BEFORE THE PUBLIC UTILITIES COMMISSION OF OREGON

In the matter of PUBLIC UTILITY COMMISSION OF OREGON Investigation Into Rate Structures For Electric Vehicle Charging

Opening Comments from ECOtality, Inc.

OPENING COMMENTS REGARDING INVESTIGATION INTO RATE STRUCTURES FOR ELECTRIC VEHICLE CHARGING

In response to the Oregon Public Utilities Commission ("Commission") staff straw proposal, ECOtality, Inc. appreciates the opportunity to submit the following comments concerning the Investigation into Rate Structures for Electric Vehicle Charging (Docket Number UM 1461).

Introduction

OPUC staff has taken the initiative to identify the goals, objectives, legal issues and regulatory policies and guidelines to help facilitate the future development of the market for electric vehicle ("EV") services in the state of Oregon. Virtually every major automobile manufacturer is producing or planning to produce electric vehicles at commercial scale in the near future. Regulators and industry standards agencies have realized that they need to resolve important public policy issues and develop industry-wide standards as soon as possible in order to accommodate the anticipated demand for electric vehicles and EV services. This Commission has taken a leadership role by initiating this proceeding. Working to address these issues will greatly assist identifying and resolving issues that may need further definition to develop a strong Oregon market for electric vehicles and EV services.

- I. What federal or state laws apply when an entity buys power from a public utility and sells or provides EVSE charging services to the public?
 - a. In answering question (1), discuss whether such an entity would be a "public utility" under ORS 757.005 subject to PUC regulation when it buys power, for the purpose of providing or selling EVSE charging service, either: (i) from a public utility at the PUC-regulated rate or (ii) on the wholesale market. For question (1)(a)(i), discuss any federal or state laws that may apply when an EVSE service provider buys power from a public utility at the PUC-approved retail rate and sells it at a different price for the purpose of EV charging.

According to ORS 757.005 a public utility is defined as the following:

Any corporation, company, individual, association of individuals, or its lessees, trustees or receivers, that owns, operates, manages or controls all or a part of any plant or equipment in this state for the production, transmission, delivery or furnishing of heat, light, water or power, directly or indirectly to or for the public, whether or not such plant or equipment or part thereof is wholly within any town or city

and;

Any corporation, company, individual or association of individuals, which is party to an oral or written agreement for the payment by a public utility, for service, managerial construction, engineering or financing fees, and having an affiliated interest with the public utility.¹

The regulation of public utilities is designed for the purpose of protecting consumers

from abuses by monopoly companies providing vital services. A key question that Oregon must ask itself is whether Oregon will have a monopoly or competitive market for EV charging services. ECOtality is an electric vehicle service provider (EVSP) that will provide EV consumers access to electricity for the purpose of electric vehicle charging. It should not be

¹ 2009 ORS, Vol. 17, Chapter 757 General Provisions.

considered an electric utility. ECOtality does not buy electricity, our charger hosts do. Therefore, there may be thousands of charger hosts who are our customers that "buy" electricity and then provide or "sell" it for charging purposes. This diffuse and competitive service does not fit with the monopoly franchise model that is characteristic of current regulated utilities. EVSPs play an important role in furthering the economic and competitive nature of the EV industry, by not only providing charging solutions for load management to our customers, which may also include utilities, but also by providing EV consumers additional business services that will make EV adoption attractive and viral. EVSPs can serve the marketplace by providing familiar EV charging-related services for consumers across multiple utility boundaries.

In California, the California Public Utilities Commission (CPUC) determined in D. 91-07-018 that the sale of compressed natural gas for use as a vehicle fuel did not involve the use of a "gas plant," defined as facilities "owned, controlled, operated, or managed in connection with or to facilitate the production, generation, transmission, delivery, underground storage or furnishing of gas...for light, heat or power."² On May 21, 2010, the CPUC noted in its proposed decision that in the case of electricity used for charging batteries, the consumption of electricity during charging is both physically and temporally separated from the operation of the vehicle, making the function of an EV service provider fundamentally different from that of a utility delivering electricity for "light, heat or power":

Charging a vehicle battery is more akin to moving electricity from place to place; the act of charging does not "power" anything. Only at a later time when the vehicle is engaged does the battery's stored electricity fuel the car. Moreover, even at that later time we find the electricity is "fuel" not "power" as explained above and for reasons similar to D.91-07-018.³

² CPUC D. 91-07-018 at 57-58.

³ CPUC Proposed Decision 09-08-009 at 17.

On August 2, 2010, the CPUC concluded in its final decision that EVSPs are not public utilities and that the sale of electric vehicle charging services to the public does not make a corporation or person a public utility solely because of that sale, ownership or operation. Concluding that EVSPs are not public utilities serves a very important public policy position to encourage rapid deployment of electric vehicles and charging infrastructure while creating a competitive environment for a nascent industry. The proposed decision aptly concluded that a regulatory approach is not appropriate or necessary in the case of providers of transportation fuels, given the diversity of market participants, low barriers to entry, and the number of competitive alternatives.⁴

During the CPUC 09-08-009 proceeding, some stakeholders expressed a concern that investor-owned utility sales of electricity to electric vehicle service providers could be deemed a "sale for resale" by Federal Energy Regulatory Commission (FERC) and, thus fall under the exclusive jurisdiction of FERC. The CPUC found these concerns to be "misplaced" in its final D. 09-08-009. The CPUC noted that under the Federal Power Act, "sale of electric energy at wholesale in interstate commerce" is subject to the jurisdiction of FERC. "[S]ale of electric energy at wholesale" is defined as "a sale of electric energy to any person for resale."⁵

In Section 4.2 of its final decision, the CPUC concluded that selling electric vehicle charging services does not make an entity an electric utility and that a seller of electric vehicle charging services that purchases electricity from an investor-owned utility is an end-user that purchases the electricity at retail. Thus, the sale of electricity by an investor-owned utility to an electric vehicle service provider is a retail sale of electricity, not a wholesale sale or a "sale for

⁴ Id. At 21.

⁵ 16 U.S.C. § 824(d).

resale." As a result, the sale falls under the exclusive jurisdiction of the CPUC, not under the jurisdiction of FERC.⁶

b. In answering question (1), discuss whether an entity that sells or provides power as described in question (1)(a) would be an "Electric Service Supplier" (ESS). In responding to this question, consider the implications, if any, of Commission Order 08-388.

According to ORS 757.600(16) an electricity service supplier is defined as the following:

A person or entity that offers to sell electricity services available pursuant to direct access to more than one retail electricity consumer. "Electricity service supplier" does not include an electric utility selling electricity to retail electricity consumers in its own service territory.⁷

According to ORS 757.600(6) direct access is defined as the following:

The ability of a retail electricity consumer to purchase electricity and certain ancillary services, as determined by the commission...directly from an entity other than the distribution utility.

ECOtality would not be described as an electric service supplier (ESS) because it is not offering to sell electricity or ancillary services as defined above and in PUC Order 08-388. ECOtality looks to provide access to electricity, smart charging capabilities to increase grid efficiency and business services such as offering reservation systems, network membership, information and financial services, web portal, and smart phone charging applications. As noted in 08-388 both the text and context of direct-access legislation support the conclusion that an electricity seller must provide both electricity and ancillary services in order to provide "direct access" under ORS 757.600(16). ECOtality does not sell electricity or provide ancillary services. Our smart

⁶ CPUC D. 09-08-009 at 30.

⁷ 2009 ORS, Vol. 17, Chapter 757 General Provisions.

charging systems connect to a utility's distribution system from the customer's side of the meter

and seamlessly interface with utilities to help manage load on the grid.

- If there are laws that apply to an EVSE service provider who buys power and sells or provides EVSE charging services to the public, could the EVSE service provider avoid the application of any applicable laws by adopting pricing models such as:
 - a. Memberships where the EV driver pays a flat monthly fee;
 - b. Implementing a convenience charge where the driver pays a flat fee for the EVSE charging service regardless of kwh's used;
 - c. Offering other services such as having an attendant;
 - d. Offering free EVSE charging service with validation by a local business; or
 - e. Other?

EVSPs such as ECOtality are not subject to laws regulating them as public utilities or electricity service suppliers for the reasons noted in Section I and II. The ORS definitions for ORS 757.600 to 757.689 define ancillary services as the following:

Services necessary or incidental to the transmission and delivery of electricity from generating facilities to retail electricity consumers, including but not limited to scheduling, load shaping, reactive power, voltage control and energy balancing services.⁸

By adopting different pricing models and other business services for our Blink network such as reservation systems, network membership, web portal, and smart phone charging applications, ECOtality will operate as a private sector entity providing smart charging infrastructure and business services for our customers.

To encourage widespread deployment and use of plug-in hybrid and electric vehicles in Oregon, there must be the infrastructure to support them. As an EVSP, ECOtality is in the forefront of planning charging station deployment that effectively meets customer and utility needs. These planning efforts range from city to national in scope. ECOtality is finding solutions

⁸ 2009 ORS, Vol. 17, Chapter 757 Direct Access Regulation.

for range extension, charging opportunities for residents with no off-street parking, businesses and public agencies, and long distance EV drivers that need access to charging options located outside of their electric utility's service territory. Although EVSPs are a nascent industry initially being supported by public and private investment, the goal of these businesses is to establish business revenue models that are completely self sustaining through private investment and operations. Private investment, however, requires regulatory certainty and a market friendly environment that will empower the industry to flourish in a competitive environment, providing EV consumers abundant and innovative alternatives for their charging solutions.

III. Regulatory Policies and Guidelines

A. <u>Policies related to developing public charging infrastructure</u>

- 1. Rate Schedules for Public Available EVSE Stations
- 2. Cost of Distribution Upgrades or Reconfigurations
- 3. Utility Ability to Dispatch EV Charging
- 4. Information on Emissions to Customers
- 5. Utility Ownership and Operation of EVSE Stations

B. Policies related to private charging

- 1. Rate Schedules for Public Available EVSE Stations
- 2. Cost of Distribution Upgrades or Reconfigurations
- 3. Utility Ability to Dispatch EV Charging
- 4. Information on Emissions to Customers

In this section, OPUC staff identify several potential policies to developing public and

private charging infrastructure. Additional consideration should also be given to the following:

- Adopting demand response and energy efficiency programs to provide customers incentives to reduce their energy usage at certain times or on an ongoing basis.
- Adopting interoperability standards to maintain safe, reliable, efficient and secure electrical service with infrastructure that can meet future growth in demand.

- Metering requirements, which may include sub-metering that is utility grade approved such as an EVSP smart meter.
- Development of smart charging programs or policies to manage the impact of EV charging on the grid.

C. <u>EV's as a provider of Ancillary Services</u>

- 1. Forecast the Demand for Flexible Capacity
- 2. Forecast the Supply of Flexible Capacity
- 3. Evaluate Flexible Resources on a Consistent and Comparable Basis

Staff has identified Integrated Resource Planning guidelines to address the potential for EV's to provide ancillary services for the integration of renewable generation. Provided it meets grid operator regulations, variable charging of EVs can improve (and potentially reduce the cost of) integration of renewable resources. Electric vehicle supply equipment (EVSE) has historically been thought of as merely a one way "delivery device" to charge an EV battery. Today, some EVSPs like ECOtality are moving toward establishing a new standard for EVSE in the marketplace known as smart charging infrastructure. Smart charging technology enables EV recharging infrastructure with data gathering and wireless communications capabilities to promote efficient energy storage and transfer across the electric grid, allowing consumers to monitor energy use and charging during "off-peak" hours, and seamlessly interface with utilities to gather data and address load management issues. ECOtality, as a result, envisions playing a more active role in facilitating energy transfer in cooperation with utilities - impacting how EVs store energy and engage with the grid for the integration of renewable generation. ECOtality's advanced metering can allow collaborative efforts across boundaries of multiple utilities to test regional smart grid applications specifically addressing EVs even before more widespread integration of smart grid infrastructure for broad household or business use.

Conclusion

ECOtality appreciates the opportunity to provide input to the above mentioned issues and looks forward to working with the Commission and other stakeholders in this proceeding to enable successful EV adoption and deployment. Together we can create a safe and effective network of EV infrastructure and services for EV users in Oregon.

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Respectfully submitted,

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