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Mr. David Danner
Executive Director
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive S.W.
Olympia, WA 98504-7250

Subject: Docket No. UE-101521
Regulatory Issues Relating to Electric Vehicles

Statement of Issues Submitted by the Washington State Department of Commerce

Dear Mr. Danner,

The Department of Commerce (Commerce) appreciates the opportunity to provide comments on the role of the Commission to support the development of markets for electric vehicles (EV). Commerce believes this meeting is timely and constitutes an important first step toward overcoming undue barriers to the development of markets for plug-in vehicles and electric vehicle support infrastructure.

Balance between clear rules and flexible rules
The private sector and all stakeholders that will participate in the development of markets for plug-in vehicles, including infrastructure providers, need a clear set of economic and environmental rules as early as possible. At the same time, the Commission should equip itself with the tools to monitor the evolution of this market over the coming years. As a nascent market, there is only limited data on certain areas of interest, such as consumer behavior and the impacts of EV charging loads on the power generation and distribution systems. Commerce firmly believes that the electrification of transportation holds great potential to energize our economy and help the environment, and that these benefits can be maximized through collaboration between the private and public sectors.

No need for cost-based regulation
The provision of electric vehicle supply equipment (EVSE) is not a natural monopoly, and therefore Commerce does not believe there is a clear rationale for price/cost regulation of the services offered by the EVSE providers insofar as no market power exists. There is every reason to believe that the provision of EVSE should develop as a competitive market, for a variety of reasons, including the low cost of market entry.

Regulated vs. unregulated markets
We point out that a decision not to regulate the price/cost of services from EVSE providers will result on an unregulated market operating on the shoulders of a regulated market (electric utilities). While this effect will be minimal so long as the EV market remains small, the demand for electricity for transportation will likely affect the utilities' planning and investments. While for all practical purposes electric utilities will consider EVSE providers as another client, to maximize the benefits from the electrification of transportation EVSE providers should coordinate, to the extent possible, their investments with the electric utilities so that these can plan accordingly.

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Private vs. public investment
Nearly all the investment in EV charging infrastructure in the State is being supported by Federal, State, and/or local government programs. The Commission could evaluate policies and/or regulations that eliminate undue obstacles to private-sector investment to further the development of the charging network. This is particularly important during the early stages of EV market development, when industry may be faced with lower internal rates of return due to limited demand. In particular, DC fast charging infrastructure may need significant upfront capital investment (relative to the expected returns).

Metering and the definition of electrons
We believe that metering is a desirable capability for EVSE to have. Submetering would be beneficial to consumers, industry, and government. Recording the amount of energy delivered from charging stations to plug-in vehicles will provide consumers with more information and enable them to make better decisions, it will facilitate coordination between utilities and EVSE providers, and will help identify the electrons that are used as a transportation fuel. Information on whether electrons are used for electricity/heat or for mobility can be very useful for policy purposes and could help utilities and EVSE providers define strategies around energy and environmental regulations.

While there is significant value in metering, it is also important to try not to impose additional economic barriers to investment in EVSE in the early stages of EV market development. We do not believe there is a case for necessarily requiring submetering, but we do believe this is an area that the Commission could examine as the market develops.

Regulation of EVSE reliability and safety
Certification for the adequate and safe performance of electrical equipment is provided by organizations such as Underwriter Laboratories (UL). Equipment certification is verified at the moment of permitting by the Department of Labor & Industries or by the local government. It is in the public interest to make sure that all equipment used to charge electric vehicles, public or home-based, is certified and permitted. The Commission could explore steps to implement such requirements.

Regardless of permitting and certification, it is important that EV users develop confidence in the proper functioning of the network of charging infrastructure. The Commission may explore measures to minimize the downtime of EVSE at least during the early years of market development. As part of the EVSE model ordinance process led by Commerce and the Puget Sound Regional Council, it was agreed that all charging equipment should clearly show the contact information of the party responsible for the proper functioning of the equipment.

Time-of-use (TOU) rates
We believe that public utilities should be allowed and encouraged to experiment with time-of-use pricing, to find the “right” rate design that provides consumers with incentives to charge their vehicles in ways that foster the efficient and reliable operation of the generation and distribution systems. The load profile in Washington is less characterized by strong peaks when compared to other states. This characteristic and the heavy reliance of

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our power generation system on hydro may reduce utilities' incentives to implement often-costly TOU rate structures. Preliminary research results from the University of California show that EV charging may be characterized by marked peaks that may overlap with system peak loads. To the extent that EV charging compounds the load peaks and to the extent that marginal power is provided from more expensive, more polluting sources, TOU rates may become more appealing. The Commission could examine the barriers to adopting TOU rates when EVSE providers are unregulated. Certain EVSE-supplier business models include energy storage at the charging site. Under such models, TOU rates would enable EVSE providers to buy and store power at low rates (off peak) and sell it at higher rates (on peak) without negatively affecting the power system.

We believe that EVs can be thought of, for the purposes of this process, as another electric appliance. While EV may be the biggest load in many households, we believe that the most economically efficient approach to implement a TOU system is to apply to all demand, independently of the appliance. This would increase the freedom of consumers to choose how to use their electricity, without singling out any particular appliance.

Respectfully,

Gustavo Collantes, PhD
Energy Office, Innovation and Policy Priorities
Washington Department of Commerce