

September 6, 2018

VIA ELECTRONIC FILING

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COMMISSION

RE: Advice 18-03—Electric Vehicle Supply Equipment Pilot Program and Schedule 45 Public DC Fast Charger Optional Transitional Rate

Pacific Power & Light Company (Pacific Power), a division of PacificCorp, submits this proposed tariff applicable to Pacific Power's electric service in the state of Washington in compliance with RCW 80.28.050, WAC Chapter 480-80, and the Washington Utilities and Transportation Commission's (Commission) Rules and Regulations. Pacific Power respectfully requests an effective date of October 15, 2018.

Third Revision of Sheet No. INDEX.2		Tariff Index
Original Sheet No. 45.1	Schedule 45	Public DC Fast Charger Optional Transitional Rate
Original Sheet No. 45.2	Schedule 45	Public DC Fast Charger Optional Transitional Rate
Original Sheet No. 45.3	Schedule 45	Public DC Fast Charger Optional Transitional Rate

Filing Overview

The purpose of this filing is to implement a pilot program designed to help overcome barriers to transportation electrification in Pacific Power's Washington service area. The proposed pilot program represents Pacific Power's initial effort to follow the direction from the Commission's Policy and Interpretive Statement Concerning Commission Regulation of Electric Vehicle Charging Service, while taking advantage of opportunities afforded by its multi-state service territory to manage costs to Washington customers. The pilot program will test Pacific Power's ability to improve customer awareness of transportation electrification benefits and stimulate additional electric vehicle supply equipment (EVSE) development through three different components:

1. **Grant Funding**. Pacific Power will pilot a competitive grant funding process for non-residential customers to enable customer-driven transportation electrification projects in its Washington service area. Grant recipients will be required to share project cost information and EVSE utilization data, which will help Pacific Power better understand

transportation electrification projects in different market segments and potential impacts to the electrical system. This additional data will inform Pacific Power's future planning. Attachment C provides a thorough overview of the company's proposed grant funding program.

2. **Education and Outreach.** Pacific Power will engage in a three-year outreach and education program to increase awareness and understanding of electric transportation and its benefits within its customer base in Washington. Attachment D provides a thorough overview of the company's proposed outreach and education program.
3. **Publicly Available Charging Rate.** Pacific Power proposes to implement a new optional transitional rate for publicly available electric vehicle direct current (DC) fast charger stations. Customer-owned charging sites will be eligible for this rate if they meet the criteria outlined in the proposed tariff Schedule 45, which is provided as Attachment B. Under the new proposed rate, customers receive a discount from demand charges and pay an on-peak energy charge. Both the discount to demand charges and on-peak energy charge decrease as participating customers transition back to standard tariff rates over a 13 year period. Pacific Power is not proposing new rates or programs for household electric vehicle charging at this time because of the limited number of electric vehicle drivers in its service area, the opportunity to learn from other not-yet complete residential pilots that could potentially guide future rate and program offerings, and the relatively higher barrier that bills for DC fast charging stations currently pose.¹

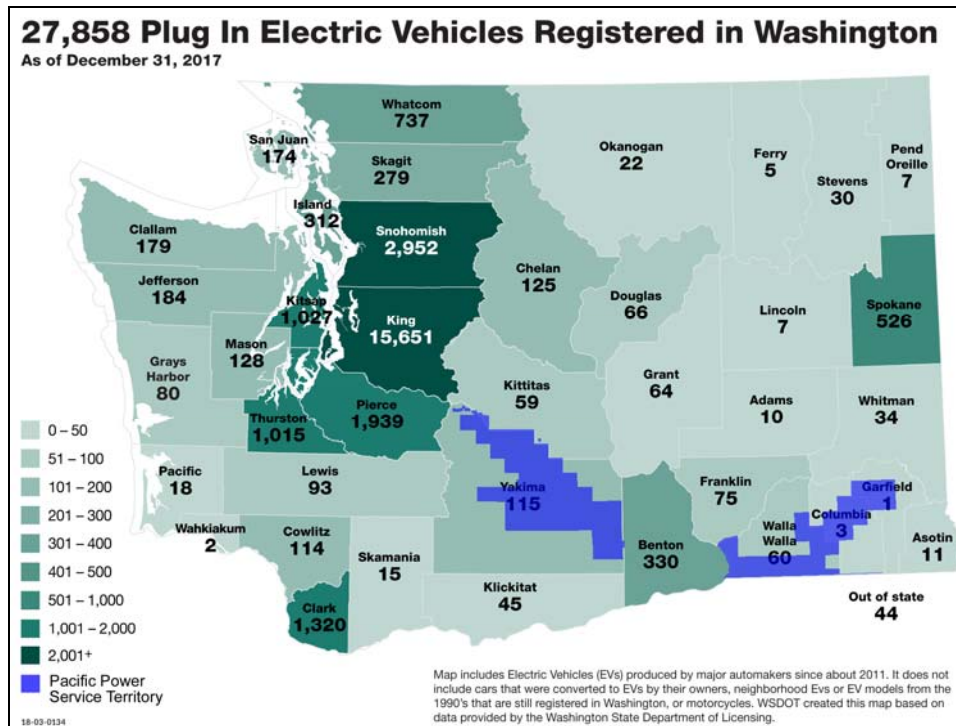
Pacific Power is providing notice of the proposed tariff change concurrent with this filing in accordance with WAC 480-100-193(1).

Electric Transportation Market in Pacific Power's Washington Service Area

To date, adoption of plug-in electric vehicles (PEVs) and available charging infrastructure has been limited in Pacific Power's Washington service area. As shown in Figure 1, at the end of 2017, fewer than 200 of Washington's nearly 28,000 PEVs were registered in Pacific Power's service area.

¹ Per page 1 of the company's Attachment G to this filing, a 2% load factor 50 kW DC fast charging station would pay an average price of about 37¢ per kWh. This compares to the second block energy rate of about 11¢ per kWh for the company's residential customers.

Figure 1. Washington PEV Registrations – December 2017²



Based on this extremely low level of residential PEV adoption, Pacific Power’s initial strategy for increasing transportation electrification focuses on education and awareness rather than providing residential charging equipment or services. Lack of awareness of PEV options, costs, and benefits is a barrier to uptake in Pacific Power’s Washington service area. As adoption grows over time, Pacific Power will consider the need for, and value of, programs that provide charging services, equipment, and load management to residential customers.

The availability of public charging infrastructure also creates a barrier to PEV adoption, for residential and non-residential customers alike. There are currently no publicly available DC fast chargers in Pacific Power’s Washington service area. Moreover, of the nine locations with public Level 2 chargers, six are only available to Tesla drivers, and two are at auto dealerships with limited access, meaning that there is only one location with publicly available charging stations in Pacific Power’s entire service area.³

² Data provided by the Washington State Department of Transportation and available online: http://westcoastgreenhighway.com/pdfs/Map_WAEVRegistrationByCounty.pdf.

³ Based on data from the United States Department of Energy Alternative Fuels Data Center, accessed August 20, 2018. https://www.afdc.energy.gov/fuels/electricity_locations.html#/analyze?country=US®ion=US-WA&fuel=ELEC.

Stakeholder Engagement

Consistent with the Policy and Interpretive Statement, Pacific Power conducted a robust stakeholder engagement process to inform this filing. In addition to conversations with individual stakeholders, Pacific Power engaged a diverse set of stakeholders through the following actions:

- October 9, 2017: At a meeting of the joint utility electric transportation stakeholder group, Pacific Power presented information on PEV and public charging station adoption in its Washington service area, an overview of programs proposed in Oregon and initial program concepts for Washington customers.
- April 18, 2018: At a meeting of the joint utility electric transportation stakeholder group, Pacific Power provided an update on the approval of its Oregon transportation electrification pilot programs⁴ and its intention to propose similar programs in Washington.
- June 7, 2018: Pacific Power circulated draft filing materials to the joint utility electric transportation stakeholder group for comment. Comments on the draft materials were provided by four parties, including Commission Staff.
- August 6, 2018: At a meeting of the joint utility electric transportation stakeholder group, Pacific Power reviewed comments received on its draft filing materials and answered additional questions regarding the proposed programs.

The company appreciates stakeholders' thoughtful and timely review of draft filing and has attempted to incorporate feedback received into this cover letter and accompanying attachments. Pacific Power looks forward to continued engagement with stakeholders as it implements these initial programs and contemplates future offerings.

Discussion of Proposed Tariff Revisions

The availability of a network of publicly-available DC fast chargers is critical to the acceleration of transportation electrification. DC fast chargers allow electric vehicle drivers to travel long distances without the fear of being stranded and unable to quickly recharge. Implementing an optional transitional rate specifically applicable to publicly-available DC fast chargers will incentivize accelerated development of transportation electrification by reducing the economic barrier to installation of necessary DC fast chargers. The optional transition rate proposed by Pacific Power offers a discount on demand charges and an additional on-peak energy charge. Providing relief from demand charges in exchange for an on-peak energy charge will encourage the buildout of publicly-available DC fast charging stations and accelerate transportation electrification for a transitional period of time while also providing a price signal for the higher costs during peak periods.

⁴ *In the Matter of PacifiCorp, dba Pacific Power, Advice No. 16-020 (ADV 485), Schedule 45 and 745 Public DC Fast Charger Delivery Service Optional Transitional Rate, Order No. 17-172.*

Pacific Power proposes Schedule 45 be available to all electric vehicle charging stations that:

- (a) Are separately metered (*i.e.*, a meter dedicated only to electric vehicle charging)
 - This ensures that only electric vehicle charging is able to benefit from this rate. The charging station must be separately metered, and all load must be for the purpose of electric vehicle charging or billing for that charging.
- (b) Have at least one DC fast charger
 - A charging station may have other chargers on the meter, such as Level 2 chargers, but it must have at least one DC fast charger. The impact of demand charges is greater for DC fast chargers and the company's proposed transitional rate is specifically designed to address that impact.
- (c) Have a load size less than one megawatt (MW)
 - If a customer has a separately metered charging station with a load size over one MW, the company would expect the customer to manage their usage in a way that responds to the price signal created by a demand charge. One MW constitutes a significant load for the company to manage on its system.
- (d) Are available to the public
 - This requirement ensures the company's proposed rate aids the maintenance and acceleration of a network of charging stations that anyone can use. In special condition 4, the company's proposed Schedule 45 tariff defines a charging site to be broadly available to the general public for the purposes of eligibility on this rate schedule if it is available for use by any driver and is capable of charging more than one make of automobile. The purpose of limiting this rate to only stations that would be capable of charging more than one make of automobile is to ensure that those stations are broadly available.
 - Also, in special condition 5, the company's proposed Schedule 45 tariff states that the company reserves the right to terminate service under this schedule if it finds that excessive fees imposed by the charging station owner result in the charging station not being broadly available. The company's intent is to ensure that stations do not circumvent the requirement to be broadly available to the general public by charging very high or discriminatory prices to the public. For example, a dealership could claim that their charging station was publicly available, but then charge nothing for people who bought a car from them and an exorbitant fee for others. This would be contrary to Pacific Power's intent in offering Schedule 45.

When requesting service under this transitional rate, customers must confirm eligibility based on the criteria above. Pacific Power customer service agents will request confirmation of eligibility when placing customers on the new rate.

The applicable general service schedules for service to loads below 1 MW include Schedule 24 and Schedule 36. The proposed Schedule 45 rate is designed by determining an on-peak, energy-based charge that would collect the same level of revenue as is collected from monthly demand charges for both schedules.

The overall demand charge revenue from Pacific Power's billings determinants for both Schedule 24 and Schedule 36 and estimated on-peak energy are shown on Attachment E to this filing. The proposed Schedule 45 on-peak kilowatt-hour rate is calculated by taking the revenue from Schedule 24 and Schedule 36 demand based charges, and dividing them by estimated Schedule 24 and Schedule 36 on-peak kilowatt-hour usage. This calculation is shown in Attachment E.

Because DC fast chargers currently have low load factors (low average kilowatt-hour usage relative to their peak kilowatt demand), they would have lower monthly bills upon initially switching to proposed Schedule 45. Proposed Schedule 45 is intended to make the operation of public DC fast charging stations more affordable while they have infrequent usage, with the goal of transitioning to a more cost-based rate as their kilowatt-hour usage and load factor increase. The proposed transitional rate on-peak energy charge also provides a price signal for these stations to encourage charging at times that are more advantageous to the electric system. The company proposes to use an on-peak time period of 6 a.m.–12 p.m. and 5–9 p.m. from November through March, and 1-8 p.m. from April through October (except weekends and holidays). The company chose these time periods because they capture a very large proportion of the top 100 hours in the winter period and top 100 hours in the summer period for the west control area. Demand-related generation and transmission costs are allocated in the company's class cost of service study on the basis of class loads coincident to the top 100 winter and top 100 summer hours in the west control area. Over the last five years, the company's proposed on-peak period included 92 percent of the top 100 winter hours and 95 percent of the top 100 summer hours. Attachment F shows the prevalence of the times when the top 100 hours occurred in both seasons over the past five years and how the company's proposed on-peak period does a good job of reflecting the vast majority of them.

Load size charges, which are based on the average of the two highest non-zero demands in the previous twelve months, will continue to apply under Schedule 45. These charges are between \$1.04 and \$1.83 per kilowatt, depending upon schedule and load size. Load size charges are an important way that fixed localized infrastructure costs are recovered.

The company proposes that customers receiving service under Schedule 45 not be eligible for Schedule 135—Net Metering Service. Since customers receiving service under Schedule 45 would pay significantly less in demand charges, it would not be reasonable for them to be able to further offset their bill with on-site generation whose exported energy is compensated for through energy credits valued at full retail energy rates. Demand charges send an important price signal to help balance the economics of customer generation. A DC fast charger station could still participate in net metering and be served on the company's standard general service rate schedules.

Pacific Power proposes a thirteen-year limited term for its proposed transitional tariff. This timeline provides time for the publicly-available electric vehicle charging station model to evolve as the electric vehicle industry continues to develop. To avoid rate shock, the company proposes that after the first three years, rates transition automatically each year by 10 percent back towards standard rates. This would be accomplished by a discount to demand charges that would be lowered by 10 percent each year and a discount to the Schedule 45 on-peak energy charge that would increase by 10 percent each year. This transitional schedule of discounts is shown on the first page of proposed Schedule 45.

Consistent with the timeline for reporting for the grant program and the education and outreach program, Pacific Power will report and evaluate its new Schedule 45 offering. As part of its report, the company will share participation levels, customer savings, and usage information for Schedule 45. If found necessary at that time, the company will propose any potential changes to the rate structure.

The bill comparison in Attachment G shows a typical bill for a 50 kW DC fast charger on Schedule 24 and a 150 kW DC fast charger on Schedule 36 on standard general service rates and under proposed Schedule 45. The comparison shows that for the first three years of the proposed rate, the monthly bill for a 50 kW DC fast charger would be reduced from \$268 to \$144 under the proposed rates. The comparison also shows that the monthly bill for a 150 kW DC fast charger would be reduced from \$1,298 to \$467 under the proposed rates. At a 30 percent load factor, the bill for a 50 kW DC fast charger is the same on proposed Schedule 45 as it is on Schedule 24.

The company proposes that Schedule 45 be limited to 20 metered points of delivery on a first-come, first-served basis. If the company served 20 charging stations with 50 kW of demand on proposed Schedule 45, the total estimated discount as compared to standard rates would be less than \$30,000 per year. If this cap were to be reached or were to come close to being reached, the company may request to raise the limit.

The reduction in annual revenue due to customers switching rates is expected to be minimal. Other customers will not be affected by the proposed changes.

It is respectfully requested that all formal correspondence and data requests regarding this filing be addressed to:

By e-mail (preferred): datarequest@pacificorp.com

By regular mail: Data Request Response Center
PacifiCorp
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Portland, Oregon, 97232

Washington Utilities and Transportation Commission

September 6, 2018

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Please direct any informal inquiries regarding this filing to Ariel Son at (503) 813-5410.

Sincerely,

 /s/

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Enclosures

Attachments

Attachment A: Summary Page of Tariffs

Attachment B: Proposed Tariffs

Attachment C: Demonstration and Development Program Description

Attachment D: Outreach and Education Program Description

Attachment E: Proposed Schedule 45 Price Calculation

Attachment F: On-Peak Time of Use Justification

Attachment G: Monthly Billing Comparison for Electric Vehicle DC Fast Chargers