

State of California
AIR RESOURCES BOARD

**STAFF REPORT: INITIAL STATEMENT OF REASONS FOR
RULEMAKING**

**2013 MINOR MODIFICATIONS TO THE ZERO EMISSION VEHICLE
REGULATION**

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Table of Acronyms

ACC	Advanced Clean Car
ARB	California Air Resources Board or The Board
BEV	Battery Electric Vehicle
BEVx	Range Extended Battery Electric Vehicle
CAFE	Corporate Average Fuel Economy
CEQA	California Environmental Quality Act
EA	Environmental Assessment
FCV	Fuel Cell Electric Vehicle
FSOR	Final Statement of Reasons
GHG	Greenhouse Gas
ISOR	Initial Statement of Reasons
IVM	Intermediate Vehicle Manufacturer
LDT	Light-duty Trucks loaded vehicle weight up to 8500 pounds
LEV I	First generation Low Emission Vehicle program, adopted in a 1990-1991 rulemaking, and generally applicable in the 1994-2003 model years
LEV II	Second generation Low Emission Vehicle program, adopted in a 1998 -1999 rulemaking, and generally applicable in the 2004 and subsequent model years
LEV III	Third generation Low Emission Vehicle program (criteria pollutant and greenhouse gas emission fleet standards), adopted in 2012, and generally applicable to 2015 and subsequent model years for Criteria Pollutants, and applicable to 2017 and subsequent model years for Greenhouse Gases.
MDV	Medium Duty Vehicle
MOA	Memorandum of Agreement
NHTSA	National Highway Traffic Safety Administration
NOx	Oxides of Nitrogen
PC	Passenger Car
PHEV	Plug-in Hybrid-Electric Vehicle
Type III	ZEV, range of 100 or more miles plus fast refueling, or 200 miles
Type IV	ZEV, range of 200 or more miles plus fast refueling
Type V	ZEV, range of 300 or more miles plus fast refueling
TZEV	Transitional Zero Emission Vehicle, typically a plug-in hybrid electric vehicle
U.S. EPA	United States Environmental Protection Agency
VMT	Vehicle Miles Traveled
ZEV	Zero Emission Vehicle

I. Introduction and Background

A. Introduction

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 through the gradual introduction of zero emission vehicles (ZEV) into the California fleet as part of the Low Emission Vehicle (LEV I) regulation. The ZEV regulation, which affects passenger cars (PC) and light-duty trucks (LDT), has been adjusted six times since its inception - in 1996, 1998, 2001, 2003, 2008, and 2012 to reflect the pace of ZEV development and the emergence of new ZEV and ZEV-like technologies. Throughout these adjustments the fundamental goal of the program has not changed: California remains committed to the commercialization of ZEV technologies.

California's strong commitment to the ZEV program reflects the essential need for ZEV technology in order to achieve the State's public health protection goals, including criteria pollutant and long-term climate change emission reductions. Health-based state and federal air quality standards continue to be exceeded in regions throughout California. Both the greater Los Angeles region and the San Joaquin Valley are classified by the United States Environmental Protection Agency (U.S. EPA) as "extreme" ozone non-attainment areas. For example, to meet the necessary ozone levels in San Joaquin Valley, emission reductions needed are equal to eliminating all oxides of nitrogen (NOx) from the regional light duty fleet.

Former California Governor Arnold Schwarzenegger enacted Executive Order S-03-05, requiring a reduction in state-wide GHG emissions to 80-percent below 1990 levels by 2050. According to staff's analysis, pure ZEVs would need to reach nearly 100 percent of new vehicle sales between 2040 and 2050, in order to meet the 80% reduction goal.

ZEVs remain critical in obtaining California's long term air quality and climate change goals as reinforced by Governor Jerry Brown's Executive Order B-16-2012¹, which calls for collective action to support ZEV commercialization in California.

Staff's proposal will help ensure a strong ZEV regulation remains in place in California and all Section 177 states², while allowing appropriate compliance flexibility where needed.

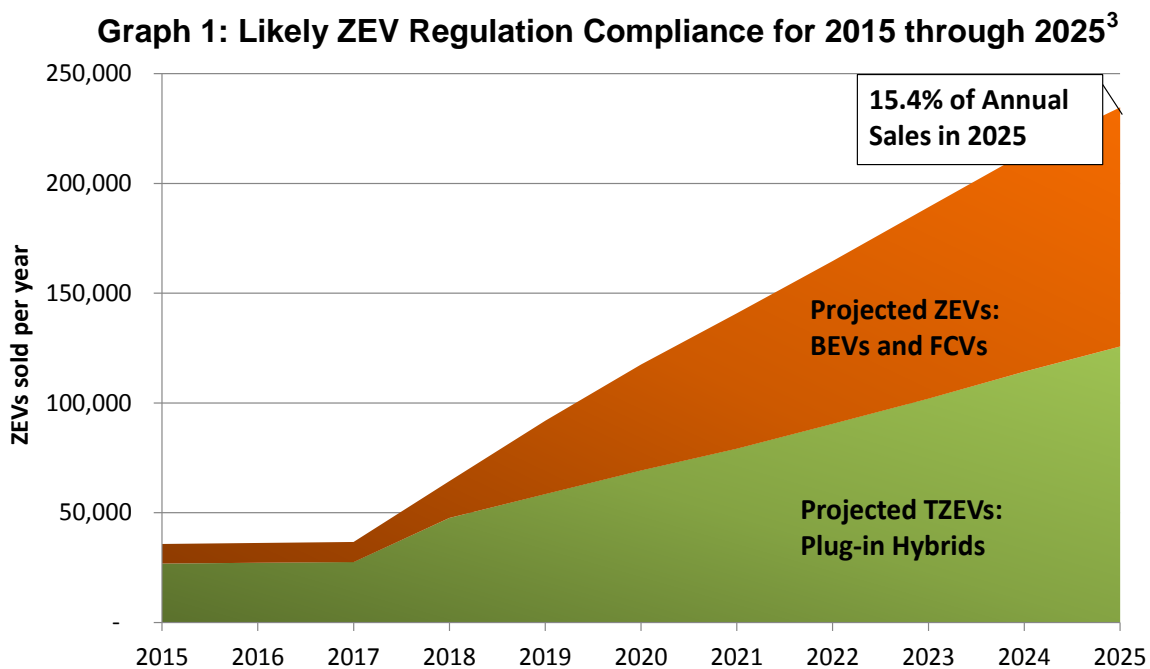
¹ The full text for Executive Order B-16-2012 can be accessed at the following website:
<http://www.gov.ca.gov/news.php?id=17472>

² Section 177 of the federal Clean Air Act allows other states to adopt California motor vehicle emission standards including the ZEV regulation.

B. Background and Current ZEV Requirements

In January 2012, the ARB adopted the Advanced Clean Car (ACC) program, which included increased ZEV requirements through 2025 model year, and the next generation of light duty GHG and criteria pollutant emission standards (LEV III). This historic program combined the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of requirements for model years 2017 through 2025 and assured the development of environmentally superior cars that will continue to deliver the performance, utility, and safety vehicle owners have come to expect. The Board adopted subsequent minor amendments to the ACC program in November 2012, and a final EPA waiver was granted in January 2013.

The current ZEV requirements for 2018 and subsequent model years focus the program on ZEVs (battery electric vehicles or BEVs, and fuel cell vehicles or FCVs) and transitional ZEVs (TZEVs, plug-in hybrid electric vehicles or PHEVs). By 2025, compliance with the requirements will likely result in more than 15% of new sales to be ZEVs and TZEVs. Graph 1 below shows the likely trajectory of those sales.



³ Requirements are based on a number of credits a manufacturer must produce in a given year. Credits are awarded based on the vehicle's zero emission range, with the high range vehicle earning the most amount of credit. For more information on the development of this compliance scenario, see ARB's 2012 ZEV ISOR: <http://www.arb.ca.gov/regact/2012/zev2012/zevisor.pdf>.

Currently, BMW, Chrysler, Ford, General Motors, Honda, Hyundai, Kia, Mazda, Mercedes-Benz, Nissan, Toyota, and Volkswagen are required to produce pure ZEVs to comply with the 2018 and subsequent model year requirements. Four additional manufacturers (Subaru, Volvo, Jaguar Land Rover, and Mitsubishi) are also required to comply with the ZEV requirements, but would be allowed to meet their obligation completely with TZEVs.

Due to a compressed schedule, staff was not able to make additional minor modifications before the regulation was finalized in December 2012. Staff is returning to the Board with minor amendments to effectuate an agreement between the Section 177 states and regulated manufacturers, add provisions to ensure ZEVs are delivered for sale in California every year, removing battery swapping from fast refueling definition, and add conforming and clarifying language where needed.

C. Public Process for ZEV Regulation Development

Beginning in May 2013, ARB staff conducted one public workshop to engage stakeholders and obtain input on the proposed regulatory amendments. These stakeholders primarily included representatives from regulated and non-regulated manufacturers, vehicle component suppliers, and environmental advocates. This workshop was held at ARB offices in Sacramento and broadcast via webcast. The announcements and materials for this workshop were posted on ARB's website and distributed through a list serve that included over 14,500 recipients. In an effort to build consensus and minimize areas of disagreement, staff worked with the Section 177 states and manufacturers on proposed language presented at the workshop. Staff received comments from multiple Section 177 states in regard to language presented at the workshop which allowed the states to request vehicle identification numbers for ZEVs and TZEVs placed on the optional Section 177 state compliance path⁴. Staff agreed with the Section 177 state comments and incorporated the recommended language.

The materials presented at the workshop are available on ARB's ZEV program website at <http://www.arb.ca.gov/msprog/zevprog/zevprog.htm>.

⁴ Explained further on page 8, the optional Section 177 state compliance path allows manufacturers to produce ZEVs prior to model year 2018 for lesser ZEV and TZEV requirements in later model years.

II. Statement of Reasons

This section provides a description of public problem, administrative circumstances the proposal is intended to address, proposed solutions to the public problem, and rationale supporting the proposed solutions.

Staff's proposal addresses four minor problems, while still maintaining the Board's commitment to a strengthened ZEV regulation:

1) Adjusts the optional Section 177 state compliance path as committed to by the Section 177 states and the manufacturers;

2) Maintains a minimum ZEV credit requirement, regardless of model year and use of non-ZEV credits earned in the regulation;

3) Disallows battery exchange to qualify under the fast refueling definition for Type IV and V ZEVs; and,

4) Corrects grammatical and California Code of Regulation (CCR) reference errors.

Due to a compressed rulemaking schedule in 2012, staff was unable to propose changes prior to the regulations being finalized on December 31, 2012. However, in meetings with affected stakeholders throughout 2012, staff committed to making necessary changes to ensure all minor issues were addressed, as soon as possible. The current proposed modifications, as discussed in length below, make necessary corrections and additions while maintaining the January 2012 Board direction.

III. Summary of Proposed Action

The amendments identified in this section represent the most significant changes being proposed. Additional minor proposed amendments and the related rationale can be found below in Section VII.

The following sections more fully describe each of the major proposed amendments and the rationale for the proposed change.

A. Optional Section 177 State Compliance Path

Section 177 of the federal Clean Air Act⁵ allows other states to adopt California motor vehicle emission standards including the ZEV regulation. Currently, there are 10 states which have adopted the California ZEV regulation: Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, and Vermont (hereafter, referred to as Section 177 states). During the development of the 2012 ACC rulemaking, manufacturers pushed to extend the travel provision⁶ for BEVs through 2017 model year. However, the Section 177 states wanted to guarantee pure ZEV placement in their states prior to 2018 model year to maintain momentum on incentive support and infrastructure development. The manufacturers and Section 177 states went into negotiations in the fall of 2011, and developed an optional compliance path. 2012, the Board adopted a new optional provision which allowed manufacturers to produce extra ZEVs in the Section 177 states prior to model year 2018. The additional percentages are equal to about 5,000 ZEVs⁷ being placed in total in the Section 177 states.⁸

In exchange for these extra ZEVs, manufacturers gain the ability to pool credits across state lines within and between two regional pools. Additionally, manufacturers would also be allowed to comply with a reduced TZEV and ZEV portion of their requirement in certain model years. This provision was put in place to smooth the transition into 2018 and subsequent model year requirements, and ensure ZEVs were placed in the Section 177 states prior to 2018 model year. Manufacturers and the Section 177 states helped draft language, which was finalized in 2012.

Since adoption, manufacturers and Section 177 states have continued discussions surrounding this provision, and have requested a number of changes to ensure its success. Each of these changes is discussed below.

1. Use of Transportation System Credits

Transportation system credits are earned for each ZEV and/or TZEV a manufacturer places in a car-share program. These are extra credits that a manufacturer can also use to meet a portion of their ZEV requirements. Staff proposes to exclude transportation system credits from meeting the additional

⁵ United States Code, title 42, section 7507

⁶ The travel provision (CCR 1962.1(d)(5)(E)) allows manufacturers to count ZEVs placed in California toward their California requirement and Section 177 state requirements, without having to place additional ZEVs in the Section 177 states.

⁷ Assumes all manufacturers take optional Section 177 state compliance path, and comply with both FCVs and BEVs.

⁸ As of August 2013, all Section 177 states have not adopted the 2012 amendments due to political constraints.

ZEV percentages in each of the Section 177 states in model years 2016 and 2017. Though ZEVs intended for compliance with the optional Section 177 percentages may be placed in transportation systems, the transportation system credits may not go toward meeting the additional percentages. The intent of the additional ZEV percentages in this optional path is to ensure actual ZEVs are delivered in the Section 177 states prior to 2018 model year. This modification helps ensure those additional percentages are met with credits from actual vehicles.

2. Pooling

Staff proposes that manufacturers on the optional compliance path may trade and transfer 2012 through 2017 model year ZEV and TZEV credits within and between each Regional pool⁹. Previously, the language only allowed trading and transferring of credits within and between each Regional pool in a single model year. For example, a manufacturer would have only been able to pool 2015 model year credits to meet a 2015 model year obligation. Manufacturers and Section 177 states discussed the issue and decided a better approach that would likely result in more manufacturers taking this optional path would be to allow pooling of multiple model years of credits. This means that, for example, a manufacturer could use 2012 through 2015 model year credits to meet a 2015 model year obligation.

3. Intermediate Volume Manufacturers

Staff is adding a table which clarifies how the intermediate volume manufacturers are to comply with the optional compliance path. The new table does not change the intent of the original language. Intermediate volume manufacturers interested in this path are to meet the same additional ZEV percentages available to the large volume manufacturers, but are allowed to meet a reduced requirement that still may be met with partial zero emission vehicles (PZEV)¹⁰.

4. Reporting Requirements

Staff proposes to remove the requirement to provide vehicle identification numbers (VIN) for TZEVs prior to 2018 model year. Manufacturers expressed concern over the sheer quantity of VINs required to be reported, and the usefulness of such data. The Section 177 states still wanted a way to track

⁹ Two Regional pools were created for the purpose of this provision: the West Region pool and East Region Pool. States west of the Mississippi River, excluding California, make up the West Region pool, and states east of the Mississippi River make up the East Region pool.

¹⁰ PZEVs are conventional gasoline vehicles that are certified to the super-ultra-low-emission vehicle standard, and have an extended 150,000 mi/15 year warranty. PZEVs will be phased out of the ZEV regulation after 2017 model year.

vehicles placed and pooled. Therefore, a provision is being proposed to require manufacturers to provide VINs for ZEVs and TZEVs upon request. This provision applies to ZEV and TZEV credits being used for compliance on the optional path and those credits being pooled.

5. Failure to Comply

Staff is proposing to simplify the provision which specifies what happens if a manufacturer elects the optional Section 177 state compliance path, but fails to comply with any or all of the requirements. Currently, the language voids all past credit transactions if a manufacturer fails to comply in any model year with the optional compliance path. As the Section 177 states and manufacturers discussed this provision, it became clear that retracing credits back to the originator might be unreasonably difficult and complicated. Therefore, language has been added to forbid all future transactions of credits within or between the Regional pools in cases of non-compliance.

B. Maintaining a Minimum ZEV Credit Requirement

As currently written, manufacturers may earn various types of credits to comply with the regulation. Caps on certain credit uses were put in place over iterations of the regulation to ensure manufacturers would still be required to produce ZEVs. However, staff found that there was no clear direction for how to apply credit caps in combination to meet ZEV requirements. For example, a large volume manufacturer is subject to the following caps when meeting its 2018 model year minimum ZEV requirement:

- BEVx Credits: No more than 50% of minimum ZEV requirement¹¹
- GHG-ZEV Over-compliance Credits: No more than 50% of minimum ZEV requirement¹²
- Transportation System Credits from ZEVs: No more than 10% of minimum ZEV requirement

The regulatory language did not specify how these non-pure ZEV credits could be used in combination to meet a manufacturer's ZEV requirement. Generally as new credit mechanisms were adopted, the Board would also adopt a cap on the non-ZEV credits to ensure ZEVs were still produced each year. Therefore, staff is now proposing an overall rule that non-pure ZEV credits may only be used to meet 50% of a manufacturer's minimum ZEV requirement in a given model year. This will not change any of the previously set individual caps. For example, manufacturers will still be only allowed to meet 10% of their minimum ZEV requirement with transportation system

¹¹ CCR, Title 13, Section 1962.2(g)(6)(B)

¹² CCR, Title 13, Section 1962.2(g)(6)(C)3.

credits from ZEVs. Also, manufacturers may still earn these credits, as allowed by each provision, and bank the credits (if allowed¹³) for use in future model years.

C. Fast Refueling Definition

Adopted in 2001, ZEVs with the ability to refuel to 95% of full capacity within 15 minutes are allowed to earn more credit, under the Type IV and Type V ZEV definitions. Below is a summary of each ZEV type definition and credit level.

	Definition	2012-2014 Credit Level	2015-2017 Credit Level
<i>Type IV ZEV</i>	200+ mile range, and fast refueling capable	5	5
<i>Type V ZEV</i>	300+ mile range, and fast refueling capable	7	9

Some BEVs have been qualifying under the fast refueling definition by means of battery exchange. However, it has not been publically demonstrated that battery exchanges have occurred on the vehicles earning credits. Though staff does recognize the potential for a battery exchange to help market the vehicle, other vehicles earning Type IV and V ZEV credit depend on fast refueling for vehicle operation and success. Staff is proposing to remove battery exchange from qualifying under the fast refueling definition, starting in 2015 model year.

Hydrogen fast refueling capable Type V ZEVs will still earn 9 credits each in model years 2015 through 2017 upon placement in service. Staff believes it is important to maintain the difference in credit level between the two ZEV technologies to ensure appropriate incentives are in-place to support hydrogen technologies as infrastructure ramps up through 2017. Hydrogen remains a long-term solution for all vehicle classes, and is essential for meeting California’s long-term air quality and GHG reduction goals.

Additional minor modifications are discussed in Section VII of this ISOR.

¹³ Per section 1962.2(g)(6)(C)3. GHG-ZEV Over-Compliance credits are not allowed to be banked for use in any future model year.

IV. Environmental Impacts Analysis

A. Introduction

This chapter provides an environmental analysis for the proposed amendments. Based on ARB's review, staff has determined that implementing the proposed amendments to the ZEV regulation would not result in any potentially significant adverse impacts on the environment. This analysis provides the basis for reaching this conclusion. This section of the Staff Report also discusses environmental benefits expected from implementing the proposed regulation.

B. Environmental Review Process

ARB is the lead agency for the proposed amendments and has prepared this environmental analysis pursuant to its regulatory program certified by the Secretary of the Natural Resources Agency (14 CCR 15251(d); 17 CCR 60005-60007). In accordance with Public Resources Code section 21080.5 of the California Environmental Quality Act (CEQA), public agencies with certified regulatory programs are exempt from certain CEQA requirements, including but not limited to preparing environmental impact reports, negative declarations, and initial studies (14 CCR 15250). ARB has prepared this environmental analysis (EA) to assess the potential for significant adverse and beneficial environmental impacts associated with the proposed amendments, as required by ARB's certified regulatory program (17 CCR 60005(b)). The resource areas from the CEQA Guidelines Environmental Checklist were used as a framework for assessing the potential for significant impacts (17 CCR 60005(b)).

If comments received during the public review period raise significant environmental issues, staff will summarize and respond to the comments in the Final Statement of Reasons (FSOR) prepared for the regulation. The final decision-maker will approve the written responses to comments prior to taking final action on the proposed regulation (17 CCR 60007(a)). If the amendments are adopted, a Notice of Decision will be posted on ARB's website and filed with the Secretary of the Natural Resources Agency for public inspection (17 CCR 60007(b)).

C. Prior Environmental Analysis

The ZEV regulation was first adopted in 1990 as part of the Low Emission Vehicle (LEV) Program, and has been modified several times over the years. In January 2012, the Air Resources Board approved the "ACC Program" – a single, coordinated package of regulatory actions for passenger vehicles that provides a new emissions-control program by combining the control of smog-causing pollutants and greenhouse gas emissions. The approved ACC Program regulatory package also included amendments to the ZEV regulation.

An environmental analysis (*Environmental Analysis for the ACC Program* or “ACC EA”) was prepared for the ZEV regulations, as part of the ACC Program, and released for public review and comment in December 2011. The ACC EA concluded that the compliance responses to the proposed ACC Program would result in beneficial impacts to air quality through reductions in emissions, including GHG, criteria air pollutants and precursors (CAP), and toxic air contaminants (TAC). It further concluded that the proposed ACC Program would result in less-than-significant impacts to agricultural and forest resources, greenhouse gases, land use, minerals, population and housing, public services, and recreation.

The ACC EA also concluded there could be potentially significant adverse impacts to aesthetics, air quality and noise (both related to construction), biological resources, cultural resources, geology/soils, hazards/hazardous materials (related to accidental releases), hydrology/water quality, traffic and utilities due to the construction and operation of new battery manufacturing facilities, as needed to achieve compliance with activities related to the ZEV regulation.

The ACC EA determined that construction and operation of new manufacturing plants for producing propulsion batteries and fuel cells, though likely to occur in areas with consistent zoning, could result in potentially significant adverse impacts to the ten resource areas listed above. The ACC EA identified mitigation measures to reduce these potentially significant impacts to a less-than-significant level; however, it was determined that the authority to determine project-level impacts and require project-level mitigation lies with the local lead agency for individual projects, which is beyond ARB’s authority. Since the ACC EA programmatic analysis could not determine project-specific details of mitigation, there is an inherent uncertainty in the degree of mitigation ultimately implemented to reduce the potentially significant impacts. Therefore, the ACC EA took a conservative approach in its post-mitigation significance conclusion and disclosed, for CEQA compliance purposes, that the potentially significant impacts to these resource areas resulting from the construction and operation of new manufacturing plants may be significant and unavoidable.

The Board, after consideration of the entire record, including the information contained in the EA, public testimony, written comments received, and the written responses to comments, adopted written findings for each significant adverse impact identified in the ACC EA in *Resolution 12-21* adopting the ACC Program regulations.

D. Proposed Regulation

1. Description

ARB staff is proposing to make amendments to the existing ZEV regulation. As described in Chapter III of this Staff Report, the proposed amendments would amount to minor modifications including the following:

- Adjusting the optional Section 177 state compliance path provision
- Defining how caps apply to a manufacturer's requirement
- Disallows battery swapping to qualify under the fast refueling definition for Type IV and V ZEVs

2. Methods of Compliance

The proposed amendments include provisions that are mostly administrative and procedural in nature that will clarify definitions and regulatory language, close loopholes, correct references to other sections in the CCR, add the right to request VINs from vehicle manufacturers, and correcting grammatical errors. In addition, other, more extensive, provisions are also included that will allow 2012 through 2017 model year TZEV and ZEV credits to be pooled under the optional Section 177 state compliance path, place a new cap on the number of non-ZEV credits a manufacturer can use towards meeting its ZEV requirement, and disallow the fast refueling definition to be met through battery exchange. To ease compliance with the more substantial changes proposed, the affected community would gain flexibility in complying with Section 177 state ZEV requirements in 2015 and subsequent model years and be required to comply with credits from production of ZEVs in 2018 and subsequent model years. The new application of caps will likely result in the same number of vehicles. Non-ZEV credits that are more heavily capped will be banked and used in later years for compliance.

E. Environmental Impacts

1. Beneficial Impacts

The proposed amendments do not change the percentages of ZEVs or equivalent number of credits within the current ZEV regulation, but will merely simplify implementation of and compliance with the ZEV regulation as it was originally intended. These modifications do not generate any additional emission reductions, but rather seek to ensure emission reductions occur as planned, by facilitating compliance and encouraging manufacturers to produce more ZEVs, thus increasing available ZEV technology in California.

2. Resource Areas with No Impacts

ARB has reviewed the proposed amendments and concludes that the amendments could not possibly result in any significant or potentially significant adverse impacts on the environment because compliance with the proposed regulation would not result in any physical change to the existing environment. Further, compliance with the proposed amendments does not include any activity that would involve or affect any of the environmental resource areas because they do not require any action that could possibly affect these resources.

The proposed amendments would include activities that are merely administrative in nature and would not affect the stringency of the current provisions within the ZEV regulation. These modifications are necessary to ensure that the regulatory provisions become more efficient and to more accurately align with the original intent of the regulation. This is achieved by providing clarifying language and definitions, and closing existing loopholes. These modifications will help make sure that this regulation will work in a more seamless manner.

No discussion of alternatives or mitigation measures is necessary because no significant adverse environmental impacts were identified.

V. ENVIRONMENTAL JUSTICE

"Environmental Justice" is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Government Code §65040.12(c)).

Staff does not believe that this proposal will have any adverse environmental justice impacts because the stringency of ZEV regulation is not affected by the proposed changes to the regulations. The proposed changes are limited to the correction of errors and providing clarification to the current regulations, there will be no increase in criteria pollutants in California due to mix shifting of vehicles between California and other states.

VI. ECONOMIC IMPACTS

Staff does not expect additional costs due to these amendments. The proposed amendments impact only the approximately sixteen vehicle manufacturers subject to the ZEV regulations, most of which are headquartered outside of California. Numerous flexibilities exist in the ZEV regulation, and are continued in this rulemaking. It is difficult to predict how each manufacturer will respond to the various flexibilities being modified in staff's proposal given the continuing evolution of the ZEV market. However, in aggregate, based on discussions with stakeholders, staff does not expect that these changes would significantly alter the number of ZEVs a manufacturer would need to produce in any model year. Staff also believes there will be little to no impact to consumers and jobs in California.

Modifications in this rulemaking are corrective, clarifying, or updating in nature and are intended to ensure the emissions benefits expected from the program are achieved. The stringency of the programs remains unchanged. The modifications related to the Section 177 state optional compliance path do not affect California, only compliance in the Section 177 states. Thus, this amendment formalizes ARB's commitment to this provision but, like the other minor revisions, does not introduce any new economic impacts.

There will be no fiscal impacts to the State from the proposed amendments, either in terms of tax revenue or personnel requirements. These amendments are not expected to change vehicle prices in a way that would alter vehicle purchase decisions. The inclusion of an alternative compliance option or an overall credit cap does not substantially increase the volume of data to review or the enforcement burden to the ARB that would justify hiring additional staff.

Alternatives

1. Evaluation of alternatives considered and reasons for rejecting them

Staff considered not making the proposed changes to the current ZEV regulation. That alternative would only allow vehicle manufacturers who choose the optional compliance path to pool ZEV and TZEV credits for each model year, which would have been more restrictive. Additionally, not placing an overall cap on the use of non-ZEV credits might have resulted in no ZEVs produced in 2018 and 2019 in California, which is not in line with the Board's direction in Resolution 12-11. Also, without clarifying the fast refueling definition, some ZEVs would continue to earn more credits than appropriate in 2015 through 2017 model years, possibly resulting in fewer overall ZEVs.

This alternative was rejected because vehicle manufacturers and Section 177 states agreed and requested the changes proposed in this rulemaking. Additionally, the alternative considered by the agency would not be more effective in carrying out the purpose for which the regulation is proposed or would be not as effective as or more burdensome to affected private persons than the proposed regulation.

2. Description of reasonable alternatives considered that would lessen impact on small business

No alternatives were considered to lessen the impact on small business because small businesses are not subject to the ZEV regulations and would not be impacted by these proposed amendments.

3. Evidence relied upon to support initial determination in the notice that the regulation will not have a significant adverse economic impact on business

The proposed amendments will not significantly affect businesses in California, since vehicle purchase price and model availability will not be adversely impacted. Numerous flexibilities exist in the ZEV regulation, and are continued in this rulemaking. It is difficult to predict how each regulated manufacturer will respond to the various flexibilities being modified in staff's proposal given continuing changes in the ZEV marketplace. However, in aggregate, staff does not expect that these changes would significantly alter the number of ZEVs a manufacturer would need to produce in any model year.

4. Justification for adoption of regulations different from federal regulations contained in the Code of Federal Regulations

Currently, there are no comparable federal regulations mandating auto manufacturers to produce PZEVs, AT PZEVs, TZEVs and/or ZEVs. California has authority to set its own standards to reduce emissions further to meet federal and state ambient air quality standards and climate change requirements and goals, and to require additional and separate reporting. The differing state requirements proposed are necessary to achieve additional benefits for human health, public welfare, and the environment as envisioned by authorizing legislation.

VII. SUMMARY AND RATIONALE FOR PROPOSED REGULATIONS

The need and rationale for the proposed amendments were detailed and discussed extensively in Chapter III. In this chapter, staff seeks to give clear and simple description of the proposed amendments to the ZEV regulation.

Pursuant to Government Code section 11349.1, Government Code section 11346.2(b)(1), and title 1, California Code of Regulations, section 10, staff is providing a brief summary below that identifies each section in the regulation where amendments are proposed and describes the rationale for each proposed amendment. Proposed modifications to the regulations that merely correct errors in the text or are editorial in nature are not summarized below.

§1962.1 Zero-Emission Vehicle Standards for 2009 through 2017 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

Subdivision (c)(3)(A) The purpose of this subdivision is to show the equation for determining a vehicle's zero emission vehicle miles traveled (VMT) allowance. This provision specifies how the amended date of the incorporated test procedure has been updated.

Subdivision (d)(5)(B) The purpose of this subdivision is to define "fast refueling capability", which is a requirement for vehicle to earn Type III, IV, and V ZEV credit. A sentence has been added which excludes battery exchange from meeting the fast refueling definition.

Subdivision (d)(5)(E)3.a. The purpose of this subdivision is to describe the additional ZEV requirements for manufacturers on the optional Section 177 state compliance path. This subdivision has been updated to exclude transportation system credits from meeting the additional requirements in the Section 177 states, under the optional compliance path. Language has also been clarified to ensure credits will be produced and spent when meeting those additional requirements under the optional compliance path.

Subdivision (d)(5)(E)3.a.i. The purpose of this subdivision is to describe how ZEV credits may be traded and transferred within the West Region Pool and East Region Pool, respectively. This subdivision has been updated to clarify that trading and transferring of ZEV credits within the West and East region pools will commence in 2016 model year, and only 2012 through 2017 model year ZEV credits may trade and transfer within each pool. The examples have also been updated to reflect these changes.

Subdivision (d)(5)(E)3.a.ii. The purpose of this subdivision is to describe how ZEV credits may be traded and transferred between the West Region Pool and East Region Pool. This subdivision has been updated to clarify that trading and transferring

of ZEV credits between the West and East region pools will commence in 2016 model year, and only 2012 through 2017 model year ZEV credits may trade and transfer between each pool. The examples have also been updated to reflect these changes.

Subdivision (d)(5)(E)3.b.i. The purpose of this subdivision is to describe how TZEV credits may be traded and transferred within the West Region Pool and East Region Pool, respectively. This subdivision has been updated to clarify that trading and transferring of TZEV credits within the West and East region pools will commence in 2015 model year, and only 2012 through 2017 model year TZEV credits may trade and transfer within each pool. The examples have also been updated to reflect these changes. This subdivision has also been changed to improve readability.

Subdivision (d)(5)(E)3.b.ii. The purpose of this subdivision is to describe how TZEV credits may be traded and transferred between the West Region Pool and East Region Pool. This subdivision has been updated to clarify that trading and transferring of TZEV credits between the West and East region pools will commence in 2015 model year, and only 2012 through 2017 model year TZEV credits may trade and transfer between each pool. The examples have also been updated to reflect these changes. This subdivision has also been changed to improve readability.

Subdivision (d)(5)(E)3.c. The purpose of this section and table is to describe and enumerate the total percentage requirements under the optional Section 177 state compliance path. A footnote has been added to the table to specify that IVMs may meet the total percentages enumerated in the table with PZEV credits.

Subdivision (d)(5)(E)3.d. The purpose of this subdivision is to describe the reporting requirements for the optional Section 177 state compliance path. The language has been updated to ensure reporting for this subdivision will begin in model year 2015.

Subdivision (d)(5)(E)3.d. iii. The purpose of this subdivision is to require certain information pertaining to TZEVs delivered for sale to meet the optional Section 177 state compliance path. The reporting requirement for vehicle identification numbers for TZEVs placed has been removed to lessen burden on the manufacturers.

Subdivision (d)(5)(E)3.e. The purpose of this provision is to describe what happens when a manufacturer fails to meet the optional Section 177 state compliance path. The failure to comply with the optional Section 177 state path has been updated to prohibit all future transactions of credits within and between the regional pools.

Subdivision (d)(5)(F)5. The purpose of this provision is to describe the charging connection requirements for neighborhood electric vehicles. The reference to CCR section containing charging connection requirements for NEVs has been corrected.

Subdivision (h)(1) This subdivision names the test procedures used for certification to determine compliance with the ZEV regulation. The amended date of the incorporated test procedure has been updated.

List of Changes to “California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles in the Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicle Classes”

Section C. Zero Emission Vehicle Standards

The amendments made throughout section 1962.1 have been duplicated in this section of the test procedure.

§1962.2 Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.

Subdivision (c)(3)(A) This subdivision describes how a manufacturer is to calculate its zero emission VMT allowance. The amended date of the incorporated test procedure has been updated.

Subdivision (c)(3)(A)1. This subdivision allows TZEVs with 10 miles all electric range on the US06 drive schedule to receive additional credits. The amended date of the incorporated test procedure has been updated.

Subdivision (d)(5)(E)1.a. This subdivision and table describes and enumerates the total percentage requirements under the optional Section 177 state compliance path. A footnote has been added to the table to specify that IVMs may meet the total percentages enumerated in the table with TZEV credits.

Subdivision (d)(5)(E)1.a.i. This subdivision describes how ZEV and TZEV credits may be traded and transferred within the West Region Pool and East Region Pool. This subdivision has been updated to clarify only 2012 and subsequent model year ZEV and TZEV credits may trade and transfer within each pool. The examples have also been updated to reflect these changes. Additionally, a reference has been corrected.

Subdivision (d)(5)(E)1.a.ii. The purpose of this subdivision is to describe how ZEV and TZEV credits may be traded and transferred between the West Region Pool and East Region Pool. This subdivision has been updated to clarify only 2012 and subsequent model year ZEV and TZEV credits may trade and transfer between each pool. The examples have also been updated to reflect these changes. Additionally, a reference has been corrected.

Subdivision (d)(5)(E)1.b. This subdivision describes the reporting requirements for the optional Section 177 state compliance path. The reporting requirements have been clarified to improve readability.

Subdivision (d)(5)(E)1.b.ii. This subdivision requires certain information pertaining to ZEVs and TZEVs delivered for sale to meet the optional Section 177 state compliance path. The reporting requirements have clarified to improve readability and correct a CCR reference. Additionally, the requirement to report vehicle identification numbers has been removed to lessen burden on the manufacturers.

Subdivision (d)(5)(E)1.c. This subdivision describes what happens when a manufacturer fails to meet the optional Section 177 state compliance path. The failure to comply with the optional Section 177 state path has been updated to prohibit all future transactions of credits within and between the regional pools. Additionally, language has been added to ensure the carry back provision applies to the failure to comply provision.

Subdivision (d)(5)(E)1.d. This subdivision ensures that subdivisions of section 1962.2 are still in effect. A CCR reference has been corrected.

Subdivision (d)(5)(F)5. The purpose of this provision is to describe the charging connection requirements for neighborhood electric vehicles. The reference to CCR section containing charging connection requirements for NEVs has been corrected.

Subdivision (g)(2)(A) This subdivision describes that credits from ZEVs shall be expressed in terms of credits, and that those credits may be applied toward meeting a manufacturer's ZEV requirement. A CCR reference has been corrected.

Subdivision (g)(2)(B) This subdivision describes that credits from TZEVs shall be expressed in terms of credits, and that those credits may be applied toward meeting a manufacturer's ZEV requirement. A CCR reference has been corrected.

Subdivision (g)(6)(D) This new subdivision was added to ensure no more than 50% of a manufacturer's requirements that must be met with ZEVs may be met with a combination of credits earned from transportation systems, extended range battery electric vehicles, and the ZEV-GHG over-compliance provision. Individual caps for each of these types of credits still remain in effect.

Subdivision (h)(1) This subdivision names the test procedures used for certification to determine compliance with the ZEV regulation. The amended date of the incorporated test procedure has been updated.

List of Changes to “California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles in the Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicle Classes”

Section C. Zero Emission Vehicle Standards

The amendments made throughout section 1962.2 have been duplicated in this section of the test procedure.