
May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

The Infrastructure Stakeholder Working Group meeting was held at the Cal/EPA Headquarters Building in Sacramento on May 2, 2002. The meeting began at 10:00 a.m. and concluded at 1:45 p.m. Approximately 20 people participated in the meeting, either in person or by teleconference.

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

- ◆ Zero Emission Vehicle (ZEV) Activities Update
- ◆ Infrastructure Needs Assessment Subcommittee Report **(Handout)**
- ◆ Database Subgroup Activities and Recommendations **(3 Handouts)**
- ◆ Clean Car Maps Update **(Handout)**
- ◆ Summarize Action Items

1. ZEV Activities Update

Legislative Update. Dave Modisette gave a report on the status of several legislative bills.

AB 1314, which is sponsored by the Production EV Drivers, would make it an offence for an internal combustion vehicle to park in designated electric vehicle (EV) parking spot. The program would be implemented with a new decal. It was passed by the Assembly, and is scheduled on May 7th to be heard by the Senate Transportation Committee.

AB 2461 would continue the existing exemption for the incremental cost for registering an EV (e.g., for determining the registration cost for the vehicle) through the year 2009. The Taxation Committee heard the bill on Monday. It was sent to the "Suspense File"; however, it is expected to eventually pass.

AB 2677 was passed by the Assembly Appropriations Committee on May 1st. It would direct the California Energy Commission (CEC) to develop model ordinances, which local governments could adapt if they want, for preferential parking policies for alternatively fueled vehicles.

AB 2774, which grew out of a CALETC Roundtable initiative, would establish a broad stakeholder task force to develop a public information campaign for advanced technology vehicles. It would include representatives from Resources Agency and Cal/EPA.

AB 1058 would give ARB authority to develop regulations to reduce carbon dioxide emissions. It has passed both the Senate and Assembly, but needs to go back to the Assembly for approval of amendments made to the bill by the Senate.

Electrification of Transport Refrigeration Units. Tony Andreoni, from ARB's Stationary Source Division, gave a brief update on regulatory development efforts for transport refrigeration units. Electrification appears to be the most effective approach. ARB has established a special work group to solicit guidance and assistance from Stakeholders

May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

on how to address outstanding issues, which include compliance cost, technical issues, and challenges that result from the use of different and incompatible plugs. ARB is not looking at standardization, but is hopeful that voluntary agreements on this issue can be reached. The current focus of efforts is distribution centers, but staff may also look at truck stops. Tony's contact information is phone: (916) 324-6021 or email: tandreon@arb.ca.gov.

ZEV Outreach and Incentive Stakeholder Groups

ARB staff gave an update on the activities of the ZEV Outreach and Incentive Stakeholder Groups. In April, the Board approved updated guidelines for the ZEV incentive programs. With new funding provided in the 2001-2002 State Budget, the ZEV grant program has been expanded. The program expansion will provide grants through 2004, and now includes additional types of vehicles that are currently not eligible for grants; these are fully enclosed electric motorcycles and neighborhood EVs (NEVs) not using regulatory credits. Prior to implementation of the expanded program, ARB staff will prepare a list of eligible vehicles. The Board also approved a new fleet incentive program, targeted to fleets that operate in areas of California with the poorest air quality. The contact for the ZEV Grant Program is Judy Yee (jyee@arb.ca.gov) and for the Fleet Program, Gayle Sweigert (gsweiger@arb.ca.gov).

The *ZEV Outreach Stakeholder Group* held a meeting on May 1st, and their next meeting is scheduled for June 19th in El Monte. Discussion topics included overview of upcoming outreach events, ARB activities to update and revise the website zevinfo.com, and the upcoming ZEV College tour. The pilot event for the ZEV College Tour will be held on May 8th at Sacramento State College. The Outreach Group is working with EV Drivers to coordinate their participation at July 4th events in their communities. For more information on the ZEV Outreach Stakeholder Group, contact Lisa Kasper (lkasper@arb.ca.gov).

Other ZEV Activities

CALSTART's Clean Mobility Center opened; the public will soon be able to rent vehicles there. The ZEV Alliance has recently updated all ZEV fact sheets and translated them in Spanish. They have been sent to the media. They are available on-line, or can be purchased on a CD for \$5.00 (interested parties should contact Dave Modisette if they want to combine their order with his).

2. Infrastructure Needs Assessment Subcommittee (Handout: Real Time Charger Status System Concept from 3/12/02)

This agenda item began with a presentation by Bill Boyce on remote real-time charger monitoring and group discussion followed.

The technology for remote charger monitoring is applicable to fleet managers, as well as to public charging sites. It has the potential to be an important tool that would allow fleet managers to track vehicles in the field. The basic technology includes a GPS receiver with a wireless PC/PDA (e.g., Palm Pilot or internet capable cell phone), similar to the On Star system. Information would be stored at an automated server. The financial models, including initial purchase and monthly subscriber fees, are similar to

May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

the cell phone industry. Costs are reasonable; current monthly service fees are as low as \$9.00 per month.

A refined system architecture is needed. There are existing wireless internet service providers, but charger communication capability combined with an automated server ground station needs to be added. A sensor package is already on the utility box; however, the greatest need is to get communications on the charger. SMUD is contacting Global Tracking System Providers, and working with charger manufacturers to define costs, and will develop a scope of work for a pilot project. Work is also underway to define potential drivers that would be an asset to a pilot study, including tech-savvy early adopters.

Bill will provide an update at the next meeting. There was great interest in the Stakeholder Group on this project. Some suggestions included coordinating with University of California, Riverside, which may be using GPS to monitor EV state-of-charge.

3. Database Subgroup Activities and Recommendations (Handouts: (1) Survey Results, (2) Diagram on Information Management System, and (3) Preliminary Scope of Work)

Enid Joffe and Dave Kodama led the discussion of this agenda item. The Database Subgroup was formed through a “self-selection” process, as a result of the Stakeholder Group agreement at the March 13th meeting on the need for a uniform charger database. The Database Subgroup (Subgroup) held two conference calls in March and April. The Subgroup is currently developing a scope of work for the charger database that can be used to secure funding. The scope of work will identify the database requirements and costs.

Subgroup Conference Calls

ARB staff gave an overview of the March 26th and April 16th conference calls. At the March 26th call, the focus of discussion was on identifying all the needs that the database would need to meet. Some of the information requirements that were identified included: site location, street address, longitude and latitude, type of charger, equipment type, number of chargers, directions to site, contact, things to do in area, type of electrical access (120 versus 220), and how to report charger problems. There was also discussion on how updates to the data would be made and by whom, how access to manufacturer or confidential data would be handled, and the best approach for sharing information (e.g., email notification, gatekeeper, or other type of mechanism).

At the April 16th conference call, the Subgroup held more detailed discussions of required data, how to track charger locations, and identifying all the needs of potential users (public sites, manufacturers, service providers, etc.). The Subgroup wanted to move forward with a scope of work. Dave Kodama developed a draft survey to assist in identifying the needs and data that the database should meet. The Subgroup reviewed the survey, made some suggestions, and decided to send it out to Subgroup

May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

members and present the results at the May 2nd meeting. This would be a helpful tool in identifying the basic requirements of the database and developing a scope of work.

Survey Results, Group Discussion, and Developing a Scope of Work

The survey results were discussed; it was reported that there was remarkable consensus as to what information or data would need to be included in the database. Additional suggestions that were provided during the meeting include: voltage and level of charger (speed of charging), equipment manufacturer, and providing a unique site or charger identification number that could be used to report problems. Also, it was suggested that other potential users should also complete the survey (EV Rentals, OEMs, and other Stakeholder Group members not on the Database Subgroup).

The diagram provides an overview on the current and proposed structure for the database system. This diagram illustrates a charger database system in which the only information that would be shared is information on public chargers. The diagram also identifies potential users of the data; this could be expanded, however, to include other agencies not currently identified. There was also discussion on how to handle reporting charger problems within the database (this is not specifically identified on the diagram). The current method requires a call to a service provider. The goal is to have multiple sources, including public websites that could forward reports to appropriate service organizations. Also, public websites may also want to access weekly reports to update charger status, with a direct data-link as the ultimate goal.

The Group discussion then focused on whether all charger information should be in the central database, including business and private residential installations, or just public charger information. If all charger information is located in the database, then proprietary information needs to have controlled access. Some members believed that there is a trade-off in development costs; public agencies would expect funding from all front end users if the database were to include information on all types of chargers. Some members felt it was a much higher priority to implement a database for public chargers quickly, and that a phased approach should be utilized if other types of chargers are included.

The Group discussed the proposed scope of work, and provided several suggestions to the Subgroup. The primary unresolved issue with the scope of work is the decision as to whether the database will include all charger information or just public charger information. This is central to the structure and cost that would be included in a scope of work. The Subgroup will try to resolve this issue quickly because they would like to submit a proposal for the South Coast funding opportunity, which is due by the end of the month.

In an effort to reach consensus, Enid will convene a small group, including public agencies and manufacturers, to have further discussion of this issue. The entire Database Subgroup will also have a conference call on May 16th to further discuss the development of a scope of work. It would be very helpful if other Stakeholders could submit "letters of support" for this proposal. Enid will provide additional information to Stakeholders who are interested in providing support letters. It was also recognized

May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

that while the focus of efforts is on California information, future efforts could expand the database to the entire national data, if co-funding from DOE or NREL is made available.

4. Public Charging Maintenance, Retrofit, and Repair

This is an item that was discussed at the last meeting. It is difficult to further discuss, without some detailed information on costs and number of chargers that may need to be repaired or retrofitted. This agenda item will be moved to the July/August meeting, after the Group has finished work on the scope of work for the charger database. Enid may present some preliminary information on the status of out-of-warranty chargers at the next meeting.

Also, at the last meeting, it was requested that information be provided as to whether chargers located at Toyota dealerships should be considered as “public chargers”. ARB staff reported that Toyota has subsequently provided information that the small paddle inductive chargers located at dealerships should not be considered public chargers, since they are primarily installed for the purpose of supporting the maintenance of the RAV4 EVs. Therefore, the public charging websites should not list these as public chargers.

Clean Car Maps Update (Handout)

Leeor Alpern provided an update on the status of the Clean Car Maps project. CALSTART is dedicated to keeping the website fuel-neutral and free; funding from the federal government and the CNG Association is being used to update the information of CNG and LNG fueling stations. Also, Mapquest services has been retained for one additional year. CALSTART is addressing technical problems on the website, including map link functionality. Funding from ARB will, among other things, add small inductive paddle information to the website. CALSTART will also be auditing the accuracy of the current EV charging information on the website, and will continue to coordinate with Stakeholders. For further information, contact Leeor at LAlpern@calstart.org.

5. Action Items/Follow-Up Meeting

The following action items were agreed upon by the Group members:

- ◆ The proposed charging protocol placard is on the Stakeholder website, and interested Group members are asked to review the placard, and provide any comments to Judy Yee (jyee@arb.ca.gov). In response to a request from EV drivers, ARB staff has volunteered to make copies of the placard, which would be distributed by dealers or infrastructure service providers to new EV drivers when they purchase or lease a vehicle.
- ◆ Bill Boyce will provide a presentation on remote charger monitoring at the next meeting.
- ◆ A large focus of the next meeting will be on the uniform charger database, with an interactive internet demonstration and discussion.
- ◆ The Database Subgroup will hold a conference call on April 16th at 10:00 a.m.
- ◆ A short presentation on the status of out-of-warranty chargers in California will be given at the next meeting.

May 02, 2002 Infrastructure Working Group Stakeholder Meeting Summary

The next Stakeholder meeting is scheduled for June 18th, at ARB's El Monte facilities from 10:00 a.m. to 2:00 p.m.. The meeting will be held at Conference Room 106, Annex 2, 9500 Telstar Avenue, El Monte. The call-in number for those participating by teleconference is **888-390-0675** and the passcode is **33581**. Any additional agenda items should be submitted no later than **June 7th** to Gayle Sweigert (gsweiger@arb.ca.gov). The ZEV Outreach Stakeholder Group meeting will be held on June 19th, in El Monte.