



Minutes of the Board of Directors Meeting at 11:30 am on February 17, 2010, Room 375, Medford City Hall

Board members in attendance: Mike Montero (RVACT), John Vial (Jackson County Roads), John Becker (DEQ) Gary Hall (Gary Hall & Associates), Sue Kupillas (RVCC Coordinator) and Melissa Stiles (RVCC). Out of town: Steve Vincent (Avista) Unavailable: Mike Quilty (MPO), Julie Brown (RVTD), Gabe Rowland (Rogue Biofuels). Guests in attendance: Mike Grubbs (City of Medford), Mike Thrapp (Fire District 3), Derek Zwagerman (City of Medford), Ted Zuk (Jackson County Building), Michelle Stevens (State Fire Marshal), Tim Price (Jackson County Building), Mark Stevens (Jackson County Stevens), Greg Kleinberg (Medford Fire Department). By teleconference: Gabrielle Schiffer (Oregon State Building Division) and Dennis Clements (Oregon State Building Division).

Sue Kupillas opened the meeting with a discussion about Project Get Ready, an effort by Clean Cities coalitions across the country to prepare for an increase in electric and natural gas vehicles. Other coalitions are taking a similar approach to the Rogue Valley Clean Cities' efforts to gather information about home fueling for electric and natural gas vehicles. Project Get Ready is an initiative by Rocky Mountain Institute preparing cities for an increase in electric cars. Learn more on the website:

<http://www.projectgetready.org/>

Sue talked about a local business that is converting its fleet to propane; Travis Hamlyn of Hellgate Excursions is developing technology and written specifications for fueling boats with propane. Rogue Valley Clean Cities will feature the business in an upcoming newsletter. Sue will be traveling to Washington D.C March 1-5 for Energy Independence Days sponsored by Clean Cities.

Mike Montero introduced guests and summarized the RVCC mission to develop local strategies to reduce dependence on foreign oil. How do we build a market for electric vehicles? One strategy is to demonstrate cost savings and convenience through home fueling. Do the building codes provide for builders to install home fueling devices in garages? That's the question posed today.

Code Allows for Home Fueling Devices

Tim Price, Jackson County Building official, stated federal guidelines (NFPA52 Chapters 22-30) provide for installing home fueling devices indoors although there is no storage allowed except in the vehicle itself.

Ted Zuk, Jackson County Building official, responded to a board member's question about whether the current code is an impediment to home fueling/charging systems. No, the code is not an impediment. Gabrielle Schiffer, Oregon Building Division, stated Oregon is one of the few states with a statewide building code. It was adopted in 1974. It is a mini-maxi code, which sets minimum and maximum building standards. At the local counter, building officials are enforcing the state code. Much of the code is aimed at



reducing fire hazards. The state adopts all codes with the help of seven advisory boards; the state plays a role in product approval.

Charging Stations for Electric Vehicles

The state of Oregon is one of five US test markets (along with Phoenix, Tucson, Tennessee and San Diego) for the Nissan Leaf. Supporting infrastructure will include public charging stations installed between Portland and Eugene. Gabrielle Schiffer said the state wants to make sure building codes support the EV effort. How do we support infrastructure to make it easier for consumers to buy EV and NGVs? The state has a protocol for permits and charging stations, both public and residential.

Oregon's New Code

Dennis Clements of the Oregon Building Division said a new section of the Oregon Building Code scheduled for release in July will address the EV effort. The 2010 Mechanical Inspection Code C413 will address indoor and outdoor home fueling installations for EV and NGV. The state will offer training on this new code before July so local inspectors will know what to look for.

Level 2 Chargers: rated up to 240 volts

There are three types of charging systems. Level 2 chargers are rated up to 240 volts AC, up to 60 amps and up to 14.4 kilowatts and must be permanently wired to the house. Level 1 chargers use a common household circuit rated to 120 volts AC and 15 amps. (These chargers use the standard 3-prong household connection.) Level 3 chargers are rated greater than 14.4 kilowatts and are known as fast chargers. Dennis Clements said all electric vehicles will come with a Level 2 charging system upgradeable to 6.6 kilowatts for fast charging. Eventually, the systems will include smart charging to inform drivers of peak charging times and rates.

Underwriters Laboratories has developed UL standards for Electric Vehicle Supply Equipment and new charging equipment will come with a UL sticker. Gabrielle Schiffer said the SAE International is approving a universal plug (J1772) for residential charging in the United States and Japan. ODOT's Innovative Partnerships Program is developing a manual for installing electric vehicle charging systems. The Oregon Building Division will publish a point-of-purchase brochure. The state is hoping for a 24-48-hour turnaround between the purchase of the EV and the installation of the home charging system. (See Rogue Valley Clean Cities website for more information.)

Nissan Leaf in Oregon

Nissan Leaf is targeting Portland but what about Southern Oregon, a board member asked. Gabrielle Schiffer said Nissan's goal is to sell 5,000 Leafs in Oregon, with 1,000 of those cars in the Portland area and the remainder throughout the state. Board Member

John Becker asked whether drivers will be able to charge vehicles at public facilities for a small fee. Gabrielle Schiffer responded that currently, a public agency can't take payment for electricity because that would be considered becoming a public utility. That would be under the authority of the PUC.

Board Member Gary Hall asked whether the state would partner with private companies that retrofit or accommodate fueling stations for natural gas and electric vehicles. The private sector operators would need to be compensated for installation costs in order to offer alternative fuels at public fueling stations. In summary, Gabrielle Schiffer told the Rogue Valley Clean Cities Board she appreciates the board's efforts to tackle the EV preparation head on

Follow Up Discussion

Following the conference call, Mike Montero asked for suggestions. Mike Grubbs asked about how to encourage new car buyers to come to the building department for a permit, possibly through communications with car dealers. Car dealers automatically include vehicle license forms so why not have car dealers work with building permit applications for charging stations?

Action Item: RVCC Board will write a letter of review and recommendation to city and county agencies.

Next regular meeting of the RVCC Board will be a stakeholders meeting for homebuilders, from 10 to 11:30 am Wednesday, March 10, 2010, at RVTD Translink, Medford.