issues include lack of multifamily EVSE, lack of employer charging stations, limited scheduling flexibility, cost burdens, and the inaccessibility of tax credits for households with little tax liability.²² The plan demonstrates PacifiCorp’s research exploring various TE program types. Providing chargers for multifamily units and grants for named communities constitute the largest action items in the plan that are designed to target named communities. Nearly a third of the budget (32 percent) is set aside for the named communities grant program, and PacifiCorp estimates that more than 50 percent of investments will serve named communities.²³

Budget, Benefits and Costs

PacifiCorp’s TEP budget, projected to be about \$3.5 million, is smaller than those proposed by Avista (approximately \$22 million from 2021 to 2025²⁴) or PSE (\$75-109 million from 2021 to 2026²⁵). Nearly one-third of this total is earmarked for the named communities grant program, with approximately another quarter slated for the public infrastructure program.²⁶ The spending ramps up over the plan’s five years, with year five expenditures expected to be nearly double those in year one.²⁷ The planned activities would result in net benefits over the next 10 years; those net benefits are small in the early years and grow significantly in the outer years.²⁸

Distribution Grid Impacts

The TEP describes PacifiCorp’s analysis to determine whether its distribution grid could incorporate its expected EV growth over the next five years.²⁹ The analysis looked at one substation and three associated feeders serving residential customers in the Yakima area. One feeder each serves predominantly urban, suburban, and rural customers. The analysis concluded that the Company’s distribution grid could absorb the expected load from new EVs, and its “traditional distribution planning study process” will be able to predict and manage any overload conditions that emerge.

²² Plan at 19-20.

²³ Addendum at 9, Table 8.

²⁴ Docket UE-200607, “Transportation Electrification Plan”, at 39, Table 4.

²⁵ Docket UE-210191, “Transportation Electrification Plan”, at 69, Table 6.

²⁶ Plan at 52.

²⁷ Docket UE-220359, workpaper “220359-PAC-Portfolio-Budgets-WP-9-28-22”.

²⁸ Addendum at 5, Table 1.

²⁹ Plan at 42, Appendix A.

Outreach and Interested Party Feedback

PacifiCorp received feedback for its TEP in four ways: hosting Equity Advisory Group (EAG) meetings, contacting local governments, holding meetings with interested parties, and soliciting written comments from the Commission’s joint EVSE stakeholder group. The Company hosted three EAG meetings in February, March, and April of 2022 that focused partly on the TEP. PacifiCorp also contacted 19 different local governments and transit agencies in their service territory, as well as two community-based organizations (CBOs) (People for People and Blue Zone Walla Walla). Of these 21 entities, only one responded. PacifiCorp received further feedback through meetings and written comments from stakeholder group members.

Staff Analysis

Staff’s evaluation of utility EVSE programs includes consideration of customer access to EV charging services. The company must ensure programs are cost-effective at rates that are just, fair, reasonable, and sufficient.³⁰ Further, Staff’s evaluation also considers whether plans for services are safe, equitable, available, reliable, and fairly priced.

In general, Staff believes that the plans outlined in the TEP are sound. The plan differs from those put forward by Avista³¹ and PSE³² in that the budget and expected outcomes are more modest, and that PacifiCorp expects to rely less on capital-intensive utility ownership of EVSE than its counterparts (although that could change as the Company solidifies its program designs; PacifiCorp will investigate program design alternatives for the commercial and multifamily programs specifically before program launch in 2024, and those alternatives could include utility ownership of EVSE). Further, to Staff’s knowledge, PacifiCorp is the only one of the state’s IOUs to provide a competitive grant program for non-residential customers. This is a unique approach that Staff believes will be beneficial because it will help PacifiCorp uncover good opportunities to install EVSE that benefit named communities. Staff acknowledges the differences between each company’s plan but has no specific preference in terms of approach. Staff simply encourages the Company to remain flexible (or, to use an energy efficiency term, “adaptively manage” its TE programs³³) as it implements the TEP and increase its TE activities and budget if it sees increased EV adoption across its service territory.

Finally, Staff notes that recent, fast-moving developments at the federal level cast some uncertainty on the immediate future of EV adoption, in PacifiCorp’s territory and throughout the state. The Infrastructure Investment and Jobs Act, signed into law in late 2021, included the

³⁰ RCW 80.28.010.

³¹ Docket UE-200607.

³² Docket UE-210191.

³³ WAC 480-109-100(1)(a)(iv).

National Electric Vehicle Infrastructure (NEVI) Formula Program, which is expected to bring about \$71 million to Washington to deploy public EV charging infrastructure. On the other hand, the Inflation Reduction Act, signed into law in August 2022, contained provisions relating to EV supply chains that may have a cooling effect in the short term on the availability of EVs, though are expected to have a positive impact in the longer term.³⁴ It remains to be seen how these new laws will influence both EV adoption and EVSE deployment throughout the state.

Below Staff comments on specific aspects of the Company's TEP.

Connection to the Commission's EVSE Policy Statement

The PacifiCorp TEP addresses most of the key elements of the Commission's 2017 "Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Services" (Policy Statement).³⁵ Staff addresses several of these elements individually in the sections below. Here, Staff notes that the plan takes a portfolio approach to providing EV services, as required in the Policy Statement.³⁶ The Policy Statement also requires an "interoperability analysis,"³⁷ and while the plan does not include such an analysis per se, it does discuss PacifiCorp's intention to adhere to the interoperability standards adopted through the NEVI program.³⁸ This strikes Staff as a reasonable approach.

EV Adoption Forecast

PacifiCorp based its EV adoption forecast off a blend of data from several widely available EV adoption forecasts, with the forecast becoming more aggressive over time. While Staff has not been able to perform an extensive review of the data underlying the forecast, on the surface the Company's methodology seems reasonable. In its addendum, PacifiCorp's new EV forecast

³⁴ Supply Chain Dive, "Inflation Reduction Act encourages EV battery sourcing, production in North America" (Aug. 17, 2022). Accessed from: <https://www.supplychaindive.com/news/biden-signs-inflation-reduction-act-in-boost-to-us-electric-vehicle-product/629854/>.

³⁵ Docket UE-160799.

³⁶ *Id.*, "Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Services" (Policy Statement), at ¶ 73-77.

³⁷ *Id.*, at ¶ 90.

³⁸ Addendum at 10-11. A NEVI program guidance document can be found on the Federal Highway Administration's (FHWA) website: https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/nominations/90d_nevi_formula_program_guidance.pdf. The FHWA released a Notice of Proposed Rulemaking in June 2022; the Notice can be found at: https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/resources/nprm_evcharging_unofficial.pdf.

(updated since the filing of the main TEP) shows an increase in expected EV adoption that is modest through 2026 but accelerates through 2031.³⁹ This makes sense to Staff, as it seems to confirm the notion that recent federal legislation will have more of an impact in the long term than in the short to medium term.

Load Management and Grid Impacts

The Policy Statement states that “the Commission will consider whether utility programs prioritize load management benefits.”⁴⁰ As envisioned in the TEP, the only load management option PacifiCorp intends to take advantage of is its currently available TOU rates.⁴¹ Specifically, the Company’s strategy involves improving and expanding the education and outreach efforts around its TOU rates. Staff accepts this approach for the time being but cautions that the Company needs to investigate a broader set of managed charging options throughout the duration of the Plan and set about adopting those additional managed charging options as the territory’s charging infrastructure expands. That could include active load management options such as demand response or direct load control. Staff is encouraged by the fact that PacifiCorp intends to investigate such options as it implements this Plan,⁴² and recommends the Company include the results of such investigations in its first TE report.

Even with TOU rates currently envisioned as the sole load management option in the TEP, PacifiCorp states that it does not expect significant grid impacts from TE over the duration of this plan.⁴³ That is encouraging, although Staff notes that the analysis presented in the TEP is of just one substation and three feeders. The addendum shows that the updated EV forecast has increased the expected load on the example feeder, but with no anticipated impact to the distribution system.⁴⁴ Overall, Staff does not have any concerns that PacifiCorp’s distribution grid will suffer serious negative impacts during this TEP.

³⁹ Addendum at 5, Table 1.

⁴⁰ Policy Statement at ¶ 78.

⁴¹ Plan at 47-48.

⁴² *Id.* at 48, 50.

⁴³ *Id.* at 42.

⁴⁴ Addendum at 10.

Equity

When it comes to electrifying transportation equitably, PacifiCorp is on its way to meeting the requirements established by the Commission.⁴⁵ The TEP demonstrates some insights into the dynamics that hinder named communities' participation in TE programs, adoption of electric vehicles, and installation of EVSE. The emphasis on the named communities grant program and multifamily customers are strong first steps, even though the details of both are to be determined. PacifiCorp proposes some performance categories to monitor the program, as well as progress updates and targets by program type. These might offer some useful accountability for the TEP that can be iteratively improved upon with future updates. Furthermore, the plan's allocation of nearly a third of the budget to the named communities grant program, with an estimated total of 50 percent of the overall budget going to named communities, is laudable, as is PacifiCorp's pledge to continue work with its EAG.⁴⁶

However, there are a few equity blind spots in the plan. First, PacifiCorp notes that 12 percent of their residential customers live in mobile homes.⁴⁷ These customers are never discussed in the plan beyond a footnote. The plan does not say much about low-income single-family home renters either. Second, PacifiCorp intends to offer on-site technical assistance to non-residential customers. However, the plan does not offer any such assistance to multifamily customers, even though it notes the difficulties those customers face with installing EVSE. Third, the public charging section of the plan (strategy 3.3) contains one sentence and appears underdeveloped. Fourth, the TOU outreach and commercial charging programs, as well as the blueprint to spend state and federal money strategies (strategies 1.3, 2.1, and 3.2, respectively), lack clear equity components.

Staff recommends that PacifiCorp address these deficiencies in the following ways:

- Consider how mobile home dwellers and single-family renters could participate in TE programs.
- Extend technical assistance to multifamily customers in addition to commercial ones.
- Ensure public EVSE siting meets the needs of underserved communities and set clear goals for the scope of the public EVSE program.
- Consider TOU outreach to named communities and ways that this program might be integrated into the multifamily charging program.
- Consider siting EVSE at workplaces that would principally benefit low-income customers.
- Consider ways that federal and state funds can be used to benefit named communities.

⁴⁵ Policy Statement at ¶ 85 & 86.

⁴⁶ WAC 480-100-655.

⁴⁷ Plan, fn. 93 at 49.

Since equitable implementation of TE programs is critical, Staff recommends that the Company's first TE report (discussed below) include an update on how it has implemented the equity recommendations enumerated above.

Staff recognizes that this is an iterative process, and many of the plan's proposals involve program design, which will be locked down in the coming months and involve continued collaboration with community groups. Staff anticipates that some of the blind spots noted above will be resolved as a matter of course following the plan. Others will need revision, addition, and more attention from PacifiCorp going forward.

Outreach Plan

While recognizing that PacifiCorp cannot force its customers to respond to public outreach, the fact that so few local governments, transit authorities, and CBOs responded to PacifiCorp's public engagement suggests that the Company's engagement with its customers needs improvement. While no outreach strategy can guarantee success, Staff recommends that PacifiCorp review its local outreach materials and improve them as needed to increase response rates.

Additionally, EAG members proposed several types of organizations that PacifiCorp could engage with, including public schools, local business owners, agricultural workers, colleges and universities, public transit services, and health organizations. However, in the TEP, PacifiCorp did not indicate that it made any attempt to engage these groups. Further, PacifiCorp did not seek or receive any feedback directly from customers, which could be done through various means. Staff recommends that PacifiCorp develop relationships and engagement strategies with the groups within its service territory identified by the EAG, and consider direct outreach to customers, to extend its outreach beyond the insights provided by the EAG. Staff recommends that the Company provide an update on its outreach strategies, and the impacts of those strategies, in its first TE report.

Budget, Benefits, and Costs

The anticipated benefits of the plan exceed its costs in every year of the plan.⁴⁸ The benefit calculation includes the estimated benefits from greenhouse gas emissions reductions,⁴⁹ which, based upon the confidential workpapers, appear to be considerable. Benefits continue to exceed costs even after the EV forecast update in the addendum, although the Company has not increased its expected budget for this TEP to account for that increase in EVs.

⁴⁸ *Id.* at 40, Table 12.

⁴⁹ *Id.* at 32, Table 5.

Staff notes that the Commission has not settled on a specific methodology to calculate the costs and benefits from TE programs. Commission Staff is currently investigating potential cost-effectiveness tests for distributed energy resources in Docket UE-210804. Staff encourages PacifiCorp to follow and participate in this docket, as EV cost-effectiveness is one topic of discussion in that docket.

As mentioned above, the budget for PacifiCorp's TEP is significantly smaller than those for Avista's and PSE's respective TEPs. However, Staff acknowledges the difficulty in determining whether an expected amount of spending is large enough to achieve the anticipated goals and believes the periodic reports PacifiCorp intends to file will reveal whether the appropriate balance between spending and results is being struck. In the meantime, Staff reiterates its encouragement that PacifiCorp adaptively manage its TE programs, responding to new developments appropriately.

Reporting and Metrics

In response to the Policy Statement's requirement for regular reporting,⁵⁰ PacifiCorp's TEP proposes four public reports:⁵¹ one in late 2023, a second in 2025, a third in 2026, and a final program report once the next TEP is filed in 2027. The first and third reports can focus on high-level results, expenses, and revenues to date, as well as any significant changes in plan. Those changes in plan should incorporate the equity and public outreach recommendations Staff makes above, as well as the results of the Company's exploration of program options and subsequent new program planning. The 2025 and 2027 reports should be much more detailed and comprehensive.

Staff recommends that the Company track the following metrics as part of its reporting framework:

- EV adoption and projected adoption in the service territory.
- Number of EVSE and ports installed using Company funds and resources, by program.
- Number of grants distributed, total grant funding distributed, and average size of grant funds.
- The demographics of program participants.
- Number of EV customers taking service through Schedules 19, 29, and 45; amount of EV load (in kWh) shifted through these schedules; and peak load (in kW or MW) reduced.
- Electric consumption in kWh and peak kW, by program.
- EV load profiles by use case (such as multifamily, commercial, and public).

⁵⁰ Policy Statement at ¶ 92.

⁵¹ Addendum at 9.

- Education and outreach events held, and approximate number of customers/drivers served or in attendance.
- Levels of EV awareness among customers.
- Grid impacts from EV load.
- Charging reliability.
- Avoided GHG emissions.
- Customer operating cost savings.
- Customer satisfaction.
- Utility revenue, spending (including share of spending on named communities), net benefits, and a comparison of capital expenditures to the Company's annual revenue requirement.⁵²

PacifiCorp should report the above metrics, to the extent possible and as appropriate, separately for named communities.

Public Comments

The Commission posted a Notice of Opportunity to File Written Comments in Docket UE-220359 on July 28, 2022, with a comment deadline of October 7, 2022. As of October 6, no other parties had filed comments yet.

Closing Remarks

Staff recommends acknowledgement of the plan following the Company's presentation of its plan at the Commission's October 27, 2022, open meeting. Staff further recommends PacifiCorp take the following actions as it implements the plan:

- Provide an update on the Company's investigation into load management opportunities beyond TOU rates in its first TE report.
- Include in its first TE report an update on how the Company has implemented programs equitably as described on page 8 and 9.
- Implement the public outreach changes recommended by Staff on pages 9 and 10 and include a public outreach update in its first TE report.
- File the periodic reports, with metric tracking as outlined above, in this docket.

⁵² The Company may, in future rate cases, request the additional incentive rate of return allowed under RCW 80.28.360(1).