

California Environmental Protection Agency  
AIR RESOURCES BOARD

Part 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**

Adopted: March 22, 2012  
Amended: December 6, 2012  
Amended: May 30, 2014

Note: The proposed amendments to this document are shown in underline to indicate additions and strikeout to indicate deletions compared to the test procedures as adopted December 6, 2012. Existing intervening text that is not amended in this rulemaking is indicated by “\* \* \* \*”.

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**C. Zero-Emission Vehicle Standards.**

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**4. Qualification for Credits From ZEVs.**

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**4.5 Credits for 2018 and Subsequent Model Years.**

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(4e) *Provisions for 2018 through 2025 Model Years.* Large volume manufacturers and intermediate volume manufacturers with credits earned from hydrogen fuel cell vehicles that are certified to the California ZEV standards applicable for the ZEV’s model year, delivered for sale and placed in service in California or in a Section 177 state, may be counted towards compliance in California and in all Section 177 states with the percentage ZEV requirements in subdivision C.2. The credits earned are multiplied by the ratio of a manufacturer’s applicable production volume for a model year, as specified in subdivision C.2.1(b), in the state receiving credit to the manufacturer’s applicable production volume as specified in subdivision C.2.1(b), for the same model year in California(hereafter, “proportional value”). Credits generated from ZEV placement in a Section 177 state will be earned at the proportional value in the Section 177 state, and earned in California at the full value specified in subdivision C.4.5(a).

(21) *Optional Section 177 State Compliance Path.*

(A) *Reduced ZEV and TZEV Percentages.* Large volume manufacturers and intermediate volume manufacturers that have fully complied with the optional Section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. are allowed to meet ZEV percentage requirements and optional TZEV percentages reduced from the minimum ZEV floor percentages and TZEV percentages in subdivision C.2.2(e) in each Section 177 state equal to the following percentages of their sales volume determined under subdivision 1962.2(b)(1)(B):

**ZEVs**

Model Year	2018	2019	2020	2021
Existing Minimum ZEV Floor	2.00%	4.00%	6.00%	8.00%
Section 177 State Adjustment for Optional Compliance Path	62.5%	75%	87.5%	100%
Minimum Section 177 State ZEV Requirement	1.25%	3.00%	5.25%	8.00%

## TZEVs

Model Year	2018	2019	2020	2021
Existing TZEV Percentage	2.50%	3.00%	3.50%	4.00%
Section 177 State Adjustment for Optional Compliance Path	90.00%	100%	100%	100%
New Section 177 State TZEV Percentage	2.25%	3.00%	3.50%	4.00%

## Total Percent Requirement

Model Year	2018	2019	2020	2021
New Total Section 177 State Optional Requirements <sup>1</sup>	3.50%	6.00%	8.75%	12.00%

<sup>1</sup> Intermediate volume manufacturers may meet these new total Section 177 State optional requirements entirely with TZEV credits.

1. *Trading and Transferring ZEV and TZEV Credits within West Region Pool and East Region Pool.* Manufacturers that have fully complied with the optional Section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer specified-2012 and subsequent model year ZEV and TZEV credits within the West Region pool to meet the ~~same model year~~ requirements in subdivision C.4.5(e)(~~21~~)(A) and will incur no premium on their credit values. For example, for a manufacturer to make up a 2019 model year shortfall of 100 credits in State X, the manufacturer may transfer 100 (2012 through 2019 model year) ZEV credits from State Y, within the West Region pool. Manufacturers that have fully complied with the optional section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer specified-2012 and subsequent model year ZEV and TZEV credits within the East Region pool to meet the same model year requirements in subdivision C.4.5(e)(~~21~~)(A), and will incur no premium on their credit values. For example, for a manufacturer to make up a 2019 model year shortfall of 100 credits in State W, the manufacturer may transfer 100 (2012 through 2019 model year) ZEV credits from State Z, within the East Region pool.

2. *Trading and Transferring ZEV and TZEV Credits between the West Region Pool and the East Region Pool.* Manufacturers that have fully complied with the optional Section 177 state compliance path requirements in subdivision 1962.1(d)(5)(E)3. may trade or transfer specified-2012 and subsequent model year ZEV and TZEV credits to meet the same model year requirements in subdivision C.4.5(e)(~~21~~)(A)-~~a~~ between the West Region pool and the East Region pool; however, any credits traded will incur a premium of 30% of their value. For example, in order for a

manufacturer to make up a 2019 model year shortfall of 100 credits in the West Region Pool, the manufacturer may transfer 130 (2012 through 2019 model year) credits from the East Region Pool. No credits may be traded or transferred to the East Region pool or West Region pool from a manufacturer's California ZEV bank, or from the East Region pool or West Region pool to a manufacturer's California ZEV bank.

(B) *Reporting Requirements.* On an annual basis, by May 1st of the calendar year following the close of a model year, each manufacturer that elects the optional Section 177 state compliance path under subdivision 1962.1(d)(5)(E)3 shall submit, in writing, to the Executive Officer and each Section 177 state a report, including an itemized list, that ~~indicates where vehicles have been placed~~ demonstrates the manufacturer has met the requirements of this subdivision C.4.5(e)(1)(A) within the East Region pool and within the West Region pool. The itemized list shall include the following:

1. The manufacturer's total applicable volume of PCs and LDTs delivered for sale in each Section 177 state within the regional pool, as determined under subdivision C.2.1(b).
2. Make, model, ~~vehicle identification number~~, credit earned, and Section 177 state where delivery for sale of each TZEVS and ZEV occurred and to meet manufacturer's requirements under subdivision C.4.5(e)(~~2~~1)(A).

(C) *Right to Request Vehicle Identification Numbers.* Upon request by the Executive officer, or a Section 177 state, each manufacturer that elects the optional Section 177 state compliance path under subdivision 1962.1(d)(5)(E)3. Shall provide the vehicle identifications numbers in the report required by subdivision C.4.5(e)(3)(B).

(~~D~~) *Failure to Meet Optional Section 177 State Compliance Path Requirements.* A manufacturer that elects the optional Section 177 state compliance path subdivision 1962.1(d)(5)(E)3 and does not meet the modified percentages in subdivision C.4.5(e)(~~2~~1)(A) in a model year or make up their deficit within the specified time and with the specified credits allowed by subdivision C.7.7(a) in all Section 177 states of the applicable pool, shall be treated as subject to the ZEV percentage requirements in section C.2 for all future model years in each Section 177 state, and ~~the pooling provisions in subdivision C.4.5(e)(~~2~~1)(A) shall not apply.~~ Any future transfers of ZEV or TZEVS credits between Section 177 states will be null and void if a manufacturer fails to comply, and ZEV or TZEVS credits will return to the section 177 state in which the credits were earned ~~prohibited~~. Penalties shall be calculated separately by each Section 177 state where a manufacturer fails to make up the ZEV deficits within the specified time and with the credits allowed by subdivision C.7.7(a) by the end of the 2018 model year.

(~~D~~E) The provisions of section C shall apply to a manufacturer electing

the optional Section 177 state compliance path, except as specifically modified by this subdivision C.4.5(e)(2).

(f) *NEVs*. NEVs must meet the following to be eligible for 0.15 credits:

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(5) *NEV Charging Requirements*. A NEV must meet charging connection standard portion of the requirements specified in subdivision 1962.3(c)(~~2~~).

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## **7. Generation and Use of ZEV Credits; Calculation of Penalties**

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### **7.2 ZEV Credit Calculations.**

(a) *Credits from ZEVs*. The amount of credits earned by a manufacturer in a given model year from ZEVs shall be expressed in units of credits, and shall be equal to the number of credits from ZEVs produced and delivered for sale in California that the manufacturer applies towards meeting the ZEV requirements, or, if applicable, requirements specified under subdivision C.4.5(e)(~~21~~)(A) for the model year subtracted from the number of ZEVs produced and delivered for sale in California by the manufacturer in the model year.

(b) *Credits from TZEVs*. The amount of credits earned by a manufacturer in a given model year from TZEVs shall be expressed in units of credits, and shall be equal to the total number of TZEVs produced and delivered for sale in California that the manufacturer applies towards meeting its ZEV requirement, or, if applicable, requirements specified under subdivision C.4.5(e)(~~21~~)(A) for the model year subtracted from the total number of ZEV allowances from TZEVs produced and delivered for sale in California by the manufacturer in the model year.

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### **7.4 ZEV Credits for Advanced Technology Demonstration Programs.**

(a) *[Reserved]*

(b) *ZEVs*. ZEVs, including BEVxs, excluding NEVs, placed in a small or intermediate volume manufacturer's California advanced technology demonstration program for a period of two or more years, may earn ZEV credits even if the vehicle is not "delivered for sale" or registered with the California DMV. To earn such credits, the manufacturer must demonstrate to the reasonable satisfaction of the Executive Officer that the vehicles will be regularly used in applications appropriate to evaluate issues

related to safety, infrastructure, fuel specifications or public education, and that for 50 percent or more of the first two years of placement the vehicle will be operated in California. Such a vehicle is eligible to receive the same credit that it would have earned if delivered for sale, and for fuel cell vehicles, placed in service. To determine vehicle credit, the model year designation for a demonstration vehicle shall be consistent with the model year designation for conventional vehicles placed in the same timeframe. Manufacturers may earn credit for up to 25 vehicles per model, per Section 177 state, per year under this subdivision C.7.4. A manufacturer's vehicles in excess of the 25-vehicle cap will not be eligible for advanced technology demonstration program credits.

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**7.6 Use of ZEV Credits.** A manufacturer may meet the ZEV requirements in a given model year by submitting to the Executive Officer a commensurate amount of ZEV credits, consistent with subdivision C.2. Credits in each of the categories may be used to meet the requirement for that category as well as the requirements for lesser credit earning ZEV categories, but shall not be used to meet the requirement for a greater credit earning ZEV category, except for discounted PZEV and AT PZEV credits. For example, credits produced from TZEVs may be used to comply with the portion of the requirement that may be met with credits from TZEV, but not with the portion that must be satisfied with credits from ZEVs. These credits may be earned previously by the manufacturer or acquired from another party.

(c) *GHG-ZEV Over Compliance Credits.*

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(3) *Use of GHG-ZEV Over Compliance Credits.* A manufacturer may use no more than the percentage enumerated in the table below to meet either the total ZEV requirement nor the portion of their ZEV requirement that must be met with ZEV credits, with credits earned under this subdivision C.7.6(c).

2018	2019	2020	2021
50%	50%	40%	30%

Credits earned in any given model year under this subdivision C.7.6(c) may only be used in the applicable model year and may not be used in any other model year.

Credits calculated under this provision must also be removed from the GHG compliance bank, and cannot be banked for future compliance toward section 1961.3, or towards compliance with the National greenhouse gas program requirements as allowed by subdivision 1961.3(c).

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(d) Cap on Use of Specified Credits.

For 2018 and subsequent model year, manufacturers may only meet up to 50% of the portion of their requirement that must be met with credits from ZEVs from a combination of credits earned under subsections 1962.1(d)(5)(G), 1962.1(g)(5), or subdivisions

C.4.5(g), C.7.6(c). Individual caps for credits earned subsections 1962.1(d)(5)(G), 1962.1(g)(5), or subdivisions C.4.5(g), C.7.6(c) remain in effect in any given model year.