
October 2001 Infrastructure Working Group Stakeholder Meeting Summary

A list of Stakeholder members and meeting agenda is attached. The Stakeholder meeting was held at the Air Resources Board office in El Monte, California on October 2, 2001. The meeting began at 9:45 a.m., and concluded at approximately 1:45 p.m, with a thirty minute lunch break.

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

- ? Update on the Incentive and Outreach Stakeholder Group Meetings (ARB)
- ? Update on the Status of Standardization Regulation & SAE Conductive Connector Recommended Practice J1772 (ARB, Ford)
- ? Update on Input Received on Transition Issues (ARB)
- ? Discussion of Public Charging Issues (Clean Fuels Connection)
- ? Presentation on Clean Car Maps Website (CALSTART)
- ? Group Discussion of Transition Plan: Major issues, Goals, and Next Steps

1. Update on the Incentive and Outreach Stakeholder Group Meetings

ARB staff provided a short update on the Incentive and Outreach Stakeholder Group meetings, which were held on October 1st. The Incentive Group discussed the status of the current statewide incentive program, as well as the upcoming expansion of the program using \$20 million in additional funding. ARB staff will work with Stakeholders on the development of guidelines for the new funds, which will include expanding the type of electric vehicles eligible for grants, as well as establishing a fleet program to place electric vehicles in environmental justice communities. A series of conference calls will be held to solicit Stakeholder input prior to a public workshop (November/December) and public hearing (tentatively scheduled for February 2002). The contact for further information on the Incentives Workgroup is Judy Yee (jyee@arb.ca.gov).

The Outreach Stakeholder Group discussion topics included an update on outreach activities, mission/goals, and future activities of the group. Outreach activities of different Working Group members were also discussed, including a program under development by EVAA for electric drive outreach/education forums that could be held in different California and national locations. ARB and California Energy Commission staff discussed a focus group that they participated in that was designed to evaluate the effectiveness of internet websites in marketing the environmental benefits of electric vehicles to potential consumers. The Electric Vehicle Transportation Coalition discussed the status and current efforts to further work on their Consumer Awareness Program. The group discussed the mission and goals of the group, including whether the group should focus on electric vehicles, or encompass the variety of vehicles now included in the ZEV program. The need was identified for further meetings to discuss and prioritize Stakeholder activities. Future meetings will be held on November 13th and in early December (the day prior to the EVAA conference) in Sacramento. The contact for further information on the Outreach Group is Lisa Kasper (lkasper@arb.ca.gov)

October 2001 Infrastructure Working Group Stakeholder Meeting Summary

2. Update on Standardization Regulation and SAE Conductive Connector Recommended Practice (Handout)

ARB staff provided an update on the infrastructure standardization regulation. The proposed regulation was released for public review on May 10th. Prior to the proposal, ARB held a public workshop and two Stakeholder meetings to solicit input, as well as meeting with interested Stakeholders. The Board unanimously adopted the regulation at a public hearing on June 28, 2001. The regulation will require an on-board charger and conductive vehicle inlet by the year 2006. The next step in the regulatory process is to release a 15 day public notice, that includes a copy of the final version of SAE J1772, as issued by SAE. The regulation will be final 30 days after approval of the final regulatory package by the Office of Administrative Law (OAL). The final regulatory package must be submitted to OAL by May of next year. The final regulatory package includes ARB staff responses to all written and public comments made during the 45 day public comment period, as well as comments made on the inclusion of the final version of J1772 during the 15 day notice (in addition to proposed changes related to the definition of multi-manufacturers also included in the regulation).

Ford staff provided an update on the status of J1772. J1772 was passed by the SAE EV Standards Committee, with a vote of 10 (affirmative) and 4 (negative) after minor technical changes were made to the draft document. These changes addressed problems with the dimensional specifications. The document will be forwarded to the Motor Vehicles Committee, whose approval is needed prior to publication. Ford anticipates that the document would be published within one month. The current draft can be circulated to the Working group members, as it is not yet an official SAE document (therefore it does not involve material protected by copyright). There was some discussion as to whether the communications and interoperability issues previously identified by some Stakeholders are addressed in the current version of J1772. Representatives from Ford and Avcon stated that the communications issue will continue to be addressed through SAE in other recommended practices. Regarding interoperability, it will be addressed by the industry as other auto manufacturers begin to utilize the conductive charging system.

3. Update on Meetings/Input Received on Transition Issues (Handout)

ARB staff solicited interested Stakeholders to meet with ARB to provide their input on infrastructure Transition issues, in a memo that was sent out to all Stakeholders in August. The following agencies provided input prior to the Stakeholder meeting: Bay Area Air Quality Management District, Clean Fuels Connection, Sacramento Municipal Utility District, and GM (written comments). Comments are summarized on the handout. In general, importance was placed on a Transition Plan, and outstanding issues were identified as to how to both maintain the existing infrastructure as well as expand or retrofit for the future. In addition, a need for communication and outreach materials on the new standard was identified.

October 2001 Infrastructure Working Group Stakeholder Meeting Summary

There was discussion as to whether the ARB resolution and regulation covered the Transition Plan. ARB staff clarified that the regulation covers the requirements for the vehicle, as ARB does not have authority to affect the public charger installations and change-outs. However, both ARB staff and the Board have stressed the importance of working together with Stakeholders to develop a transition strategy for EV infrastructure.

4. Discussion of Public Charging Issues (Handout)

Enid Joffe of Clean Fuels Connection (enidjoffe@cleanfuelsconnection.com) led a discussion of issues currently impacting the expansion, maintenance, and utility of public charging in California. The expected long-term benefits of infrastructure standardization are likely to be very positive. These benefits include more willingness to install public and workplace charging, cost reductions that can be achieved with larger production volumes of charging equipment, and more efficient use of public charging.

However, there are a number of significant short-term impacts that need to be addressed. These include the potential mismatch between infrastructure and vehicle availability, including the fact that a number of inductive vehicles could be on the road well after the year 2006. Other concerns include the abandonment of out-of-warranty inductive chargers, consumer confusion about the location of small and large paddle chargers, as well as confusion as to the type of charging equipment that should be installed in the near-term at public and workplace charging sites.

The need for both a short-term and long-term transition strategy was stressed. This strategy should include a warranty program for out-of-warranty chargers, incentives to reduce "sticker shock" over the price of charging equipment, funding to remove or replace abandoned inductive chargers, and planning for the eventual replacement of inductive chargers at public sites.

An Extended Warranty Program is seen as very important by Clean Fuels Connection. Approximately 1,000 inductive chargers are coming out of the warranty this year; a similar situation exists with conductive charging equipment. We need to learn more about the cost of repairing and maintaining this equipment. Funding for a demonstration program is needed so that the actual costs for maintenance and repair can be assessed; they are not well known at this time. A demonstration program could develop low cost repair options, reduce risk to small businesses and infrastructure supporters and support public confidence in EV technology. While there is not a significant number of broken chargers, there is no process in place to repair malfunctioning equipment.

There was group discussion about the possibility of using new ZEV incentive funds for infrastructure installation. This could possibly be structured to include a grant of up to \$1,500 that went directly to the driver for their home infrastructure installation; the remaining part of the \$5000 maximum grant per vehicle could go to the dealer to reduce the lease price.

October 2001 Infrastructure Working Group Stakeholder Meeting Summary

Another item of group discussion included the possibility of establishing a statewide subscription program to support the public infrastructure network. Discussion focused on what the subscription would need to be, how it would be enforced, and other benefits that could be provided to subscribers, including newsletters and other educational information. The subscription money could be managed statewide and used to maintain public chargers. This could be a mechanism to make the public charging network self-sustaining. Fleets also have the need for charger repairs. They may also want to buy into a service program to keep charging equipment downtime at a minimum.

Other discussion issues discussed included the need for education as to how little money is actually spent on providing electricity for public chargers, and other benefits that sponsoring public charging provides business owners. Several group members stressed the need for focused outreach materials demonstrating the benefits for public charging. Also, we should work with local governments through model ordinances and the environmental permitting process to encourage the installation of charging at new commercial developments.

5. Presentation on Clean Car Maps (Handout)

Leeor Alpern (LAlpern@calstart.org) of CALSTART made a presentation on the current efforts to improve and expand the Clean Car Maps internet site. The discussion focused on specific modifications designed to improve and streamline the internet site. These include streamlining the data input so that information can more easily be added to Clean Car Maps on new charger locations, as well as the status of charger sites. Other enhancements included accessing the website with handheld electronic devices such as cell phones and palm pilots. CALSTART is also trying to improve the relationship between itself and fuel providers as a way of keeping the site better maintained.

The current effort also has the goal of making the site self-supporting through some type of subscriber or sponsorship program. Work has already begun, from funding which has been provided by California Energy Commission (CEC) and ARB. Outstanding issues include getting systems in place so that fuel providers can easily provide information to the site, as well as updating all of the information to include all charger sites, including distinguishing between small and large paddle inductive chargers. The group emphasized the importance of automating the data transfer as much as possible, and a toll free phone number so that charger problems can be centrally reported. Some group members suggested a subcommittee to work on this project.

6. Group Discussion on Transition Plan: What are the Major Issues, Goals, Needs, and Future Actions?

The group had an open brainstorming session to identify the major outstanding infrastructure issues. A number of issues were discussed at length. The group then

October 2001 Infrastructure Working Group Stakeholder Meeting Summary

reached consensus by grouping the issues into three broad areas of concern. Listed below are the three broad areas and related issues, as identified by the group.

Infrastructure Needs Assessment

- ? Matching vehicles and infrastructure/understanding product availability
- ? Prioritize needs – home, work, public
- ? Incentives/Consumer reluctance
- ? Assess need for level 1 public charging
- ? Existing charger & vehicle inventory

Maintenance, retrofit and repair

- ? Funding for retrofitting inductive and conductive (public) & large/small paddle
- ? Long-term sustaining maintenance program

Policies

- ? Charger, parking policies (be nice)
- ? Update emergency response
- ? Model ordinances – promoting EV readiness with new construction and other laws
- ? Incentives (falls in all three groups)

There was considerable discussion regarding the next steps for developing and prioritizing goals, and identifying future actions that the group wants to work on. It was decided that subcommittees are likely to be needed to further work on refining the goals of each major work area. Members would be able to "self-select" based on their interest in participating in a subcommittee. To begin the process, a conference call will be set up for Friday, October 19th. Each group will have 1 hour to further discuss the major issues, goals, and priorities. Information on the conference call will be sent out to all members.

7. Action Items

ARB will establish a process by which information can be distributed through the Internet, rather than by email. ARB will forward the draft version of SAE J1772, as recently approved by the SAE EV Charging Standards Committee to all members. In addition, presentation materials from Clean Car Maps and Clean Fuels Connection will be made available to all members. Information on the October 19th conference call and meeting summary will be provided to all members.

8. Handout Materials

ARB staff presentation (Discussion Item #2,3)---Already distributed by email
Public Charging Issues (Discussion Item 4)--to be provided electronically
Clean Car Map Website (Discussion Item 5)--to be provided electronically

October 2001 Infrastructure Working Group Stakeholder Meeting Summary

9. Conference Call

Scheduled for Friday, October 19th, 9:00 a.m -12:00 p.m (Pacific Standard Time).

Call in phone number: 888-425-9978. Passcode: 18779.

8:45	Call-in begins
9:00 -10:00	Infrastructure Needs Assessment
10:00 -11:00	Maintenance, Retrofit, and Repair
11:00 -12:00	Policies