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Seattle Audubon Society  
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Sierra Club, Washington Chapter  
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Solar Oregon  
Solar Washington  
South Central Community Action Partnership  
Southeast Idaho Community Action Partners  
Spokane Neighborhood Action Partners  
Student Advocates for Valuing the Environment  
Sustainable Connections  
The Climate Trust  
The Energy Project  
The Policy Institute  
Trout Unlimited  
Union Of Concerned Scientists  
United Steelworkers of America, District 12  
US Green Building Council, Idaho Chapter  
Washington Environmental Council  
Washington Local Energy Alliance  
Washington State Department of Commerce  
Washington State University Energy Program  
YMCA Earth Service Corps



NW Energy Coalition  
for a clean and affordable energy future

From: Wendy Gerlitz  
Policy Director  
NW Energy Coalition

March 30, 2017

To: Washington Utilities & Transportation Commission  
Steven V. King, Executive Director  
Re: UE-160799

Thank you for the opportunity to comment on the draft policy statement on the implementation of RCW 80.28.360, which authorizes Washington utilities to accelerate transportation electrification by installing charging infrastructure.

We agree that the Commission has chosen an appropriate instrument by drafting a policy statement to guide investor-owned utilities in these endeavors. In the following pages, we offer our responses to the specific questions asked by staff when the draft was released, as well as other observations about how to put RCW 80.28.360 into practice.

We would like to thank the Commission for accepting the Coalition's recommendation that only the *net* revenue impact count toward the 0.25% cap on increased costs to the rate-paying public (p. 21). We further appreciate the Commission's directive that utilities create a carve-out for their EVSE programs to ensure that they serve low-income customers (pp. 35-36).

Thank you for considering the following comments. If you would like to discuss these issues further, please contact me at (503) 449-0009 or [wendy@nwenergy.org](mailto:wendy@nwenergy.org).

Sincerely,

Wendy Gerlitz

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## Answers to UTC Staff Questions

### **Question 1, first part** — *What is the definition of EVSE?*

We believe that an expansive definition of EVSE serves the goals of HB 1853 in encouraging the swifter and wider electrification of transportation. So the “electric vehicle” portion of the definition should be construed broadly to include not just motor vehicles that operate on public roads, but also industrial equipment such as forklifts, cargo-handling equipment, and airport ground service vehicles.

The “service equipment” portion of the definition should refer to any equipment installed specifically to provide charging services to EVs as defined above. That could include dedicated line extensions as well as the actual hardware that connects EVs to a source of grid power. However, to the extent that electrical distribution lines are installed or other investments are made for multiple kinds of loads (e.g., street lighting as well as EVSE), that investment should not be eligible for the incentive rate of return, but should be treated the same as any other line extension for purposes of return on the utility’s investment.

### **Question 1, second part** — *How should the Commission consider ownership of EVSE as a factor in determining whether the utility is a provider or manager of EV charging services?*

The Coalition understands the distinction the Commission is proposing to draw between “provider” and “manager” of electric vehicle charging services, as described on p. 32 of the draft policy statement. However, we believe that the ownership of the EVSE is not the only factor relevant to the distinction between provider and manager. Another key element is the relationship with the end-user: If the EV driver pays the utility for the charging service, then the utility is the provider, and the rates must meet the criteria of being “fair, just, reasonable, and sufficient to recover the cost of the service.” If the EV driver pays a third party which is responsible for the installation and maintenance of the charging equipment, but the utility has some control over the nature of the service provided (e.g., load management), as described in the proposed policy, then the utility is a manager. In that case, it may be able to receive the incentive rate of return for the direct investment it undertook to make possible the EVSE installation, such as the make-ready work.

The Coalition believes that a balance between “providing” and “managing” the EVSE is only one of several components in ensuring that a portfolio of EVSE investments is balanced. See our response to Question 2 below.

### **Question 2:** *What criteria should the Commission use to determine whether a portfolio is balanced?*

Balance between EVSE “provided” or “managed” by a utility is only one criterion that should be used in determining whether the utility’s portfolio of EVSE investments is a balanced one. In addition, the Coalition believes that these forms of balance are important in evaluating an EVSE portfolio:

- **Geographic:** EVSE should be well distributed across the utility’s service territory, in rough proportion to the population served. In addition, the location of DC Fast Chargers should be influenced by data on travel routes and traffic levels. Although the two-hour-minimum expected parking time codified in RCW 80.28.360 precludes the use of these incentivized investments for DC Fast Charging, utilities may install DC Fast Chargers and earn their regular rate of return on that investment.
- **Sectoral:** Since this is a pilot program which will inform future utility investments in transportation electrification, installations should occur across diverse sectors of the economy: at residential buildings and in residential neighborhoods, at commercial buildings and other workplaces (e.g., assembly plants), at public buildings, and at industrial facilities where off-road service vehicles will recharge.

- **Socioeconomic:** Utility investment in EVSE must provide access to electricity as a transportation fuel for populations across the socio-economic spectrum. In order to ensure that access to EVSE reaches lower-income rate-payers, utilities should make some of their EVSE investment in locations that will serve that segment of the population, such as multi-family dwellings, agencies providing social services, off-street parking lots in lower-income neighborhoods (e.g., churches, schools, food markets) where residents may not have dedicated off-street parking, and institutions such as senior housing whose shuttle and service vehicles may be EVs.

- **Provider vs. manager:** With respect to the provider-manager question posed by staff, the Coalition agrees that a utility’s portfolio of EVSE investment should be balanced by including significant elements of both utility-as-provider and utility-as-manager. There is no natural monopoly for the provision of charging services, unlike the natural monopoly of the electricity distribution grid. Therefore, it is feasible for utilities to offer those services in fair competition with third-party providers, so long as safeguards are in place to ensure that the utility extends a level playing field to third-party EVSE providers, charging fairly for the make-ready investments of line extension, trenching, meter installation, etc., just as they “charge” themselves.

We consider publicly available EVSE to be analogous to public telephones in the era between the deregulation of phone service and the ubiquity of the cell phone. During that time, pay phones owned by the Baby Bells (the regional companies into which AT&T was divided) coexisted with pay phones installed by third-party providers.<sup>1</sup> Just as third-party EVSE providers purchase electricity under a regulated tariff, the private pay phone providers received their dial tone under terms regulated by state utility commissions. Consumers could choose between pay phones provided by the regional phone company, and those installed by independent providers.

We have noted the hypothesis advanced by Commission staff that the utility-as-provider model will be better suited to DC Fast Charging and commercial public charging, while utility-as-manager will be a better fit for residential locations, private fleets, and sites off-limits to the general public (p. 32). The Coalition is agnostic on this hypothesis, and urges the Commission to test its theory by allowing and encouraging the development of a balanced portfolio in which both utilities and third-party providers can offer EV charging services to all these customer classes if they wish. We believe the Commission is also right to mandate the collection of data on capital and operating costs, utilization, and load management benefits, as described on p. 14. Those data will provide a body of evidence that can inform the Commission’s policies and guidelines for the future of EV infrastructure deployment.

**Question 3** — *What specific policies should the Commission adopt regarding the interoperability of utility-owned charging infrastructure?*

With regard to the hardware to connect EVSE to EVs, the reigning standard for Level 2 charging is a single kind of connector, the J1772, which can charge all modern EVs (including Tesla models, using an adapter that comes with the vehicle). For DC Fast Charging, the situation is a little more complicated, with three different plug styles in use: CHAdeMO, CCS, and Tesla. The cost of providing multiple plugs is small compared to the overall cost of an EVSE installation. Accordingly, we believe that it will provide the greatest functionality for all utility-supported EVSE to include connectors that will work for all EVs in service.

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<sup>1</sup> See, for instance, William R. Greer, “A Pay Phone Can Be Yours, and the Toll Is Negotiable,” [New York Times](#), Jan. 18, 1986.

With regard to the hardware and software on the back end, the Coalition notes that the system benefits (and thus the benefits to non-participating utility customers) increase dramatically with the utility's ability to practice load management and demand response through the EVSE. The Coalition believes that interoperability is an essential element of investment under this program, and urges the Commission to require that connectivity and hardware be put in place that accommodate communication protocols which make the EV charging load dispatchable within the parameters set by the EV driver, or that communicates dynamic electricity pricing to the end-user in real time. Although a universal standard does not yet exist, the Coalition believes that in the meantime, some communication system — such as is available through Open ADR<sup>2</sup> or the Open Vehicle-Grid Integration Platform<sup>3</sup> being developed by EPRI—is an essential ingredient of EVSE that is supported under this incentive rate of return in order to achieve the “real and tangible benefits for ratepayers” that are envisioned in RCW 80.28.360 (3).

**Question 4, first part** — *What policy mechanisms or standards are available to promote system-wide interoperability for drivers, such that EV drivers can charge any EV model and pay for the charge without joining a multitude of charging networks?*

In order that any EV model may be charged, it is important that utility-supported EVSE have plug connectors that make it compatible with all current EV models, as we indicated above in Question 3.

As for being able to pay for the charging session with maximum convenience, we believe that the answer is different depending on whether the utility is the provider or the manager of the service. If the utility is the provider, we encourage the Commission to allow utilities to bill EV charging sessions to the EV driver's home or business electrical account — much as a pay phone user was formerly able to charge a long-distance call to her home number. If the utility is merely the manager of the service and a third-party provider controls the EVSE, the Coalition does not take a position on whether third-party providers should be required to offer interoperability, but we do note that in the case of ATM machines, banks have found it advantageous to offer automated banking services to one another's customers through a variety of networks, recognizing that enlarging the network confers benefits on all participants and providers.

**Question 4, second part** — *Does the Commission have a role in overseeing the development of these standards or protocols, or should it provide guidance on the characteristics of an open EVSE system or a more common interoperable platform?*

We believe the Commission should encourage EVSE manufacturers, automakers, and utilities to converge on a common standard or protocol, but should leave the particulars to them, provided the protocol makes possible two-way communication for the sake of demand response, load management, and dynamic pricing.

**Question 5** — *Regarding the creation of a single joint stakeholder group to participate in the review of utility charging service program design.*

The Coalition supports the creation of such a joint stakeholder group. This configuration has the potential to accelerate learning across different utilities' service territories, which is especially important at this early point in the deployment of charging infrastructure. It could also facilitate greater interoperability, so that a customer driving from Ellensburg (in PSE territory) to Yakima (served by Pacific Power), for example, could easily recharge before returning home by using any of a wider selection of charging stations, either utility-owned or third-party.

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<sup>2</sup> See, for instance, the website of the Open ADR Alliance at <http://www.openadr.org/>.

<sup>3</sup> See <http://www.epri.com/abstracts/Pages/ProductAbstract.aspx?ProductId=00000003002008705> for a general overview from the developers of this platform.

## **Additional areas for comment**

### **Just, fair, reasonable and sufficient rates (pp. 12-16)**

**Price signals:** In order to provide the greatest benefit to non-participating ratepayers, it is crucial that the utility embed price signals in its rates that will induce customers to engage in demand response and direct load control that reduce overall system costs. That price signal could take the form of dynamic pricing, or of incentives for the customer to allow the utility to schedule the flow of power to the EVSE in a way that minimizes the cost of the electricity to be delivered. Such signals should be a feature of all EVSE supported by utility investment, to the maximum extent possible.

The rates charged (either directly to the driver, or to the host of the EVSE) should reflect the utility's short- and long-term marginal costs, and be adjusted both with season and time of day. Likewise, the price incentives for accepting the utility's signals for load management and demand reduction should be set so as to engage optimal levels of participation from EV drivers, with the aim of providing least-cost electricity service to the body of customers as a whole.

**Demand charges:** The Coalition is opposed to residential demand charges, which are hard for homeowners and tenants to manage and control. In addition, we believe that demand charges for other sectors are ineffective at reducing system costs and unfair to ratepayers if applied to non-peak-coincident demand.

For grid connections that serve a DC Fast Charging station — or even Level 2 charging locations that serve multiple vehicles — the potential exists for charging loads to cause the host's demand to spike significantly. If the customer's rate structure includes a maximum-demand charge, it's possible that a surge in EV charging would result in hefty demand charges on the customer's bill. In the case of peak demand that coincides with the utility's hours of peak load, that would send an appropriate price signal. But if the spike in demand occurred during the utility's off-peak or shoulder hours, the price signal would be a spurious and misleading one. It serves no public purpose to discourage high EV charging demand during off-peak hours; indeed, steering EV loads toward hours when the grid is underutilized offers one of the principal ways of creating system-wide benefits from EV charging.

This is one of the reasons why the Coalition urges the Commission to reject rate proposals that include charges for a customer's highest demand, unless that peak demand coincides with periods of peak load for the utility.

### **Importance of data collection (p. 14)**

The Coalition wishes to underscore a point made by the Commission in its draft policy statement: the rigorous collection of data on charger costs, utilization, and revenues will be essential in designing future EVSE programs and EV-specific electricity rates. In addition, it will be crucial to track customer response to the utility's load management, demand response offers, and how charging is affected by dynamic pricing.

Any utility program proposal should include a plan for how those data will be collected and furnished to the Commission.

### **Fostering a competitive market for EV charging services (p. 24)**

The Coalition supports the development of a portfolio of charging services, some of which are provided directly by the utility and some by third parties. In order to maintain a level playing field between those two elements of the portfolio, it will be essential to ensure that tariffs for line extension and other make-ready work are fair to the third-party providers and do not create a market bias toward either segment of that portfolio.

**Charging Service portfolio matrix (p. 32-33):**

The Coalition appreciates the matrix of charging services and benefits presented at Table 2 on pages 32-33. We offer this friendly amendment to the table's second row: where the utility is the provider of Level 2 charging for workplaces and fleets, there is every reason to believe that it could employ direct load control or at least demand response, thereby reaping the benefit of avoided costs as well as kWh sales.

**Load management (pp. 33-34):**

The Coalition shares the Commission's enthusiasm for load management as a component of EV charging services, and applauds the Commission for signaling that EV charging programs should include an element of demand response or load management.

**Applicability of EVSE for low-income customers (pp. 35-36):**

The Coalition supports the Commission's proposed directive that EV charging programs include a carve-out for low-income customers. We appreciate that the Commission took up the suggestion in our November comments that utilities seek creative avenues to reach low-income customers, such as car-sharing services and vanpools. The benefits of transportation electrification—lower operating and maintenance costs, stability of fuel prices, cleaner air—should be made available equitably.

At the same time, we would caution against dismissing the possibility that low-income ratepayers will want to own an EV outright. Although it is true that EV ownership is currently lower in low-income neighborhoods, older—and much less expensive—second-hand EVs are becoming available in the resale market. EV market conditions are changing rapidly; utility EVSE investment should not forsake the low-income market segment on the basis of the current concentration of EVs in higher-income areas.

It will be impossible to break through these low rates of ownership without creating nearby charging opportunities. Many low-income customers lack dedicated off-street parking where they could charge their EVs; Level 2 chargers in public lots that are underused at night (e.g., school and church parking lots) and in shared parking garages of multi-family dwellings should be included in utility EVSE programs, as we mentioned above in our response to staff question #2.

**Considering the locational value of EV charging stations**

Throughout a utility's distribution grid, some nodes or substations have more underutilized capacity than others. In designing a network of EVSE points, it behooves the utility to consider the places where installing EVSE will enable it to take advantage of underutilized distribution capacity, or where it can locate EV charging on the upstream side of a transmission bottleneck, so as to minimize the new investment in transmission and distribution made necessary by EV loads.