

Transportation Electrification Executive Council November 10, 2010

In Attendance:

Council Members:

Jeff Cogen, Convener
Lisa Adatto, Climate Solutions
Pat Egan, Pacific Power
Jerry Berger, Salem Electric
Betsy Boyd, University of Oregon
David Mayfield, Ecotality N.A.
Tom Brookes, Attorney
Robert Warehouse, Entek Membranes
Bob Acheson
Charlie Allcock, PGE

Warren Fish, Multnomah County
John MacArthur, OTREC
Art James, ODOT
Rick Wallace, ODOE
Mark Brady, Business Oregon
Chris Warner, ODOT
George Beard, PSU
Gordon Feighner, CUB
Chad Biasi, EV4Oregon
Jeff Bissonnette, CUB
Katja Dillmann, Portland Mayor's office
Dan Bates, Thorn Run Partners
Barry Woods, Drive Oregon
Tim Miller, Green Lite Motors/Drive Oregon
Therese Hampton, Oregon Solutions

Ex Officio:

Scott Simms, BPA
Adam Bless, Oregon PUC

Meeting Overview

Meeting Objectives:

- Group understanding of the project background and purpose
- Identification of potential Council actions and initial priorities
- Identification of next meeting/next steps

Meeting Outcomes

- Group received a comprehensive briefing on the state of the industry and existing efforts.
- An initial list of potential group actions and additional information needs were developed.

Next Steps

The next Executive Council Meeting is scheduled for:

Date: Tuesday, December 14th

Time: 1:00 pm - 4:00 pm

Location: TBD (in Portland)

Meeting Summary

Welcome/Introductions

Chris Warner opened the meeting by thanking everyone for their time and their willingness to be a part of this effort. He shared that he is encouraged by the diversity around the table and is excited for the forward thinking of this group.

Project Background

Meeting opened with presentation from George Beard outlining the success factors for electrification:

- Knowledge
- Access
- Similarity
- Utility
- Affordability
- Reliability
- Connectedness (Smart Grid enabler)

He also suggested that the group focus on the 5 Ps: Principles, policies, partnerships, priorities, and performance measures. The those 5 Ps can matter more than specific detailed plans & initiatives.

Charlie Allcock provided an overview of the industry with a PowerPoint presentation attached.

- Focus on electric bases and the expansion into many forms of transport and integration
- GHG as report card
- Charging large established companies getting into this with more integration.
- Charging station at home and work
- Batteries are not swappable among car types
- Charging stations currently designs are unidirectional not bidirectional
- University research collaboration is key
- Fleet transformation may be a better starting point.

Lisa asked if Charlie could summarized some of the key reasons why Oregon received the award. Charlie suggested the 2 primary reasons:

- Demonstration of communities working together
- Ability to show regulatory streamlining (e.g. state building code)

Other Council members asked if additional documentation could be provided about the comment that battery manufacturers are not interest in V2G. There was a lot of interested and different information on this issue. It was suggested that this issue be a discreet agenda item at a future meeting.

Alternative Fuels Working Group/Project Purpose

Jeff provided a brief overview of the efforts of the Alternative Fuels Working Group (AFWG). He shared that the team did a tremendous job of research and documentation of the benefits of transportation electrification and that the report is the reason this Council has been formed. Jeff feels the report is a really good piece of work and a great reference. However, he also recognized that the process of writing a report is very time consuming. For that reason and because of the great foundation laid by the AFWG report, Jeff's vision for this group is to focus on a couple of key areas where action can be taken by the August 2011 to advance Transportation Electrification in Oregon.

Council Member/Meeting Participant Interests

Jeff asked everyone in attendance to share a bit about their interests and motivations relative to transportation electrification and the role of this Council.

Jeff (Multnomah County Chair) - EV is exciting, transport electrification is a great opportunity for the state. Excited about the opportunity to fight global warming with economic benefit
Therese (Oregon Solutions) - Interested in a great process that can get great value out of the diversity of talents and experience in the room.

Robert (Entek)- A manufacturer with an interest to build in Oregon. Desires a talented and local workforce and access to University; Wants to contribute to the economic vitality of the state.

Adam (Oregon PUC) - Wants to make sure people are working together to identify and successfully address the issues associated with transportation electrification.

Thomas (attorney) - A long time owner of an electric vehicle. Has great personal interest in the issue. Has lobbied the city, county to take actions to support and encourage electrification and would like to continue those efforts.

Dave (Ecotality) - Company has a nationwide project (\$16 million in Oregon) to install charging stations. It is a down payment for additional jobs/projects in Oregon. We want to export knowledge learned here to other parts of country.

Betsy (U of O)- Has spent a lot of personal time involved in schools and the community; has a strong interest in what makes for a healthy community. This issue seems to be tied to good and healthy community and is an optimistic policy space.

Charlie (PGE) - Believes in the concept of leaving the world in a better place than how you found it. Oregonians pay the same amount for gas as the state budget - it's a wealth transfer and why

Mark (Business Oregon) - As Business Oregon, he asks that you help him help you find and develop economic benefits.

Bob - Wants to share lessons learned from Barefoot Motors and highlight and take advantage of Rogue Valley opportunities; increase awareness of Rogue Valley suppliers. Wants to help assure that what the Council develops really "does the job."

Rick (ODOE) - In 2008, Oregonians spent \$13 billion in energy with approximately \$8 billion of that for transportation. Most of the \$8 billion left the state and most of it left the country.

Diversification of our transportation options makes sense. In addition, there is great potential to reduce GHG through transportation electrification.

Art (ODOT) - Keeping the dollars that would otherwise be exported would do tremendous things for our economy....and nobody has ever gone to war over electricity.

John (OTREC) - Manages a University consortium. Therefore, interested in data, research and education. Sees this as an opportunity for the state to be a living laboratory.

Warren (Multnomah County) - Interested in the benefit transportation electrification can provide to jobs, environment, and energy security.

Gordon (CUB) - Looking out for interests of residential customers. Want to ensure a level playing field for charging stations and that rates are fair. Wants to ensure there is not a monopoly for charging.

Chad (EV4Oregon) - Act boldly and quickly. Is partnering with Ecotality to cover what isn't otherwise covered.

Jeff (CUB) - Wants to ensure smart and realistic action with fair value to customer.

Katja (Portland Mayor's office) - Is interested in the economic opportunities, the GHG benefits, and maintaining Portland/Oregon leadership. In addition, the Mayor is very interested in the technology.

Dan (Thorn Run Partners) - The partnership between public/private tends to create policy issues. Wants to be there to help resolve those policy issues.

Barry (Drive Oregon) - Believes EV is the lynchpin of technology that will begin the process of weaning us off oil. Oregon is uniquely situated to lead the way

Tim (Green Lite Motors) - Sees tremendous economic development opportunities. Wants this group in coordination with others to lay the groundwork for companies to flourish. Would like for this group to help Oregon Inc. survive the budget process to continue to support Drive Oregon.

Discussion of Potential Council Action in Key Areas

Public Outreach/Education

John MacArthur provided an overview of public education and outreach. He shared that baseline surveys indicate that the knowledge level about electric vehicles is pretty low and/or mixed. We know the cars are coming and technology is being developed - and we want good levels of adoption. Therefore, we want to assure the public is sufficiently educated about these things. The following items are areas where outreach would be helpful:

- Role of charging stations
- Battery safety/range
- Range of vehicles/perception of range
- Ability for daily use. Studies show that current usage is all within the range of current technology.
 - City residents drive 18 vehicle miles/day
 - Suburban residents drive 30-35 vehicle miles/day
 - The Nissan LEAF has a range of 60 miles

Current Outreach is being conducted mostly by utilities. They tend to be leading the nation in reaching customers. Some cities, like the city of Portland, are doing outreach. Oregon is a small enough state that there could be a state level campaign.

Public Outreach/Education Key Questions:

1. Scope of campaign - statewide, different municipalities.
2. Baseline - What information is needed to increase adoption
3. Strategic Planning- What audiences to target

The group then moved into discussion about the issue. One Council member suggested that it might make sense to focus on business rather than consumers. The aggregation opportunity of fleet purchases may work better than individual consumer. And you may be able to capture or entice businesses that want to reduce their maintenance costs.

The concept of focusing on fleet is a good one. However, the group was reminded that the Clean Cities effort (U.S. DOE project) does focus on fleets, so the group should learn from them and complement rather recreate what they are doing.

There was a suggestion of an EV 101 marketing that really focuses on the individual. The suggestion was to begin to develop the metrics and information that the individual would need to make a purchase decision; such as cost per mile comparisons of EVs relative to current options.

Other ideas:

- Don't lose the green ethos in the messaging
- Think about both the consumer plus businesses that might benefit both from additional dollars in the U.S. economy but also from charging stations..
- Have an element of patriotic messaging in the approach.

Infrastructure

Art James provided a PowerPoint presentation on infrastructure. Art highlighted that one of the key issues the industry is facing is range anxiety and that there is a bit of chicken and egg problem around this issue. Installation of more charging stations will help reduce consumer's range anxiety. However, companies don't want to install charging stations unless or until they know there is market.

One way that this issue is being addressed is through federal funding of charging stations. Ecotality (as a recipient of a U.S. DOE award) will share its workplan for the installation of their charging stations (it has been routed to the group).

The group identified a few other areas of to discuss. One issue is how consumers without garages (apartment or condo living) have convenient access to chargers. The group might want to discuss the issues associated with workplace chargers. Studies have shown that consumers are likely to charge either at home at night or during the day at their place of employment.

Art indicated that there will be an RFP out by the end of the year by ODOT for installation of charging stations.

There was also a comment that where you live will impact what type of vehicle you buy. Those that live in the city may pursue all electric, whereas those in rural areas may pursue a hybrid.

Economic Development

Mark Brady provided a run-down of different ways that this group might be able to focus and support transportation electrification in the Oregon.

It was suggested that there might be some manufacturing benefits to electrification. Medium duty trucks might lend themselves to a distributed manufacturing model - where supply/parts comes from several sources and assembly is done closer to the market.

Other ideas include:

- Support for Drive Oregon and Oregon Inc.
- Be the body that greets/welcomes companies
- Support the BETC continuation
- Develop grant ideas and application support
- Pursue and support Oregon to be the Port of entry
- Assist in design/marketing
- Develop a plan to "go to the market" in addition to the plans in place for them to "come to market."

Charlie commented that Oregon has done a good job of welcoming the OEMS but we have not necessarily pursued companies. He suggested that we could benefit from taking the next step of going after people and nurturing and developing the relationships. Others supported this idea and that a stronger relationship with China is a good idea. Council members highlighted how the Southeast part of the country were able to get manufacturers such as Honda and BMW to locate there just by pursuing them.

Regulatory/Policy

Rick Wallace provided a one-page summary of three key policy/regulatory issues with implications for EVs:

- Oregon PUC Docket 1461 - Electric Vehicle Charging Rates and Infrastructure: The PUC is trying to issues finalized by the end of the year. A key question is how to meter and much of the infrastructure do utility customers pay for.
- Road User Fee Task Force (ODOT): Working on a legislative concept to put a user fee on electric vehicles.
- Low Carbon Fuel Standard (DEQ)

There was some discussion about the concept that charging stations create economic development opportunities and businesses may want to locate near the stations. Art indicated that business development around the charging stations is at the fore front - many see the charging station as the new "killer app." The fast charging stations currently being pursued will be not be put in rest areas but in communities for that reason.

Council members discussed the need to remember during development to make this positive to the consumer. We want the key message to the consumer to be: EV doesn't cost more and is a positive experience.

The key federal policy/regulatory issues for the Council to think about are:

1. Do we look to or assume the federal government to be a funding partner or not?
2. What kind of relationship do we want with neighboring states? Alone or as a region
3. How do we make this a seamless/uniform experience for all consumers? What does that mean for regional/federal coordination?

Priorities/Information Needs

The group brainstormed about potential areas of action and issues where additional information is needed. Those notes are captured in Attachment 1.

Next Meeting/Next Steps

The group agreed to a December meeting with the primary purpose of deciding a key actions for the group to pursue. The meeting specifics are:

Date: Tuesday, December 14th

Time: 1:00 pm - 4:00 pm

Location: TBD (in Portland)

The group also discussed the possibility of a meeting in January that coincides with the Clean Cities meeting, the Roadmap 3 meeting and the Car Show. The potential dates are Thursday, January 27th and Friday, January 28th. Therese would follow-up with the group when there was more information.

Attachment 1: Flip Chart Notes

Potential Topics for Information/Discussion

- V2G Issues
- Coordination with Drive Oregon
- 2020 Goal or target (SB 1059 currently modeling GHG reduction from EV)
 - a. Saturation level
 - b. Domestic Content
- Assumptions about Federal Funding
- Privately owned charging stations in municipally owned areas

Brainstorm - Priority Actions

- Common messages through the state
- Support both state funding (Drive Oregon, BETC) and federal funding
- Promotion Campaign (recognizing that benefits may or may not happen--i.e. efficient lighting resulted in increased usage)
 - Consumers
 - Other beneficiaries (make the economic case and how others will benefit)
- Communication engagement plan
- Use charging stations to educate
- Address state building code to support charging
- Review BETC and other incentives to make changes, where necessary
- Realistic concepts/ideas about how EV could support renewable integration and other grid support
- Develop partnership with companies (U.S. or overseas)
- Use BPA as implementation model/pilot
- Support developing companies to avoid Barefoot motors situation
- Identify partners and specifically what we want them to do
- Provide opportunities for testing and data collection - care share, etc.