

## TITLE 13. CALIFORNIA AIR RESOURCES BOARD

### NOTICE OF PUBLIC HEARING TO CONSIDER PROPOSED AMENDMENTS TO THE CALIFORNIA ZERO-EMISSION VEHICLE REGULATIONS REGARDING TREATMENT OF MAJORITY OWNED SMALL OR INTERMEDIATE VOLUME MANUFACTURERS AND INFRASTRUCTURE STANDARDIZATION

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider proposed amendments to the California zero-emission vehicle (ZEV) regulations regarding the treatment of small or intermediate volume manufacturers that are majority-owned by other manufacturers and infrastructure standardization.

DATE: June 28, 2001

TIME: 9:00 a.m.

PLACE: California Environmental Protection Agency  
Air Resources Board  
Auditorium, Second Floor  
1001 "I" Street  
Sacramento, CA 95814

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., June 28, 2001, and may continue at 8:30 a.m., June 29, 2001. This item may not be considered until June 29, 2001. Please consult the agenda for the meeting, which will be available at least 10 days before June 28, 2001, to determine the day on which this item will be considered.

This facility is accessible to persons with disabilities. If accommodation is needed, please contact the Clerk of the Board at (916) 322-5594, or TDD (916) 324-9531 or (800) 700-8326 for TDD calls from outside the Sacramento area by June 13, 2001, to ensure accommodation.

### INFORMATIVE DIGEST OF PROPOSED ACTION/ POLICY STATEMENT OVERVIEW

**Sections Affected:** Amendments to title 13, California Code of Regulations (CCR), sections 1900(b) and 1962(b), and the adoption of title 13, CCR, section 1962.1, which would incorporate by reference, "Society of Automotive Engineers, Inc., Surface Vehicle Recommended Practice, J1772, SAE Electric Vehicle Conductive Charge Coupler" (2001 Draft).

## **The Current ZEV Regulations**

The California ZEV regulations were originally adopted in 1990, as part of the first ARB Low-Emission Vehicle (LEV I) regulations. The ZEV program is an integral part of California's mobile source control efforts, and is intended to encourage the development of advanced technologies that will secure increasing air quality benefits for California now and into the future.

As presently in effect, the ZEV regulations require that 10 percent of the passenger cars and lightest light-duty trucks produced and delivered for sale in California for all but small volume manufacturers be ZEVs – vehicles with no emissions. Manufacturers may use partial credits of 0.2 or more generated from vehicles with extremely low emissions (referred to as partial ZEV allowance vehicles or PZEVs) to meet the 10 percent ZEV requirement. However, large-volume manufacturers must, at a minimum, have 4 percent of their California fleet of passenger cars and lightest trucks be vehicles classified as “full” ZEVs. Auto companies can earn extra ZEV allowances by introducing vehicles before the 2003 model year, thereby reducing their total ZEV obligation. Extra allowance is also available for battery electric vehicles with more than a 100-mile range per charge. The ZEV program also includes a marketable credits system.

At a January 25, 2001, hearing, the Board approved major changes to the ZEV regulations that will significantly reduce the number of ZEVs required during the near term. The amendments will result in an increase in the number of ZEVs and advanced technology vehicles over time. Since the amendments reflect numerous modifications to the originally proposed changes, they will be made available for a supplemental public comment period, after which the Executive Officer will take final action. The Board did not resolve all issues raised during the hearing. Among other things, it directed staff to investigate joint ownership issues associated with the treatment of small and intermediate volume manufacturers, and issues regarding battery electric vehicle (EV) charger standardization.

## **Proposed Amendments**

In response to the Board's directions, ARB staff is proposing amendments that make two additional changes to the ZEV Program. The first is to change the way manufacturer vehicle production volumes and associated ZEV requirements are calculated for a manufacturer that is majority-owned by another manufacturer. The second is to identify a single charging system – on-board conductive – for battery EVs.

## **Production Volume Aggregation for Majority-owned Small and Intermediate-volume Manufacturers**

Under the ZEV regulation, a small-volume manufacturer is exempt from all ZEV percentage requirements, although it may generate ZEV credits if it chooses to do so. "Small-volume manufacturer" is defined as a manufacturer with annual California sales of less than 4,500 new passenger cars, light-duty trucks, medium-duty vehicles, heavy-duty vehicles and heavy-duty engines based on the average number of vehicles sold for the three previous consecutive years.

An intermediate-volume manufacturer is permitted to meet its percentage ZEV requirement with up to 100 percent partial ZEV allowance vehicles or credits generated by such vehicles. For the 2003 and subsequent model years, "intermediate-volume manufacturer" has been defined as a manufacturer with California sales between 4,501 and 35,000 light- and medium-duty vehicles based on the average number of vehicles sold for the three previous consecutive years. The ZEV amendments approved in January will increase the cut-off for the maximum number of vehicles to 60,000 per year.

For purposes of the ZEV requirements, the definitions of small and intermediate-volume manufacturers do not address the effect of partial or full ownership of one manufacturer by another. The ARB has not aggregated production volumes in such situations as long as the two manufacturers were operationally independent, although application of this criterion has not always been straightforward.

In recent years, there has been a good deal of consolidation among vehicle manufacturers, with several previously-independent manufacturers becoming wholly or majority owned by others. For instance, Ford wholly owns Volvo and Jaguar, and General Motors wholly owns Saab. The amendments now being proposed by the ARB staff would establish aggregation requirements when determining whether a manufacturer will be treated as a small or intermediate-volume manufacturer for purposes of the ZEV requirements. The California sales of two or more manufacturers would be aggregated if one has a greater than 50 percent equity ownership in the other. There would also be aggregation where both manufacturers are greater than 50 percent owned by a third party. The aggregation requirements would become applicable starting with the 2003 model-year, and a manufacturer whose status would change in the 2003 model year due to aggregation would be subject to the ZEV requirements as an intermediate or large volume manufacturer starting with the 2006 model year.

## **Infrastructure Standardization/Single Charging System**

The current number of electric vehicles (EVs) in California is just over 2,000 with the number expected to rise to an estimated 100,000 by the year 2010. With this large expansion of EVs, the staff is proposing to require a single charging system designed to ensure a smooth progression towards the commercialization of EVs. Now is the ideal time to select a single charging system while vehicle volumes are low. The selected system that staff is proposing is the on-board conductive charging system.

The lack of a single charging system contributes to the public perception that the EV market is not yet mature and represents a significant barrier to marketing EVs to the public. Public charging and workplace charging increases the convenience and enhances consumer confidence in driving EVs. The current public charging system has caused consumers confusion because different public charging sites have different charging systems. A standardized EV charging system would greatly enhance the access and utility of the public charging system by creating a situation analogous to the refueling of gasoline vehicles in which all gasoline pumps and nozzles are standardized for all vehicles. A standardized charging system will ensure that every EV plug will fit every EV.

## **AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS**

The ARB staff has prepared a Staff Report: Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the environmental and economic impacts of the proposal. The Staff Report is entitled, "Proposed Amendments to the California Zero Emission Vehicle Regulations: Treatment of Majority Owned Small or Intermediate Volume Manufacturers and Standardization of Battery Electric Vehicle Charging Systems for the Zero Emission Vehicle Program."

Copies of the Staff Report and the full text of the proposed regulatory language, in underline and strike-out format to allow for comparison with the existing regulations, may be obtained from the Public Information Office, Air Resources Board, 1001 "I" Street, Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, CA 95814, (916) 322-2990 at least 45 days prior to the scheduled hearing (June 28, 2001).

Upon its completion, the Final Statement of Reasons (FSOR) will be available and copies may be requested from the agency contact persons in this notice, or may be accessed on the web site listed below.

Inquiries concerning the proposed administrative action or substance of the proposed regulations may be directed to the designated agency contact persons, Krista Eley, Air Pollution Specialist, at (916) 322-2333 (regarding the definitions of small and intermediate volume manufacturers), and Gayle Sweigert, Air Pollution Specialist, at (916) 322-6923 (regarding the proposed regulation for Infrastructure Standardization).

Further, the agency representative and designated back-up contact persons to whom inquiries concerning the proposed administration action may be directed are Artavia Edwards, Manager, Board Administration & Regulatory Coordination Unit, (916) 322-6070, or Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board has compiled a record for this rulemaking action, which includes all the information upon which the proposal is based. This material is available for inspection upon request to the contact persons.

If you are a person with a disability and desire to obtain this document in an alternative format, please contact the Air Resources Board ADA Coordinator at (916) 323-4916, or TDD (916) 324-9531, or (800) 700-8326 for TDD calls from outside the Sacramento area.

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on the ARB Internet site for this rulemaking at <http://www.arb.ca.gov/regact/charger/charger.htm>.

## **COSTS TO PUBLIC AGENCIES AND TO BUSINESSES AND PERSONS AFFECTED**

The determinations of the Board's Executive Officer concerning the costs or savings necessarily incurred in reasonable compliance with the proposed regulations are presented below.

The Executive Officer has determined that the proposed regulatory action will not create costs or savings, as defined in Government Code section 11346.5(a)(6), to any state agency or in federal funding to the state, costs or mandate to any local agency or school district whether or not reimbursable by the state pursuant to part 7 (commencing with section 17500), division 4, title 2 of the Government Code, or other non discretionary savings to local agencies.

The Executive Officer has also made an initial determination that adoption of the proposed regulatory action will not have a significant statewide adverse economic impact directly affecting businesses, including the ability of California businesses to compete with businesses in other states.

The Executive Officer has also determined that there will be no, or an insignificant cost impact on representative private persons or businesses resulting from the proposed action.

In developing this regulatory proposal, the ARB staff evaluated the potential economic impacts on representative private persons or businesses. The proposed regulation for Infrastructure Standardization will potentially result in reduced costs for EV consumers. A single charging system will focus technological improvements and foster competition among manufacturers resulting in a potential reduction of charger equipment costs. In addition, the selected charging system has a greater potential for future cost reductions than the other charging systems. Currently, public agencies, businesses and vehicle manufacturers have invested in installing public chargers. Although public agencies are not required to install public chargers, they often partner with businesses to install public chargers. In addition, some vehicle manufacturers have contributed greatly to the public charging system. The installation, equipment and maintenance costs will be reduced for these chargers as a result of single charging system. Having a single charging system will require fewer public chargers to be installed, reducing both equipment and installation costs for the affected parties. As mentioned above, the equipment costs are expected to decrease with market competition and the selected charging system has a greater potential for future cost reductions. Lastly, by having an on-board system, repairing the charging system will be easier and less costly for vehicle manufacturers and associated businesses.

The proposed regulation for Infrastructure Standardization directly impacts 4 out of 18 companies worldwide that manufacture California-certified light-duty vehicles and are subject to the ZEV regulations. Four companies will have short term negative impacts because the electric vehicles they manufacture utilize an inductive charging system or an off-board conductive charging system. The cost to the four companies is highly variable and will depend on the manufacturers individual product plans as well as their technical experience with conductive charging systems. Two companies will be potentially positively impacted because the electric vehicles they manufacture utilize an on-board conductive charging system.

The remaining 12 companies are not impacted because either they do not produce light-duty vehicles or they are intermediate volume or they qualify for the small volume manufacturer exemption and are not subject to the pure ZEV regulations.

The ZEV regulation as modified by the Board in January 2001 allows significant flexibility in compliance strategies. Manufacturers can also use any combination of these vehicles in conjunction with hybrid EVs, natural gas vehicles and gasoline Super Ultra Low Emission vehicles (SULEVs). Manufacturers can also use City EVs, full function EVs, Neighborhood EVs and fuel cell vehicles (only the first two vehicle types will be impacted by these proposed amendments). It is likely each of the four impacted

companies will market at least one vehicle model required to utilize an on-board conductive charging system. However, because of the flexibility of the regulation, this is not a certainty. Manufacturers have not been willing to share product plans that would allow staff to determine which model(s) may be impacted and to better estimate the cost of the proposed regulation.

The impact of the proposed regulation is also a function of the manufacturers' experience with on-board conductive charging. This experience includes vehicle models that currently have on-board conductive charging systems and vehicle models that previously had on-board conductive charging systems.

In addition, the proposed regulation for Infrastructure Standardization indirectly impacts businesses involved in manufacturing charging equipment to support light-duty passenger car and truck electric vehicles. Currently, there is one small company in California that produces charging equipment that will potentially benefit from this proposed modification. The inductive and off-board conductive charging systems are currently produced by contractors of the four vehicle manufacturers mentioned above. Since charger manufacturing is a minimal part of the four vehicle manufacturers' business the cost impact is low.

The long term economic benefits of the regulation for Infrastructure Standardization for 2006 and beyond outweigh the short-term costs. As a result of having a single charging system there will be an increase in public/consumer confidence about EV technology and a corresponding increase in purchases of electric vehicles.

The proposed amendments regarding small and intermediate-volume manufacturers would affect vehicle manufacturers that have been in one of those categories and are majority-owned by another, typically large-volume manufacturer. The combined companies will potentially be required to produce more pure ZEVs and Advanced Technology PZEVs as a result of combining their vehicle volumes. The increase in cost to these combined companies is estimated to be low. Currently, there is only one combined vehicle manufacturer that will potentially have its ZEV requirements increased as a result of combining its vehicle volumes with companies in which it has a majority equity interest. The estimated cost for all the large and intermediate volume manufacturers involved in this combined arrangement is \$2.5 million. The intermediate volume manufacturers may not have to produce as many partial ZEVs, thereby reducing their costs.

Furthermore, the Executive Officer has initially assessed the regulatory action will not affect the creation and elimination of jobs within the State of California, the creation of new businesses and the elimination of existing businesses within the State of California, and the expansion of businesses currently doing business within the State of California.

Before taking final action on the regulatory proposal, the Board must determine that no reasonable alternative considered by the Board or that has otherwise been identified and brought to the attention of the Board would be more effective in carrying out the purpose for which the action is proposed, or would be as effective and less burdensome to affected private persons than the proposed action.

Finally, the Executive Officer has also determined that the proposed regulatory action may affect small business.

## **SUBMITTAL OF COMMENTS**

The public may present comments relating to this matter orally or in writing at the hearing, and in writing or by e-mail before the hearing. To be considered by the Board, written submissions not physically submitted at the hearing must be received **no later than 12:00 noon, June 27 2001**, and addressed to the following:

Postal mail is to be sent to:

Clerk of the Board  
Air Resources Board  
1001 "I" Street, 23<sup>rd</sup> Floor  
Sacramento, California 95814

Electronic mail is to be sent to [charger@listserv.arb.ca.gov](mailto:charger@listserv.arb.ca.gov) and received at the ARB **no later than 12:00 noon, June 27, 2001**.

Facsimile submissions are to be transmitted to the Clerk of the Board at 916) 322-3928 and received at the ARB **no later than 12:00 noon, June 27, 2001**.

The Board requests but does not require 30 copies of any written submission. Also, the ARB requests that written and e-mail statements be filed at least 10 days prior to the hearing so that ARB staff and Board Members have time to fully consider each comment. The ARB encourages members of the public to bring to the attention of staff in advance of the hearing any suggestions for modification of the proposed regulatory action.



## STATUTORY AUTHORITY

This regulatory action is proposed under that authority granted in sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105 of the Health and Safety Code. This action is proposed to implement, interpret and make specific sections 39002, 39003, 39010, 39500, 39667, 40000, 43000, 43009.5, 43013, 43018, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43107, 43204 and 43205.5 of the Health and Safety Code.

## HEARING PROCEDURES

The public hearing will be conducted in accordance with the California Administrative Procedure Act, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340) of the Government Code. Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with nonsubstantial or grammatical modifications. The Board may also adopt the proposed regulatory language with other modifications if the text, as modified, is sufficiently related to the originally proposed text that the public was adequately placed on notice that the regulatory language, as modified, could result from the proposed regulatory action. In the event such modifications are made, the full regulatory text, with the modifications clearly indicated, will be made available to the public, for written comment, at least 15 days before it is adopted. The public may request a copy of the modified regulatory text from the Public Information Office Air Resources Board, 1001 "I" Street, Environmental Services Center, 1<sup>st</sup> Floor, Sacramento, CA 95814, (916) 322-2990.

CALIFORNIA AIR RESOURCES BOARD

Michael P. Kenny  
Executive Officer

Date: May 1, 2001

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web-site at [www.arb.ca.gov](http://www.arb.ca.gov)*