

**BEFORE THE PUBLIC UTILITY COMMISSION  
OF OREGON**

**UM 1811**

In the Matter of )  
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PUBLIC UTILITY COMMISSION OF ) REPLY TESTIMONY OF THE OREGON  
OREGON ) DEPARTMENT OF ENERGY  
 )  
Portland General Electric Application for )  
Transportation Electrification Programs, )  
Implementing Section 20 of Senate )  
Bill 1547 (2016) )  
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**Introduction**

The Oregon Department of Energy (ODOE, or Department) appreciates the opportunity to comment on the Portland General Electric’s (PGE, or Company) Application for Transportation Electrification Programs. The Department looks forward to fully engaging in this proceeding over the coming months. Given the compressed UM 1811 docket schedule, ODOE offers the following brief comments in the interest of making known to PGE, the Public Utility Commission (Commission), and fellow intervening parties our areas of interest.

**Transportation Electrification Programs: Legislative Guidance in Senate Bill 1547 (2016)**

In Section 20(4) of Senate Bill 1547 (2016), the Legislature directs the Public Utility Commission to consider several factors “when determining cost recovery for investments and other expenditures” for programs to accelerate transportation electrification.<sup>1</sup> ODOE’s comments and engagement in this proceeding will focus on the following factors identified in SB 1547 that are also related to the Department’s goal of promoting energy efficient transportation:

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<sup>1</sup> Senate Bill 1547 (2016), codified as Oregon Laws 2016, Chapter 28, Section 20(4).

(4)(c) [whether the investments and other expenditures] are reasonably expected to be used and useful as determined by the Commission;

...

(4)(f) [whether the investments and other expenditures] are reasonably expected to stimulate innovation, competition and customer choice in electric vehicle charging and related infrastructure and services.<sup>2</sup>

A third factor cited in Section 20(4) relates to a state energy goal established by the Legislature in ODOE's founding statute, to encourage "the development and use of a diverse array of permanently sustainable energy resources."<sup>3</sup> Through a variety of projects, ODOE is working with other stakeholders to expand and improve the ability of the grid to accommodate an increasing percentage of renewable energy resources while maintaining grid reliability, and furthermore, to realize the potential for renewable energy resources to provide ancillary services that support grid resilience. When considering transportation electrification programs, the Legislature directs the Commission to consider:

(4)(e) [whether the investments and other expenditures] are reasonably expected to improve the electric company's electrical system efficiency and operational flexibility, including the ability of the electric company to integrate variable generating resources[.]<sup>4</sup>

### **Oregon Department of Energy Specific Areas of Interest**

Commercial Rate Schedules: Rate structures for electricity will be one of the key determinants of the success or failure of EV implementation. The Department is interested in ensuring that commercial electric rate schedules provide clarity and predictability for existing and prospective entrants into the charging infrastructure market. Additionally, ODOE is concerned that a rate structure that contains a traditional demand charge component will significantly inhibit the expansion of the public charging infrastructure needed to support the

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<sup>2</sup> Senate Bill 1547 (2016), codified in Oregon Laws 2016, Chapter 28, Section 20(4).

<sup>3</sup> ORS 469.010(2)(a).

<sup>4</sup> Senate Bill 1547 (2016), codified in Oregon Laws 2016, Chapter 28, Section 20(4).

growing EV market. This is particularly relevant to the DC fast charger (DCFC) market, where increasing vehicle battery sizes can require higher peak output at charging sites, potentially leading to unpredictable prices for the charging infrastructure owners. The Department recommends the Commission direct the Company to undertake a detailed comparative analysis of traditional and alternative rate structures based on expected near-term EV battery capacity and charging strategies.

Assumptions Regarding Charging Infrastructure Technology: The PGE Electric Avenue Network Community Charging Pilot proposes building six sites with four dual-head 50kW chargers and one level 2 charger. While the proposed Electric Avenue chargers will accommodate most EVs currently available in the market, by 2020 the industry charging standard is predicted to be 150 kW DCFC, which will accommodate vehicles with battery capacities of 60kWh to 90kWh. The Department suggests that PGE complete additional research and analysis to ensure that infrastructure the Company deploys will: provide customers with an increased number of options for charging equipment; be reasonably expected to stimulate innovation; and continue to be both used and useful as technology and industry standards progress.

DATED this 24<sup>th</sup> day of April, 2017.

Respectfully submitted,

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