

## UPDATED INFORMATIVE DIGEST

### ZERO EMISSION VEHICLE REGULATION AMENDMENTS

**Sections Affected:** This action amends:

- (1) California Code of Regulations, title 13, sections 1962.1 and 1962.2,
- (2) “California Exhaust Emission Standards and Test Procedures for 2009 through 2017 Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes”, as adopted December 17, 2008, and as last amended May 30, 2014, which is incorporated by reference in section 1962.1, title 13, California Code of Regulations, and
- (3) “California Exhaust Emission Standards and Test Procedures for 2018 and Subsequent Model Zero-Emission Vehicles and Hybrid Electric Vehicles, in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes,” as adopted March 22, 2012, and as last amended May 30, 2014, which is incorporated by reference in section 1962.2, title 13, California Code of Regulations.

#### **Background**

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

As part of the ACC rulemaking, the Board approved amendments to the intermediate volume manufacturer (IVM) definition, reducing the California sales upper bound at which IVMs begin transitioning to large volume manufacturer (LVM) requirements from 60,000 to 20,000 vehicles per year beginning with the 2018 model year. The 2012 amendments concurrently changed the IVMs' ZEV obligation so that they would no longer be allowed to meet their obligation with partial zero emission vehicles (PZEV), but instead would have to market transitional ZEVs (TZEV or plug in hybrids). At the 2012 hearing, the Board also directed staff to revisit the 20,000-vehicle threshold and the IVM ZEV obligation to determine if the provisions were appropriate for IVMs.

ARB determined that IVMs are significantly different from LVMs. They produce significantly fewer vehicle models amongst which to incorporate advanced technologies; they have significantly lower global revenue and thus ability to commit to the same level of research and development; and, as a result of the more flexible compliance path that was established for them in the early years of the ZEV program, they were unable to take advantage of provisions that provided manufacturers in the early years of the ZEV program incentives to develop ZEV technologies, thus allowing those automakers to develop robust ZEV credit banks.

Based on these differences, ARB determined that it was necessary to provide IVMs additional flexibility to support their ramp up of advanced technology vehicles.

### **Description of Regulatory Action**

The amendments provide IVMs greater flexibility in complying with their ZEV credit obligations, while still maintaining the Board's commitment to a strengthened ZEV regulation:

#### **1) Modify the IVM definition to add a global revenue test.**

The vehicle sales threshold, in and of itself, is not sufficiently useful in assessing a manufacturer's ability to bring advanced technology vehicles to market. A better indicator of this ability is robust global revenue in conjunction with the established manufacturer sales threshold. Accordingly, ARB added a global revenue threshold of 40 billion dollars, based upon the average of the three consecutive fiscal years preceding the determination. The global revenue test is only available to IVMs for the 2018 and 2019 model years (i.e., the global revenue test is phased out starting with model year 2020). Beginning in the 2020 model year, a manufacturer exceeding the 20,000 vehicle threshold will need to prepare to bring ZEVs to market per the large volume manufacturer (LVM) requirements.

#### **2) Provide IVMs additional production lead time.**

The ZEV Regulation provides lead-time to an IVM transitioning to LVM status. The original regulatory language provided for 3 consecutive three-year sales averages once the first three-year average exceeds 20,000 vehicles. This could provide an IVM as few as 3 years before that IVM would be subject to the LVM requirements, significantly less time than the normal product development timeline. Thus, ARB extended the lead-time to 5 three-year averages commencing once the first three-year average exceeds 20,000 vehicles. This provides IVMs a minimum of 5 years and a maximum of 7 years to bring a ZEV to market. This lead time is similar to the lead time provisions established for IVMs that transitioned to LVM status prior to 2018 in ZEV regulation versions predating the 2012 amendments.

#### **3) Provide a pathway for IVMs to pool compliance obligations in Section 177 states.**

Section 177 of the federal Clean Air Act<sup>1</sup> allows other states to adopt California motor vehicle emission standards including the ZEV Regulation. Currently, nine states (hereinafter referred to as the Section 177 states) have adopted the California ZEV Regulation: Connecticut, Maine, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont.

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<sup>1</sup> United States Code, title 42, section 7507

In 2012, the Board adopted changes to the ZEV Regulation establishing a new optional Section 177 State compliance path. The changes allowed manufacturers to place extra ZEVs in the Section 177 states one and two years prior to the 2018 model year. In exchange for early placement of these extra ZEVs, manufacturers gain the ability to pool credits across state lines within and between two regional pools<sup>2</sup>.

The IVMs need this same ability to pool ZEV and TZEVE credits across state lines because some of them have few dealers in some of the Section 177 States. Accordingly, ARB changed the Section 177 State optional compliance path language to allow IVMs to: (1) place extra ZEVs in the Section 177 States in the two model years prior to the start of their LVM requirements should they transition to LVM status,<sup>3</sup> and (2) pool TZEVE credits to meet total annual percentage obligations in each Section 177 State.

#### **4) Allow additional time to make up ZEV credit deficits.**

Beginning in 2018, the ZEV regulation requires automakers to make up a ZEV credit deficit by the next model year. Responding to IVM concerns that the one-year period may not provide sufficient time to address potentially underperforming advanced technology vehicle models, ARB extended the make-up period to three years, but only for IVMs that have actually delivered a ZEV or TZEVE to market. IVMs with a credit deficit will be required to provide ARB an action plan, concurrent with their annual reporting first indicating the deficit, illustrating how they will achieve compliance.

Currently, an automaker must fulfill a ZEV credit deficit with credits earned from ZEVs. To provide additional flexibility for IVMs, ARB will allow IVMs to fulfill a ZEV credit deficit with TZEVE credits. This flexibility is consistent with existing regulatory provisions as IVMs may meet their entire ZEV credit percentage requirement with credits from TZEVEs.

#### **5) Clarify the fast refueling definition.**

Amendments adopted in 2001 provide that ZEVs with the ability to refuel to 95 percent of full capacity within 15 minutes are allowed to earn more credit under specific ZEV Type designations. Prior to the amendments that went into effect in July 2014, some BEVs had qualified under the fast refueling definition because of their potential for battery exchanges. However, it has not been shown that battery exchanges were actually occurring on the vehicles earning credits. Accordingly, ARB amended the ZEV regulation in 2014 to require: (1) actual fast refueling events (e.g., actual battery exchanges) to qualify for such credits, and (2) manufacturers seeking to earn fast refueling credits to submit the number of fast refueling events that occur over a 12-month period for all otherwise eligible vehicles in the vehicle fleet.

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<sup>2</sup> 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.

<sup>3</sup> In recognition of production timing constraints and an IVM's ability to place vehicles as a new LVM, an IVM may take an additional two years to place these extra ZEVs.

Commenters expressed concerns that vehicles placed in the latter part of a model year would not be able to count fast refueling events after the calendar year had ended. The ARB has clarified that fast refueling events occurring during the initial 12-month period following the vehicle's placement in California will qualify for the fast refueling credit.

### **Comparable Federal Regulations:**

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

### **Changes to Underlying Laws:**

There have been no changes to the statutory authority governing adoption of this regulation.

### **Changes to the Effect of the Regulation:**

Overall, the revised ZEV regulation will help ensure an equally stringent ZEV regulation remains in place in California and all Section 177 states, while allowing appropriate compliance flexibility where needed. The modifications will have no impact on the number of vehicles expected to be delivered in compliance with the regulation.

### **Changes to the Proposed Regulation Since the Publication of the Notice:**

ARB issued three Notices of Public Availability of Modified Text (each made available for a 15-day public comment period) pursuant to Government Code section 11346.8. The 15-day notices modified the regulation to:

- Clarify that the \$40 Billion global revenue test, introduced at the October 23, 2014, Board hearing, is based on "automotive-related global revenue;"
- Clarify that: (1) the lead time clock does not run when automotive related global revenue is less than or equal to \$40 Billion, and (2) the first three-year production volume average that can count toward transition to LVM requirements is the 2015 through 2017 model year period that corresponds with the 2018 reporting year;
- Establish an opt-in sunset date for IVMs that choose to elect the optional Section 177 State compliance path in 2018 and subsequent model years;
- Exclude large volume manufacturers from the three-year credit deficit provisions;
- Revert the ZEV Percentage Requirement back to that adopted as part of the 2012 ACC Program rulemaking;
- Harmonize the TZEV definition language within the associated test procedures;
- Remove regulatory language vestiges resulting from the inadvertent use of an earlier version of the ZEV Regulation;
- Highlight new regulatory language that had been added without indicating it was new language by using standard underline convention; and
- Correct incorrect references and spelling/grammatical errors.