

April 1, 2011

Via Electronic Filing and U.S. Mail

Re: UM 1461 – Investigation into Rate Structures for Electric Vehicle Charging Infrastructure

Attention Filing Center:

Enclosed for filing in UM 1461 are an original and five copies of:  
Closing Comments of NW Energy Coalition

This document is being filed by electronic mail with the Filing Center.

This document is being served upon the UM 1461 Service List.

Sincerely,

Wendy Gerlitz  
Senior Policy Associate

Enclosures

cc: Service List –UM 1461

**BEFORE THE PUBLIC UTILITY COMMISSION OF OREGON**

**UM 1461**

**In the Matter of** )  
 )  
**PUBLIC UTILITY COMMISSION OF** ) **CLOSING COMMENTS OF**  
**OREGON** ) **NW ENERGY COALITION**  
 )  
**Investigation of Matters Related to** )  
**Electric Vehicle Charging** )

NW Energy Coalition ("Coalition") is pleased to offer the following closing comments in response to the Oregon Public Utility Commission (OPUC) docket UM 1461, an Investigation of Matters Related to Electric Vehicle Charging.

The NW Energy Coalition is a coalition of over 110 groups, including utilities, environmental, faith-based, consumer and low-income organizations, unions, government entities and businesses working for a clean and affordable energy future.

We are pleased that the Commission is proactively addressing how best to deal with what we believe will be a rapid transformation of the transportation sector. Due to this state's "green" ethic, combined with increasing concerns over energy independence, over-reliance on oil and global warming, we expect that electric vehicle use will grow more quickly than some predict. We have seen rapid market transformation for other energy end-uses such as horizontal-axis washers and CFLs that have achieved penetrations in this region that are two to three times faster than other parts of the country. This could indicate a faster transition for electric vehicles as well.

Our comments are focused on encouraging rule design that will not only *accommodate* EVs, but also *encourage* their use. In addition, we express some caution to ensure protection of low-income ratepayers in particular.

**Utility Ownership of EVSE Guideline**

In general, the Coalition agrees that investor owned utilities should be allowed to own and operate publicly available EVSE stations with the requirement that they do so under an affiliate ownership structure, thereby ensuring that costs are not

recoverable in rates. However, NWECC is hesitant at this early stage of charging station infrastructure development to completely preclude exceptions to this rule particularly in the instance of pilot station development or technology testing.

The basis for the Coalition's hesitancy on this issue is the potential implications for "underserved" areas, such as rural communities, that may need access to public charging stations if commercial operators fail to install publicly available EVSE stations in these areas due to market gaps. The Coalition recommends that the OPUC establish guidelines that require utilities to own and operate EVSE stations under affiliate ownerships structures, with the OPUC retaining authority to provide limited exceptions to this rule on a case-by-case basis.

Further, as EV adoption and charging infrastructure development emerges in Oregon, the Coalition strongly encourages the OPUC to continue evaluating "underserved" markets and the efforts that might be necessary to ensure that all Oregonian's have convenient access to publicly available charging stations.

### **Distribution System Upgrades Guideline**

The Coalition emphatically agrees with staff's proposed guidelines, which state, "existing policies governing cost allocation for distribution upgrades or reconfigurations... shall apply to new infrastructure requirements for publicly available EVSE service." And that "Costs associated with separate rate schedules for EV charging, and other administrative costs, shall be recovered from all the utility's customers."

We can find no reason for EVs to be treated differently than any other household end use; indeed, usage on a per vehicle basis is similar to that of other household items such as hot tubs or air conditioning. It seems unpractical and undesirable to establish a precedent differentiating between different end uses for purposes of charging for distribution system upgrades and infrastructure.

Further, rate structure schedules for EV charging seem inextricably linked to similar decisions about smart grid adoption, and to the overall principle of encouraging energy use during off-peak times and/or times when renewable energy generation is at its peak. Rate structures and other systems established for this purpose benefit all customers and therefore should be paid for by all customers. This said, we also urge the Commission to establish clear guidelines to ensure that upgrades and infrastructure related to EVs are prudent, cost effective and low-income customers are protected.

## Rate Design Guideline

### Separate Metering

We view separate metering as desirable from the standpoint of information collection and potential ancillary services. However, we also believe that cost and logistical issues are potential barriers to EV adoption – particularly in a residential setting. For this reason, we do not support a requirement for separate or sub-metering at this time.

The Coalition sees promise in the use of on-vehicle meters or submeters, which would largely solve the cost and logistical problems involved in the installation of separate meters. Further, on-vehicle meters offer clear promise of facilitating EV ancillary services. For these reasons, we strongly support the recommendation of staff that the OPUC follow up with an investigation of EVSE on-vehicle metering.

### Rates

At this time, the Coalition supports the *customer choice* option for all EV users with the exception of electric vehicle service providers. We appreciate the need to level the playing field for commercial operators of electric vehicle charging stations, and agree that mandatory EV rates should apply in this instance.

However, for residential and commercial and industrial fleet operations, we do not support mandatory EV-only rates. We recommend that customers be able to choose between existing flat rates, whole-house time-of-use rate, or a separately metered EV rate.

We do, however, recommend that EV users be assigned a **default time-of-use rate** (rather than a flat rate as a default). This would allow customers with unique needs to opt-out of the time-of-use rates, but would provide a default option to the majority of customers that maximizes their fuel savings relative to gasoline and benefits all customers by encouraging off-peak charging. Despite the fact many current residential customers would benefit financially from a switch to time-variant pricing, staff notes that only 2% have adopted time-of-use rates. Clearly, defaults matter.

We also agree with staff's conclusion that tiered rate designs undermine the energy efficiency potential of vehicle electrification by discouraging their adoption and use. For this reason, we recommend any EV specific rate not be tied to tiered rate structures. Further, any tiered rate structures that might have a significant impact on any class of EV adopters should be reviewed and steps should be taken to minimize these impacts either through rate redesign or education. Until electric miles are no longer displacing more polluting gasoline miles, utility rates should encourage the purchase of EVs.

### Alternatives to Encourage Off-Peak Charging

The Coalition supports all four options to manage loads from EV adoption (rate incentives, utility control over charging speed combined with a discounted rate, education and advanced metering). Since several of these options rely on smart metering, it is essential that OPUC continue to encourage the appropriate use of "smart" equipment. While we feel it is premature at this point, as metering technology evolves, it may be advantageous to require the use of "smart" metering for EVs. The Coalition is especially hopeful about the promise of on-vehicle smart metering and again we reiterate our interest in a follow-up investigation on this topic.

### Role of the Utilities in Education

Education is critical to inform the choices of early adopters of EVs. As we pointed out in our opening comments, we predict that early adopters of EVs will be especially interested in the use of their vehicles to help integrate renewable resources and reduce their and society's carbon footprint. Due to the complex nature of metering, rate structures and the complexity of energy systems it will be difficult, if not impossible, for most of them to make informed decisions without clear information from utilities.

We believe that it would be useful for utilities to provide information to EV buyers and retailers at point-of-sale regarding the reasons to charge their vehicles off-peak, and of choosing time-of-use or, and, when appropriate, real-time renewable energy pricing. Typical bill impacts should be included.

### **IRP Flexible Resources Guideline**

We have no objection to the staff proposed guideline on this topic.

### **Planning and Reporting Guidelines**

It will be important to monitor and report on EV adoption, energy usage, and related information. At this early stage in EV use, the role of the utility in collecting, managing and reporting this information is underdeveloped. This is an area that warrants further consideration and future guidance from the OPUC.

### **Additional Recommendations**

In our opening comments, we discussed at some length our thoughts on the potential benefits of utility ability to dispatch EV charging. Pursuant to this idea, we recommended that utilities be required to offer a rate schedule that gives EV owners

the option to allow their utility to actively manage the charging pace to maximize its consumption of renewable energy.

While we understand that this recommendation may be premature, we have an interim recommendation for Commission consideration. We recommend that the OPUC pursue an investigation of the value of EV ancillary services. This could be done in conjunction with other smart grid issues or as a stand-alone investigation. Understanding the monetary value of ancillary services is critical to near term OPUC decision-making on EV metering, establishment of discounted rates for ancillary services, etc.

### **Conclusion**

In conclusion, the NW Energy Coalition urges the Commission to think broadly regarding the potential value of controlled charging of EVs. In our opinion, EVs are not a problem utilities must solve, but a possible solution to many utility problems, especially the low-cost integration of renewables.

Submitted this 1<sup>st</sup> day of April, 2011

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**CERTIFICATE OF SERVICE**

I hereby certify that I have this day caused **Closing Comments of NW Energy Coalition** to be served by electronic mail to those parties whose email addresses appear on the attached service list, and by First Class Mail, postage prepaid and properly addressed, to those parties on the service list who have not waived paper service from OPUC Docket No. UM 1461.

DATED this 1<sup>st</sup> day of April, 2011.

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Summary Report

UM 1461 INVESTIGATION INTO RATE STRUCTURES FOR ELECTRIC VEHICLE CHARGING

Category: Miscellaneous

In the Matter of
PUBLIC UTILITY COMMISSION OF OREGON
Investigation of matters related to electric vehicle charging.

(Staff report for December 8, 2009, Public Meeting [Item No. 4]; filed by Ed Durrenberger.)
(Public Meeting Information is located...

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**UM 1461 INVESTIGATION INTO RATE STRUCTURES FOR ELECTRIC VEHICLE CHARGING**

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**UM 1461 INVESTIGATION INTO RATE STRUCTURES FOR ELECTRIC VEHICLE CHARGING**

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