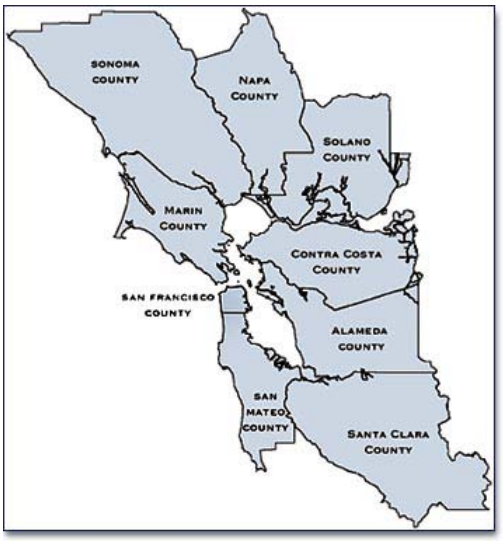
Planning for the coming wave of electric vehicles

September 17, 8:36 PM · Green Transportation Examiner · David Herron

Are you ready for the electric vehicles which will soon be commonplace? Maybe you're only vaguely aware they are coming, but government leaders in the San Francisco Bay Area are very aware of this and are working with a broad ranging public-private partnership to get ready. This week on Sept 16, 2009 was the third in the series of meetings involving representation from around the Bay Area. The topic of discussion was the electric vehicles being promised by the car companies, infrastructure needs, regulatory changes required, the needs of the utility companies and power grid, in short the tremendous number of changes which will be required for this to be successful. If it works out the consumer experience of buying and owning electric vehicles will be smooth and easy, if it flops it could be a disaster, and in this case disaster would be very bad.



The San Francisco Bay Area

The vision is a higher quality of live while spurring clean jobs. The SF Bay Area has some unique resources that indicate likely successful adoption of electric vehicles. The local population is very environmentally aware evidenced by the broad adoption of hybrid vehicles. There are several local organizations with national impact on electric vehicle research such as Plug In America, the Electric Auto Association, CalCars, and EPRI, not to mention the businesses making electric vehicles or electric vehicle components such as Tesla Motors, Coulomb Technologies, Project Better Place, Electric Motorsport, Zero Motorcycles, Green Vehicles and more. Hence the local electric vehicle resources to draw upon are nothing short of phenomenal.

At the meeting, the government agencies brought a message of simplifying the permitting process for installing electric vehicle charging, and other uses of government resources to improve the infrastructure. An example which repeatedly arose is the long and difficult process to legally install electric vehicle service equipment (a.k.a. a charging station). Present at the meeting was Enid Joffe of Clean Fuel Connections, the company who oversaw most of the charging station installations 10 years ago during the previous era of electric vehicle interest, and who is now seeing more business overseeing charging station installations today. Her long experience shows the existing requirements for charging station installation make the process take at least 30 days, and involve at least 12 major steps. Clearly successful sales of electric vehicles means a streamlining of the

Recent Articles

Vectrix is dead, long live the New Vectrix?

Tuesday, September 29, 2009

Vectrix Corporation announced September 28, 2009 that it entered into an asset purchase agreement to sell most of its assets to New Vectrix LLC …

Green transportation in and around Las Vegas

Monday, September 28, 2009

Not everything you could do in Las Vegas has to stay in Vegas. While at the surface Las Vegas looks to be very car oriented there are many ways to …

All Articles »

Related Slideshows

LATEST SLIDESHOW MORE SLIDESHOWS

The Las Vegas Monorail system

Things to see and do

Today 01 02 03 04 05

process, but on the other hand safety requires that some form of building and electrical inspections and permitting must be performed.

The message here is that buying an electric vehicle isn't as simple as buying a gas powered vehicle. While electricity is everywhere, safely recharging an electric vehicle requires equipment which isn't widely installed.

The car companies for their part brought a different message. The first message is that the cars are coming, that it is T-15 months before the Nissan LEAF launch and that success means having an infrastructure ready for the car owners to use. There has always been a chicken and egg problem between installing electric vehicle infrastructure and selling electric vehicles. Prospective EV owners are unlikely to buy a car if there is no charging infrastructure, and prospective infrastructure owners are unlikely to install electric vehicle service equipment if there are no cars. The car companies gave a list of desired enablers which includes vehicle purchase incentives, charging infrastructure, opportunities for charging, reduction of EV owner operating expenses, education of prospective EV owners, policy assistance, HOV access, and free public parking.

The utility companies for their part brought a hopeful message. On the one hand the utilities believe they can easily handle the aggregate power load increase. A statistic shown was that even with 1 million electric vehicles on the road it would represent only a 0.5% aggregate increase in electricity use. However the concern they voiced repeatedly is the neighborhood level electrical grid. For example if a given neighborhood has several people who all buy electric vehicles, they'd all be connected to the same transformer possibly making it blow up. Nobody likes it when the lights go out. Part of the 30+ day installation process outlined above is to verify with the utility companies whether the neighborhood transformers can handle the load for that neighborhood.

See also: Some Nissan LEAF questions answered, Coulomb and GridPoint unveil smart grid enabled charging station for electric vehicles, Battery industry projects in the $2.4 billion electric vehicle initiative, Nissan supports electric vehicle & infrastructure deployment project

For more info:

Alternative Fueled Vehicle Proceeding

CPUC TO CONSIDER POLICIES RELATED TO ALTERNATIVE FUELED VEHICLES

Bay Area Air Quality Management District

Bay Area Council

Silicon Valley Leadership Group

Bay Area Climate Change Collaborative

California Energy Commission: Alternative and Renewable Fuel & Vehicle Technology Program

Clean Cities

Ford: Environmental Vehicles

GM: Electric Vehicles

Nissan: Zero Emission and LEAF Electric Car

Mitsubishi: iMiev

Tesla Motors

Aerovironment

Better Place

Clipper Creek

Coulomb Technologies

eTec

Clean Fuel Connection, Inc.