

TITLE 13. CALIFORNIA AIR RESOURCES BOARD

NOTICE OF PUBLIC HEARING TO CONSIDER ADOPTION OF THE 2012 AMENDMENTS TO THE CALIFORNIA ZERO EMISSION VEHICLE REGULATION

The Air Resources Board (ARB or Board) will conduct a public hearing at the time and place noted below to consider adoption of the 2012 amendments to the California Zero Emission Vehicle (ZEV) regulation.

DATE: January 26, 2012

TIME: 9:00 a.m.

PLACE: Metropolitan Water District Headquarters
700 North Alameda Street
Los Angeles, California 90012-2944

This item will be considered at a two-day meeting of the Board, which will commence at 9:00 a.m., January 26, 2012, and will continue at 8:30 a.m., on January 27, 2012. This item may not be considered until January 27, 2012. Please consult the agenda for the hearing, which will be available at least 10 days before January 26, 2012, to determine the day on which this item will be considered.

INFORMATIVE DIGEST OF PROPOSED ACTION AND POLICY STATEMENT OVERVIEW

Sections Affected: Proposed amendments to California Code of Regulations, title 13, sections 1962.1 and 1962.2 (re-numbered to 1962.3), which incorporate by reference "California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes", as adopted December 17, 2008, and last amended December 2, 2009, and proposed adoption of California Code of Regulations, title 13, section 1962.2, which incorporate by reference "California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," as adopted December 17, 2008, and last amended December 2, 2009.

Background

In 1990, the California Air Resources Board (ARB or the Board) adopted an ambitious program to dramatically reduce the environmental impact of light-duty vehicles (LDV) through the gradual introduction of zero emission vehicles (ZEV) into the California fleet. The ZEV program, which affects passenger cars and light-duty trucks (LDT1 and LDT2), has been adjusted five times since its inception: in 1996, 1998, 2001, 2003, and 2008; to reflect the development of new technologies such as hybrid electric vehicles, natural gas vehicles, longer range battery electric vehicles, and fuel cell vehicles. Through

these adjustments the fundamental goal of the program has not changed: the commercialization of ZEV technologies.

At the March 2008 hearing, the Board directed staff to redesign the 2015 and beyond requirements for the ZEV program by strengthening its requirements and focusing primarily on the zero emission drive. Battery electric vehicle (BEV), fuel cell vehicle (FCV), and plug-in hybrid electric vehicle (PHEV) technologies, are included. California would continue to be the central location for advanced, low greenhouse gas (GHG) technology vehicles as they move from the demonstration phase to commercialization.

In 2009, staff undertook an assessment of pathways to meet California's long term 2050 GHG reduction goals in the LDV subsector. It included a review of ZEV technology and a review of current and possible future complementary policies that would be needed to aid in infrastructure development, and a review of market pull policies for ZEVs. Based on the United States Department of Energy vision model, staff developed a California-specific model for the LDV subsector, and concluded that nearly all new vehicle sales by the 2040 model year need to be ZEVs and PHEVs in order to achieve the needed long term emission reductions. The Board directed staff in Resolution 09-66 to prepare amendments to the regulations considering the following:

- Shift focus from only criteria pollutant emission reductions to both GHG and criteria pollutant emission reductions;
- Focus on commercializing low-carbon emitting technologies, such as ZEVs and PHEVs, in a timeframe sufficient to meet the 2050 target of an 80-percent reduction in GHG emissions compared to 1990 levels;
- Take into consideration new low emission vehicle (LEV) III GHG fleet standards and revise the ZEV regulatory structure, credit values, and stringency of the current requirements accordingly.

Description of Proposed Regulatory Action

The ZEV regulation is the most technology-forcing piece of the Advanced Clean Car package. Proposed amendments to the ZEV regulation focus on advanced technologies, simplifying the program where needed, and increasing stringency for 2018 model year and beyond to help meet long term goals.

Amendments Affecting 2009 through 2017 Model Years

Staff is proposing minor mid-course corrections and clarifications to the current regulation (through the 2017 model year) that will help ensure successful compliance with more stringent 2018 and subsequent model year requirements. The amendments include:

- A. *Provide Compliance Flexibility:* Remove carry forward credit limitations for ZEVs, allowing manufacturers to bank ZEV credits indefinitely for use in later years. Slightly reduce the 2015 through 2017 credit requirement for intermediate volume manufacturers (IVM, less than 60,000 vehicles produced each year), to allow them to prepare for requirements in 2018. Extend the provision that allows ZEVs placed in any state that has adopted the California ZEV regulation to count towards the ZEV requirement through 2017 (i.e. extending the “travel provision” for BEVs through 2017).
- B. *Adjust Credits and Allowances:* Increase credits for a Type V (300 mile FCV) ZEV to appropriately incentivize this emerging technology.
- C. *Add New Vehicle Category:* Add Type I.5x and Type IIx vehicles as a compliance option for manufacturers to meet up to half of their minimum ZEV requirement. These vehicles are closer to a BEV than to a PHEV because they are designed with primarily zero-emission operation. Their small non-ZEV fuel auxiliary power unit (APU) is specified with limited performance and fuel capacity for limited range extension.

Amendments Affecting 2018 and Subsequent Model Years

Staff is proposing amendments for 2018 and subsequent model years to help achieve early commercialization of ZEVs and transitional zero emission vehicles (TZEV, typically a plug in hybrid electric vehicle) through simplifying the regulation and pushing technology to a higher volume production in order to achieve cost reductions. The amendments include:

- A. *Increase Volume Requirement for 2018 and Subsequent Model Years:* Increase requirements that push ZEVs and TZEVs to nearly 15 percent of new sales by 2025. This will help ensure production volumes are at a level sufficient to bring battery and fuel cell technology down the cost curve and reduce ZEV incremental prices, and provide a greater choice of vehicle types for potential purchasers.
- B. *Focus Regulation on ZEVs and TZEV:* Move the partial zero emission vehicle (PZEV, a near-zero emitting conventional technology) and advanced technology PZEV(AT-PZEV, typically a non-plug-in hybrid electric vehicle) technology categories from the ZEV regulation to the LEV regulation because they have reached commercial volumes and their relevance to further reducing criteria and GHG emissions can be better governed by the emission performance standards

- C. in the LEV III regulation. Allow manufacturers to use banked PZEV and AT-PZEV credits earned in 2017 and previous model years in the ZEV program, but discount the credits, and place a cap on usage in 2018 and subsequent model years. Focus the 2018 and subsequent model year requirements on ZEVs and TZEVs.
- D. *Amend Manufacturer Size Definitions, Ownership Requirements, and Transitions:* Amend IVM and large volume manufacturer (LVM) size definitions to bring all but the smallest manufacturers under the full ZEV requirements by model year 2018. Align LEV III and ZEV ownership requirements, so that manufacturers who own more than 33.4 percent of each are considered as the same manufacturer for determination of size. Modify transition periods for manufacturers switching size categories. These changes result in applying the ZEV regulation to manufacturers that represent 97 percent of the LDV market.
- E. *Modify Credit System:* Base credits for ZEVs on range, with 50 mile BEVs earning 1 credit each and 350 mile FCVs earning 4 credits each. Allow longer range BEVs (BEVx) which have a limited combustion engine range extender to meet up to half of a manufacturer's minimum ZEV requirement. The range of credits reflect the utility of the vehicle (i.e. the zero emitting miles it may travel) and its expected timing for commercialization. Simplify and streamline TZEV credits based on the vehicle's zero-emission range capability and ability to drive electrically for 10 miles on the more aggressive US 06 drive schedule. In addition to simplifying the program, reduce the spread of credits so that technologies are more evenly treated with less variation in compliance outcomes (numbers of vehicles produced to meet the regulation requirements).
- F. *Modify Travel Provision:* End the Travel Provision for BEVs after model year 2017, so that states that have adopted CA's ZEV program are more likely to receive a proportionate share of ZEVs. Extend the Travel Provision for FCVs until sufficient complementary policies are in place in states having adopted the California ZEV regulation. This will allow FCV technology to continue to mature, and provide time for Section 177 states to build infrastructure.
- G. *Add GHG-ZEV Over-Compliance Credits:* Allow manufacturers who systematically over comply with the proposed LEV III GHG fleet standard to offset a portion of their ZEV requirement in 2018 through 2021 model years only.

These amendments, part of the Advanced Clean Cars regulatory proposals to be heard as a package on the same day, thus address multiple pollutant types in the context of California's passenger motor vehicle program as a whole.

COMPARABLE FEDERAL REGULATIONS

Currently, there are no comparable federal regulations mandating auto manufacturers to produce PZEVs, AT PZEVs, TZEVs and/or ZEVs.

AVAILABILITY OF DOCUMENTS AND AGENCY CONTACT PERSONS

ARB staff has prepared an Initial Statement of Reasons (ISOR) for the proposed regulatory action, which includes a summary of the economic and environmental impacts of the proposal. The ISOR is entitled: 2012 Proposed Amendments to the California Zero Emission Vehicle Program Regulations.

Copies of the ISOR and the full text of the proposed regulatory language, in underline and strikethrough format to allow for comparison with the existing regulations, may be accessed on ARB's website listed below, or may be obtained from the Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990, on **December 7, 2011**.

Upon its completion, a 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 ARB's website listed below.

Inquiries concerning the substance of the proposed regulation may be directed to the designated agency contact persons, Ms. Anna Wong, Air Pollution Specialist, Sustainable Transportation Technology Branch, (916) 323-2410, or Ms. Elise Keddie, Manager, ZEV Implementation Section, (916) 323-8974.

Further, the agency representative and designated back-up contact persons, to whom non-substantive inquiries concerning the proposed administrative action may be directed are Ms. Lori Andreoni, Manager, Board Administration and Regulatory Coordination Unit, (916) 322-4011, or Ms. Amy Whiting, Regulations Coordinator, (916) 322-6533. The Board staff 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.

This notice, the ISOR and all subsequent regulatory documents, including the FSOR, when completed, are available on ARB's website for this rulemaking at <http://www.arb.ca.gov/regact/2012/zev2012/zev2012.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 by public agencies and private persons and businesses in reasonable compliance with the proposed regulations are presented below.

Pursuant to Government Code sections 11346.5(a)(5) and 11346.5(a)(6), the Executive Officer has determined that the proposed regulatory action would not create costs or savings 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 Government Code, title 2, division 4, part 7 (commencing with section 17500), or other nondiscretionary cost or savings to State or local agencies.

In developing this regulatory proposal, ARB staff evaluated the potential economic impacts on representative private persons or businesses. The ARB estimates the total impact of the ZEV regulation to regulated manufacturers, apart from all other regulations, to be \$10.2 billion, from model year 2018 through 2025 compliance.

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

In accordance with Government Code section 11346.3, the Executive Officer has determined that the proposed regulatory action would affect the creation or elimination of jobs within the State of California, or the expansion of businesses currently doing business within the State of California. A detailed assessment of the economic impacts of the proposed regulatory action can be found in the ISOR.

The Executive Officer has also determined, pursuant to California Code of Regulations, title 1, section 4, that the proposed regulatory action would affect small businesses. In accordance with Government Code sections 11346.3(c) and 11346.5(a)(11), the Executive Officer has found that the reporting requirements of the regulation which apply to businesses are necessary for the health, safety, and welfare of the people of the State of California. Staff's proposed regulations do not impose any new reporting requirements on manufacturers.

Before taking final action on the proposed regulatory action, 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.

ENVIRONMENTAL ANALYSIS

In accordance with ARB's certified regulatory program, California Code of Regulations, title 17, sections 60006 through 60007, and the California Environmental Quality Act, Public Resources Code section 21080.5, ARB has conducted an analysis of the potential for significant adverse and beneficial environmental impacts associated with the proposed regulatory action. The environmental analysis of the proposed regulatory action can be found in Appendix B of the ISOR.

SUBMITTAL OF COMMENTS

Interested members of the public may also present comments orally or in writing at the meeting, and comments may be submitted by postal mail or by electronic submittal before the meeting. The public comment period for this regulatory action will begin on **December 12, 2011**. To be considered by the Board, written comments, not physically submitted at the meeting, must be submitted on or after **December 12, 2011** and received **no later than 12:00 noon on January 25, 2012**, and must be addressed to the following:

Postal mail: Clerk of the Board, Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <http://www.arb.ca.gov/lispub/comm/bclist.php>

You can sign up online in advance to speak at the Board meeting when you submit an electronic board item comment. For more information go to:
<http://www.arb.ca.gov/board/online-signup.htm>.

Please note that under the California Public Records Act (Gov. Code, § 6250 et seq.), your written and oral comments, attachments, and associated contact information (e.g., your address, phone, email, etc.) become part of the public record and can be released to the public upon request.

ARB requests that written and email statements on this item be filed at least 10 days prior to the hearing so that ARB staff and Board members have additional time to consider each comment. The Board 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.

Additionally, the Board requests but does not require that persons who submit written comments to the Board reference the title of the proposal in their comments to facilitate review.

STATUTORY AUTHORITY AND REFERENCES

This regulatory action is proposed under the authority granted in Health and Safety Code, sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. This action is proposed to implement, interpret, and make specific sections 38562, 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43018.5, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43107, 43204, and 43205.5, Health and Safety Code.

HEARING PROCEDURES

The public hearing will be conducted in accordance with the California Administrative Procedure Act, Government Code, title 2, division 3, part 1, chapter 3.5 (commencing with section 11340).

Following the public hearing, the Board may adopt the regulatory language as originally proposed, or with non-substantial 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 and that the regulatory language as modified could result from the proposed regulatory action; in such event, 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 ARB's Public Information Office, Air Resources Board, 1001 I Street, Visitors and Environmental Services Center, First Floor, Sacramento, California, 95814, (916) 322-2990.

SPECIAL ACCOMMODATION REQUEST

Special accommodation or language needs can be provided for any of the following:

- An interpreter to be available at the hearing;
- Documents made available in an alternate format or another language; or
- A disability-related reasonable accommodation.

To request these special accommodations or language needs, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 as soon as possible, but no later than 10 business days before the scheduled Board hearing.

TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Comodidad especial o necesidad de otro idioma puede ser proveído para alguna de las siguientes:

- Un intérprete que esté disponible en la audiencia.
- Documentos disponibles en un formato alterno (por decir, sistema Braille, o en impresión grande) u otro idioma.
- Una acomodación razonable relacionados con una incapacidad.

Para solicitar estas comodidades especiales o necesidades de otro idioma, por favor llame a la oficina del Consejo al (916) 322-5594 o envíe un fax a (916) 322-3928 lo más pronto posible, pero no menos de 10 días de trabajo antes del día programado para la audiencia del Consejo. TTY/TDD/Personas que necesiten este servicio pueden marcar el 711 para el Servicio de Retransmisión de Mensajes de California.

CALIFORNIA AIR RESOURCES BOARD



James N. Goldstone
Executive Officer

Date: November 29, 2011

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 website at www.arb.ca.gov.