

Notice of Public Availability of Modified Text and Availability of Additional Documents and Information

Proposed Advanced Clean Cars II Regulations

Public Hearing Date: June 9, 2022
Public Availability Date: July 12, 2022
Deadline for Public Comment: July 27, 2022

At its June 9, 2022, public hearing, the California Air Resources Board (CARB or Board) considered the proposed Advanced Clean Cars II Regulations (ACC II), which would adopt the following new sections of Title 13, Division 3, of the California Code of Regulations:

- 1961.4, 1962.4, 1962.5, 1926.6, 1962.7, and 1962.8

and would amend the following sections:

- 1900,¹ 1961.2,² 1961.3, 1962.2, 1962.3, 1965, 1968.2, 1969, 1976, 1978, 2037,³ 2038, 2112,⁴ 2139,⁵ 2140, 2147,⁶ 2317,⁷ and 2903.⁸

This proposal will, if adopted, increase the stringency of existing state regulations to ensure motor vehicle emissions are reduced under a wider range of conditions under which vehicles are used and will transition new light-duty vehicle sales in California are 100-percent zero emission vehicles (ZEV) and plug-in hybrid electric vehicles (PHEV) by 2035, including provisions focused on ensuring battery performance aligned with these goals, and on supporting equitable access to these vehicles and corresponding emissions reductions consistent with environmental justice principles. In addition to the substantive proposals, several conforming changes are proposed to related regulations (predominantly the Low-

¹ Section 1900 is under Chapter 1, "Motor Vehicle Pollution Control Devices," Article 1, "General Provisions."

² Sections 1961.2 through 1978 are under Chapter 1, Article 2 "Approval of Motor Vehicle Pollution Control Devices (New Vehicles)."

³ Sections 2037 and 2038 are under Chapter 1, Article 6, "Emission Control System Warranty."

⁴ Section 2112 is under Chapter 2 "Enforcement of Vehicle Emission Standards and Surveillance Testing," Article 2.1, "Procedures for In-Use Vehicle Voluntary and Influenced Recalls."

⁵ Sections 2139 and 2140 are under Chapter 2, Article 2.3, "In-Use Vehicle Enforcement Test Procedures."

⁶ Section 2147 is under Chapter 2, Article 2.4, "Procedures for Reporting Failures of Emission-Related Components."

⁷ Section 2317 is under Chapter 8, "Clean Fuels Program."

⁸ Section 2903 is under Chapter 16, Article 2, "Certification Fees for On-Road Mobile Sources."

Emission Vehicle (LEV) regulations) to maintain consistency with existing regulations and maintain existing requirements in regulations that are not being proposed for amendment.

At its hearing on June 9, 2022, the Chair of the Board directed the Deputy Executive Officer to consider the oral and written comments on the proposed regulations and develop any appropriate related modifications to the proposed regulations and to make any such proposed modified regulatory language available for public comment, with any additional supporting documents and information, for a period of at least 15 days in accordance with Government Code section 11346.8.

The Chair of the Board also directed the Deputy Executive Officer to evaluate all comments received during the public comment periods, including comments raising significant environmental issues, and prepare written responses to such comments as required by the California Environmental Quality Act, Public Resources Code, section 21000, et seq., under CARB's certified regulatory program at California Code of Regulations, title 17, sections 60000-60007, and by Government Code section 11346.9, subdivision (a).

Pursuant to that evaluation, the Deputy Executive Officer will present to the Board, at a subsequently scheduled public hearing, staff's written responses to environmental comments and the final environmental analysis for consideration for approval. The Deputy Executive Officer will also present the finalized regulations and amendments for consideration for adoption.

The proposed modifications to the proposed regulations that are available for comment are as follows:

- The text of the modified regulatory language for proposed sections 1961.4, 1962.4, 1962.5, 1926.6, 1962.7, and 1962.8, Title 13, California Code of Regulations is shown in Attachments [B-2](#), [H-2](#), [I-2](#), [J-2](#), [K-2](#), and [L-2](#).
- The text of the modified regulatory language to amended sections, 1961.2, 1962.3, 1965, 1968.2, 1969, 2037, 2038, and 2903, Title 13, California Code of Regulations is shown in Attachments [A-2](#), [G-2](#), [C-2](#), and [M-2](#).
- The text of the modified regulatory language for the test procedures incorporated in the regulations by reference is shown in Attachments [D-2](#), [E-2](#), [F-2](#), and [N-2](#).

In addition, CARB staff has also added to the rulemaking record additional references to serve as an addendum to the Staff Report released on April 12, 2022. These are shown in Attachment O. No changes have been made to Appendices A-3, B-3, B-5, B-7, or B-8 of the Staff Report and therefore, they are not included in this notice of proposed changes.

In the Final Statement of Reasons, staff will respond to all comments received on the record during the comment periods. The Administrative Procedure Act requires that staff respond to comments received regarding all noticed changes. Therefore, staff will only address comments received during this 15-day comment period that are responsive to this notice, documents added to the record, or the changes detailed in the attachments.

All regulatory documents for this rulemaking are available online at the following [CARB website: https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii](https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii).

Background of Proposed Modifications

The following provides a general overview of the proposed modifications, their purpose, and the reasons for making them. This overview does not address non-substantive modifications to correct typographical or grammatical errors, changes in numbering or formatting, addition of or edits to internal regulatory cross-references, or similar revisions that improve clarity.

A. Low-Emission Vehicle Modifications (On-Board Diagnostics)

The ACC II proposal includes amendments to section 1968.2, titled “Malfunction and Diagnostic System Requirements - 2004 and Subsequent Model-Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles and Engines,” also referred to as On-Board Diagnostics II or OBD II for short. As described in the Initial Statement of Reasons (Staff Report or ISOR) for this proceeding (p. 103), OBD systems are required to detect emission control system malfunctions as they occur. This helps protect against emission control degradation, and thus increased emissions, over time. OBD II derives its emissions thresholds from the emission bins established in low-emission vehicle rulemakings. Because ACC II is proposing new low-vehicle emission standards with additional emission bins, it is necessary to amend OBD II accordingly to ensure proper monitoring and detection of emission control system malfunctions.

CARB is also currently amending OBD II in a separate proceeding. This rulemaking was initiated in 2021. On February 15 and April 22, 2022, CARB proposed additional 15-day amendments to its OBD II regulations.⁹ These notices are available on CARB’s website here: [On-Board Diagnostic System Requirements \(OBD II & HD OBD\) | California Air Resources Board](#), which CARB is also adding to the References of the ACC II proceeding as additional documents relied upon and making them available for public comment.

The OBD II proceeding was not yet completed when CARB proposed the ACC II amendments. Because of this, the Notice of the proposed ACC II amendments presented the proposed amendments (see Appendix A-11 to the ISOR) as changes to the text of section 1968.2 as it was then in effect and without the changes proposed in the OBD II proceeding.

Staff is proposing additional amendments to its ACC II program that are related to the initial ACC II proposal and that are the subject of this notice. These additional amendments include further changes to section 1968.2.

⁹ Notice of Availability of Modified Text and Availability of Additional Documents and/or information (OBD II 15-Day Notice), February 15, 2022, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/obd2021/15daynotice.pdf>; Second Notice of Public Availability of Modified Text (OBD II Second 15-Day Notice), April 22, 2022, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2021/obd2021/2nd15daynotice.pdf>.

Staff intends for all the changes to section 1968.2 that are ultimately adopted in the OBD II proceeding to apply along with the changes it is proposing in the ACC II proceeding. To ensure the public clearly understands how the ACC II proposal would amend section 1968.2 along with the current OBD II proposal, the ACC II proposed amendments are being made available for public comment shown with the relevant changes proposed in the OBD II proceeding.

Specifically, the following subsections of section 1968.2 reflect proposed changes in the OBD II proceeding that relate to ACC II amendments or proposed changes by ACC II that are tied to the OBD proposed changes:

1. 1968.2(d)(3.2.1)(G)(vi)
2. 1968.2(e)(11.2.3)
3. 1968.2(e)(17.1.6)(C)
4. 1968.2(f), Table 3
5. 1968.2(f)(9.2.1)(A)(ii)e
6. 1968.2(f)(17.1.8)(A)(ii) and (iii)
7. 1968.2(h)(2.2.1)
8. 1968.2(k)(7.3)

The changes to section 1968.2 by the OBD II proposal are described fully, including the purpose and rationale for each proposed change, in the notices referenced above and the ISOR for the OBD II proposal.¹⁰ The relevant changes from the OBD II proposal are summarized in Attachment C-1 for completeness, along with complete descriptions of the additional proposed changes by the ACC II program.

B. Zero-Emission Vehicle Modifications

Staff is proposing changes to the proposed ZEV regulation in response to comments and direction from the Board at its first hearing. These changes include allowing manufacturers of motor vehicles to count medium-duty ZEVs to optionally certify to section 1962.4 and be used to meet a manufacturer's annual ZEV obligation rather than to meet requirements under Advanced Clean Trucks (ACT), adding a same year production volume determination method, revising durability requirements for ZEVs for 2026 through 2030 model year, creating a cumulative allowance for usage of converted ZEV and PHEV values, linking this cumulative allowance to the use of environmental justice vehicle values, allowing hydrogen fuel cell electric vehicles (FCEV) to earn proportional values in each adopting state, and creating a certification path for ZEVs with less than 150-mile label range. These changes are intended to facilitate compliance,

¹⁰ Public Hearing to Consider the Proposed Revisions to the On-Board Diagnostic System Requirements and Associated Enforcement Provisions for Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles and Engines, and Heavy-Duty Engines, Staff Report: Initial Statement of Reasons (OBD II ISOR), [OBD II HD OBD ISOR \(ca.gov\)](#), which CARB is adding to the References of the ACC II proceeding as an additional document relied upon and making it available for public comment.

ensure emissions are reduced, further support emissions reductions aligned with equity goals, and minimize burdens that do not have a corresponding benefit.

Background: Medium-Duty ZEVs

Currently, manufacturers that produce medium-duty ZEVs can earn credit through either California Code of Regulations (CCR), title 13, section 1963, et seq. (the Advanced Clean Trucks Regulation, or ACT), or section 1962.2 (the current ZEV regulation). Several stakeholders commented on the proposal asking CARB to retain the option for a manufacturer to choose under which regulation (ACC II or ACT) to earn vehicle values or credits for medium-duty ZEVs, as there is overlap between ACC I and ACT. However, the proposed test procedures for 2026 and subsequent model year ZEVs and PHEVs did include medium-duty ZEVs and envisioned some medium-duty ZEVs still needing a certification path, even to be counted under ACT.

Following stakeholder conversations, staff is proposing to modify section 1962.4 to explicitly apply to medium-duty vehicles, similar to the current ZEV regulation and the proposed ZEV test procedures that apply to medium-duty vehicles, allowing manufacturers to choose to certify such vehicles under ACC II, provided the vehicles are counted in the production volume used to calculate a manufacturer's requirement and meet other requirements that staff proposes. This inclusion is additionally important as light-duty trucks transition to full electric models. For example, as noted in the Staff Report, Ford Motor Company has certified and is bringing to market the F-150 Lightning, a full-function battery-electric vehicle (BEV) with over 300 miles of electric range. In transforming the F-150 from a gasoline truck to a fully electric truck, the weight of the battery has caused this truck, which is typically classified as a light-duty truck, to be classified as a medium-duty vehicle in some of the electric versions. Other manufacturers may find themselves in a similar position and the regulation should accommodate that possibility in ways consistent with its goals. These proposed amendments also ensure consistency with the proposed test procedures and current regulatory practice, are responsive to stakeholder feedback, and promote compliance with the ZEV requirements.

Background: Production Volume Determination Methods

Prior to the current Advanced Clean Cars program (ACC I), regulated manufacturers were provided the option to choose a previous-year-average method or a same-year method for determining their production volume, which was then used to calculate a manufacturer's annual ZEV obligation. However, this option led to manufacturers often choosing the method that would give them a lesser requirement for any given model year. Therefore, staff switched in the ACC I program to a default previous-average method, with the option to switch only when a manufacturer experienced a significant drop in sales.¹¹

¹¹ CARB 2012. California Air Resources Board. Advanced Clean Cars Initial Statement of Reasons (P. 41-42) <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2012/zev2012/zevisor.pdf> Accessed May 24, 2022.

During 45-day comment period for ACC II, stakeholders commented that the default previous-year average method should continue to avoid potential difficulties in planning for compliance. Stakeholders also indicated a desire for a same-year method while agreeing that the regulation should be designed to preclude choosing a method solely to reduce compliance obligations in ACC II. Additionally, staff's proposed 2035 model year 100-percent stringency can only reach 100-percent of sales if a same-year method for manufacturers is used in model year 2035. If a previous-year average continues to be the default method to determine production volume through 2035 model year, manufacturers may be required to offer for sale more ZEVs than the actual number of vehicles they produce in 2035 or may be required to offer for sale less than 100-percent ZEVs and PHEVs. This modification to the previous-year average method facilitates compliance with the requirements for 100-percent ZEV and PHEV sales by the 2035 model year.

Background: ZEV Durability Requirements and Enforcement

Battery durability is a critical component of these regulations, as it ensures that ZEVs can function as full replacements for internal combustion engine vehicles with similar lifespans and ranges. Durable and repairable batteries also are needed for a robust used vehicle market, where many people buy cars— thereby further reducing emissions if buyers can rely on these vehicles. However, based on discussions with manufacturers and suppliers, battery cell or chemistry design changes continue to require significant lead time to incorporate into vehicles. Accordingly, manufacturers have already committed to battery designs that they will be using in the early years of staff's proposed new requirements. Given the proposed standards were not in place when the manufacturers had to make these design choices, several have acknowledged that they have already selected upcoming battery designs that sacrifice durability relative to today's batteries to further reduce cost. Further, while manufacturers have developed methods to simulate aging of batteries to project in-use degradation, most manufacturers still have limited experience with older and high-mileage on-road vehicles to validate their aging test methods. Recognizing the designs that have already been selected and the lead time needed to cost-effectively plan for the proposed durability standards while also refining methods to simulate aging, staff is proposing modifications to provide additional time for implementing the more stringent form of the durability standards while still setting standards for each model year that will ensure a baseline of performance. This will facilitate compliance and remove barriers from long-term design and manufacturing decisions made before the regulations were proposed, while still providing these protections and increasing them over time.

Background: Changes to Converted ZEV and PHEV Values

Recognizing that increased sales of ZEVs and PHEVs above currently required levels benefit the public and reduce emissions, the original proposal allowed for crediting a portion of these sales, including those in coming years before the first year of the new program, against program compliance. This approach supports a steady ramp-up in sales, which in turn can support extended infrastructure for charging and fueling, increase consumer acceptance, and begin to grow the used vehicle market, among other benefits. Specifically, staff proposed for converted ZEV and PHEV values to be allowed for use to

meet up to 15-percent of a manufacturer's annual requirement in the cases where they have not produced sufficient vehicles to fully meet the requirement (called a manufacturer's ZEV shortfall). For context, converted ZEV and PHEV values are excess credits earned under the existing ZEV regulation (Cal. Code Regs., tit. 13, § 1962.2) that have been converted using a factor to be useable within the proposed ZEV regulation. Since the release of the Staff Report, manufacturers have commented that they need additional flexibility to use converted ZEV and PHEV values between the 2026 and 2030 model years, which staff finds reasonable given the proposed stringency for some manufacturers who are further behind in electrification; in essence, this flexibility provides some compliance options for manufacturers – but only so long as real cars are being introduced into the market, while encouraging even earlier introductions than might have otherwise occurred. The first of the proposed changes is to use the same conversion factor for both ACC I PHEV and ZEV credits, rather than two different factors as proposed in the Staff Report. As originally proposed, ZEV and PHEV credits were converted using different factors, which inadvertently resulted in significantly reduced ZEV credits while having minimal impact on the PHEV credits. However, this approach does not recognize how the credit system within ACC I already was set up to equalize PHEVs and ZEVs with variable credit amounts for each technology. Therefore, taking an average of all ZEVs and PHEVs, a common factor of 2.1 is proposed to convert all ACC I credits into converted ZEV and PHEV values to more accurately reflect vehicle production and regulatory treatment for the two technologies.

Second, staff is proposing to create a cumulative allowance option in addition to the annual allowance on converted ZEV and PHEV values. This allows manufacturers to use the same total number of converted ZEV and PHEV values but with more flexibility on when to apply those values between the 2026 and 2030 model years. This change is not expected to lead to any fewer 2026 through 2030 ZEVs and PHEVs but will facilitate compliance while reducing burdens and continuing to incentivize earlier ZEV and PHEV introductions prior to the model years covered. Additionally, because of the chosen regulatory design of CARB's vehicle emission standards to reduce criteria pollutant and greenhouse gas emissions through fleet-wide averages, those standards maintain the expected emission reductions from manufacturers' fleets of combustion vehicles independently of the emission reductions from the proposed ZEV requirements.

Third, staff is proposing to link the usage of environmental justice values to usage of the full cumulative allowance option. In response to public comment and direction from the Board, staff is proposing this change to encourage manufacturers' generation of environmental justice values, so as to promote more direct action in disadvantaged communities and support electric vehicle adoption among lower income drivers. Staff is proposing that a manufacturer that uses environmental justice values equal to or greater than 0.5 percent of their annual requirement in one model year will be able to use a larger cumulative allowance for three model years. A manufacturer that uses the threshold amount of environmental justice values in one or two additional model years will have this flexibility extend for one or two more model years, respectively. Setting the threshold for a manufacturer to use the larger cumulative allowance in relationship to environmental justice value use will help incentivize such use, furthering the intent of the regulations to

reduce emissions in disproportionately impacted communities. It is necessary to select either generation or use for the threshold so that manufacturers may not claim the values upon generation and again upon use, if the values are generated and used in different model years or by different manufacturers. Staff is proposing to set the threshold with regard to environmental justice value use, rather than generation, to encourage generation of these values by manufacturers that may not need them by creating demand by other manufacturers to acquire and use the values even if they are not in a position to generate the value themselves.

These flexibilities for early- and over-compliance represent real emission reductions on the road delivering benefits sooner than otherwise required by the regulations. They are consistent in principle with a long history of averaging, banking, and trading emission performance within and across model years of vehicles, between manufacturers, and across states in recognition of the authority of the federal Clean Air Act provision that allows other states to choose to adopt California's vehicle and engine standards (42 U.S.C. § 7507, known as "Section 177"). This long-standing regulatory approach helps manufacturers meet the expected emission reductions of the regulations while minimizing costs by maximizing flexibility. The allowances proposed here are similarly justified considering the emission benefits and the benefit they provide manufacturers through flexibilities that can reduce the overall cost of the requirements by letting manufacturers benefit from greater market acceptance of clean technology. With respect to those allowances, like for environmental justice vehicle values or the proportional FCEV values summarized below, that provide a benefit to manufacturers, the slight decrease in ZEVs on the road in a given year that may result from use of the allowances is justified and necessary to achieve the overall goals of the regulations because the allowances incentivize clean technology in places they might not otherwise reach and at times earlier than otherwise required. Details are explained in individually proposed subsections below.

Background: Proportional FCEV Values

Current regulations under ACC I provide manufacturers with an additional incentive to produce and deliver FCEVs for sale by allowing proportional values of FCEVs sold in one state to count towards ZEV sales requirements in other Section 177 ZEV states. This flexibility in ACC I accounts for the inherent need for hydrogen fueling infrastructure to be developed in a given state before FCEVs become a viable option for manufacturers and consumers in that state. Hydrogen station development has progressed significantly in California over the past two decades but is still limited in other states. Privately funded efforts have developed stations in some Northeast states, but regulatory and other barriers have kept them from opening for retail hydrogen fuel sales. Hydrogen proponents report recent momentum in some Northwest states towards initiating hydrogen infrastructure development but no retail hydrogen fueling stations have yet been developed in the region. Significant retail hydrogen infrastructure development outside of California is still not expected for several years.

At the same time, scenarios modeled in staff's compliance pathway for the proposed ACC II regulation suggest that FCEVs will be an important technology to successfully

transition to a fully electrified light-duty fleet. While staff's modeled compliance pathway shows FCEVs are expected to be higher cost than comparable BEVs in the near-term, some vehicle platforms and duty cycles are projected to be very attractive for FCEV technology in 2030 and later model years. To this end, staff is proposing to allow proportional values for FCEVs through 2030. To limit this flexibility, staff is proposing a maximum allowance of 10-percent of a manufacturer's annual requirement that could be met with such proportional values. This will facilitate compliance and promote development of FCEV technology by allowing manufacturers to continue to use FCEVs to meet part of their annual ZEV requirement in California or any states that have chosen to adopt California's standards where infrastructure may effectively limit sales. The allowance limits the number of proportional values generated to maintain much of the emission benefits of the technology.

Proposed Modifications

This section describes how the changes being proposed under this Notice are presented for review. For these purposes, the originally proposed changes to the regulations and test procedures that were released for public comment for a period of at least 45 days on April 12, 2022, are referred to as the 45-Day Changes. The proposed changes to the 45-Day Changes that are being made available under this Notice for a public comment period of at least 15 days are referred to as the 15-Day Changes.

Attachments A through N of this Notice describe in narrative form the substantive 15-Day Changes to the regulations and test procedures and reasons for making them and provide in three forms the text of the 15-Day Changes. The first two forms of the 15-Day Changes are presented to ensure the proposed changes are clear and accessible to meet the requirements of (a) the Administrative Procedure Act for clearly showing proposed changes to the proposed regulations, and (b) state and federal law for documents posted on CARB's webpage to be accessible.

The third form shows both the 45-Day Changes and the 15-Day Changes against preexisting regulations and test procedures. Please note, for the regulations and test procedures that are newly proposed for adoption,¹² there is no preexisting law to compare with; the changes for these regulations and test procedures reflect the 15-Day Changes relative to the 45-Day Changes.

The Attachments have been organized by LEV-related and ZEV-related regulatory sections. They follow the order of the California Code of Regulations subsection or related subsection for test procedures.

The descriptions of the proposed changes to the regulations and test procedures and the reasons for making them can be found in the Attachments denoted with the suffix "-1."

¹² That is, Cal. Code Regs., tit. 13, §§ 1961.4, 1962.4, 1962.5, 1962.6, 1962.7, 1962.8, and incorporated newly-proposed test procedures.

The Attachments showing the specific proposed modifications to the text of the proposed regulation orders or test procedures available for comment with this Notice are provided in the two formats denoted with the suffixes "-2" and "-2.1."

In the versions denoted -2, the 45-Day Changes are shown in "normal type." The deletions and additions to the 45-Day Changes that comprise the 15-day Changes that are being made public and available for comment with this Notice are shown in ~~striketrough~~ to indicate deletions and underline to indication additions.

In the versions denoted -2.1, the 15-Day Changes are provided in a tracked-changes format to meet requirement for accessible electronic documents.¹³ The 45-Day Changes are incorporated into this version as plain, clean text because they are not being made available for public comment by this Notice. The Proposed 15-day Changes are shown in tracked changes and are made public with this Notice and available for comment. To review this document in a clean format, without underline or strikeout to show changes, that shows all the proposed regulations being considered for adoption, please select "Simple Markup" or "No Markup," or accept all changes in Microsoft Word's Review menu. You can also change the view to the initially-proposed 45-Day Changes (originally proposed regulatory text prior to proposed modifications) by selecting "Original" or rejecting all tracked changes. Additionally, "Advanced Track Changes Options" will allow for further options regarding color and other markings.

In versions denoted -3.1, the existing, original regulatory language currently adopted into the California Code of Regulations (pre-45-Day Changes) is shown as plain, clean text, while the 45-Day changes and the proposed 15-Day Changes are combined and shown in tracked changes. To review the net proposal in this document in a clean format (no underline or strikeout to show changes), please select "Simple Markup" or "No Markup" in Microsoft Word's Review menu or accept all changes. You can also change the view to the original (originally proposed regulatory text prior to proposed modifications, or 45-Day Changes) by selecting "Original" or rejecting all tracked changes. By progressing through the changes and comparing them with the 15-Day Changes, the public can see the net and step-wise changes being proposed in relation to existing law. Please refer to the versions denoted -2 and -2.1 (accessible format) to review the 15-Day Changes available for comment. As noted above, for regulations and test procedures that are being proposed as entirely new, there is no preexisting text, so there is no version denoted -3.1.

For places in the proposes regulations and test procedures with [bracketed text], this indicates placeholder text to be updated upon approval of these amendments. These Attachments also include additional modifications correcting grammar, punctuation and spelling that have been made throughout the proposed changes; these changes are nonsubstantive and therefore not included in the summary of the proposed changes in Attachments denoted with the suffix -1.

¹³ See, e.g., Assem. Bill 434, stats. 2017, ch. 780.

In the interest of completeness and in accordance with Government Code section 11347.1, subdivision (a), staff has also added to the rulemaking record and invites comments on the additional documents listed in Attachment O.

These documents are available for inspection at the California Air Resources Board, 1001 I Street, Sacramento, California, 95814, between the hours of 9:00 am to 4:00 pm, Monday through Friday (excluding holidays). To inspect these documents please contact Bradley Bechtold, Regulations Coordinator, at (279) 208-7266.

The Attachments are as follows:

Attachment A - Amendments to Sections 1961.2, 1965, 2037, 2038, and 2903, Title 13, California Code of Regulations (LEV III and other LEV Requirements)

Attachment A-1 Summary of Proposed 15-day Modifications
Attachment A-2 Proposed 15-day Modifications to Proposed Regulation Order (compared to version released for 45-day comments)
Attachment A-2.1 ~Alternative format to Attachment A-2~
Attachment A-3.1 Proposed 15-day Modifications to Proposed Regulation Order (compared to existing regulatory text) in Alternative format

Attachment B - Adoption of new Section 1961.4, Title 13, California Code of Regulations (LEV IV)

Attachment B-1 Summary of Proposed 15-day Modifications
Attachment B-2 Proposed 15-day Modifications to Proposed Regulation Order (compared to version released for 45-day comments)
Attachment B-2.1 ~Alternative format to Attachment B-2~

Attachment C - Amendments to Section 1968.2, Title 13, California Code of Regulations (On-board Diagnostics)

Attachment C-1 Summary of Proposed 15-day Modifications
Attachment C-2 Proposed 15-day Modifications to Proposed Regulation Order (compared to version released for 45-day comments)
Attachment C-2.1 ~Alternative format to Attachment C-2~
Attachment C-3.1 Proposed 15-day Modifications to Proposed Regulation Order (compared to existing regulatory text) in Alternative format

Attachment D - Amendments to California 2015 through 2025 Model Criteria Pollutant Exhaust Emission Standards and Test Procedures and 2017 and Subsequent Model Greenhouse Gas Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles

Attachment D-1 Summary of Proposed 15-day Modifications
Attachment D-2 Proposed 15-day Modifications to Proposed Regulation Order (compared to version released for 45-day comments)

Attachment D-2.1 ~Alternative format to Attachment D-2~
Attachment D-3.1 Proposed 15-day Modifications to Proposed Regulation Order
(compared to existing regulatory text) in Alternative format

Attachment E - Adoption of new California Evaporative Emission Standards and Test Procedures for 2026 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, Medium-Duty Vehicles, and Heavy-Duty Vehicles

Attachment E-1 Summary of Proposed 15-day Modifications
Attachment E-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment E-2.1 ~Alternative format to Attachment E-2~

Attachment F - Adoption of new California 2026 and Subsequent Model Criteria Pollutant Exhaust Emission Standards and Test Procedures for Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles

Attachment F-1 Summary of Proposed 15-day Modifications
Attachment F-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment F-2.1 ~Alternative format to Attachment F-2~

Attachment G - Amendments to Section 1962.3, Title 13, California Code of Regulations (Electric Vehicle Charging Requirements)

Attachment G-1 Summary of Proposed 15-day Modifications
Attachment G-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment G-2.1 ~Alternative format to Attachment G-2~
Attachment G-3.1 Proposed 15-day Modifications to Proposed Regulation Order
(compared to existing regulatory text) in Alternative format

Attachment H - Adoption of new Section 1962.4, Title 13, California Code of Regulations (ZEV Standards for MY2026 and subsequent)

Attachment H-1 Summary of Proposed 15-day Modifications
Attachment H-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment H-2.1 ~Alternative format to Attachment H-2~

Attachment I - Adoption of new Section 1962.5, Title 13, California Code of Regulations (Data Standardization)

Attachment I-1 Summary of Proposed 15-day Modifications
Attachment I-2 Proposed 15-day Modifications to Proposed Regulation Order

(compared to version released for 45-day comments)
Attachment I-2.1 ~Alternative format to Attachment I-2~

Attachment J - Adoption of new Section 1962.6, Title 13, California Code of Regulations (Battery Label)

Attachment J-1 Summary of Proposed 15-day Modifications
Attachment J-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment J-2.1 ~Alternative format to Attachment J-2~

Attachment K - Adoption of new Section 1962.7, Title 13, California Code of Regulations (In-Use Compliance, Corrective Action and Recall Protocols)

Attachment K-1 Summary of Proposed 15-day Modifications
Attachment K-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment K-2.1 ~Alternative format to Attachment K-2~

Attachment L - Adoption of new Section 1962.8, Title 13, California Code of Regulations (Warranty Requirements)

Attachment L-1 Summary of Proposed 15-day Modifications
Attachment L-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment L-2.1 ~Alternative format to Attachment L-2~

Attachment M - Amendments to Section 1969, Title 13, California Code of Regulations (Motor Vehicle Service Information)

Attachment M-1 Summary of Proposed 15-day Modifications
Attachment M-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment M-2.1 ~Alternative format to Attachment M-1~
Attachment M-3.1 Proposed 15-day Modifications to Proposed Regulation Order
(compared to existing regulatory text) in Alternative format

Attachment N – Adoption of new California Test Procedures for 2026 and Subsequent Model Year Zero-Emission Vehicles and Plug-In Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck and Medium-Duty Vehicle Classes

Attachment N-1 Summary of Proposed 15-day Modifications
Attachment N-2 Proposed 15-day Modifications to Proposed Regulation Order
(compared to version released for 45-day comments)
Attachment N-2.1 ~Alternative format to Attachment N-2~

Attachment O – Additional Documents or Incorporated Documents Added to the Record

Attachment P – Revised Tables to ISOR Appendix G, ACC II ZEV Technology Assessment

Environmental Analysis Summary

The proposed modifications do not change implementation of the regulations in a way that affects the impact conclusions of the Draft Environmental Analysis (Draft EA) included as Appendix E of the Staff Report. Many of the modifications consist primarily of revisions to provide more flexibility in complying with the requirements, as well as definition, numbering, and provision clarifications that do not alter the compliance responses or associated impact conclusions. Where modifications are made that affect compliance responses, they do not result in any new reasonably foreseeable significant environmental impacts or substantially increase the severity of an identified environmental impact. Therefore, no additional environmental analysis or recirculation of the Draft EA is required.

As noted in the Draft EA, implementation of the proposed ACC II Regulations would result in an increase in manufacturing of ZEVs and PHEVs, along with a corresponding decrease in the manufacturing and deployment of gasoline fueled vehicles. While the manufacturing for vehicles may largely be met by existing facilities, increased demand for lithium-ion batteries would increase battery production and manufacture, resulting in the expansion of or construction of new battery manufacturing facilities to supply batteries for the vehicles. Fleet turnover would be largely unaffected because the proposed sales requirement applies at the time of new vehicle sales. This increase in ZEV and PHEV volumes would result in associated increases in lithium, nickel, cobalt, and possibly platinum mining and exports from source countries or other states. Implementation of the proposed ACC II Regulations would also result in the construction of new hydrogen fueling stations and electric vehicle charging stations to support ZEV operations. Likewise, increased deployment of ZEVs would result in an increase in production and distribution of electricity and hydrogen fuel, while potentially decreasing rates of oil and gas extraction and gasoline refining activities. The proposed ACC II Regulations would also result in increased demand for refurbishing, reusing, and recycling of batteries and fuel cells in which new facilities may be constructed or modifications to existing facilities may occur. The proposed modifications do not alter these compliance responses in any way that would result in new significant environmental impacts, or substantially increase the severity of a previously identified significant impact in the Draft EA.

Also as analyzed in the Draft EA, manufacturers would be expected to reduce emissions from conventional vehicles to comply with the proposed ACC II Regulations using a range of technologies and solutions. Manufacturers would be expected to improve current emission control system technologies across their light- and medium-duty vehicle fleet, including improved evaporative emission control systems based on vehicle redesign, more efficient catalysts with higher precious metal loadings, and better calibration of vehicles.

The proposed ACC II Regulations would also require BEVs, FCEVs, and PHEVs to meet a suite of ZEV assurance measures, which include durability, battery warranty, battery labeling, service information, charging standardization, and on-board data standardization. Most of these proposed measures mimic similar standards already in place for gasoline vehicles. Therefore, as the fleet is converted from conventional vehicles to ZEVs, most of these measures would not result in a new compliance response. However, these measures may result in less solid waste, manufacturing, and disposal impacts as the ZEVs and PHEVs last longer, are more accessible for repair, and their batteries are labelled for convenient reuse or recycling.

As noted above, the determination has been made that the proposed modifications to the durability requirement would not result in any new significant environmental impacts or increases in the environmental impacts already identified and analyzed in the Draft EA. More specifically, the proposed modifications to the proposed ACC II Regulations are located within aspects of the proposed regulations that were considered as part of (although not explicitly identified) within the Draft EA. For example, the on-board diagnostics proposal within the low emission vehicle modifications were considered, though would not lead to any compliance responses that would cause a significant effect on the environment. With respect to the durability requirements, as described in Attachment H-1, the proposed modifications to 1962.4, subsection (d)(2)(A) and (B) change staff's assumption about the proportion of usable battery energy that would be used by the vehicle, which in turn influences the battery pack size needed to achieve the desired BEV driving range. By reducing the durability requirement for the 2026 through 2029 model years, staff assumes that the usable battery energy percentage increases from 92.5 percent as described in the Staff Report (p. 159) to 95 percent, which in turn reduces the battery costs and associated incremental vehicle price for BEVs during these model years. These reduced incremental BEV prices change the relative ranking of ZEV technologies and result in a lower percentage of PHEVs predicted to be sold in the 2028 through 2033 model years than was assumed in the Staff Report (and commensurately a higher percentage of BEVs sold in those same model years). The fleet mix for the anticipated compliance response therefore shifts slightly to a higher proportion of BEVs; however, the total number of ZEVs and PHEVs analyzed does not change.

The increase in anticipated BEV sales from the proposed regulations would further reduce criteria pollutant and greenhouse gas emissions from both tailpipe and upstream sources relative to the emission benefits estimated as part of the Draft EA. The overall magnitude of this increased reduction in emissions from the predicted effects of the proposed modifications on PHEV sales would be minimal because (1) the emission inventory estimates that PHEVs will be driven for most of their miles in electric mode with no tailpipe emissions, and (2) the total volume of PHEVs no longer estimated to be in the fleet represents less than five percent of all the new vehicles sold over the program.

Furthermore, modifications to the battery durability requirement would not be anticipated to change battery lifespan impacts nor change the compliance response that battery production and mineral demand will increase. While the battery durability requirement modification allows for a lower range target than originally proposed in the early years of the program, the term of the requirement is maintained at 10 years/150,000 miles. As such, the modification

would not be anticipated to meaningfully change battery lifespan impacts. As briefly described above, the durability change is predicted to result in a slight increase in usable battery percentage that enables smaller battery pack sizes assumed for all BEVs from 2026 to 2029, resulting in a slight decrease in battery production demand in the early years of the program. However, as a higher proportion of longer range BEVs are now anticipated in the middle years of the program (replacing PHEVs with smaller battery packs), battery production demand would likely to be slightly higher than originally estimated in these years. Overall, relative to an original scenario estimate of demand, the battery production and mineral resource demand would likely decrease slightly in the early years of the program because smaller battery packs are assumed and is likely to increase in the 2028 to 2033 model years when more BEVs relative to PHEVs are anticipated. The changes in this potential fleet-wide compliance pathway that incorporates updated assumptions due to the durability modifications represents only one of many technology fleet mix outcomes based on a lowest cost scenario. The Advanced Clean Cars II Regulations allow a mix of BEVs, FCEVs, and PHEVs in differing proportions than estimated in this scenario. This durability modification does not affect the conclusions of the Draft EA because the proposed project, as modified would have greater emission reductions than described in the Staff Report, and the changes to compliance responses are minimal and do not result in any new significant environmental impacts or substantially increase the severity of a previously identified significant impact already identified and analyzed. Clarifications will be made within the Final EA to more explicitly identify how the proposed modifications would not result in additional impacts beyond those previously identified.

In summary, the Draft EA for the proposed ACC II Regulations concluded that implementation could result in: beneficial impacts to air quality (long-term operational) and greenhouse gas emissions; less than significant impacts, or no impacts, to energy demand, land use, mineral resources, population and housing, public services, recreation, and wildfire; and potentially significant adverse impacts to aesthetics, agricultural and forest resources, air quality (short-term construction related), biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise and vibration, transportation, tribal cultural resources, and utilities and service systems. None of the proposed modifications would result in a new significant environmental impact, or substantially increase the severity of a previously identified significant impact. The proposed changes would continue to significantly reduce emissions of air pollution and would not substantially increase or change the potential adverse impacts to other resource areas already analyzed in the Draft EA. Therefore, recirculation of the Draft EA is not required.

Agency Contacts

Inquiries concerning the substance of the proposed regulation may be directed Anna Wong, Manager, ZEV Market Advancement Section, at (279) 208-7203 or (designated back-up contact) Belinda Chen, Manager, Low-Emission Vehicle Regulations Section, at (279) 208-7251.

Public Comments

Written comments will only be accepted on the modifications identified in this Notice. Comments may be submitted by postal mail or by electronic submittal no later than the due date to the following:

Postal mail: Clerks' Office, California Air Resources Board
1001 I Street, Sacramento, California 95814

Electronic submittal: <https://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 verbal 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 Deputy Executive Officer, comments must be directed to CARB in one of the two forms described above and received by CARB no later than 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 Deputy Executive Officer.

If you need this document in an alternate format or another language, please contact the Clerks' Office 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 alterno 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.

California Air Resources Board



Craig Segall
Deputy Executive Officer, Mobile Sources and
Incentives

Date: July 12, 2022

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 [CARB's website](http://www.arb.ca.gov) (www.arb.ca.gov).