

State of California
AIR RESOURCES BOARD

Notice of Public Availability of Modified Text

2012 AMENDMENTS TO THE CALIFORNIA
ZERO EMISSION VEHICLE REGULATION

Public Hearing Date: January 26 and 27, 2012

Public Availability Date: February 22, 2012

Deadline for Public Comment: March 8, 2012

At its January 26 and 27, 2012 public hearing, the Air Resources Board (ARB or Board) approved staff's proposed amendments with modifications to the California Code of Regulations (CCR), title 13, section 1962.1, 1962.2 (renumbered to 1962.3), and associated test procedures. The Board also approved with modifications the adoption of the new title 13, CCR, section 1962.2, and its new associated test procedures. These regulations relate to the Board's Zero Emission Vehicle (ZEV) program which requires auto manufacturers to develop and commercialize ZEV technologies.

At the hearing, the staff presented, and the Board approved modifications to the regulations originally proposed in the Staff Report released on December 7, 2011 in response to comments received since the Staff Report was published. These modifications include the new optional section 177 state compliance path, the ability for partial allowance zero emission vehicles (PZEV) to certify to LEV II or LEV III exhaust standards in certain model years, and allowing hydrogen internal combustion engine vehicles to earn the full amount of credit under the transitional zero emission vehicle (TZEV) provisions. The Board directed staff to incorporate further modifications including modifying the date by which manufacturers must apply to use the greenhouse gas (GHG) ZEV over-compliance provision and ensuring there is fair treatment for manufacturers transitioning from one size definition category to another.

Board Resolution 12-11 approved new section 1962.2, and the incorporated test procedures, and approved section 1962.1, and the incorporated test procedures and section 1962.2(renumbered to 1962.3) as modified. The resolution and all other regulatory documents for this rulemaking are available online at the following ARB website:

<http://www.arb.ca.gov/regact/2012/zev2012/zev2012.htm>

In accordance with the Government Code, section 11346.8, the Board directed the Executive Officer to adopt in the CCR, title 13, sections 1962.1, 1962.2 and 1962.3, after making them available to the public for comment for a period of at least fifteen days. The Board further provided that the Executive Officer shall consider such written comments as may be submitted during this period, shall make such modifications as may be appropriate in light of the comments received, and shall present the regulations to the Board for further consideration if warranted.

Modified Text Being Made Available for Public Comment

As shown in the 45-Day Public Notice, the existing regulatory language for sections 1962.1 and 1962.2 (renumbered to 1962.3) is denoted by plain text, while additions to the existing regulatory text, as initially proposed, are denoted by single underline and deletions by ~~single-strikeout~~. Attachment A contains additional changes to sections 1962.1, 1962.2, and 1962.3 subject to comment with this notice. The proposed regulatory language for the new section 1962.2 is denoted by plain text with no strike out or underline. The additional proposed changes to sections 1962.1 and 1962.2 (renumbered for 1962.3) that are subject to comment in this 15-Day Public Notice are denoted in Attachment A by double underline and deletions by ~~double-strikeout~~. The additional proposed changes to the new section 1962.2 that are subject to comment in this 15-Day Public Notice are denoted in Attachment A by single underline and deletions by ~~single-strikeout~~. Text for section 1962.1 and 1962.2 (renumbered to 1962.3) in Attachment A that has both single underline and ~~double-strikeout~~ is text that staff proposed in the 45-Day Public Notice but later proposed for retraction as part of this 15-Day Public Notice. And text with ~~single-strikeout~~ and double underline is text proposed for re-inclusion in sections 1962.1 and 1962.2 (renumbered to 1962.3).

Summary of Proposed Modifications

1. Optional Section 177 State Compliance Path

Staff's modifications include an optional Section 177 state ZEV compliance path available for intermediate and large volume manufacturers. In order to be eligible for this optional compliance path, manufacturers must place additional battery electric vehicles (BEV) in the Section 177 states equal to 0.75 percent of sales in 2016 model year and 1.5 percent of sales in 2017 model year. These obligations cannot be met with "traveled" credits, and are in addition to the existing requirements (i.e. 3 percent in each year) which can be met with "traveled" credits. Existing carry-forward and carry-back provisions will remain available to manufacturers. In exchange for these pre-2018 ZEVs placed in Section 177 states, manufacturers will have the following reductions in their allowed transitional zero emission vehicle (TZEV) percentage and minimum ZEV requirement:

Optional Compliance Path Section 177 State Allowed TZEV Credit Percentage

	2015	2016	2017	2018
Percentage Reduction for TZEVs	25%	20%	15%	10%
New TZEV Credit % in Section 177 States	2.25%	2.40%	2.55%	2.25%

Optional Compliance Path Section 177 State Minimum ZEV Credit Percentage

	2018	2019	2020
Percent Reductions for Minimum ZEV Floor	37.5%	25%	12.5%
New minimum ZEV Credit % in Section 177 States	1.25%	3%	5.25%

In addition to the above credit percentage reductions, manufacturers on this optional compliance path will be allowed to “pool” their TZEV and ZEV credits within two regional pools: an East Region pool and a West Region pool. The East Region pool will be defined as Section 177 states east of the Mississippi River. The West Region pool will be defined as the Section 177 states located west of the Mississippi River. Currently, the East Region includes the following states: Connecticut, Maine, Maryland, Massachusetts, Rhode Island, New Jersey, New York, and Vermont. The West Region currently includes the following states: New Mexico and Oregon. Pooling for TZEV credits shall begin in 2015 model year through 2021 model year, and pooling for ZEV credits shall begin in 2016 model year through 2021 model year. Trading between the East and West pools is allowed at a 30% premium. For example, a manufacturer wanting to trade from its East to West pool would take 130 credits from its East pool, and move those credits to its West pool, where the traded credits would be worth 100 credits in its West pool. Intermediate or large volume manufacturers must submit written notification for choosing this path no later than September 1, 2014. Pooling will be assessed on whether the system is working as intended and considered for model years beyond 2021 at a later review of the ZEV regulation. Regulatory language has been added to subdivisions 1962.1(d)(5)(E)3. (and in the incorporated test procedures) and 1962.2(d)(5)(E)3. (and in the incorporated test procedures) to reflect this optional compliance path.

All parties reserve the right to reevaluate this proposal and/or any subsequent agreement in the event of other significant changes to California’s proposed regulation, including changes to California volume requirements. Any changes would need to go through a subsequent rulemaking.

2. GHG-ZEV Over-Compliance

The Board directed staff to pull forward the final application date for manufacturers choosing to use the GHG-ZEV over-compliance provision from May 1, 2018 to December 31, 2016. This will allow staff to consider information on manufacturers’ plans to over-comply with the GHG fleet standard in the mid-term review, scheduled to take place in 2017.

Additionally, as provided in “Attachment E” which was made available at the Board Hearing, staff’s modifications include a provision which states that the GHG-ZEV over-compliance provision is only available if the Board accepts compliance with the Federal GHG fleet standard as compliance with the California GHG fleet standard.

3. PZEV Certification

Staff's modifications include allowing manufacturers to certify 2014 model year PZEVs to the new LEV III standards, which includes super-ultra-low-emission vehicle (SULEV) 20 certification. This modification reflects what is proposed to be allowed under the LEV III regulation. Additionally, staff's modifications allow 2015 through 2019 vehicles (PZEVs, advanced technology PZEVs, and TZEVs) to certify to LEV II exhaust and evaporative emission standards to conform to what is proposed to be allowed under the LEV III regulation.

4. Same Year Method for Calculating the Number of Vehicles to Which the Percentage ZEV requirement is Applied

Staff's changes modify the criteria by which the Executive Officer is to make a decision allowing a manufacturer to use the same year method, as opposed to the previous second, third, and fourth model year average, to when a manufacturer experiences a 30 percent drop in sales rather than 40 percent drop in sales. Staff analyzed manufacturers' sales data from periods in which there were significant drops in vehicle sales.

Based on this analysis, staff considers a 30 percent decline from one model year to the next represents a significant impact to a manufacturer, and is an appropriate threshold for allowing a manufacturer to choose the same year method to determine its ZEV requirements.

5. TZEV Credit Calculation for 2018 and Subsequent Model Years

It has been brought to staff's attention that the use of actual charge depleting range (R_{cda}) for TZEV credit determination might be "gamed" with vehicles equipped with battery systems that may not maintain sufficient power output through several urban dynamometer drive schedule (UDDS) driving cycles to meet the acceleration requirements on electric power alone, and that equivalent all electric range (EAER) would better reflect usable battery capacity. Without the proposed change, blended plug-in hybrid electric vehicles (PHEV) would earn the same credit as ones that could maintain higher power throughout a UDDS range test, where test results would show EAER equal to R_{cda} . The proposed change bases credit on EAER instead of R_{cda} . This modification will not result in a change in credit for most PHEVs, and will allocate credit proportional to the amount of usable energy available on a particular PHEV, a more appropriate metric for PHEV performance in the ZEV regulation.

6. Definition Changes

At the January 2012 hearing, the Board directed staff to resolve remaining inconsistencies regarding the timing when manufacturers are subject to the large volume and intermediate volume ZEV requirements as a result of changing size definition categories for any reason, including change of ownership situations. Staff modified regulatory language in section 1962.1, and in the incorporated test procedure, to ensure manufacturers changing size due to change of ownership would be subject to stepped-up requirements starting in 2018.

7. Delivered for Sale and Placed in Service

Staff's modifications allow manufacturers to earn both delivered for sale and placed in service credits for a ZEV, as long as the ZEV is delivered for sale in either California or a Section 177 state, and placed in service in California or a Section 177 state.

Frequently, especially amongst Section 177 states in the Northeast, dealers trade vehicles across state lines, and manufacturers have little control over where the vehicles are placed in service. Additionally, staff's modifications specify that the total credit for the vehicle (meaning the delivered for sale credit plus the placed in service credit) will be earned in the state in which the ZEV is originally delivered for sale.

8. Hydrogen Internal Combustion Engine Vehicles

Staff's modifications include adding back subdivision 1962.1(c)(3)(B) and subdivision C.3.3(b), which allows hydrogen internal combustion engine vehicles to qualify for zero-emission vehicle miles traveled (VMT) PZEV allowance. Manufacturers have indicated interest in hydrogen internal combustion engine vehicles, and those vehicles will continue to qualify as TZEVs in 2012 and subsequent model years.

9. Alternative Charge Connector

Staff's modifications include an alternative approval process in Section 1962.3 for vehicles with SAE J1772 AC "equivalency" when equipped with a manufacturer provided, safety-listed adapter. This provides flexibility for manufacturers as a DC fast charge connector standard is being developed and adopted.

10. Upstream Emissions and Harmonizing with Federal Regulations

The Board directed staff to have manufacturers include upstream emission associated with ZEVs and TZEVs in their calculation of GHG-ZEV over compliance credits in 2018 through 2021 model year. When staff subsequently updates the regulation to harmonize with the Federal standard, it will make appropriate changes to the regulatory language to ensure upstream emissions associated with ZEVs and TZEVs are included in a manufacturer's calculation of GHG-ZEV over compliance credits.

11. Minor Modifications

Other post-hearing conforming modifications were made to the regulation for clarification and simplification:

Minor modifications for Section 1962.1 and the incorporated Test Procedure

1962.1(b)(1)(B)2. and C.2.1(b)(2): References to light-duty truck "2" (LDT2) have been removed from this section because the phase in of LDT2s in manufacturer's applicable sales volumes will be completed after model year 2011.

1962.1(c)(3)(A) and C.3.3(a): References to the “California Exhaust Emission Standards and Test Procedures through 2017 Model Zero-Emission Vehicles, and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium Duty Vehicle Classes” have been updated, as well as the reference to the equation used to determine the utility factor manufacturers are to use to calculate a zero-emission VMT allowance.

1962.1(d)(5)(E)1. and 2., and C.4.5(e)(1) and (2): Regulatory language has been clarified to specifically apply the provision to large volume manufacturers and intermediate volume manufacturers, which are the only manufacturers with a ZEV requirement. Additionally, language in subdivisions 1962.1(d)(5)(E)1.b. and C.4.5(e)(1)(B) has been clarified to match the regulatory language in subdivisions 1962.1(d)(5)(E)1.a. and C.4.5(e)(1)(A).

1962.1(g)(2)(A) and C.7.2(a): Regulatory language has been clarified to accurately reflect how ZEV credits are calculated. Additionally, language has been added to specify how credits are calculated for model years 2015 through 2017.

1962.1(g)(2)(B) and C.7.2(b): Regulatory language has been clarified to accurately reflect how PZEV credits are calculated. Additionally, language has been added to specify how credits are calculated for model years 2015 through 2017.

1962.1(g)(2)(A) and (B), and C.7.2(a) and (b): Regulatory language has also been clarified to reflect that manufacturers may use the light-duty truck “2” (LDT2) non-methane organic gas (NMOG) fleet average when calculating the amount of credits earned by LDT2 PZEVs and ZEVs in model year 2009 through 2011. For 2012 through 2014 model years, manufacturer are only allowed to use their passenger car (PC) and light-duty truck “1” (LDT1) NMOG average when calculating PZEV and ZEV credits.

1962.1(g)(5)(A) and C.7.5(a): Regulatory language has been clarified to specify that transportation system credits for 2009 through 2011 ZEVs can qualify for the travel provision. The language has been also been corrected to show that TZEVs, Type I.5x vehicles and Type IIx vehicles can earn transportation system credits through model year 2017.

1962.1(g)(5)(C)2. and C.7.5(c)(2): The language has been clarified to specify how the cap for transportation system credits earned by TZEVs applies if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.1(g)(6)(A) and C.7.6(a): The language has been clarified to specify how the cap for both 2001 through 2005 neighborhood electric vehicles (NEV) and 2006 and through 2017 NEVs applies if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.1(i)(5) and B.1: A definition for “conventional rounding method” has been added to clarify how credits are rounded in the ZEV bank and when doing ZEV calculations.

1962.1(i)(6) and B.1: A definition for “East Region pool” has been added due to the new optional Section 177 state compliance path.

1962.1(i)(7) through (18): These subdivisions have been renumbered due to the addition of new definitions.

1962.1(i)(17) and B.1: A definition for “West Region pool” has been added due to the new optional Section 177 state compliance path.

Section D.3: A sentence was added to Section D in the 2009 through 2017 incorporated test procedures in staff’s initial proposal, but was not properly underlined. The new sentence, which requires manufacturers to update their annual NMOG reports if their production numbers on their ZEV reports have been updated, has been indicated by a double underline.

Section F: The Section F title in the 2009 through 2017 incorporated test procedure has been modified to reflect that section F applies to 2012 through 2017 model ZEVs and hybrid electric vehicles. Additionally, a reference has been corrected in the first paragraph of this section due to renumbering of test procedure sections.

Section G: The Section G title in the 2009 through 2017 incorporated test procedures has been modified to reflect that Section G applies to 2012 through 2017 model off-vehicle charge capable hybrid electric vehicles (PHEVs). Additionally a new section G.12 has been added to establish the calculations that must be used to determine the GHG emissions values attributable to PHEVs for the 2017 model year.

Minor Modifications for 1962.2 and the Incorporated Test Procedures

1962.2(a) and C.1: The language has been clarified to reflect that greenhouse gas emissions from a vehicle’s air conditioning system will not exclude the vehicle from counting as a ZEV.

1962.2(c)(3)(A)1. and C.3.3(a)(1): The language has been corrected with the appropriate acronym for all electric range, which is AER, not R_{cda} . Additionally, the reference to the “California Exhaust Emission Standards and Test Procedures for the 2018 and Subsequent Model Zero-Emission Vehicles, and Hybrid Electric Vehicles in the Passenger Car, Light-Duty Truck, and Medium Duty Vehicle Classes” has been corrected.

1962.2(d)(5)(E) and C.4.5(e): The language has been clarified to specifically apply the provision to large volume manufacturers and intermediate volume manufacturers, which are the only manufacturers with a ZEV requirement.

1962.2(d)(5)(G) and C.4.5(g): The minimum range qualification has been corrected from 80 miles range to 75 miles range for range extended battery electric vehicles (BEVx) to match the minimum requirements for BEVxs in 2012 through 2017.

1962.2(g)(2)(A) and C.7.2(a): The language has been clarified for how ZEV credits are calculated if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.2(g)(2)(B) and C.7.2(b): The language has been clarified for how TZEV credits are calculated if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.2(g)(5)(C)1 and C.7.5(c)(1): The language has been clarified to specify how the cap for transportation system credits earned by ZEVs applies if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.2(g)(5)(C)2 and C.7.5(c)(2): The language has been clarified to specify how the cap for transportation system credits earned by TZEVs applies if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.2(g)(6)(A) and C.7.6(a): The language has been clarified to specify how the cap for discounted PZEV and AT PZEV credits and NEV credits applies if a manufacturer chooses to comply with the optional Section 177 state compliance path.

1962.2(g)(6)(B)2.a and C.7.6(b)(2)A.: The language has been corrected to reference the correct subdivision within section 1961.3.

1962.2(i)(3) and B.1.: A definition for “conventional rounding method” has been added to clarify how credits are rounded in the ZEV bank and when doing ZEV calculations.

1962.2(i)(5) and B.1.: A definition for “East Region pool” has been added due to the new optional Section 177 state compliance path.

1962.2(i)(4) – (19): These subdivisions have been renumbered due to the addition of new definitions.

1962.2(i)(17) and B.1.: A definition for “West Region pool” has been added due to the new optional Section 177 state compliance path.

1962.2(j): Some abbreviations have been removed because they no longer apply nor are used in the regulatory text.

Section B.1: Definitions for Discounted PZEVs and AT PZEV credits, energy storage device, hydrogen fuel cell vehicle, and hydrogen internal combustion engine vehicle have been added to the 2018 and subsequent model year test procedures to reflect definitions included in section 1962.2.

Section F: The Section F title has been modified in the 2018 and subsequent model year incorporated test procedures to reflect that section F applies to 2018 and subsequent model ZEVs and hybrid electric vehicles. Additionally, a sentence has been removed that stated manufacturers may certify 2009 through 2011 model year ZEVs and hybrid electric vehicles because the sentence will not apply in the 2018 and subsequent model year timeframe.

Section G: The Section G title has been modified in the 2018 and subsequent model year incorporated test procedures to reflect that section G applies to 2018 and subsequent model ZEVs and hybrid electric vehicles. Additionally, a sentence has been removed that stated manufacturers may certify 2009 through 2011 model year PHEVs because the sentence will not apply in the 2018 and subsequent model year timeframe.

Section J: Section J has been deleted from the 2018 and subsequent model year incorporated test procedures because it the 2009 through 2011 test procedures for 2009 through 2011 model ZEV and hybrid electric vehicles no longer applies.

In addition to the modifications described above, various modifications to the regulatory text have been made to improve clarity.

Written comments will only be accepted on the modifications identified in this notice and may be submitted by postal mail or electronic mail submittal as follows:

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>

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.

In order to be considered by the Executive Officer, comments must be directed to ARB in one of the two forms described above and received by ARB by 5:00 p.m., on the deadline date for public comment listed at the beginning of this notice. Only comments relating to the above-described modifications to the text of the regulations shall be considered by the Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerk of the Board at (916) 322-5594 or by facsimile at (916) 322-3928 no later than five (5) business days from the release date of this notice. TTY/TDD/Speech to Speech users may dial 711 for the California Relay Service.

Si necesita este documento en un formato alternativo u otro idioma, por favor llame a la oficina del Secretario del Consejo de Recursos Atmosféricos al (916) 322-5594 o envíe un fax al (916) 322-3928 no menos de cinco (5) días laborales a partir de la fecha del lanzamiento de este aviso. Para el Servicio Telefónico de California para Personas con Problemas Auditivos, ó de teléfonos TDD pueden marcar al 711.

Attachments

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 ARB's website at www.arb.ca.gov.