
March 13, 2002 Infrastructure Working Group Stakeholder Meeting Summary

The Stakeholder meeting was held at Air Resources Board (ARB) facilities in El Monte, California. The meeting began approximately at 9:30 and concluded approximately at 12:15 p.m. Approximately 20 people participated in the meeting.

After welcome, introductions and review of the agenda, the following items were discussed:

- ? Zero Emission Vehicle (ZEV) Activities Update
- ? Infrastructure Needs Assessment Subcommittee
- ? Maintenance, Retrofit and Repair
- ? Summarize Action Items

ZEV Activities Update

ZEV Outreach and Incentive Stakeholder Groups

ARB staff gave an update on the activities of the ZEV Outreach and Incentive Stakeholder Groups. The Incentives Group held a conference call on March 7th to discuss guidelines for the new fleet incentive program as well as expansion of the current ZEV Grant program. ARB staff is planning on publishing draft Guidelines the week of March 25th, and they will be presented at the April Board Meeting (April 25-26th) in Sacramento. The Outreach Group has a scheduled meeting for March 14th. Discussion items at that meeting will include developing a list of outreach events, identifying messages for different target audiences, and identifying outreach priorities for the Group.

Electric Vehicle (EV) Parking Initiative. **(Handout)** Dave Kodama, representing the EV Drivers Coalition, gave an update on their EV parking initiative. They have had promising discussions with Department of Motor Vehicles (DMV). They would likely need a new sticker, but need to keep administrative costs down. They aren't planning on using the High Occupancy Vehicle (HOV) sticker since it covers a wider number of vehicles, and doesn't include Neighborhood Electric Vehicles (NEVs). DMV feels that administrative costs can be minimized with on-line registration, or by having dealers distribute the sticker with new vehicle purchases.

EV Charging Standardization Regulation. ARB recently released a 15-day notice that includes modifications to the originally proposed regulatory language. There are no significant changes to the charging standardization requirements but the revisions do include changes to the multi-manufacturer portion of the regulation that were approved by the Board in June. ARB will submit the final regulatory package to the Office of Administrative Law in April.

Legislative Update. Dave Modisette gave a report on bills that have been introduced that could impact the ZEV program. The following bills were introduced at the end of February. These bills are currently undergoing a 30 day waiting period before they get assigned to a committee.

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- AB 2461—Kelly. This is a CALETC sponsored bill to extend the current vehicle license fee exemption incremental cost through 2009. (The exemption currently sunsets at the end of this year.
- AB 2624—Campbell—This bill would reduce the number of roads that low speed vehicles (or NEVs) could travel on by reducing the allowable maximum posted speed limit to 25 mph.
- AB 2677-- Nation –This bill would allow local governments to authorize dedicated parking for vehicles that reduces greenhouse gas emissions. Environmental groups have concerns for this approach to reducing CO2 emissions.
- AB 2774—This bill would allow hybrid electric vehicles to have access to HOV lanes. Concerns from various groups have also been expressed about this bill.

There are also two bills that were carried over from the previous year, including AB 1058 that would require ARB to adopt regulations to reduce carbon dioxide (CO₂) emissions from vehicles.

Other ZEV Activities

CALSTART will be launching their Clean Mobility Center at the Long Beach metro blue line station in April. They also announced that Clean Car Maps would have information on the location of small paddle inductive chargers very soon. Ventura Air District supported five new RAV4 leases with \$5,000 “buy-down” incentives recently. This grant is no longer available, however, because the California Energy Commission (CEC) portion of the grant has expired. Clean Fuels Connection reported that they are swamped with RAV4 EV installations and requests for installation information. This is the first time they have done unsubsidized installations, and as a result have had to spend a lot of time on the phone answering questions. They have done 100 estimates to date, evenly divided between northern and southern parts of the State.

Infrastructure Needs Assessment Subcommittee (Handouts)

This discussion item included presentations by: (1) Clean Fuels Connection and Prosum, (2) EV Drivers Coalition, and (3) Bill Boyce. Handouts are available for the first two presentations on the Stakeholder website.

Background/Needs Assessment

Clean Fuels Connection introduced this discussion item. They began by reviewing issues that have been identified by the Stakeholder Group. These include (1) the need to identify the existing charger and vehicle population and (2) to use this information to match infrastructure needs to projected vehicles. There is a lack of accurate information that can be used by EV Drivers, auto and equipment manufacturers, site owners, and public agencies. Currently, most of the information sources are fragmented and unconnected. The process of getting all of the data into one system and verifying its accuracy is very time consuming and cannot be automated because the different tracking systems are not compatible. The sustainability of the EV infrastructure requires ongoing communication. Most importantly, there needs to be a

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system that would allow for a seamless and easy mechanism to routinely update charger information.

The EV Drivers shared their perspective on needs. They see several functions that a public database must meet. This includes information to support the following types of trips: (1) pre-planned out of neighborhood trip, (2) unscheduled trips out of town, (3) locating a charger when a driver is blocked or finds an inoperative charger, and (4) for emergencies.

There are two distinct elements: (1) database and (2) presentation of the information (website, reports, etc). The current failings include lack of a central and authoritative source of information, the fact that there are no routine updates to the information, (3) the amount of labor required to update information due to a lack of electronic sharing of data. Finally, the presentation of the data does not always meet needs of drivers, who need printed material as well as electronic data that is compatible with hand held electronic devices.

Charger Information Management System

Several years ago General Motors (GM) and Southern Company were developing similar database systems. These systems addressed the same problems and used similar approaches. They included the ability to track charger locations, history, and repair records. Prosum purchased Southern Company's system, and expanded it to function as GM's charger database. Clean Fuels Connection is now using it for their Toyota charger installations, as well as the conductive installations that they do.

Representatives from Prosum then gave a demonstration of the Charger Information Management System. The attributes of the system include the ability to provide real-time data feeds from distributors and service providers to a centralized database. The database can then provide necessary information to a wide variety of users. The database is able to maintain a full history of sites, and provide email or pager notifications to service providers. The system tracks chargers, fueling station locations, manufacturer, and warranty status. The data can be extracted to other types of services, including website, handheld devices, and vehicle navigation systems. Reports can be generated, and data that may be confidential to some users can be restricted. It has the ability to function with "front-end" website sources like Clean Car Maps.

Discussion/Recommendations

The recommendations of the Infrastructure Needs Subcommittee are that we use the Charger Information Management System as a tool to collect charger information statewide. We should develop a scope of work to implement the system, and identify potential funding sources. The long-term goal would be to have the system self-sustaining within three years.

There was strong support among meeting participants for a need for a database, and that we should proceed with identifying a scope of work and costs. Some of the issues identified in discussion were:

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- ? Who would own the database; would each “user” need to have a license. This needs further discussion, but in general, it was felt that potential users might include manufacturers, service providers, or an internet site (such as Clean Car Maps), or public agency (i.e., ARB, Air District), but not the EV Driver who is expected to get their information from one of the internet sites.
- ? We need to focus on getting information on conductive chargers into the system, since the information on inductive chargers is fairly complete. We should move quickly on this. Also, is there any way that we can effectively track chargers that are “self-installed?”
- ? We need to be careful in defining what is considered a “public site”, or publicly accessible site. The State has had problems in getting sites identified as “public” removed from internet sites, when access is restricted and they are not public. There is no accepted definition of public sites, and this may need to be included in the database efforts. There is already some confusion as to whether chargers located at Toyota dealerships are “public.”
- ? Database management and maintenance should be centrally controlled and publicly funded. It should also be able to be customized for interested parties while maintaining limited access to confidential or business sensitive information.
- ? Information needs to be updated, but also verified for accuracy. Concerned that current efforts are just taking data from existing databases without actually taking the time to verify the accuracy of the information.
- ? We need to come up with standards for the data that we need. In addition, the system should also be able to address future needs/applications.

It was suggested that a subcommittee be formed to help develop a Scope of Work. The subcommittee will further define all the needs/requirements for the database so that costs can be identified. The Stakeholder Group feels the need to move quickly on this effort, so the first meeting of the subcommittee will be a conference call on March 26th, beginning at 11:00. ARB will provide a toll free number for the call and provide it to everyone who volunteered to participate.

Real Time Charger Monitoring

Bill Boyce gave an update on the issue of real time charger monitoring. The first step may be to approach one of the vehicle communication companies as well as charger manufacturers. Then the next step would be to get prototype chargers that could be used in a pilot study. The outgrowth of this effort may be the development of an option for site owners to pay for public charging systems. Unless we have a real time monitoring system in place, we can’t easily learn about broken chargers until someone goes there to charge. Costs can be minimized by minimizing communications. University of California, Riverside is now struggling with communications issues in their teleshare program. Several Stakeholders recommended that we keep the communications off the vehicles. One place for information on communication options

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may be the ICEEE smart car communications systems conference next month. As a next step, charger manufacturers will be approached to discuss costs.

Public Charging Maintenance, Retrofit, and Repair

This is a follow-up discussion/action item from previous Stakeholder meetings. We currently need additional information on costs before we can discuss this in detail. This should be moved to the following meeting. We need to move on the database, but not wait to address this issue either. Micky Oros and Enid will work on identifying potential costs for next meeting. It was also suggested that we further discuss an "extended warranty program." In addition, we need to develop protocols or standards that would allow us to effectively evaluate for a particular situation whether the most cost-effective approach is repairing or replacing charging equipment.

EV drivers asked that the group consider how to support the EV Charging Protocols developed by the EV1 club. EV1 drivers have developed a protocol and placard to be used at public charging sites. This protocol helps drivers determine how to share public chargers when more than one vehicle needs to use a particular charger. They would like to provide this information to the new RAV4 drivers. ARB offered to work with the EV Drivers to see if we could provide the information as part of the ZEV Grant process. Judy Yee will work with Dave Kodama on this issue.

Action Items/Follow-Up Meeting

The following are the action items agreed to by the Group:

- ? A conference call will be held on March 26th to develop Scope of Work for a uniform database. The following Stakeholder volunteered to participate: staff representatives from South Coast Air Quality Management District (SCAQMD), Department of General Services (DGS), Clean Fuels Connection, LADWP, Ford, Georgia Power, and EV Drivers Coalition. ARB will provide a toll free call-in number for this conference call.
- ? Clean Fuels Connection will get information from Toyota dealers as to which chargers located at dealerships have public access.
- ? ARB staff will follow-up with EV Drivers to see if we can develop a mechanism to distribute EV charging placards to new EV drivers.
- ? ARB will provide information and links for contacts on model ZEV ordinances
- ? Micky Oros will work with Clean Fuels Connection to provide information to lead a discussion on Maintenance, Repair, and Retrofit of public charging at the next meeting.

The next Stakeholder meeting is scheduled for May 2nd, at the Cal/EPA Headquarters Building in Sacramento. The meeting will begin at 9:30, and will be held in Conference Room 550.