

**PUBLIC UTILITY COMMISSION OF OREGON
STAFF REPORT
PUBLIC MEETING DATE: December 8, 2009**

REGULAR X CONSENT _____ EFFECTIVE DATE _____ N/A _____

DATE: December 2, 2009

TO: Public Utility Commission

FROM: Ed Durrenberger

THROUGH: Lee Sparling, Ed Busch and Maury Galbraith

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF: Staff recommendation to open a docket and use Oregon Electricity Regulators Assistance Project funds from the American Recovery and Reinvestment Act of 2009 to investigate rate structures for electric vehicle charging and the role of regulated utilities in the development of electric vehicle charging station infrastructure.

STAFF RECOMMENDATION:

I recommend the Commission open a docket to investigate rate structures for electric vehicle charging and to determine what the role of regulated utilities should be in the development of electric vehicle charging station infrastructure. This two phase investigation is described below as Alternative A.

DISCUSSION:

The Oregon State Governor issued Executive Order (EO) 08-24, in 2008, creating an Alternative Fuel Vehicle Infrastructure Working Group (Working Group). A primary objective of the Working Group was to work with the private sector to build alternative fuel stations in Oregon by 2010 to facilitate wide spread adoption of alternative fuel vehicles. Another part of the mission of the Working Group was to establish standards for residential and public fueling infrastructure in order to incorporate alternative fuel vehicles into everyday life. The EO 08-24 was not an isolated policy objective but is part of a series of climate change related initiatives and strategies intended to reduce greenhouse gasses and create green jobs in Oregon. The vision for Oregon is to position the state to lead the nation in adoption of alternative fuel vehicles and, in particular, plug in electric vehicles (EVs). To make this a reality the state will have to take several steps in becoming EV friendly including the following:

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- Develop utility rate structures for EV charging that allow EV users to take advantage of the inherent cost advantage of utility energy while promoting time of use objectives;
- Make EV home-charging station installations easy;
- Make charging at work and other locations away from home convenient and easy;
- Adopt an open charging network accessible to all EV users; and
- Encourage a uniform public charging infrastructure.

The Working Group Draft Report recommends a number of separate issues to be addressed by the PUC in determining the role that Oregon's Investor owned utilities will play in the implementing this vision. The purpose of this proposed investigation would be to determine the appropriate rate structure for regulated utilities providing power used in EV charging stations and to determine what role the utilities should have in the development and implementation of EV charging infrastructure.

On November 1, 2009, the Public Utility Commission of Oregon received an American Recovery and Reinvestment Act (ARRA) funding award sufficient to allow the Commission Staff to hire a limited duration analyst to facilitate the timely evaluation of this ARRA electricity-related activity. As described in the Commission's ARRA application, the duties of this analyst will be to evaluate the role that the regulated utilities take in the development of charging station infrastructure, evaluate if the regulated utilities need to jump-start development of charging station infrastructure and to work with the Commission and stakeholders to determine vehicle charging rates, including rate structures that encourage charging activities to take place during off-peak hours.

Since the utilities do not have tariffs that allow for the resale of electricity for EV charging or any other purpose, one requirement would be uniform EV charging tariffs for each utility. Also, EV charging represents a new, potentially significant load to the public utility system. An investigation of the effects of EV charging load to the utility will be required as well as what utility infrastructure is required and how any costs incurred by the utility for EV build out will be recovered.

The following broad issues have been identified for possible consideration in this investigation:

- Determine appropriate rate structures for EV charging.
- Investigate what the impact of EV charging will be to the utility and determine what level of involvement a utility should have in providing EV infrastructure and how the utility can recover its prudent costs.

Scope and Timing of the Investigation

Based on comments from the Working Group, staff believes it is imperative that the Commission investigate the rate structure issue as quickly as possible. Oregon will be a part of an electric vehicle test marketing project beginning in the fourth quarter of 2010. In this project, "eTec", a company involved with transportation electrification, in partnership with Nissan and their all electric vehicle, the Nissan Leaf, will be deploying EVs and charging infrastructure in the state, primarily in Portland and along the interstate 5 corridor. Charging infrastructure will precede vehicle deployment and is scheduled to begin the third quarter of the year. To resolve the rate structure issue in time for the pilot project deployment, staff recommends that the Commission hold a prehearing conference to identify intervenors and set a schedule. Staff plans to propose a schedule for this part of the investigation that targets a Commission order by mid-year 2010. The companies would then be required to file compliance tariffs immediately thereafter.

The other part of the investigation into the effects of EV charging on the utility and the level of utility involvement in charging infrastructure will require a more extensive investigation and potentially take more time. Staff would propose a more expanded schedule for this part concluding with a decision as late as the end of 2010.

Staff requests that any investigation, authorized by the Commission, be limited to issues that fit under these broad categories.

Alternatives include:

Alternative A (recommended): Open an investigation that results in establishing rates for EV charging on an expedited basis and an investigation to determine what the appropriate role of the utilities in the EV infrastructure development should be and how EV capital and operating and maintenance costs should be recovered, to be concluded on a more expanded time frame but soon enough to be able to inform the 2011 Legislature if necessary.

Alternative B: Conduct an investigation on EV charging rates only and leave the EV charging investment decisions to the utilities who will be required to demonstrate the prudence of their expenditures to gain cost recovery in rates.

Alternative C: Open an investigation that proceeds with both issues simultaneously scheduled to conclude together with one Order.

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PROPOSED COMMISSION MOTION:

An investigation described as Alternative A be opened.