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Via Electronic Mail

Steven V. King, Executive Director and Secretary
Washington Utilities and Transportation Commission
P.O. Box 47250
1300 S. Evergreen Park Drive S.W.
Olympia, Washington 98504-7250

Re: Docket UE-160799
Comments of Puget Sound Energy on electric vehicle supply equipment

Dear Mr. King:

Puget Sound Energy (“PSE” “Company”) submits the following comments in response to the Washington Utilities and Transportation Commission’s (“Commission” “WUTC”) Notice of Inquiry into Issuing a Policy-Interpretive Statement Describing Commission Policy Related to Utility Investment in Electric Vehicle Supply Equipment (“EVSE”) pursuant to RCW 80.28.360 (“Notice”) issued in Docket UE-160799. PSE appreciates the Commission’s proactive approach to address the issues raised during the legislature’s discussion of HB1853, the enabling legislation for RCW 80.28.360, and in UE-160082 and provides the following responses to the questions raised the Notice.

PSE is nearing the end of its Commission-approved EV pilot program (Docket UE-140626, Order 01) launched 2014 and set to conclude in December 2016. The pilot program offers residential customers a \$500 rebate to purchase a Level 2 EV charger and allows PSE to collect and monitor data on the charging of the vehicle. The pilot program goals are to use the detailed energy-use collected to determine current and region-specific load patterns and compare them to system loads and generation sources. In addition, the detailed data will help to better understand system needs and impacts under different technology and use scenarios. PSE provides regular updates on its pilot to the Conservation Resources Advisory Group (CRAG) and plans to share its study results and consult with the CRAG next year after the conclusion of the pilot.

1.) RCW 80.28.360 authorizes the Commission to allow an incentive rate of return on investment on capital expenditures for electric vehicle supply equipment under certain circumstances. In addition to being installed after July 1, 2015, the law identifies several criteria for the capital expenditures to qualify for the incentive rate of return. How should an electrical company demonstrate that capital expenditures for EVSE meet each of the following criteria in the law:

- a) The capital expenditures do not increase costs to ratepayers in excess of one-quarter of one percent,**
- b) The EVSE investments are pursued on a fully regulated basis similar to other capital investments behind a customer's meter, and**
- c) The projects are installed and located where electric vehicles are most likely to be parked for intervals longer than two hours.**

Response:

- a) This portion of the law is clear and current ratemaking mechanisms can be used to ensure compliance with this portion of RCW 80.28.360. PSE believes compliance with this section of the RCW can be determined by comparing capital EVSE investments to the total approved revenue requirement in the utility's most recent general rate case.
- b) PSE interprets this statement to mean that in order to qualify for the incentive rate of return, the service expending capital for EVSE investments must be developed and operated by PSE, whose rates, tariffs and programs are regulated and approved by the Commission, and not by an unregulated subsidiary.
- c) The question of where electric vehicles are likely to be parked and for what duration is one of transportation planning. Electric vehicles are vehicles that use electricity as fuel, not a different form of transportation. As such, it is reasonable to expect that electric vehicles will be parked for longer than two hours at the same locations as regular vehicles are parked. While there may be some variation from this due to the need for electric vehicles to charge, PSE believes that as the market matures, electric vehicle parking will generally follow the same patterns as parking traditionally-fueled vehicles.

The electric vehicle industry has generally identified the following locations as areas where vehicles are likely to park for two hours or longer: residences (including multi-family dwellings); workplaces; overnight parking locations such as hotels or overnight parking lots. These are the common sense locations for longer parking periods.

It is important to note that in order to support electric vehicles, a mix of charging speeds and locations are necessary to have a robust network that can support vehicle charging. While RCW 80.28.360 does not limit utility involvement to only longer-term parking duration locations, it does authorize the Commission to allow the incentive rate of return on capital expenditures for projects installed or located where electric vehicles are most likely to be parked for intervals longer than two hours.

- 2.) What real and tangible benefits to ratepayers should electrical companies be required to quantify and demonstrate in order for the Commission to:**
- a) make a prudence determination, and**
 - b) authorize an incentive rate of return?**

Response:

- a) Transportation Electrification provides numerous benefits to both users of electric transportation and non-users of electric transportation which are discussed in more detail below. Within PSE's service territory, all of these benefits are likely to directly or indirectly benefit ratepayers. Broadly speaking, these benefits fall into categories of economic and environmental.

Economic Benefits

- For utility rates, if revenues to PSE from electric transportation exceed costs associated with electric transportation, there is a clear and direct benefit to ratepayers using electrified transportation and those not using electrified transportation.
- For transportation costs, there is a decrease in operating costs to the electrified transportation user. Fuel costs are lower, with PSE's current residential electricity rate being the equivalent of approximately \$1.26 per gallon when compared to gasoline. Further, maintenance costs for electric transportation are lower than for traditional fuels as there are fewer oil changes and brake replacements. There is also a value to the consumer in low volatility of fuel cost from electricity versus gasoline or diesel. This value is difficult to quantify, especially for the individual, but it exists.

Environmental Benefits

- Use of electricity as a transportation fuel in PSE's service territory produces lower lifetime carbon emissions than use of gasoline and diesel. While this value is often considered societal, there are also direct effects on the consumer. Notably, when carbon emissions carry a price, the difference in carbon emissions produces direct costs to the consumer, which vary depending on the fuel they use. While there is no direct price on carbon in Washington State today, a rulemaking underway by the Department of Ecology and Ballot Initiative 732 may create a price for carbon in the near future. PSE routinely includes estimated costs for carbon pricing/taxes in its Integrated Resource Planning.
- Electrified transportation also reduces emissions of traditional pollutants. In some regions of the country, there are direct prices on these pollutants. In the Northwest, no direct prices currently exist, but there is still value in improved human health due to reduced emissions.

All of these benefits should be considered given that all produce benefits for both customers using electrified transportation and those not using electrified transportation. This was clearly outlined by the legislature in HB 1853 Sec 1, included with emphasis added below:

“**Sec. 1.** (1) The legislature finds that the transportation sector is Washington's largest contributor to greenhouse emissions and hazardous air pollutants as defined by federal national ambient air quality standards and mobile source air toxics rules. The sector's portion is considerably higher than the national average because our state relies heavily on hydropower for electricity generation, unlike other states that rely on fossil fuels such as coal, petroleum, and natural gas to generate electricity.

(2) The legislature also finds that federal clean air act regulations and complementary Washington policies supporting renewable energy generation, energy efficiency, and energy conservation are likely to result in further reduction of emissions in the electricity and in the combined residential, commercial, and industrial sectors. The legislature finds that state policy can achieve the greatest return on investment in reducing greenhouse gas emissions and improving air quality by expediting the transition to alternative fuel vehicles, including electric vehicles.

(3) The legislature finds that utilities, who are traditionally responsible for understanding and engineering the electrical grid for safety and reliability, must be fully empowered and incentivized to be engaged in electrification of our transportation system. The legislature further finds that it has given utilities other policy directives to promote energy conservation which do not make the benefits of building out electric vehicle infrastructure, as well as any subsequent increase in energy consumption, readily apparent. Therefore the legislature intends to provide a clear policy directive and financial incentive to utilities for electric vehicle infrastructure build-out.”

Given the broad benefit of transportation electrification and the role of customer choice in selecting their transportation fuel, prudent decision-making should be different than the traditional prudence tests and processes used for other utility investments. Traditional prudence rests on several factors, notably:

- Determination of need of investment
- Consideration of alternatives
- Selection of the best alternative
- Implementation considering good management and standard utility practice

Given that transportation electrification is by its nature an optional selection of fuel by customers, it is inherently not a pure “need.” However, once this selection has been made by a customer, there is a need for both electricity and the charging infrastructure to deliver it for use as a vehicle fuel.

While the Washington Legislature has made its position clear to increase utility investment in electric vehicle charging as a means to increase electrification of transportation, this does not relieve utilities of prudent decision-making in relation to its offering of service through its tariff schedules. This decision-making should be made on a consideration of alternatives and thorough analysis of relevant facts at the time the selection of the best alternative is made, and implementation of good management and standard utility practice.

- b) While the law neither mentions nor dictates that the Commission makes a prudence determination in the traditional sense, this does not relieve utilities of prudent decision-making in relation to its proposed tariff schedule services. Costs and benefits to ratepayers must be considered by the Commission. PSE believes that meeting the criteria as outlined in RCW 80.28.360 and meeting the criteria as outlined in 2a) are necessary to demonstrate that the incentive rate of return should be authorized.

3.) Should the incentive rate of return authorized in RCW 80.28.360(2) apply to EVSE investments that serve the public at large, or only to investments in infrastructure that serve the company's electric customers?

Response:

RCW 80.28.360(2) does not make this distinction and PSE believes the Commission should not attempt to make it. Given the mobility of electric vehicles, limiting use of EVSE to only a company's electric customers would create a barrier to adoption of electric vehicles, which is inconsistent with the intent of HB 1853.

4.) While EVSE increases electrical load, existing tests used by the Commission to determine the cost-effectiveness of energy efficiency investments may be applied or adapted for EVSE. Is the Total Resource Cost (TRC) an appropriate measure of whether EVSE investments provide benefits to ratepayers?

Response:

The Total Resource Cost test is currently applied to energy efficiency electric programs to determine if the broad benefits of a program or group of programs in the form of reduced electric power supply costs exceed the costs. In its current use of the Total Resource Cost Test to evaluate energy efficiency electric programs, PSE considered the following costs and benefits:

<u>Costs</u>	<u>Benefits</u>
Incremental costs of Energy Efficient Equipment	Avoided Energy Cost, including renewable energy requirements
Program Costs	Avoided Generation Capacity Costs
	Quantifiable Non-Energy Benefits
	10% Adder per NW Power Act (only for electric programs)

PSE does not believe that the traditional Total Resource Cost Test is an appropriate measure because transportation electrification programs are different and distinct from electric and natural gas energy efficiency programs as they fall outside of the area of power supply or savings.

While the Total Resource Cost test as applied to energy efficiency does not directly apply to transportation electrification, consideration of costs and benefits of transportation electrification to utility ratepayers as a whole is appropriate because all costs are likely to be borne by voluntary EV tariff participants and public benefits will accrue to non-participants, who are in essence receiving a costless bonus.

5.) What, if any, modifications to traditional cost-effectiveness tests are necessary or appropriate to use for investments in EVSE?

Response:

A cost-benefit test that considers the overall costs and benefits of transportation electrification across all utility ratepayers is appropriate to determine the allowable level of investment by the utility to support users of electric transportation while providing net benefit to all ratepayers. Investments above this level should be made by the electric vehicle drivers, not the utility, as they are not expected to generate benefits. Any cost-benefit test should consider at least the following factors:

<u>Costs</u>	<u>Benefits</u>
Incremental Vehicle Costs	Vehicle O&M Savings
Charger Costs	Avoided Direct Carbon Costs
Marginal Energy Costs	Avoided Gasoline Costs
Marginal Generation Capacity Costs	Federal Tax Credits
Ancillary Services or Other Energy Supply Costs	
T&D Costs	

6.) What policies should the Commission consider to improve access to, and promote fair competition within the market? Please comment separately on how the Commission should address the following:

- a) **Improve access to EV charging as a regulated public service?**
- b) **Ensure that the utility procurement process for charging equipment is fair and competitive?**
- c) **Allow a competitive market for charging services to develop?**

Response:

- a) The Commission should issue an order requiring electric utilities to submit tariff schedules to implement EV charging service options as a regulated public service. These proposals should be consistent with the factors outlined in 80.28.360 and discussed through this docket.
- b) It is important that policies balance issues of fair and competitive procurement, prudent decision-making and administrative burden. Utilities should be held accountable for prudent decision-making in designing a procurement process for EVSE and be required to provide

reports to the Commission describing how their equipment selection was made. This approach best balances the burden of administering new tariff services while ensuring a thoughtful and fair selection process was conducted.

- c) There are numerous vendors that supply charging equipment and “network services” with competing hardware and software technologies. This is a competitive market and should continue to evolve competitively.

It is important to note that the Commission generally regulates rates, and not competitive markets, as was acknowledged by the Washington Legislature in relation to EV charging in 2011 in enacting RCW 80.28.320:

“The commission shall not regulate the rates, services, facilities, and practices of an entity that offers battery charging facilities to the public for hire, if: (1) That entity is not otherwise subject to commission jurisdiction as an electrical company; or (2) that entity is otherwise subject to commission jurisdiction as an electrical company, but its battery charging facilities are not subsidized by any regulated service. An electrical company may offer battery charging facilities as a regulated service, subject to commission approval.”

In 2015, the Washington State Legislature further clarified the role of utilities in RCW 80.28.360, stating the utilities must be “fully empowered and incentivized to be engaged in electrification of our transportation system” and the Legislature “intends to provide a clear policy directive and financial incentive to utilities for electric vehicle infrastructure build-out.”

In considering the rates and tariff services of the utilities, the Commission should encourage the competitive markets for charging equipment and networking services by ensuring the utilities employ good management practices through competitive selection processes, as previously discussed. The Commission should also avoid creating barriers to markets through lengthy processes or inflexible pricing structures which would limit the competitiveness of regulated services with non-utilities as contemplated in RCW 80.28.320.

7.) Considering RCW 80.12.020(4) when would it be appropriate for an electrical company to “gift” EVSE to a customer, as provided in RCW 80.28.360(4)? What notice should be given?

Response:

It would be appropriate for a utility to dispose of an EVSE when it is no longer “necessary or useful”. The terms under which an electric company would gift EVSE to a customer would be described in a tariff schedule that is providing the electric vehicle equipment service.

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8.) Considering RCW 80.28.320, what other factors should the Commission consider in order to approve investor-owned utility proposals to own and operate EVSE as a regulated service?

Response:

The Commission should consider several factors in approving electric company tariff schedules to offer EVSE as a regulated service with Company-owned equipment. These factors are important to ensure that proposals by utilities do provide benefits across as many customers as possible, consistent with the utilities' role in providing services to all customers.

The first factor is access. In order for a utility to own and operate EVSE as a regulated service, it should be open to all of the utility's customers and non-customers, thus providing reasonable access to all customers. This standard explicitly does not apply to unregulated providers of charging (as outlined in RCW 80.28.320) who can allow or not allow use of their charging equipment by any person or corporation, or can charge different prices to different entities based on any factor.

The second factor is planning. Any utility investments should have a reasonable expectation of being used and useful. For electric vehicle equipment services that would not have distinct dedicated customers, each utility should be required to convene a group of electrified transportation users to provide input on infrastructure decisions and sites to ensure that they have a reasonable expectation of being used and useful. This user group should include but not be limited to the following: a daily driver of a passenger electric vehicle; a representative of a group of electric vehicle drivers which educates and informs the public in an effort increase the number of electric vehicles; a representative from the State of Washington; a representative from a fleet operating electrified transportation equipment; and a representative from the UTC staff. Further, utility proposals should have clear maintenance plans to ensure that the equipment continues to be available to customers for use.

A third factor is customer education. Any utility proposed EV charging services should include a customer education component describing the electric transportation charging options available to all customers.

PSE appreciates the opportunity to provide these responses to the questions identified above in the Notice of Opportunity to File Written Comments. Please contact Nate Hill, Regulatory Affairs Initiatives Manager at (425) 457-5524 or myself at (425) 456-2110 for additional information about this filing.

Sincerely,
 *Nate Hill*, Manager Regulatory
Initiatives
for
Ken Johnson
Director, State Regulatory Affairs

cc: Lisa Gafken
Sheree Carson