

ENTERED Jul 13 2023

**BEFORE THE PUBLIC UTILITY COMMISSION
OF OREGON**

UM 2056

In the Matter of

PACIFICORP, dba PACIFIC POWER,

Acceptance of Transportation Electrification
Plan.

ORDER

DISPOSITION: STAFF'S RECOMMENDATION ADOPTED

At its public meeting on July 11, 2023, the Public Utility Commission of Oregon adopted Staff's recommendation in this matter. The Staff Report with the recommendation is attached as Appendix A.

BY THE COMMISSION:



A handwritten signature in blue ink, appearing to read "Nolan Moser".

Nolan Moser
Chief Administrative Law Judge

A party may request rehearing or reconsideration of this order under ORS 756.561. A request for rehearing or reconsideration must be filed with the Commission within 60 days of the date of service of this order. The request must comply with the requirements in OAR 860-001-0720. A copy of the request must also be served on each party to the proceedings as provided in OAR 860-001-0180(2). A party may appeal this order by filing a petition for review with the Circuit Court for Marion County in compliance with ORS 183.484.

ITEM NO. RA1

**PUBLIC UTILITY COMMISSION OF OREGON
HIGHLY CONFIDENTIAL STAFF REPORT
PUBLIC MEETING DATE: July 11, 2023**

REGULAR X **CONSENT** **EFFECTIVE DATE** **N/A**

DATE: May 30, 2023

TO: Public Utility Commission

FROM: Eric Shierman

THROUGH: JP Batmale and Sarah Hall **SIGNED**

SUBJECT: PACIFIC POWER:
(Docket No. UM 2056)
Acceptance of Transportation Electrification Plan.

STAFF RECOMMENDATION:

Accept Pacific Power's 2023–2025 Transportation Electrification Plan.

DISCUSSION:

Issue

Whether the Public Utility Commission of Oregon (Commission) should accept Pacific Power's (PacifiCorp or the Company) Transportation Electrification (TE) Plan (the Plan).

Applicable Rule or Law

Division 87 of the Commission's Administrative rules provide the requirements for an electric company TE Plan.¹ The objective of the Division 87 rules is to integrate the electric company's TE actions into one document and to act as a summary of the electric company's investments and activities.² A TE Plan must include:³

- a) A description of current market conditions.
- b) A summary of programs and future concepts.
- c) A discussion of how the TE Plan advances certain performance area categories.
- d) Supporting data and analysis.

¹ OAR 860-087-0020.

² OAR 860-087-0020(1).

³ OAR 860-087-0020(3)-(4).

- e) A discussion of potential impact on competitive EV supply equipment market.
- f) Ratepayer impact.
- g) A TE Budget.
- h) Any new Program and Infrastructure Measure applications.

Commission acceptance of the TE Plan grants approval of the TE Budget.⁴

Analysis

In this memo Staff will:

- Provide the background of this Plan.
- Summarize the Plan.
- Analyze the plan using the new TE investment framework.
- Summarize stakeholder comments.
- Conclude with a recommendation for the Commission.

Background

Each electric company in Oregon must file a TE Plan for Commission acceptance.⁵ Pacific Power filed its first TE Plan on February 23, 2020. On September 8, 2022, the Commission adopted new Division 87 rules that prescribe the required elements of transportation electrification plans.⁶

On February 14, 2023, Pacific Power filed a draft TE Plan under the new rules. Staff hosted a workshop on March 8, 2023, in which the Company presented the Plan to stakeholders and answered questions. Staff, ChargePoint, the Citizens' Utility Board (CUB), the Northwest Energy Coalition (NWECC), WeaveGrid, the Green Energy Institute (GEI), and Verde filed Comments on this Plan on February 10, 2023. Pacific Power filed reply comments on May 5, 2023, and a revised TE Plan for Commission acceptance on May 19, 2023.

Planned TE Programs and Measures

Pacific Power proposes four new infrastructure measures to expand the portfolio of programs and measures the Commission has already approved in 2018 through UM 1810 and updated in 2021 through ADV 1288. Those existing TE activities are:

- **Outreach and Education** – The Company's main outreach and education on EVs has been funded by ratepayers and separate programs have been funded by residential credits from Oregon's Clean Fuels Program (CFP) to provide general marketing, events, and technical assistance.

⁴ OR Laws 2021, ch 95, § 2(3); OAR 860-087-0020(2)(a).

⁵ ORS 757.357(3).

⁶ See Docket No. AR 654, OPUC, Order No. 22-336, September 8, 2022, p 1.

- **Public Charging Pilot** – This measure has built five public charging stations across the Company’s service territory offering both L2 and direct current fast chargers (DCFC).
- **Electric Mobility Grant** – These grants have been funded by residential CFP credits and are tailored to underserved communities or organizations that serve underserved communities.
- **Residential Rebate Pilot** – This measure provides rebates for the installation of home chargers.
- **Commercial Rebate Pilot** – This measure provides rebates for the installation of both private and public charging infrastructure by nonresidential customers.

Beyond these existing activities, the Plan proposes to add a fleet make-ready measure, a demand response measure, grant funding dedicated for municipalities and communities, and an expansion of Company-owned charging stations.

Pacific Power proposes to launch a **Fleet Make-Ready Pilot program** to subsidize nonresidential customers’ cost of constructing private charging infrastructure at fleet depots. The Plan assumes this will fund 165 ports dedicated to fleet charging through 2025. The Company will calculate a customized incentive based on the power-level and port count of the customer’s fleet charging infrastructure.⁷

Pacific Power proposes to launch a **Residential Managed Charging Pilot** to develop demand response (DR) from residential customers. Residential customers’ charging would be managed through one of two mechanisms: controlling the vehicle or controlling the charging equipment. The Plan assumes 5–15 percent of customers will participate which implies 500 to 1,500 EVs. The goal is to shift a minimum of 75 percent of charging off peak by providing participants \$100 to \$200 to sign up and \$25 to \$100 to remain actively enrolled.

Pacific Power proposes to launch a **Public Utility-Owned Infrastructure Pilot Program**. The Company already has a utility-owned charging infrastructure pilot, but this will be a qualitatively different effort, specifically sited in underserved communities with L2 ports mounted on distribution system poles and larger-capacity DCFC ports. The Plan assumes this pilot will build 130 L2 ports and 50 DCFC ports. These charging services will be offered to EV operators under Schedule 60 rates, and the Company plans to develop a low-income rate.

Pacific Power proposes to launch a **Municipal & Community Grant Pilot**. This is an extension of the Electric Mobility Grant that will be dedicated to underserved

⁷ See Docket No. UM 2056, PacifiCorp, Response to OPUC IR 30, April 4, 2023, p 1.

communities while focusing on micromobility and school buses. The Plan seeks to fund e-bike rebates modeled on a City of Corvallis program and fund \$250,000 for electric school buses. The Plan assumes The Company plans to fund this program with residential CFP credits.

TE Budget

Pacific Power has budgeted approximately \$29.4 million for the three-year TE Budget or around \$10 million per year annually for these TE programs and measures.⁸ This marks a [BEGIN CONFIDENTIAL] [END CONFIDENTIAL] percent increase in annual TE expenditures from previous years. Total expenditures on TE by Pacific Power in 2022 were [BEGIN CONFIDENTIAL] [END CONFIDENTIAL].⁹

Table 1: Pacific Power TE Budget in Thousands

Activity	2023	2024	2025
Commercial EVSE Rebate Pilot	\$ 866	\$ 1,002	\$ 1,137
Residential EVSE Rebate Pilot	\$ 766	\$ 876	\$ 984
Fleet Make-Ready Pilot	\$ 846	\$ 1,291	\$ 1,641
Grant Programs	\$ 2,606	\$ 4,091	\$ 4,891
Managed Charging	\$ 506	\$ 480	\$ 975
Outreach and Education	\$ 1,171	\$ 1,171	\$ 1,291
Public Infrastructure Pilot	\$ 402	\$ 675	\$ 1,423
Portfolio Overhead	\$ 599	\$ 814	\$ 864

This budget keeps Schedule 60 rates unchanged. Schedule 60 is the price EV operators pay to refuel their vehicle at Company-owned public charging stations. In comments, Staff inquired about Schedule 60 as it is an important element of a financially sustainable infrastructure measure.¹⁰ Pacific Power sells this service to EV operators at a significant loss.¹¹ To put that loss into perspective, [BEGIN HIGHLY CONFIDENTIAL]

[END HIGHLY CONFIDENTIAL]. Staff expects CFP credits to approximate the energy costs. Ratepayers fund the difference. In comments, Staff recommended the Company perform an analysis on whether Schedule 60 should be revised.¹² Pacific Power performed the analysis and finds no need to change Schedule 60 rates.¹³

⁸ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, p 61.

⁹ See Docket No. UM 2056, Pacific Power, Response to OPUC IR 26, April 3, 2023. Cell G62.

¹⁰ See Docket No. UM 2056, OPUC Staff, Comments, April 7, 2023, p 12.

¹¹ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, Appendix A.

¹² See Docket No. UM 2056, OPUC Staff, Comments, April 7, 2023, p 12.

¹³ See Docket No. UM 2056, Pacific Power, TE Plan, Attachment A, May 19, 2023, p 4.

The Company justifies Schedule 60 rates in two ways. First, Pacific Power determines Schedule 60 rates not by the marginal cost of the service but rather by placing the Company's rate in the middle of the observed market prices. Staff has reviewed Pacific Power's analysis of the market prices for charging services and confirmed that Schedule 60 is not at the bottom of the market.¹⁴ This raises the question: are Pacific Power's capital and operating costs higher than other market participants or are charging services generally losing money? Staff is not certain of this answer, but we have seen anecdotes to suggest that it is very difficult to earn a positive rate of return from providing charging services. The most prominent corroboration of this Staff learned from working with the Rocky Mountain Institute (RMI) in the development of the Oregon Department of Transportation's (ODOT) Transportation Electrification Infrastructure Needs Analysis (TEINA) model. The model assumes that in 2020 the average capacity utilization became 20 percent and steadily increases to 30 percent by 2030. RMI explained to Staff that 30 percent is the utilization that these businesses need to make money. Staff has yet to see outlay data from a charging site showing 20 percent utilization. The observed average appears to be **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]**.¹⁵ If RMI's financial assumption about the required capacity utilization is correct, firms investing in charging stations to make money from charging services are generally operating at a **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]**.

The second justification Pacific Power has for Schedule 60 rates is that raising them would adversely impact low-income EV owners. That may be true to some extent, but EV owners tend not to be low-income. In the Plan, the Company describes efforts to provide a more targeted low-income option.¹⁶ Staff is supportive of developing a low-income charging rate that can meet the policy goal to provide affordable electric fuel prices to low-income EV operators while allowing more of the charging service cost to be borne by most EV-fueling customers.

Staff does not have an alternative Schedule 60 rate to propose. Pacific Power is not pricing these services at the bottom of the market, and selling these services at a loss may be the current market reality. Staff sees the question of optimal Schedule 60 pricing as a budgeting issue that ultimately requires benefit/cost analysis (BCA) and potentially taken up in a future rate case.

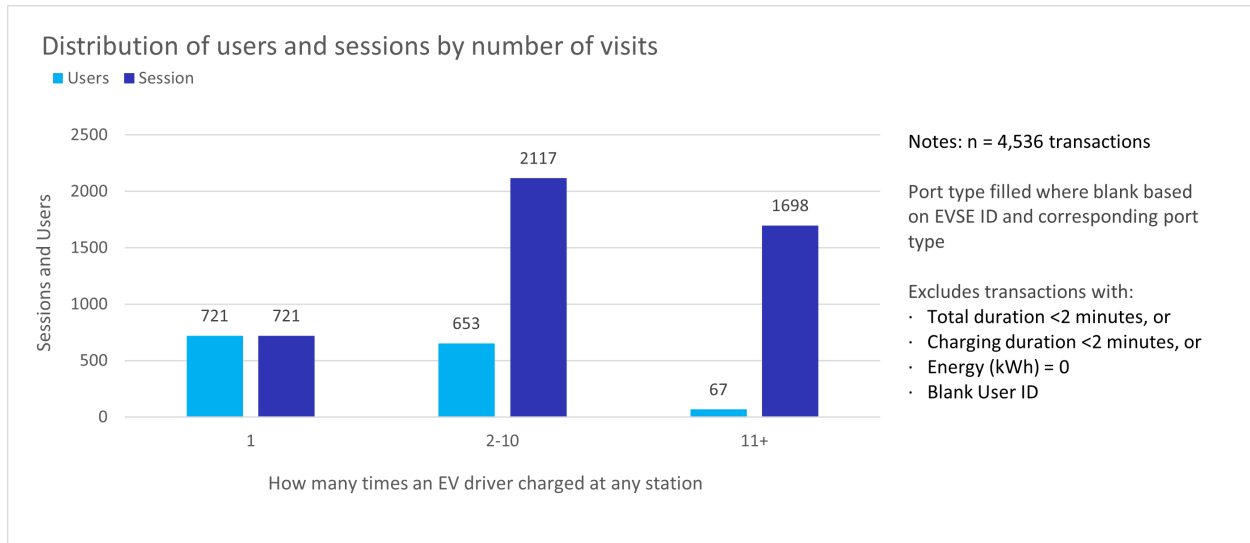
¹⁴ See Docket No. UM 2056, Pacific Power, Response to OPUC IR 39, May 25, 2023, p 1.

¹⁵ See Docket No. UM 2056, Pacific Power, TE Plan, Attachment A, May 19, 2023, p 3.

¹⁶ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, Public Utility-Owned Infrastructure Pilot Application, p 6.

EV Market in Pacific Power's Service Territory

The Plan provides a useful summary of EV market activity in the Company's service territory. One insight came from Pacific Power's depictions of existing usage patterns at their five charging stations.¹⁷



Based on this insight Staff raised the question of whether these customers rely entirely on this pilot program for fuel.¹⁸

The response from the Company suggests **[BEGIN CONFIDENTIAL]**

[REDACTED]

[END CONFIDENTIAL].¹⁹ This closer look suggests that the distribution of charging sessions has a Pareto Principle, but that more research needs to be done to understand these more frequent customers and their usage patterns.

In addition to analyzing the quantity of charging stations, the Plan tracks the growth of energy outlays to public charging stations. Data from both Pacific Power's Company-owned electric vehicle service equipment (EVSE) and other DEQ-listed EVSE show steep growth in energy outlays since 2020.²⁰ Central Oregon shows the most

¹⁷ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2021, Table 16, p 32 which was modified in a March 31, 2023 email from Pacific Power to Staff.

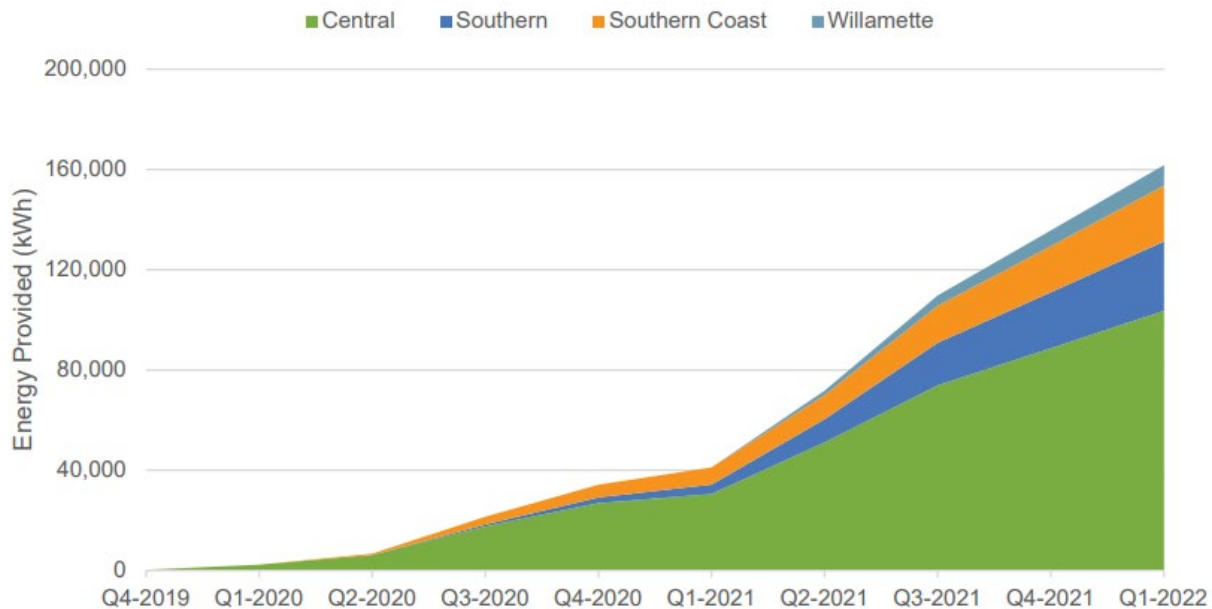
¹⁸ See Docket No. UM 2056, Pacific Power, Company's Response to OPUC IR 15, March 20, 2023.

¹⁹ Attach OPUC 15 CONF ES.xlsx.

²⁰ See Docket No. UM 2056, Pacific Power, Draft TE Plan, February 14, 2023, pp 24-27.

growth, with Pacific Power's charging site in Bend outpacing the Company's other four locations.

Figure 1: Pacific Power's Figure 11 from the TE Plan



Beyond the growth in energy demand, another important charging metric to track is charging sites' capacity utilization. This is the percentage of energy outlays as a percentage of a site's nameplate capacity, the total theoretical amount of charging if all ports were in use every hour of a given period. The public charging site with the highest utilization of charging capacity in 2022 had **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** of site capacity used for charging. Of the 95 sites with separately metered data, **[BEGIN HIGHLY CONFIDENTIAL]** **[END HIGHLY CONFIDENTIAL]** had an hour in 2022 where at least 75 percent of the site's nameplate capacity was in use. The data shows Pacific Power's service territory currently has excess charging capacity where charging infrastructure is already built.

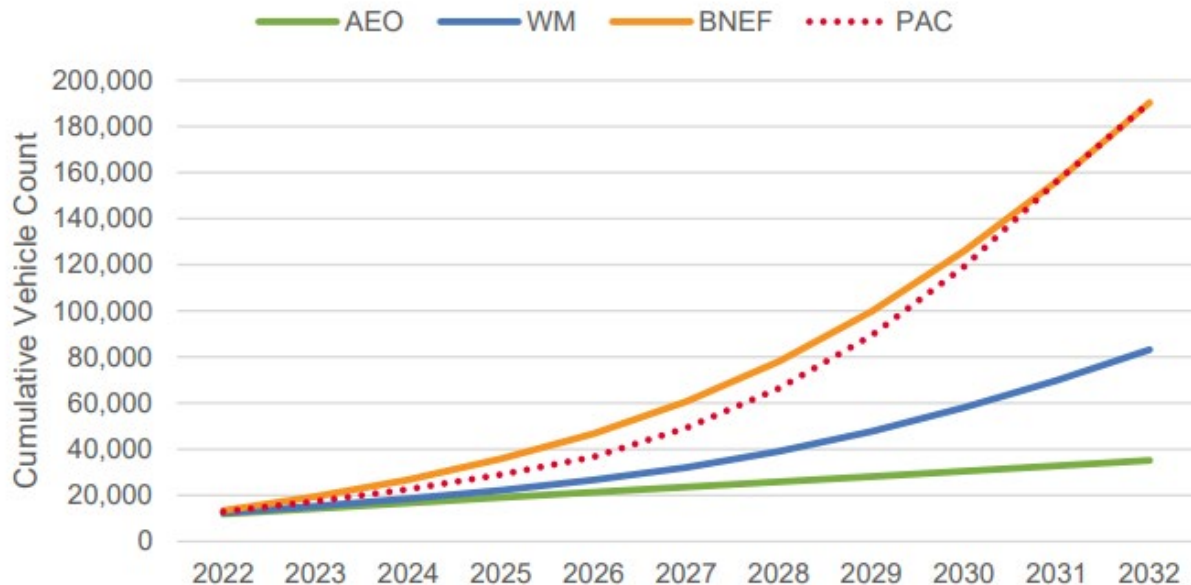
EV Adoption Forecast

Pacific Power has increased the Company's assumed EV growth rate, forecasting significant growth in EV adoption. Pacific Power also projects a range of scenarios. The high scenario uses a growth rate from Bloomberg New Energy Finance (BNEF). The medium scenario comes from Wood-Mackenzie (WM). The low scenario comes from the Energy Information Administration's (EIA) Annual Energy Outlook (AEO).²¹

²¹ See Docket No. UM 2198, Pacific Power, Distribution System Plan, August 15, 2022, p 45.

These scenarios lead to an estimated cumulative number of EVs by 2031 that vary from 31,889 to 152,012 in the Company's service territory.²²

Figure 2: Pacific Power's Figure 18 in the TE Plan



The new forecast averages the top two growth rates in the early years and converges to the high case in later years. The prior method did slightly underestimate EV adoption. Pacific Power forecasted 13,427 EVs in its service territory by 2022. At the end of 2022, the Company had 14,274.²³ Though an underestimation, Pacific Power's prior forecast was quite close. In changing the forecasting method, the Company is essentially assuming that including the AEO growth rate in the average will lead to a significantly larger underestimation and Staff agrees with this approach.

Charging Infrastructure Need

Pacific Power performed a reasonable assessment of infrastructure need at the service territory level, using the TEINA model. This modeling shows the Company's service territory has more public L2 charging ports than are expected to be needed by 2025 but 808 workplace L2 ports and 178 public DCFC will be required, given Pacific Power's assumed EV adoption forecast.

²² See Docket No. UM 2198, Pacific Power, Company response to OPUC IR 1, October 19, 2022.

²³ Oregon Department of Environmental Quality. *Residential EV Credits for the Second Half of 2022* March 2023, p 3.

Table 2: Pacific Power's Table 5

Port Type	2025 Cumulative Port Needs	Existing EVSE (April 2023)	Remaining EVSE
Workplace L2	839	31	808
Public L2	524	689	-165
DCFC	495	316	179
Total	1,857	1,036	821

Those are results aggregated over Pacific Power's service territory. From that perspective, the TEINA modeling shows the Company has more public L2 ports than are expected to be needed in 2025. While the service territory perspective provides a simplified view of charging need to easily compare in a table, for planning purposes, EV charging needs are better compared at the census tract level. TEINA provides this insight.

Pacific Power's TEINA modeling shows inadequate charging infrastructure in many census tracts while several tracts have an oversupply.²⁴ Corvallis, for example, has nearly a 1600 percent buildout of public L2 ports relative to expected charging needs in 2025 and twice the expected public L2 relative to expected charging need in 2035.²⁵ Corvallis is also in the census tract with the highest buildout of workplace L2 buildout relative to forecast charging need. Yet, Corvallis has inadequate DCFC charging while several coastal tracts have more than enough.²⁶

Performing TEINA modeling of charging need at the census tract level is important for three reasons. First, it will assist an electric company in identifying the best locations for investing ratepayer money. Second, it will provide this information as a public good to stakeholders so that other parties can plan where to build charging infrastructure. Third, it provides a rigorous means of assessing how equitably charging infrastructure is distributed.

Benefit/Cost Analysis

Staff has reviewed Pacific Power's analysis of the benefits and costs of the Plan. Pacific Power's analysis finds the TE portfolio has a benefit/cost ratio (BCR) of 1.01 under a Ratepayer Impact Measure (RIM) test. Under the Total Resource Cost (TRC) test, which aggregates the net benefit of program participants with ratepayers, the Company

²⁴ See Docket No. UM 2056, Pacific Power, Response to OPUC IR 40, May 25, 2023.

²⁵ See Docket No. UM 2056, Pacific Power, Response to OPUC IR 40, May 25, 2023, Cells J36:L36 in the sheet titled "Summary."

²⁶ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, p 23.

finds the portfolio has a BCR of 2.87. Under the Societal Cost Test (SCT), Pacific Power's analysis finds the portfolio has a BCR of 2.99.²⁷

Staff finds Pacific Power performed a standard benefit/cost analysis, meeting the requirements of OAR 860-087-0020. In comments, Staff noted some issues in the Company's analysis. Given the absence of an agreed upon standard, that discussion was only meant to contribute to the conversation that will develop more specific standards before the Company files its next TE Plan. Pacific Power has fully met the current requirement for benefit/cost analysis in this Plan.

Portfolio Performance Areas

TE Plans must document how the Company's planned portfolio of TE investments and activities advances a set of performance areas and metrics. Pacific Power meets the requirements of the portfolio performance areas and metrics as prescribed by the Division 87 rules and Staff Guidance.²⁸

Table 3: TE Portfolio Performance Areas

Performance Area	Metric	How Addressed in Pacific Power's 2022-2025 TE Plan
Environmental Benefits including Greenhouse Gas Emissions Impacts	Greenhouse gas (GHG) emission and other air pollution reductions estimated from all EVs registered in a utility service area	In the Company's benefit/cost analysis, Pacific Power shows the expected net reduction in GHG emissions. Staff received this information for criteria pollutants through discovery. ²⁹ EVs fueling on PacifiCorp's system generally have lower GHG emissions per mile. However, that does not hold for particulate matter of 2.5 micrometers or nitrogen oxide. ³⁰

²⁷ See Docket No. UM 2056, Pacific Power, Draft TE Plan, February 14, 2023, p 62.

²⁸ See OAR 860-087-0020(3)-(4); Docket No. UM 2165, OPUC, Order No. 22-314, August 26, 2022, Appendix A, p 9.

²⁹ See Docket No. UM 2056, Pacific Power, Response to OPUC IR 36, May 22, 2023, column O.

³⁰ Criteria Emissions ES.xlsx.

Performance Area	Metric	How Addressed in Pacific Power's 2022-2025 TE Plan
Electric Vehicle Adoption	Qualitative description of the TE Plan's expected impact on EV adoption	The Company expects a positive impact on EV adoption from robust portfolio of EV programs and measures.
Underserved Community Inclusion and Engagement	Outreach, capacity building to, and participation of underserved communities, low-income service providers, community-based and community service organizations, non-profit organizations, small businesses (particularly minority and women owned businesses), and Tribes in the development and implementation of a utility TE portfolio	Pacific Power performed focused community engagement across its diverse service territory, held in Douglas County on July 28th, 2022, Benton County on September 6th, 2022, Clatsop County on October 12th, 2022, Deschutes County on October 25th, 2022, Jackson County on November 8th, 2022, Umatilla County (virtual) on November 10th, 2022, and multiple efforts to outreach the Confederated Tribes of the Umatilla Indian Reservation. These meetings have provided Pacific Power with local preferences for charging infrastructure.
Equity of program offerings to meet underserved communities	Percent of program-enabled ports by use case located within and/or providing direct benefits and services to underserved communities or communities identified using a Commission-approved tool	Ninety-four percent of program-enabled ports are located within or provide direct benefits and services to underserved communities. ³¹

³¹ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, p 52.

Performance Area	Metric	How Addressed in Pacific Power's 2022-2025 TE Plan
	For transit agencies who have participated in a utility EV program during the portfolio period, the transit agencies' annual service hours, number of routes, and number of routes serving underserved communities, to the extent this information is provided to the utility.	Not applicable – Pacific Power has no transit agency program participants.
	Types of electric transportation technology supported by a utility portfolio as a percent of total investments, organized into categories such as micromobility, passenger vehicles, light-duty fleet vehicles, medium- and heavy-duty fleet vehicles, school buses, and transit buses	<ul style="list-style-type: none"> • Light-duty Fleet Vehicles 1% • Medium and Heavy-duty Fleet Vehicles 1% • Micromobility 3% • Outreach & Education 1% • Passenger Vehicles 91% • School Buses 2% • Transit Buses 1%³²
Distribution system impacts and grid integration benefits	Percent of program-enabled charging load that occurs off-peak, by use case	Not Applicable – Pacific Power does not yet have a demand response program for charging.
	Total EV load enrolled in managed charging, and potential for managed charging. Estimated percent of EV load enrolled in managed charging	Not Applicable – Pacific Power does not yet have a demand response program for charging.
Program Participation and Adoption	Number of program-enabled ports by use case	7 DCFC and 297 L2
	Percent of total public ports by use case within utility service territory that are program-enabled.	21 percent

³² See Docket No. UM 2056, Pacific Power, Company Reply Comments, May 5, 2023, p 10.

Performance Area	Metric	How Addressed in Pacific Power's 2022-2025 TE Plan
	Number of participants in utility programs, broken down by program and underserved community status	<ul style="list-style-type: none"> Residential Rebate: 136, 16.2 percent were low-income³³ Commercial: 2³⁴
Infrastructure performance including charging adequacy, reliability, affordability, and accessibility	Price (\$/kWh) to charge at program-enabled ports by use case	<ul style="list-style-type: none"> 10 cents at L2 22 cents at DCFC³⁵
	Uptime at utility-owned and supported ports by use case	Pacific Power only has data for utility-owned sites. The Company should require this data from customers as a condition for program participation. Pacific Power's L2 ports have had a 100 percent uptime, and the Company-owned DCFC ports have been up more than 97 percent. ³⁶

Ratepayer Impact

Pacific Power estimates this Plan will raise rates by 0.02 percent in the second year and 0.05 percent in the third year.³⁷

Summary of Select Stakeholder Feedback

Several stakeholders filed written comments on the Company's draft Plan. Staff summarizes them as follows.

Citizens' Utility Board (CUB)

CUB finds the relative benefit for ratepayers of utility ownership of electric vehicle supply equipment (EVSE) remains unclear after years of weighing the tradeoffs. CUB recommends Pacific Power further compare utility and third-party owned charging sites. The Company responded by adding a section to the Public Utility-Owned Infrastructure Pilot application clarifying that: "PacifiCorp has investigated the feasibility

³³ See Docket No. UM 2056, Pacific Power TE Plan, May 19, 2023, p 47.

³⁴ See Docket No. UM 2056, Pacific Power TE Plan, May 19, 2023, p 48.

³⁵ Email from Pacific Power to Staff sent on May 30, 2023.

³⁶ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, p 31.

³⁷ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, p 67.

of both utility-owned and third-party ownership of [EVSE].”³⁸ The Company goes on to cite Duke Energy, Florida, Arizona Public Service (APS), and California’s three largest utilities as having active utility-ownership models to support the charging needs of underserved communities. The Company sees its proposal as aligning with these existing programs.

CUB points to multifamily residential customers as an EVSE use case CUB is inclined to support as a utility rate regulated model. CUB is concerned multifamily residential customers will be captive clients of the EVSEs located immediately near their residences and supports a charging model that would most closely mirror what single-family dwellings have, to charge at their leisure at something close to a utility retail rate. In reply comments, the Company stated Pacific Power agrees with this and will make this use case a focus of the pilot’s needs assessment phase.³⁹

CUB had several questions for Pacific Power:

- Distinguish between the intended uses of charging stations versus dispersed L2 chargers—Pacific Power responded by saying the Company “sees a need to place charging pods along underserved secondary highways where charging deserts exist.”⁴⁰
- Discuss how the intended uses of charging stations and L2 chargers affect the siting criteria for each type of EVSE—Pacific Power responded by stating the Company “plans to investigate how the communities would need to charge (specifically, overnight or quick charge) and areas of need within prioritized underserved communities.”⁴¹
- Discuss the outreach efforts for siting—Pacific Power responded by pointing to the focused stakeholder meetings the Company hosted via Forth where stakeholders were presented with mapping exercises to help generate initial siting locations.
- Whether the 106 dispersed L2 chargers at intended for workplaces or would consider also siting at multifamily residences—Pacific Power clarified that this impression came from a mislabeled table. The Company intends to build these charging in communities not workplace sites.

CUB recommends Pacific Power modify the Company’s mapping and siting methodology for dispersed L2 ports to prioritize sites that are readily accessible to

³⁸ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, Public Utility-Owned Infrastructure Pilot Application, p 28.

³⁹ See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 14.

⁴⁰ See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 14.

⁴¹ See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 14.

residents of low-income multifamily dwellings. Pacific Power responded by performing a mapping of its service territory based on this prioritization.⁴²

CUB supports the Company's Residential Managed Charging Pilot and sought clarification on whether Pacific Power plans to examine vehicle to grid (V2G) charging, including analysis of data and other evidence from the residential managed charging pilot program. The Company clarified that PacifiCorp had not originally envisioned using the Managed Charging Pilot as the method to evaluate (V2G), but the Company sees the similarity.

Additional recommendations from CUB are the following:

- Ensure the Company's outreach offer customers opportunities to address the market barriers across PAC's entire service territory. Presentations, educational materials, and websites should be available in Spanish or any other major language.
- Ensure effective engagement with community organizations working in other proceedings (HB 2021, HB 2475) to set up and host educational events and define and highlight local barriers and concerns of underserved communities. Ensure the Company's investments in electric transit infrastructure directly serve underserved communities.

Green Energy Institute (GEI) and Verde

GEI and Verde generally support Pacific Power's Plan, finding a useful portfolio of programs that will aid TE investments in Oregon. GEI and Verde also find the Plan to be very long and look forward to contributing to future planning cycles that review shorter and more concise documents.

GEI and Verde recommend Pacific Power use the most current available data. Some of the data presented in the Plan appears out of date. In reply comments, the Company stated: "PacifiCorp will be updating tables and figures with the most current available data within the TEP to address this comment."⁴³ However, Staff observes that the Plan still contains tables presenting data that lacks the full calendar year of 2022.⁴⁴

GEI and Verde inquired how and why the Plan's Figure 7 weighs pollution burden more heavily. Pacific Power clarifies that this is environmental exposure that is weighed more heavily than environmental effect.⁴⁵

⁴² See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 43.

⁴³ See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 19.

⁴⁴ See Docket No. UM 2056, Pacific Power, TE Plan, May 19, 2023, Table 13, p 29.

⁴⁵ See Docket No. UM 2056, Pacific Power, Reply Comments, May 5, 2023, p 20.

GEI and Verde strongly support the use of the Community Benefit Indicators and Advisory Group (CBIAG) to develop an equity lens for planning, development, and implementation. They also recommend CBIAG play a direct role in fostering connections between the Company and community liaisons to identify locations for utility-owned charging infrastructure.

GEI and Verde have specific recommendations on the EVSE outages that are excluded from the uptime calculation. In a meeting with stakeholders, Pacific Power explained these exclusions as electric utility service interruptions, vehicles causing the charger to fail to charge, scheduled maintenance, and natural disasters. As of the date of that meeting, stakeholders have continued to hold open questions on inconsistent charge initiation, determining the acceptable duration for the repair of vandalism, shared ports with capacity restrictions, and force majeure events. GEI and Verde requested the Company provide more detail on this, recommending that the exclusion category be as narrow as possible. They note it's also important that these excluded events be reported to provide a transparent and enforceable standard. GEI and Verde support including vandalism if the Company notes that is an addition to the National Electric Vehicle Infrastructure (NEVI) standard. In reply comments, Pacific Power pledge to address this in a new Appendix J. Staff confirms the addition of the new appendix, but we don't see this issue addressed in the detailed manner GEI and Verde requested.

GEI and Verde support Pacific Power's use of contractual terms and conditions to require 97 percent uptime for customers that receive behind-the-meter incentives. These stakeholders recognize that other enforcement mechanisms may need to be explored if this cannot be met.

GEI and Verde support Pacific Power's residential managed charging pilot, including the ability for participants to use the standard Schedule 4 residential rate. They recommend clearly communicating which residential rates are available. However, GEI and Verde note the Company should provide a more robust plan to work with lower-income communities, including using underserved community maps to prioritize marketing and outreach events. GEI and Verde would like to see this supporting data published in Pacific Power's annual TE Plan Reports.

GEI and Verde support PAC's fleet make-ready pilot program. They recommend Pacific Power ensure the Company's regional business manager outreach for the program in underserved communities in a means best suited for those communities.

GEI and Verde find utility-owned infrastructure will play a key role in providing low-income persons and residents of multi-family housing with access to consistent and affordable charging. These stakeholders recommend Pacific Power:

- Expand how it will work with low-income communities to identify local charging locations, including utilizing community liaisons and engaging groups that have historically not interacted with their electric company.
- Elaborate on why DCFCs may be a good option for some low-income communities in lieu or in addition to L2 chargers. In reply comments, Pacific Power responded by citing a Clean Cities Coalition study that found residents of multifamily housing were four times more likely to use DCFC ports when also given the choice of L2 ports.⁴⁶
- GEI and Verde would like to see additional analysis on whether utility-owned charging infrastructure is appropriate for secondary highways and recreational areas where Pacific Power owns real property, or if there are other more important areas for low-income drivers to access more affordable charging options.
- GEI and Verde fully support the Company investigating alternative pricing schemes for income eligible customers to support equitable access to charging.

GEI and Verde recommend Pacific Power consider expanding the Municipal and Community Grant Program to include temporary funds to support a school district representative who would champion moving forward with purchasing electric buses and micro-mobility equipment.

Northwest Energy Coalition (NWEK)

NWEC is concerned the scale of Pacific Power's investment may be inadequate. When expenditures exceed CFP and System Benefits Charge (SBC), NWEC recommends an alternative means of funding additional TE spending beyond expanding SBC collection above 0.25 percent of retail customer revenue.

NWEC supports the changes Pacific Power has made to the payment method requirements. NWEC also supports the Company's commitment to explore income-eligible rates at utility-owned EVSE and efforts to support ADA and multilingual accessibility.

NWEC sought clarification on whether Pacific Power intends to use an opt-in or opt-out process in its residential managed charging pilot program to initiate demand response events. Pacific Power explained that the nature of this DR program is not to call select events but to regularly schedule the charging load. Though the Company didn't specifically say whether this is opt-in or opt-out program, the Company's answer implies an opt-out design.

⁴⁶ <https://cleancities.energy.gov/project-lessons-multifamily-housing/>.

Additionally, NWECC has several specific recommendations to improve TE planning:

- Pacific Power should continuously evaluate data, monitor customer experience, and adopt an adaptive management approach to EVSE reliability. The Company's uptime metric may not accurately reflect customer experiences.
- Pacific Power should identify utility-owned infrastructure sites with a process that further prioritizes underserved communities, such as the process similar to one employed by Seattle City Light, and then develop evaluation criteria with stakeholders including the Community Benefits and Impacts Advisory Group.
- Pacific Power should reduce the amount of material for stakeholders to review in future filings and suggest concise program application summaries and including a draft tariff sheet.
- Pacific Power should include a table clearly displaying the performance metrics consistent with Commission Order No. 22-314.

WeaveGrid

WeaveGrid is generally supporting of the Plan.

ChargePoint

ChargePoint recommends the Commission not approve Pacific Power's expansion of utility-owned infrastructure, claiming this investment will stifle development from suppliers willing to provide charging services outside the utility monopoly. ChargePoint argues that this proposal is not an infrastructure measure. Therefore, Oregon law provides more explicit consideration of the impact of the proposal on the competitive market.⁴⁷

In contrast to ChargePoint's opposition to the expansion of Pacific Power's build out of utility-owned EVSE, ChargePoint is strongly supportive of Pacific Power's proposed Fleet Make-Ready pilot. ChargePoint has long supported make-ready measures.

Impact on the Competitive Market

In the draft Plan, Pacific Power discussed how the Company's TE activities might impact the competitive market for EV-related products. However, the Plan did not address the impact on the public charging service business when a utility moves into that space.

In comments, Staff, CUB, and ChargePoint engaged Pacific Power on this issue. Staff requested the Company add a discussion on this topic in the final Plan. Similarly, CUB

⁴⁷ See Docket No. UM 2056, ChargePoint. Supplemental Comments, May 25, 2023, p 2.

requested the Company compare and contrast the utility-owned EVSE model with third party ownership. ChargePoint directly argued Pacific Power's expansion of utility-owned investments will be harmful to the market.

For the purposes of meeting the minimum requirements of Oregon administrative rules, Staff finds the final Plan's added discussion on the competitive market in public charging to be adequate. However, by merely providing a block quote that articulated an assertion that electric companies can improve this competitive market, Pacific Power has not provided convincing evidence. The analytics behind the Company's argument need to come from empirical analysis of the utilization of charging infrastructure and the distribution of charging business development at the census tract level through TEINA. Pacific Power's use of this information for TE planning purposes remains limited.

Similarly, Staff finds ChargePoint has made valid assertions of a stifling impact from charging investments from a utility. However, ChargePoint has not provided convincing evidence that this conclusion is appropriate for the level and scope of investment that Pacific Power is proposing in the Plan.

In the absence of evidence for either Pacific Power or ChargePoint's arguments on the issue of charging market competition, Staff does not have a basis for recommending a change in the Plan or a change in Commission policy on utility ownership of EVSE. Pacific Power is already authorized to own and operate charging infrastructure. The Commission has the authority to decide what investments are prudent. The expansion in investment that Pacific Power proposes is consistent with what the Commission has already authorized for Portland General Electric.

However, to what extent these investments need continued expansion past 2025 should be understood to be uncertain. The TE Budget Staff recommends the Commission approve ends in 2025. Staff's focus in this second round of TE plans has been to ensure the development of the analytics that will inform more economizing Commission decisions in the third iteration of TE plans that will be filed in May of 2025 for a TE Budget through 2026–2028. By then Staff hopes to better understand how much more mature the EV market has become and thus be able to rely less on ratepayer support. When this issue of competition is revisited in 2025, the primary means of resolving the controversy can be the use of metrics that would inform a prudence review, such as benefit cost analysis. If the electric company is displacing investment from other market participants, the incremental benefit is zero and ratepayer support would not be necessary. In our review of Pacific Power's level of infrastructure investment for 2023–2025, Staff sees no evidence that is the case.

Reason for Staff Recommendation

Staff recommends acceptance of the Plan because Pacific Power has met the requirements of OAR 860-087-020. Staff also finds the proposed TE Budget and applications are reasonable under the new TE investment framework.

Conclusion

The TE planning process is a significant endeavor in this state. Staff is mindful of the hard work that goes into formulating a TE Plan in Oregon's jurisdiction. Staff is also thankful of the time stakeholders have contributed to filing written comments.

Staff recommends the Commission accept Pacific Power's TE Plan. The Plan meets the requirements of OAR 860-087-020. Staff finds the proposed TE Budget and application for new TE activities to be reasonable under the new TE investment framework.

PROPOSED COMMISSION MOTION:

Accept Pacific Power's 2023–2025 Transportation Electrification Plan.

RA1 – UM 2056