

Appendix A-9.1

Proposed Third 15-Day Changes to Proposed Title 13 Regulation Order (Compared to the Second 15-Day Changes)

[Note: The proposed modifications (referred to as Third 15-Day Changes) to the proposed regulations are shown below. This version (Appendix A-9.1) complies with Government Code sections 11346.2, subdivision (a)(3), and 11346.8, subdivision (c). The originally proposed regulatory text made available September 23, 2025 (45-Day Proposal), and the proposed modifications released on April 3, 2026 (First 15-Day Changes) and June 30, 2026 (Second 15-Day Changes) are incorporated into this version as plain, clean text (shown in “normal type”) because it is not being made available for public comment by this Notice. The deletions and additions to the originally proposed language that comprise the Third 15-day Changes that are made public with this Notice and available for comment are shown in strikeout to indicate deletions and underline to indicate additions. Subsections for which no changes are proposed in this rulemaking are indicated with “* * * * *”. The Third 15-Day Changes are being presented in multiple versions. For ease of readability, and to review these 15-Day Changes in an Accessible format, please refer to the Word (.docx) version (Appendix A-9.2).]

The Chapters and Sections of title 13, California Code of Regulations that are being proposed for amendment per this regulatory proposal are as follows:

Chapter 1. Motor Vehicle Pollution Control Devices

Section 1962.1.1 Zero-Emission Vehicle Standards for 2009 and through 2017 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.
(Alternative)

Section 1962.2.1 Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles.
(Alternative)

Proposed Regulation Order

Title 13, California Code of Regulations

Remove the proposed addition of Section 1962.1.1 and Amend proposed 1962.2.1 to read as follows:

~~1962.1.1 Zero-Emission Vehicle Standards for 2009 and through 2017 Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles. (Alternative)~~

~~For purposes of this section, any cross-referenced section in title 13 or title 17 of the California Code of Regulations shall refer to the section identified as the alternative version "(Alternative)" for the corresponding section, to the extent an alternative version of that section exists.~~

~~(a) *ZEV Emission Standard.* The Executive Officer shall certify new 2009 through 2017 model year passenger cars, light-duty trucks and medium-duty vehicles as ZEVs if the vehicles produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) under any and all possible operational modes and conditions.~~

~~(b) *Percentage ZEV Requirements.*~~

~~(1) *General Percentage ZEV Requirement.*~~

~~(A) *Basic Requirement.* The minimum percentage ZEV requirement for each manufacturer is listed in the table below as the percentage of the PCs and LDT1s, and LDT2s to the extent required by subdivision (b)(1)(C), produced by the manufacturer and delivered for sale in California that must be ZEVs, subject to the conditions in this subdivision 1962.1.1(b). The ZEV requirement will be based on the annual NMOG production report for the appropriate model year.~~

<i>Model Years</i>	<i>Minimum ZEV Requirement</i>
2009 through 2011	11 %
2012 through 2014	12 %
2015 through 2017	14 %

~~(B) *Calculating the Number of Vehicles to Which the Percentage ZEV Requirement is Applied.* For purposes of calculating a manufacturer's requirement in subdivision 1962.1.1(b)(1) for model years 2009 through 2017, a manufacturer may use a three year average method or same model year method, as described below in sections 1. and 2. A manufacturer may switch methods on an annual basis. This production averaging is used to determine ZEV requirements specified in subdivision 1962.1.1 (b)(1)(A) only, and has no effect on a manufacturer's size determination, specified in section 1900. In applying the ZEV requirement, a PC, LDT1, or LDT2, that is produced by one manufacturer (e.g.,~~

Manufacturer A), but is marketed in California by another manufacturer (e.g., Manufacturer B) under the other manufacturer's (Manufacturer B) nameplate, shall be treated as having been produced by the marketing manufacturer (Manufacturer B).

1. For the 2009 through 2011 model years, a manufacturer's production volume of PCs and LDT1s, and LDT2s as applicable, produced and delivered for sale in California will be based on the three-year average of the manufacturer's volume of PCs and LDT1s, and LDT2s as applicable, produced and delivered for sale in California in the 2003 through 2005 model years. As an alternative to the three-year averaging of prior year production described above, a manufacturer may elect to base its ZEV obligation on the number of PCs and LDT1s, and LDT2s, as applicable, produced by the manufacturer and delivered for sale in California that same model year.
2. For 2012 through 2017 model years, a manufacturer's production volume for the given model year will be based on the three-year average of the manufacturer's volume of PCs and LDTs, produced and delivered for sale in California in the prior fourth, fifth and sixth model year [for example, 2013 model year ZEV requirements will be based on California production volume of PCs and LDTs, for the 2007 to 2009 model years, and 2014 model year ZEV requirements will be based on California production volume of PCs and LDTs, for the 2008 to 2010 model years]. As an alternative to the three-year averaging of prior year production described above, a manufacturer may elect to base its ZEV obligation on the number of PCs and LDTs, produced by the manufacturer and delivered for sale in California that same model year.

(C) Phase-in of ZEV Requirements for LDT2s. Beginning with the ZEV requirements for the 2009 model year, a manufacturer's LDT2 production shall be included in determining the manufacturer's overall ZEV requirement under subdivision (b)(1)(A) in the increasing percentages shown in the table below.

2009	2010	2011	2012+
51%	68%	85%	100%

(D) Exclusion of ZEVs in Determining a Manufacturer's Sales Volume. In calculating, for purposes of subdivisions 1962.1.1(b)(1)(B) and

~~1962.1.1(b)(1)(C), the volume of PCs, LDT1s, and LDT2s that a manufacturer has produced and delivered for sale in California, the manufacturer shall exclude the number of ZEVs produced by the manufacturer, or by a subsidiary in which that manufacturer has a greater than 50 percent ownership interest, and delivered for sale in California.~~

~~(2) Requirements for Large Volume Manufacturers.~~

~~(A) Primary Requirements for Large Volume Manufacturers through Model Year 2011.~~

~~In the 2009 through 2011 model years, a manufacturer must meet at least 22.5 percent of its ZEV requirement with ZEVs or ZEV credits generated by such vehicles, and at least another 22.5 percent with ZEVs, AT PZEVs, or credits generated by such vehicles. The remainder of the manufacturer's ZEV requirement may be met using PZEVs or credits generated by such vehicles.~~

~~(B) Alternative Requirements for Large Volume Manufacturers through Model Year 2011.~~

~~1. Minimum Floor for Production of Type III ZEVs.~~

~~a. [Reserved].~~

~~b. Requirement for the 2009-2011 Model Years. A manufacturer electing the alternative compliance requirements during model years 2009 through 2011 must produce ZEV credits equal to 0.82 percent of the manufacturer's average annual California sales of PCs and LDT1s, and LDT2s, as applicable, over the three-year period from model years 2003 through 2005, through production, delivery for sale, and placement in service of ZEVs, other than NEVs and Type 0 ZEVs, using the credit substitution ratios for each ZEV Type compared to a Type III prescribed in the table below, or submit an equivalent number of credits generated by such vehicles.~~

<i>ZEV Types</i>	<i>Credit Substitution Ratio Compared To A Type III ZEV</i>
Type I	2
Type I.5	1.6
Type II	1.33
Type IV	0.8
Type V	0.57

- i. ~~Manufacturers may use credits generated by 1997-2003 model year ZEVs that qualify for an extended service multiplier under subdivision 1962.1.1(f) for a year during calendar years 2009-2011, provided that 33 years of such a multiplier will equal 4 ZEV credits.~~

~~c. [Reserved].~~

~~d. [Reserved].~~

~~e. [Reserved].~~

- ~~f. **Exclusion of Additional Credits for Transportation Systems.** Any additional credits for transportation systems generated in accordance with subdivision 1962.1.1(g)(5) shall not be counted towards compliance with this subdivision 1962.1.1(b)(2)(B)1.b.~~

- ~~g. **Carry-over of Excess Credits.** ZEV credits generated from excess production in model years 2005 through 2008 may be carried forward and applied to the 2009 through 2011 minimum floor requirement specified in subdivision 1962.1.1(b)(2)(B)1.b. provided that the value of these carryover credits shall be based on the model year in which the credits are used. Beginning with the 2012 model year, these credits may no longer be used to meet the ZEV requirement specified in subdivision 1962.1.1(b)(2)(B)1.b.; they may be used as TZEV, AT PZEV, or PZEV credits. ZEV credits earned in model year 2009 through 2011 would be allowed to be carried forward for two years for application to the ZEV requirement. For example, ZEV credit earned in the 2010 model year would retain full flexibility through the 2012 model year. Starting 2013 model year, that credit could only be used as TZEV, AT PZEV, or PZEV credits, and could not be used to satisfy the ZEV credit obligation, which~~

may only be satisfied with credit generated from ZEVs.

~~h. *Failure to Meet Requirement for Production of ZEVs.*~~

~~A manufacturer that, after electing the alternative requirements in subdivision 1962.1.1(b)(2)(B) for any model year from 2009 through 2011, fails to meet the requirement in subdivision 1962.1.1(b)(2)(B)1.b. by the end of the 2011 model year, shall be treated as subject to the primary requirements in subdivision 1962.1.1(b)(2)(A) for the 2009 through 2011 model years.~~

~~i. *Rounding Convention.* The number of ZEVs needed for a manufacturer under subdivision 1962.1.1(b)(2)(B)1.b. shall be rounded to the nearest whole number.~~

~~2. *Compliance with Percentage ZEV Requirements.* In the 2009 through 2011 model years, a manufacturer electing the alternative compliance requirements in a given model year must meet at least 45 percent of its ZEV requirement for that model year with ZEVs, AT PZEVs, TZEVS, or credits generated from such vehicles. ZEV credits generated for compliance with the alternative requirements during any given model year will be applied to the 45 percent which may be met with ZEVs, AT PZEVs, TZEVS, or credits generated from such vehicles, but not PZEVs. The remainder of the manufacturer's ZEV requirement may be met using PZEVs or credits generated from such vehicles.~~

~~3. *Sunset of Alternative Requirements after the 2011 Model Year.* The alternative requirements in subdivision 1962.1.1(b)(2)(B) are not available after the 2011 model year.~~

~~(C) *Election of the Primary or Alternative Requirements for Large Volume Manufacturers for the 2009 through 2011 Model Years.* A manufacturer shall be subject to the primary ZEV requirements for the 2009 model year unless it notifies the Executive Officer in writing prior to the start of the 2009 model year that it is electing to be subject to the alternative compliance requirements for that model year. Thereafter, a manufacturer shall be subject to the same compliance option as applied in the previous model year unless it notifies the Executive Officer in writing prior to the start of a new model year that it is electing to switch to the other compliance option for that new model year. However, a manufacturer that has previously elected the primary ZEV requirements for one or more of~~

~~the 2009 through 2011 model years may prior to the end of the 2011 model year elect the alternative compliance requirements for the 2009 through 2011 model years upon a demonstration that it has complied with all of the applicable requirements for that period in subdivision 1962.1.1(b)(2)(B)1.b.~~

~~(D) Requirements for Large Volume Manufacturers in Model Years 2012 through 2017.~~

- ~~1. 2012 through 2014 Requirements. On an annual basis, a manufacturer must meet the total ZEV obligation with ZEV credits generated by such vehicles, excluding credits generated by NEVs and Type 0 ZEVs, equal to at least 0.79% of its annual sales, using either production volume determination method described in subdivision 1962.1.1(b)(1)(B). No more than 50% of the total obligation may be met with credits generated from PZEVs. No more than 75% of the total obligation may be met with credits generated from AT PZEVs. No more than 93.4% may be met with credits generated from TZEVs, Type 0 ZEVs, and NEVs, as limited in subdivision 1962.1.1(g)(6). The entire obligation may be met solely with credits generated from ZEVs.~~
- ~~2. 2015 through 2017 Requirements. On an annual basis, a manufacturer must meet its ZEV obligation with ZEV credits generated by such vehicles, excluding credits generated by NEVs and Type 0 ZEVs, equal to at least 3% of its annual sales, using either production volume determination method described in subdivision 1962.1.1(b)(1)(B). No more than 42.8% of the total obligation may be met with credits generated from PZEVs. No more than 57.1% of the total obligation may be met with credits generated from AT PZEVs. No more than 78.5% may be met with credits generated from TZEVs, Type 0 ZEVs, and NEVs, as limited in subdivision 1962.1.1(g)(6). The entire obligation may be met solely with credits generated from ZEVs.~~
- ~~3. The following table enumerates a manufacturer's annual percentage obligation for the 2012 through 2017 model years if the manufacturer produces the minimum number of credits required to meet its ZEV obligation and the maximum percentage for the TZEV, AT PZEV, and PZEV categories.~~

<i>Model Years</i>	<i>Total ZEV Percent Requirement</i>	<i>Minimum ZEV floor</i>	<i>TZEVs, Type 0s, or NEVs</i>	<i>AT PZEVs</i>	<i>PZEVs</i>
2012—2014	12	0.79	2.21	3.0	6.0
2015—2017	14	3.0	3.0	2.0	6.0

~~4. Use of Additional Credits for Transportation Systems. Any additional credits for transportation systems generated from ZEVs in accordance with subdivision 1962.1.1(g)(5) may be used to meet up to one-tenth of the portion of the ZEV obligation which must be met with ZEVs, specified in subdivision 1962.1.1(b)(2)(D).~~

~~(E) [Reserved]~~

~~(3) Requirements for Intermediate Volume Manufacturers. For 2009 through 2017 model years, an intermediate volume manufacturer may meet its ZEV requirement with up to 100 percent PZEVs or credits generated by such vehicles. For 2015 through 2017 model years, the overall credit percentage requirement for an intermediate volume manufacturer will be 12%.~~

~~(4) Requirements for Small Volume Manufacturers and Independent Low Volume Manufacturers. A small volume manufacturer or an independent low volume manufacturer is not required to meet the percentage ZEV requirements. However, a small volume manufacturer or an independent low volume manufacturer may earn and market credits for the ZEVs, TZEVs, AT PZEVs or PZEVs it produces and delivers for sale in California.~~

~~(5) [Reserved].~~

~~(6) [Reserved].~~

~~(7) Changes in Small Volume, Independent Low Volume, and Intermediate Volume Manufacturer Status.~~

~~(A) Increases in California Production Volume. In 2009 through 2017 model years, if a small volume manufacturer's average California production volume exceeds 4,500 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, or if an independent low volume manufacturer's average California production volume exceeds 10,000~~

~~units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, the manufacturer shall no longer be treated as a small volume, or independent low volume manufacturer, as applicable, and shall comply with the ZEV requirements for intermediate volume manufacturers, as applicable, beginning with the sixth model year after the last of the three consecutive model years. If an intermediate volume manufacturer's average California production volume exceeds 60,000 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years (i.e., total production volume exceeds 180,000 vehicles in a three-year period), the manufacturer shall no longer be treated as an intermediate volume manufacturer and shall, beginning with the sixth model year after the last of the three consecutive model years, or in model year 2018 (whichever occurs first), comply with all ZEV requirements for LVMs. Requirements will begin in the sixth model year, or in model year 2018 (whichever occurs first) when a manufacturer ceases to be an intermediate volume manufacturer in 2003 through 2017 due to the aggregation requirements in majority ownership situation.~~

~~(B) *Decreases in California Production Volume.* If a manufacturer's average California production volume falls below 4,500, 10,000, or 60,000 units of new PCs, LDTs, and MDVs, based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years, the manufacturer shall be treated as a small volume, independent low volume, or intermediate volume manufacturer, as applicable, and shall be subject to the requirements for a small volume, independent low volume, or intermediate volume manufacturer beginning with the next model year.~~

~~(C) *Calculating California Production Volume in Change of Ownership Situations.* Where a manufacturer experiences a change in ownership in a particular model year, the change will affect application of the aggregation requirements on the manufacturer starting with the next model year. When a manufacturer is simultaneously producing two model years of vehicles at the time of a change of ownership, the basis of determining next model year must be the earlier model year. The manufacturer's small, independent low, or intermediate volume manufacturer status for the next model year shall be based on the average California production volume in the three previous consecutive model years of those manufacturers whose~~

~~production volumes must be aggregated for that next model year. For example, where a change of ownership during the 2010 calendar year occurs and the manufacturer is producing both 2010 and 2011 model year vehicles resulting in a requirement that the production volume of Manufacturer A be aggregated with the production volume of Manufacturer B, Manufacturer A's status for the 2011 model year will be based on the production volumes of Manufacturers A and B in the 2008-2010 model years. Where the production volume of Manufacturer A must be aggregated with the production volumes of Manufacturers B and C for the 2010 model year, and during that model year a change in ownership eliminates the requirement that Manufacturer B's production volume be aggregated with Manufacturer A's, Manufacturer A's status for the 2011 model year will be based on the production volumes of Manufacturers A and C in the 2008-2010 model years. In either case, the lead time provisions in subdivisions 1962.1.1(b)(7)(A) and (B) will apply.~~

~~(c) *Partial ZEV Allowance Vehicles (PZEVs).*~~

~~(1) *Introduction.* This subdivision 1962.1.1(c) sets forth the criteria for identifying vehicles delivered for sale in California as PZEVs. The PZEV is a vehicle that cannot be certified as a ZEV but qualifies for a PZEV allowance of at least 0.2.~~

~~(2) *Baseline PZEV Allowance.* In order for a vehicle to be eligible to receive a PZEV allowance, the manufacturer must demonstrate compliance with all of the following requirements. A qualifying vehicle will receive a baseline PZEV allowance of 0.2.~~

~~(A) *SULEV Standards.* For 2009 through 2013 model years, certify the vehicle to the 150,000-mile SULEV exhaust emission standards for PCs and LDTs in subdivision 1961(a)(1). Bi fuel, fuel flexible and dual fuel vehicles must certify to the applicable 150,000-mile SULEV exhaust emission standards when operating on both fuels. For 2014 through 2017 model years, certify the vehicle to the 150,000-mile SULEV 20 or 30 exhaust emission standards for PCs and LDTs in subdivision 1961.2(a)(1), or to the 150,000-mile SULEV exhaust emission standards for PCs and LDTs in subdivision 1961(a)(1). Bi fuel, fuel flexible and dual fuel vehicles must certify to the applicable 150,000-mile SULEV exhaust emission standards when operating on both fuels;~~

- ~~(B) *Evaporative Emissions*. For 2009 through 2013 model years, certify the vehicle to the evaporative emission standards in subdivision 1976(b)(1)(E) (zero-fuel evaporative emissions standards). For 2014 through 2017 model years, certify the vehicle to the evaporative emission standards in subdivision 1976(b)(1)(G) or subdivision 1976(b)(1)(E);~~
- ~~(C) *OBD*. Certify that the vehicle will meet the applicable on-board diagnostic requirements in sections 1968.1 or 1968.2, as applicable, for 150,000 miles; and~~
- ~~(D) *Extended Warranty*. Extend the performance and defects warranty period set forth in subdivision 2037(b)(2) and 2038(b)(2) to 15 years or 150,000 miles, whichever occurs first except that the time period is to be 10 years for a zero-emission energy storage device used for traction power (such as a battery, ultracapacitor, or other electric storage device).~~
- ~~(3) *Zero-Emission VMT PZEV Allowance*.~~

- ~~(A) *Calculation of Zero-Emission VMT Allowance*. A vehicle that meets the requirements of subdivision 1962.1.1(c)(2) and has zero-emission vehicle miles traveled (VMT") capability will generate an additional zero-emission VMT PZEV allowance calculated as follows:~~

<i>Range</i>	<i>Zero-emission VMT Allowance</i>
$EAER_u < 10 \text{ miles}$	0.0
$EAER_u \geq 10 \text{ to } 40 \text{ miles}$	$EAER_u \times (1 - UF_{Reda}) / 11.028$
$EAER_u > 40 \text{ miles}$	$3.627 \times (1 - UFn)$ Where: $n = 40 \times (Reda / EAER_u)$

~~A vehicle cannot generate more than 1.39 zero-emission VMT PZEV allowances.~~

~~The urban equivalent all-electric range (EAER_u) and urban charge depletion range actual (Reda) shall be determined in accordance with sections G.11.4 and G.11.9, respectively, of the "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," adopted December 17, 2008, and last amended December 6, 2012, incorporated~~

by reference in section 1962.1.1(h). The utility Factor (UF) shall be determined according to SAE International's Surface Vehicle Information Report J2841 SEP2010 (Revised September 2010), incorporated by reference herein, from the Fleet Utility Factors (FUF) Table in Appendix B or using a polynomial curve fit with "FUF Fit" coefficients from Table 2 Utility Factor Equation Coefficients.

- ~~(B) *Alternative Procedures.* As an alternative to determining the zero-emission VMT allowance in accordance with the preceding section 1962.1.1(c)(3)(A), a manufacturer may submit for Executive Officer approval an alternative procedure for determining the zero-emission VMT potential of the vehicle as a percent of total VMT, along with an engineering evaluation that adequately substantiates the zero-emission VMT determination. For example, an alternative procedure may provide that a vehicle with zero emissions of one regulated pollutant (e.g., NO_x) and not another (e.g., NMOC) will qualify for a zero-emission VMT allowance of 1.5.~~
- ~~(4) *PZEV Allowance for Advanced ZEV Componentry.* A vehicle that meets the requirements of subdivision 1962.1.1(c)(2) may qualify for an advanced componentry PZEV allowance as provided in this section 1962.1.1(c)(4).~~
- ~~(A) *Use of High Pressure Gaseous Fuel or Hydrogen Storage System.* A vehicle equipped with a high pressure gaseous fuel storage system capable of refueling at 3600 pounds per square inch or more and operating exclusively on this gaseous fuel shall qualify for an advanced componentry PZEV allowance of 0.2. A vehicle capable of operating exclusively on hydrogen stored in a high pressure system capable of refueling at 5000 pounds per square inch or more, stored in nongaseous form, or at cryogenic temperatures, shall instead qualify for an advanced componentry PZEV allowance of 0.3.~~
- ~~(B) *Use of a Qualifying HEV Electric Drive System.*~~

1. ~~Classification of HEVs. HEVs qualifying for additional advanced componentry PZEV allowance or allowances that may be used in the AT PZEV category are classified in one of four types of HEVs based on the criteria in the following table.~~

<i>Characteristics</i>	<i>Type D</i>	<i>Type E</i>	<i>Type F</i>	<i>Type G</i>
Electric Drive System Peak Power Output	≥ 10 kW	≥ 50 kW	Zero Emission VMT allowance; ≥ 10 mile all-electric UDDS range	Zero Emission VMT allowance; ≥ 10 mile all-electric US06 range
Traction Drive System Voltage	≥ 60 Volts	≥ 60 volts	≥ 60 volts	≥ 60 volts
Traction Drive Boost	Yes	Yes	Yes	Yes
Regenerative Braking	Yes	Yes	Yes	Yes
Idle Start/Stop	Yes	Yes	Yes	Yes

2. ~~[Reserved]~~

3. ~~[Reserved]~~

4. ~~[Reserved]~~

5. ~~Type D HEVs. A PZEV that the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer meets all of the criteria for a Type D HEV qualifies for an additional advanced componentry allowance of 0.4 in the 2009 through 2011 model years, 0.35 in the 2012 through 2014 model years, and 0.25 in the 2015 through 2017 model years.~~

6. ~~Type E HEVs. A PZEV that the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer meets all of the criteria for a Type E HEV qualifies for an additional advanced componentry allowance of 0.5 in the 2009 through 2011 model years, 0.45 in the 2012 through 2014 model years, and 0.35 in the 2015 through 2017 model years.~~

~~7. *Type F HEVs.* A PZEV that the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer meets all of the criteria for a Type F HEV, including achieving 10 miles or more of all-electric UDDS range, qualifies for an additional advanced componentry allowance of 0.72 in the 2009 through 2011 model years, 0.67 in the 2012 through 2014 model years, and 0.57 in the 2015 through 2017 model years.~~

~~8. *Type G HEVs.* A PZEV that the manufacturer demonstrates to the reasonable satisfaction of the Executive Officer meets all of the criteria for a Type G HEV, including achieving 10 miles or more of all-electric US06 range, qualifies for an additional advanced componentry allowance of 0.95 in the 2009 through 2011 model years, 0.9 in the 2012 through 2014 model years, and 0.8 in the 2015 through 2017 model years.~~

~~9. *Severability.* In the event that all or part of subdivision 1962.1.1(c)(4)(B)1. 8. is found invalid, the remainder of section 1962.1.1 remains in full force and effect.~~

~~(5) *PZEV Allowance for Low Fuel Cycle Emissions.* A vehicle that makes exclusive use of fuel(s) with very low fuel cycle emissions shall receive a PZEV allowance of 0.3. In order to receive the PZEV low fuel cycle emissions allowance, a manufacturer must demonstrate to the Executive Officer, using peer reviewed studies or other relevant information, that NMOG emissions associated with the fuel(s) used by the vehicle (on a grams/mile basis) are lower than or equal to 0.01 grams/mile. Fuel cycle emissions must be calculated based on near-term production methods and infrastructure assumptions, and the uncertainty in the results must be quantified.~~

~~(6) *Calculation of PZEV Allowance.*~~

~~(A) *Calculation of Combined PZEV Allowance for a Vehicle.* The combined PZEV allowance for a qualifying vehicle in a particular model year is the sum of the PZEV allowances listed in this subdivision 1962.1.1(c)(6), multiplied by any PZEV introduction phase-in multiplier listed in subdivision 1962.1.1(c)(7), subject to the caps in subdivision 1962.1.1(c)(6)(B).~~

- ~~1. *Baseline PZEV Allowance.* The baseline PZEV allowance of 0.2 for vehicles meeting the criteria in subdivision 1962.1.1(c)(2);~~
- ~~2. *Zero-Emission VMT PZEV Allowance.* The zero-emission VMT PZEV allowance, if any, determined in accordance with subdivision 1962.1.1(c)(3);~~
- ~~3. *Advanced Componentry PZEV Allowance.* The advanced ZEV componentry PZEV allowance, if any, determined in accordance with subdivision 1962.1.1(c)(4); and~~
- ~~4. *Fuel Cycle Emissions PZEV Allowance.* The fuel cycle emissions PZEV allowance, if any, determined in accordance with subdivision 1962.1.1(c)(5).~~

~~(B) *Caps on the Value of an AT PZEV Allowance.*~~

- ~~1. *Cap for 2009 through 2017 Model Year Vehicles.* The maximum value an AT PZEV may earn before phase-in multipliers, including the baseline PZEV allowance, is 3.0.~~

~~2. *[Reserved].*~~

~~(7) *PZEV Multipliers.*~~

~~(A) *[Reserved].*~~

~~(B) *Introduction Phase-In Multiplier for PZEVs That Earn a Zero-Emission VMT Allowance.* Each 2009 through 2011 model year PZEV that earns a zero-emission VMT allowance under section 1962.1.1(c)(3) and is sold to a California motorist or is leased for three or more years to a California motorist who is given the option to purchase or re-lease the vehicle for two years or more at the end of the first lease term, qualifies for a phase-in multiplier of 1.25. This subdivision 1962.1.1(c)(7)(B) multiplier will no longer be available after model year 2011.~~

~~(d) *Qualification for ZEV Multipliers and Credits.*~~

~~(1) *[Reserved].*~~

~~(2) [Reserved].~~

~~(3) [Reserved].~~

~~(4) [Reserved].~~

~~(5) Credits for 2009 through 2017 Model Year ZEVs.~~

~~(A) ZEV Tiers for Credit Calculations. Credits from a particular ZEV are based on the assignment of a given ZEV into one of the following eight ZEV tiers:~~

<i>ZEV Tier</i>	<i>UDDS ZEV Range (miles)</i>	<i>Fast Refueling Capability</i>
NEV	No minimum	N/A
Type 0	< 50	N/A
Type I	≥ 50, <75	N/A
Type I.5	≥ 75, <100	N/A
Type II	≥ 100	N/A
Type III	≥ 100	Must be capable of replacing 95 miles (UDDS ZEV range) in ≤ 10 minutes per section 1962.1.1(d)(5)(B)
	≥ 200	N/A
Type IV	≥ 200	Must be capable of replacing 190 miles (UDDS ZEV range) in ≤ 15 minutes per section 1962.1.1(d)(5)(B)
Type V	≥ 300	Must be capable of replacing 285 miles (UDDS ZEV range) in ≤ 15 minutes per section 1962.1.1(d)(5)(B)

~~(B) Fast Refueling. The "fast refueling capability" requirement for a 2009 through 2017 model year Type III, IV, or V ZEV in subdivision 1962(d)(5)(A) will be considered met if the Type III ZEV has the capability to accumulate at least 95 miles of UDDS range in 10 minutes or less and the Type IV or V ZEV has the capability to accumulate at least 190 or 285 miles, respectively, in 15 minutes or less. For ZEVs that utilize more than one ZEV fuel, such as plug-in fuel cell vehicles, the Executive Officer may choose to waive these subdivision 1962.1.1(d)(5)(B) fast refueling requirements and base the amount of credit earned on UDDS ZEV range, as specified in subdivision 1962.1.1(d)(5)(A).~~

~~(C) ZEV Credits for 2009 through 2017 Model Year ZEVs. A 2009 through 2017 model-year ZEV, including a Type I.5x and Type IIx, other than a NEV or Type 0, earns 1 ZEV credit when it is produced and delivered for sale in California. A 2009 through 2017 model-year ZEV earns additional credits based on the earliest year in which the ZEV is placed in service in California (not earlier than the ZEV's model year). The vehicle must be delivered for sale and placed in service in a Section 177 state or in California in order to earn the total credit amount. The total credit amount will be earned in the state (i.e. California or a Section 177 state) in which the vehicle was delivered for sale. The following table identifies the total credits that a ZEV in each of the eight ZEV tiers will earn, including the credit not contingent on placement in service, if it is placed in service in the specified calendar year or by June 30 after the end of the specified calendar year. A vehicle is not eligible to receive credits if it is placed in service after December 31, five calendar years after the model year. For example, if a vehicle is produced in 2012, but does not get placed until January 1, 2018, the vehicle would no longer be eligible for ZEV credits.~~

<i>Total Credit Earned by ZEV Type and Model Year for Production and Delivery for Sale and for Placement</i>		
<i>Tier</i>	<i>Calendar Year in Which ZEV is Placed in Service</i>	
	<i>2009-2011</i>	<i>2012-2017</i>
NEV	0.30	0.30
Type 0	4	4
Type I	2	2
Type I.5	2.5	2.5
Type I.5x	n/a	2.5
Type II	3	3
Type IIx	n/a	3
Type III	4	4
Type IV	5	5
Type V	7	2012-2014: 7 2015-2017: 9

~~(D) Multiplier for Certain ZEVs.~~ 2009 through 2011 model year ZEVs, excluding NEVs or Type 0 ZEVs, shall qualify for a multiplier of 1.25 if either sold to a motorist or leased for three or more years to a motorist who is given the option to purchase or re-lease the vehicle for two years or more at the end of the first lease term. This subdivision 1962.1.1(d)(5)(D) multiplier will no longer be available after model year 2011.

~~(E) Counting Specified ZEVs Placed in a Section 177 State and in California.~~

~~1. Provisions for 2009 Model Year.~~

- ~~a. Large volume manufacturers and intermediate volume manufacturers with credits earned from ZEVs, excluding NEVs and Type 0 ZEVs, that are either certified to the California ZEV standards or approved as part of an advanced technology~~

~~demonstration program and are placed in service in a section 177 state, may be counted towards compliance with the California percentage ZEV requirements in subdivision 1962.1.1(b), including the requirements in subdivision 1962.1.1(b)(2)(B), as if they were delivered for sale and placed in service in California.~~

~~b. Large volume manufacturers and intermediate volume manufacturers with credits earned from ZEVs, excluding NEVs and Type 0 ZEVs, that are certified to the California ZEV standards or approved as part of an advanced technology demonstration program and are placed in service in California may be counted towards the percentage ZEV requirements of all section 177 states, including requirements based on subdivision 1962.1.1(b)(2)(B).~~

~~2. Provisions for 2010 through 2017 Model Years. Large volume manufacturers and intermediate volume manufacturers with credits earned from ZEVs, including Type I.5x and Type IIx vehicles, and excluding NEVs and Type 0 ZEVs, that are either certified to the California ZEV standards applicable for the ZEV's model year or approved as part of an advanced technology demonstration program and are 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 1962.1.1(b), provided that the credits are multiplied by the ratio of a manufacturer's applicable production volume for a model year, as specified in subdivision 1962.1.1(b)(1)(B), in the state receiving credit to the manufacturer's applicable production volume (hereafter, "proportional value"), as specified in section 1962.1.1(b)(1)(B), for the same model year in California. Credits generated 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 1962.1.1(d)(5)(C). However, credits generated by 2010 and 2011 model year vehicles produced, delivered for sale, and placed in service or as part of an advanced technology demonstration program in California to meet any section 177 state's requirements that implement subdivision 1962.1.1(b)(2)(B) are exempt from proportional value, with the number of credits exempted from proportional value allowed being limited to the number of credits needed to satisfy a manufacturer's section 177~~

~~state's requirements that implement subdivision 1962.1.1(b)(2)(B)1.b. The table below specifies the qualifying model years for each ZEV type that may be counted towards compliance in all section 177 states.~~

<i>Vehicle Type</i>	<i>Model Years</i>
Type I, I.5, or II ZEV	2009 – 2017
Type III, IV, or V ZEV	2009 – 2017
Type I.5x or Type IIx	2012 – 2017

~~3. *Optional Section 177 State Compliance Path.* Large volume manufacturers and intermediate volume manufacturers that choose to elect the optional section 177 state compliance path must notify the Executive Officer and each section 177 state in writing no later than September 1, 2014.~~

~~a. *Additional 2016 and 2017 Model Year ZEV Requirements.* Large volume manufacturers and intermediate volume manufacturers that elect the optional section 177 state compliance path must generate additional 2012 through 2017 model year ZEV credits, including no more than 50% Type 1.5x and Type IIx vehicle credits and excluding all NEV and Type 0 ZEV credits, in each section 177 state equal to the following percentages of their sales volume determined under subdivision 1962.1.1(b)(1)(B):~~

<i>Model Years</i>	<i>Additional Section 177 State ZEV Requirements</i>
2016	0.75%
2017	1.50%

~~Subdivision 1962.1.1(d)(5)(E)2. shall not apply to any ZEV credits used to meet a manufacturer's additional 2016 and 2017 model year ZEV requirements under this subdivision 1962.1.1(d)(5)(E)3.a. must be placed in service in the section 177 states no later than June 30, 2018.~~

~~i. *Trading and Transferring ZEV Credits within the West Region Pool and East Region Pool.* Manufacturers may trade or transfer specified model year ZEV credits, used to meet the same model year requirements in subdivision 1962.1.1(d)(5)(E)3.c, within the West Region pool, and~~

~~will incur no premium on their credit values. For example, for a manufacturer to make up a 2016 model year shortfall of 100 credits in State X, the manufacturer may transfer 100 (2016 model year) ZEV credits from State Y, within the West Region pool. Manufacturers may trade or transfer specific model year ZEV credits, used to meet the same model year requirements in subdivision 1962.1.1(d)(5)(E)3.c., within the East Region pool, and will incur no premium on their credit values. For example, for a manufacturer to make up a 2016 model year shortfall of 100 credits in State W, the manufacturer may transfer 100 (2016 model year) ZEV credits from State Z, within the East Region pool.~~

~~ii. *Trading and Transferring ZEV Credits between the West Region Pool and East Region Pool.* Manufacturers may trade or transfer specified model year ZEV credits used to meet the same model year requirements in subdivision 1962.1.1(d)(5)(E)3.c. between the West Region pool and the East Region pool; however, any credits traded or transferred will incur a premium of 30% of their value. For example, in order for a manufacturer to make up a 2016 model year shortfall of 100 credits in the West Region Pool, the manufacturer may transfer 130 (2016 model year) ZEV 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. *Reduced TZEV Percentages.* Large volume manufacturers and intermediate volume manufacturers that elect the optional section 177 state compliance path and that fully comply with the additional 2016 and 2017 model year ZEV requirements in this subdivision 1962.1.1(d)(5)(E)3.a. are allowed to meet TZEV percentages reduced from the allowed TZEV percentages in subdivision 1962.1.1(b)(2)(D)2. and 3. in 2015 through 2017 model year in each section 177 state as enumerated below:~~

<i>Model Year</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>
Existing TZEY Percentage	3.00%	3.00%	3.00%
Section 177 State Adjustment for Optional Compliance Path for TZEYs	75.00%	80.00%	85.00%
New Section 177 State Optional Compliance Path TZEY Percentage	2.25%	2.40%	2.55%

Manufacturers may meet the reduced TZEY percentages above with credits from ZEYs or credits from TZEYs. These reduced TZEY percentages also reduce the total ZEY percent requirement, as illustrated in subdivision 1962.1.1(d)(5)(E)3.c.

i. *Trading and Transferring TZEY Credits within the West Region Pool and the East Region Pool.* Starting in model year 2015, Manufacturers may trade or transfer specified TZEY credits used to meet the same model year subdivision 1962.1.1(d)(5)(E)3.c. requirements within the West Region pool, and will incur no premium on their credit values. For example, for a manufacturer to make up a 2016 shortfall of 100 credits in State X, the manufacturer may transfer 100 (2016 model year) TZEY credits from State Y, within the West Region pool. Manufacturers may trade or transfer TZEY credits to meet the same model year subdivision 1962.1.1(d)(5)(E)3.c. within the East Region pool, and will incur no premium on their credit values. For example, for a manufacturer to make up a 2016 model year shortfall of 100 credits in State W, the manufacturer may transfer 100 (2016 model year) TZEY credits from State Z, within the East Region pool.

ii. *Trading and Transferring TZEY Credits between the West Region Pool and the East Region Pool.* Manufacturers may trade or transfer specified TZEY credits used to meet the same model year percentages in subdivision 1962.1.1(d)(5)(E)3.c. between the West Region pool and the East Region pool; however, any credits traded or transferred will incur a premium of 30% of their value. For example, in order for a manufacturer to make up a 2016

model year shortfall of 100 credits in the West Region Pool, the manufacturer may transfer 130 (2016 model year) TZEV 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.

~~c. *Total Requirement Percentages.* Requirements for the minimum ZEV floor, and allowed percentages for AT PZEVs and PZEVs in subdivision 1962.1.1(b) remain in effect for large and intermediate volume manufacturers choosing the optional section 177 state compliance path in each section 177 state. However, the optional section 177 compliance path requires manufacturers to meet additional ZEV requirements and allows manufacturers to meet reduced TZEV percentages as described above in subdivision 1962.1.1(d)(5)(E)3.a. and b. The table below enumerates the total annual percentage obligation in each section 177 state for the 2015 through 2017 model years if the manufacturer elects the optional section 177 state compliance path and produces the minimum number of credits required to meet its minimum ZEV floor and the maximum percentage allowed to be met with credits from TZEVs, AT PZEVs and PZEVs.~~

<i>Years</i>	<i>Total ZEV Percent Requirement for Optional Compliance Path</i>	<i>Minimum ZEV Floor for Optional Compliance Path</i>	<i>TZEVs for Optional Compliance Path</i>	<i>AT PZEVs (no change)</i>	<i>PZEVs (no change)</i>
2015	13.25%	3.00%	2.25%	2.00%	6.00%
2016	14.15%	3.75%	2.40%	2.00%	6.00%
2017	15.05%	4.50%	2.55%	2.00%	6.00%

~~d. *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 shall submit, in writing, to the Executive Officer and each section 177 state a report, including an itemized list, that demonstrates the manufacturer has met the requirements~~

of this subdivision 1962.1.1(d)(5)(E)3. in each section 177 state as well as in the East Region pool and in the West Region pool. The itemized list shall include the following:

- i. ~~The manufacturer's total applicable volume of PCs and LDTs delivered for sale in each section 177 state within the pool, as determined under subdivision 1962.1.1(b)(1)(B).~~
- ii. ~~Make, model, vehicle identification number, credit earned, and section 177 state where delivery for sale and placement in service for ZEV occurred to meet the manufacturer's additional ZEV obligation under subdivision 1962.1.1(d)(5)(E)3.a.~~
- iii. ~~Make, model, vehicle identification number, credit earned, and section 177 state where delivery for sale of each TZEV occurred and section 177 state where delivery for sale and placement in service of each ZEV occurred to meet manufacturer's requirements under subdivision 1962.1.1(d)(5)(E)3.c.~~

e. ~~*Failure to Meet Optional Section 177 State Compliance Path Requirements.* A manufacturer that elects the optional section 177 state compliance path and does not meet the requirements in subdivision 1962.1.1(d)(5)(E)3.a. by June 30, 2018 in all section 177 states within an applicable pool shall be treated as subject to the total ZEV percentage requirements in section 1962.1.1(b) for the 2015 through 2017 model years in each section 177 state and the pooling provisions in subdivision 1962.1.1(d)(5)(E)3.a. shall not apply. Any transfers of ZEV credits between section 177 states will be null and void, and ZEV credits will return to the section 177 state in which the credits were earned. A manufacturer that elects the optional section 177 state compliance path and does not meet the percentages in subdivision 1962.1.1(d)(5)(E)3.b. in a model year or make up their deficit within the specified time and with the specified credits allowed by subdivision 1962.1.1(g)(7)(A) in all section 177 states within an applicable pool shall be treated as subject to the total ZEV percentage requirements in section~~

~~1962.1.1(b) for the 2015 through 2017 model years and the pooling provisions in subdivision 1962.1.1(d)(5)(E)3.b. shall not apply. Any transfers of TZEV credits between section 177 states will be null and void if a manufacturer fails to comply, and TZEV credits will return to the section 177 state in which the credits were earned. Penalties shall be calculated separately by each section 177 state where a manufacturer fails to make up the ZEV deficits by the end of the 2018 model year.~~

~~f. The provisions in section 1962.1.1 shall apply to a manufacturer electing the optional section 177 state compliance path, except as specifically modified by this subdivision 1962.1.1(d)(5)(E)3.~~

~~(F) NEVs. Beginning in 2010 model year, to be eligible for the credit amount in subdivision 1962.1.1(d)(5)(C), NEVs must meet the following specifications and requirements in this subdivision 1962.1.1(d)(5)(F):~~

~~1. *Specifications.* A 2010 through 2017 model year NEV earns credit when it meets all the following specifications:~~

~~a. *Acceleration.* The vehicle has a 0-20 mph acceleration of 6.0 seconds or less when operating with a payload of 332 pounds and starting with the battery at a 50% state of charge.~~

~~b. *Top Speed.* The vehicle has a minimum top speed of 20 mph when operating with a payload of 332 pounds and starting with the battery at a 50% state of charge. The vehicle's top speed shall not exceed 25 mph when tested in accordance with 49 CFR 571.500 (68 FR 43972, July 25, 2003).~~

~~c. *Constant Speed Range.* The vehicle has a minimum 25-mile range when operating at constant top speed with a payload of 332 pounds and starting with the battery at 100% state of charge.~~

~~2. *Battery Requirement.* A 2010 through 2017 model year NEV must be equipped with one or more sealed, maintenance-free~~

batteries.

3. ~~*Warranty Requirement.*~~ A 2010 through 2017 model year NEV drive train, including battery packs, must be covered for a period of at least 24 months. The first 6 months of the NEV warranty period must be covered by a full warranty; the remaining warranty period may be optional extended warranties (available for purchase) and may be prorated. If the extended warranty is prorated, the percentage of the battery pack's original value to be covered or refunded must be at least as high as the percentage of the prorated coverage period still remaining. For the purpose of this computation, the age of the battery pack must be expressed in intervals no larger than three months. Alternatively, a manufacturer may cover 50 percent of the original value of the battery pack for the full period of the extended warranty.

4. ~~Prior to allowance approval, the Executive Officer may request that the manufacturer provide copies of representative vehicle and battery warranties.~~

5. ~~*NEV Charging Requirements.*~~ Model year 2014 through 2017 NEVs must meet charging connection standard portion of the requirements specified in subdivision 1962.3(c)(2).

(G) ~~*Type I.5x and Type IIx Vehicles.*~~ Beginning in 2012 model year, to be eligible for the credit amount in subdivision 1962.1.1(d)(5)(C), Type I.5x and Type IIx vehicles must meet the following specifications and requirements:

1. ~~*PZEV Requirements.*~~ Type I.5x and Type IIx vehicles must meet all PZEV requirements, specified in subdivision 1962.1.1(c)(2)(A) through (D).

2. ~~*Type G Requirements.*~~ Type I.5x and Type IIx vehicles must meet the requirements for Type G advanced componentry allowance, specified in subdivision 1962.1.1(c)(4)(B).

3. ~~*APU Operation.*~~ The vehicle's UDDS range after the APU first starts and enters "charge sustaining hybrid operation" must be less than or equal to the vehicle's UDDS all-electric test range prior to APU start.

~~The vehicle's APU cannot start under any user-selectable driving mode unless the energy storage system used for traction power is fully depleted.~~

~~4. Minimum Zero Emission Range Requirements.~~

Vehicle Category	Zero Emission UDDS Range
Type I.5x	≥ 75 miles, < 100 miles
Type IIx	≥ 100 miles

~~(e) [Reserved].~~

~~(f) Extended Service Multiplier for 1997-2003 Model Year ZEVs and PZEVs With > 10 Mile Zero-Emission Range. Except in the case of a NEV, an additional ZEV or PZEV multiplier will be earned by the manufacturer of a 1997 through 2003 model year ZEV, or PZEV with > 10 mile zero-emission range for each full year it is registered for operation on public roads in California beyond its first three years of service, in the 2009 through 2011 calendar years. For additional years of service starting earlier than April 24, 2003, the manufacturer will receive 0.1 times the ZEV credit that would be earned by the vehicle if it were leased or sold new in that year, including multipliers, on a year-by-year basis beginning in the fourth year after the vehicle is initially placed in service. For additional years of service starting April 24, 2003 or later, the manufacturer will receive 0.2 times the ZEV credit that would be earned by the vehicle if it were leased or sold new in that year, including multipliers, on a year-by-year basis beginning in the fourth year after the vehicle is initially placed in service. The extended service multiplier is reported and earned in the year following each continuous year of service. Additional credit cannot be earned after model year 2011.~~

~~(g) Generation and Use of Credits; Calculation of Penalties.~~

~~(1) Introduction. A manufacturer that produces and delivers for sale in California ZEVs or PZEVs in a given model year exceeding the manufacturer's ZEV requirement set forth in subdivision 1962.1.1(b) shall earn credits in accordance with this subdivision 1962.1.1(g).~~

~~(2) Credit Calculations.~~

~~(A) Credits from ZEVs. For model years 2009 through 2014, the amount of g/mi credits earned by a manufacturer in a given model year from ZEVs~~

shall be expressed in units of g/mi NMOG, 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 for the model year subtracted from the number of ZEVs produced and delivered for sale in California by the manufacturer in the model year and then multiplied by the NMOG fleet average requirement for PCs and LDT1s, or LDT2s as applicable, for 2009 through 2011 model years, and for PCs and LDT1s for 2012 through 2014 model years. For model years 2015 through 2017, 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 1962.1.1(d)(5)(E)3., for the model year subtracted from the number of ZEV credits produced and delivered for sale in California by the manufacturer in the model year or model years.

(B) *Credits from PZEVs.* For model years 2009 through 2014, the amount of g/mi credits from PZEVs earned by a manufacturer in a given model year shall be expressed in units of g/mi NMOG, and shall be equal to the total number of PZEVs produced and delivered for sale in California that the manufacturer applies towards meeting its ZEV requirement for the model year subtracted from the total number of PZEV allowances from PZEVs produced and delivered for sale in California by the manufacturer in the model year and then multiplied by the NMOG fleet average requirement for PCs and LDT1s, or LDT2s as applicable, for 2009 through 2011 model years, and for PCs and LDT1s for 2012 through 2014 model years. For model years 2015 through 2017, the amount of credits earned by a manufacturer in a given model year from PZEVs shall be expressed in units of credits, and shall be equal to the number of credits from PZEVs produced and delivered for sale in California that the manufacturer applies towards meeting the ZEV requirements, or, if applicable, requirements specified under subdivision 1962.1.1(d)(5)(E)3., for the model year subtracted from the number of PZEV credits produced and delivered for sale in California by the manufacturer in the model year or model years.

(C) *Separate Credit Accounts.* The number of credits from a manufacturer's [i] ZEVs, [ii] Type I.5x and Type IIx vehicles, [iii] TZEVs, [iv] AT PZEVs, [v] all other PZEVs, and [vi] NEVs shall each be maintained separately.

- ~~(D) *Rounding Credits.* For model year 2012 through 2014, ZEV credits and debits shall be rounded to the nearest 1/1000th only on the final credit and debit totals using the conventional rounding method. For model year 2015 through 2017, ZEV credits and debits shall be rounded to the nearest 1/100th only on the final credit and debit totals using the conventional rounding method.~~
- ~~(E) *Converting g/mi NMOG ZEV Credits to ZEV Credits.* After model year 2014 compliance, all manufacturer ZEV, Type I.5x and Type IIx, TZEV, AT PZEV, PZEV, and NEV accounts will be converted from g/mi NMOG to credits. Each g/mi NMOG account balance will be divided by 0.035. Starting in model year 2015, credits will no longer be expressed in terms of g/mi credits, but only as credits.~~
- ~~(F) *Converting PZEV and AT PZEV Credits after Model Year 2017.* After model year 2017 compliance, a manufacturer's PZEV and AT PZEV credit accounts will be converted to be used for compliance with requirements specified in subdivision 1962.2(b). For LVMs, PZEV accounts will be discounted 93.25%, and AT PZEV accounts will be discounted 75%. For IVMs, PZEV accounts and AT PZEV accounts will be discounted 75%. This will be a one time calculation after model year 2017 compliance is complete.~~
- ~~(3) *ZEV Credits for MDVs and LDTs Other Than LDT1s.* ZEVs and PZEVs classified as MDVs or as LDTs other than LDT1s may be counted toward the ZEV requirement for PCs, LDT1s and LDT2s as applicable, and included in the calculation of ZEV credits as specified in this subdivision 1962.1.1(g) if the manufacturer so designates.~~
- ~~(4) *ZEV Credits for Advanced Technology Demonstration Programs.*~~
- ~~(A) *TZEVs.* For 2009 through 2014 model years, TZEVs placed in a California advanced technology demonstration program for a period of two or more years, may earn ZEV credits even if it is not "delivered for sale" or registered with the California Department of Motor Vehicles (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 allowances and credits that it would have earned if 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 as many as 25 vehicles per model, per ZEV state, per year under this subdivision 1962.1.1(g)(4). A manufacturer's vehicles in excess of the 25-vehicle cap will not be eligible for advanced technology demonstration program credits.

(B) *ZEVs*. In model years 2009 through 2017, ZEVs, including Type I.5x and IIx vehicles, excluding NEVs and Type 0 ZEVs, placed in a California advanced technology demonstration program for a period of two or more years, may earn ZEV credits even if it 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 allowances and credits that it would have earned if 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 as many as 25 vehicles per model, per ZEV state, per year under this subdivision 1962.1.1(g)(4). A manufacturer's vehicles in excess of the 25-vehicle cap will not be eligible for advanced technology demonstration program credits.

(5) ZEV Credits for Transportation Systems.

(A) *General*. In model years 2009 through 2011, a ZEV placed, for two or more years, as part of a transportation system may earn additional ZEV credits, which may be used in the same manner as other credits earned by vehicles of that category, except as provided in subdivision (g)(5)(C) below. In model years 2012 through 2017, a ZEV, Type I.5x and Type IIx vehicles, or TZEV placed, for two or more years, as part of a transportation system may earn additional ZEV credits, which may be used in the same manner as other credits earned by vehicles of that category, except as provided in subdivision (d)(5)(E)2. and as provided in

~~subdivision (g)(5)(C) below. In model years 2009 through 2011, an AT PZEV or PZEV placed as part of a transportation system may earn additional ZEV credits, which may be used in the same manner as other credits earned by vehicles of that category, except as provided in subdivision (g)(5)(C) below. A NEV is not eligible to earn credit for transportation systems. To earn such credits, the manufacturer must demonstrate to the reasonable satisfaction of the Executive Officer that the vehicle will be used as a part of a project that uses an innovative transportation system as described in subdivision (g)(5)(B) below.~~

~~(B) Credits Earned. In order to earn additional credit under this section (g)(5), a project must at a minimum demonstrate [i] shared use of ZEVs, Type I.5x and Type IIx vehicles, TZEVs, AT PZEVs or PZEVs, and [ii] the application of "intelligent" new technologies such as reservation management, card systems, depot management, location management, charge billing and real time wireless information systems. If, in addition to factors [i] and [ii] above, a project also features linkage to transit, the project may receive further additional credit. For ZEVs only, not including NEVs, a project that features linkage to transit, such as dedicated parking and charging facilities at transit stations, but does not demonstrate shared use or the application of intelligent new technologies, may also receive additional credit for linkage to transit. The maximum credit awarded per vehicle shall be determined by the Executive Officer, based upon an application submitted by the manufacturer and, if appropriate, the project manager. The maximum credit awarded shall not exceed the following:~~

<i>Type of Vehicle</i>	<i>Model Year</i>	<i>Shared Use, Intelligence</i>	<i>Linkage to Transit</i>
PZEV	through 2011	2	1
AT PZEV	through 2011	4	2
TZEV	2009 through 2011	4	2
ZEV	2009 through 2011	6	3
TZEV	2012 through 2017	0.5	0.5
ZEV and Type I.5x and Type IIx vehicles	2012 through 2017	0.75	0.75

~~(C) Cap on Use of Transportation System Credits.~~

- ~~1. ZEVs. Credits earned or allocated by ZEVs or Type I.5x and Type IIx vehicles pursuant to this subdivision (g)(5), not including all credits~~

~~earned by the vehicle itself, may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation in any given model year, and may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation which must be met with ZEVs, as specified in subdivision 1962.1.1(b)(2)(D)3.~~

~~2. *TLEVs*. Credits earned or allocated by TZEVs pursuant to this subdivision (g)(5), not including all credits earned by the vehicle itself, may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation in any given model year, or, if applicable, up to one-tenth of the total ZEV percentages specified under subdivision 1962.1.1(d)(5)(E)3., but may only be used in the same manner as other credits earned by vehicles of that category.~~

~~3. *AT PZEVs*. Credits earned or allocated by AT PZEVs pursuant to this subdivision (g)(5), not including all credits earned by the vehicle itself, may be used to satisfy up to one-twentieth of a manufacturer's ZEV obligation in any given model year, but may only be used in the same manner as other credits earned by vehicles of that category.~~

~~4. *PZEVs*. Credits earned or allocated by PZEVs pursuant to this subdivision (g)(5), not including all credits earned by the vehicle itself, may be used to satisfy up to one-fiftieth of the manufacturer's ZEV obligation in any given model year, but may only be used in the same manner as other credits earned by vehicles of that category.~~

~~(D) *Allocation of Transportation System Credits*. Credits shall be assigned by the Executive Officer to the project manager or, in the absence of a separate project manager, to the vehicle manufacturers upon demonstration that a vehicle has been placed in a project for the time specified in subdivision 1962.1.1(g)(5)(A). Credits shall be allocated to vehicle manufacturers by the Executive Officer in accordance with a recommendation submitted in writing by the project manager and signed by all manufacturers participating in the project, and need not be allocated in direct proportion to the number of vehicles placed. Credits will no longer be allocated for vehicles placed in transportation systems after 2017 model year.~~

~~(6) *Use of ZEV Credits*. For model years 2009 through 2014, a manufacturer may meet the ZEV requirements in any given model year by submitting to the~~

~~Executive Officer a commensurate amount of g/mi ZEV credits, consistent with subdivision 1962.1.1(b). For model years 2015 through 2017, a manufacturer may meet the ZEV requirements in any given model year by submitting to the Executive Officer a commensurate amount of ZEV credits, consistent with subdivision 1962.1.1(b). 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. For example, credits produced from TZEVs may be used to comply with AT PZEV requirements, but not with the portion that must be satisfied with ZEVs. These credits may be earned previously by the manufacturer or acquired from another party.~~

~~(A) NEVs. Credits earned from NEVs offered for sale or placed in service in model years 2001 through 2005 cannot be used to satisfy more than the percentage limits described in the following table:~~

<i>Model Years</i>	<i>ZEV Obligation that:</i>	<i>Percentage limit for NEVs allowed to meet each Obligation:</i>
2009—2011	Must be met with ZEVs	50%
2009	May be met with AT PZEVs but not PZEVs	75%
2010—2011		50%
2009—2011	May be met with PZEVs	No Limit
2012—2017	Must be met with ZEVs	0%
	May be met with TZEVs and AT PZEVs	50%
	May be met with PZEVs	No Limit

[†] If applicable, obligation in this table means requirements specified under subdivision 1962.1.1(d)(5)(E)3.

~~Additionally, credits earned from NEVs placed in service in model years 2006 through 2017 can be used to meet the percentage limits described in the following table:~~

<i>Model Years</i>	<i>ZEV Obligation that:</i>	<i>Percentage Limit for NEVs allowed to meet each Obligation:</i>
2009—2011	May be met through compliance with Primary Requirements	No Limit
	May be met through compliance with Alternative Requirements, and must be met with ZEVs	0%

	May be met through compliance Alternative Requirements, and may be met with AT PZEVs or PZEVs	No Limit
2012—2017	Must be met with ZEVs	0%
	May be met with TZEVs, AT PZEVs, or PZEVs	No Limit

¹ If applicable, obligation in this table means requirements specified under subdivision 1962.1.1(d)(5)(E)3.

~~This limitation applies to NEV credits earned by the same manufacturer or earned by another manufacturer and acquired.~~

~~(B) Carry forward provisions for LVMs for 2009-2011 Model Years. Credits from ZEVs, excluding credits generated from NEVs, generated from excess production in 2009 through 2011 model years, including those acquired from another party, may be carried forward and applied to the ZEV minimum floor requirement specified in subdivisions 1962.1.1(b)(2)(B)1.b. and (b)(2)(D) for two subsequent model years. Beginning with the third subsequent model year, those earned credits may no longer be used to satisfy the manufacturer's percentage ZEV obligation that may only be satisfied by credits from ZEVs, but may be used to satisfy the manufacturer's percentage ZEV obligation that may be satisfied by credits from TZEVs, AT PZEVs, or PZEVs. For example, ZEV credit earned in 2010 would retain full flexibility through 2012, after which time that credit could only be used as TZEV, AT PZEV, or PZEV credits.~~

~~(C) Carry forward provisions for manufacturers other than LVMs for 2009-2011 Model Years. Credits generated from ZEVs, excluding credits generated from NEVs, from 2009 through 2011 model year production by manufacturers that are not LVMs may be carried forward by the manufacturer producing the credit until the manufacturer becomes subject to the LVM requirements, after the transition period permitted in subdivision 1962.1.1(b)(7)(A). When subject to the LVM requirements, a manufacturer must comply with the provisions of subdivision 1962.1.1(g)(6)(B). Credits traded by a manufacturer other than a LVM to any other manufacturer, including a LVM, are subject to subdivision 1962.1.1(g)(6)(B), beginning in the model year in which they were produced (e.g., a 2009 model year credit traded in calendar year 2010 can only be applied towards the portion of the manufacturer's requirement that must be met with ZEVs through model year 2011; beginning in model year 2012, the credit can only be applied to the portion of the manufacturer's requirement that may be met with TZEVs, AT PZEVs, or PZEVs).~~

~~(D) Type I.5x and Type IIx Vehicles.~~ Credits earned from Type I.5x and Type IIx vehicles offered for sale or placed in service may meet up to 50% of the portion of a manufacturer's requirement that must be met with credits from ZEVs.

~~(7) Requirement to Make Up a ZEV Deficit.~~

~~(A) General.~~ A manufacturer that produces and delivers for sale in California fewer ZEVs than required in a given model year shall make up the deficit by the end of the third model year by submitting to the Executive Officer a commensurate amount of g/mi credits generated by ZEVs, for model year 2009 through 2014, and the commensurate amount of credits generated by ZEVs for model year 2015 through 2017. The amount of credits required to be submitted shall be calculated by [i] adding the number of ZEVs produced and delivered for sale in California by the manufacturer for the model year to the number of ZEV allowances from partial ZEV allowance vehicles produced and delivered for sale in California by the manufacturer for the model year (for a LVM, not to exceed that permitted under subdivision 1962.1.1(b)(2)), [ii] subtracting that total from the number of ZEV credits required to be produced and delivered for sale in California by the manufacturer for the model year, and, for model year 2009 through 2014 compliance, and [iii] multiplying the resulting value by the fleet average requirements for PCs and LDTs for the model year in which the deficit is incurred. Credits earned by delivery for sale of Type I.5x and Type IIx vehicles, TZEV, NEV, AT PZEV, and PZEV are not allowed to be used to fulfill a manufacturer's ZEV deficit; only credits from ZEVs may be used to fulfill a manufacturer's ZEV deficit.

~~(8) Penalty for Failure to Meet ZEV Requirements.~~ Any manufacturer that fails to produce and deliver for sale in California the required number of ZEVs and submit an appropriate amount of g/mi credits, for model years 2009 through 2014, and credits for model years 2015 through 2017, and does not make up ZEV deficits within the specified time allowed by subdivision 1962.1.1(g)(7)(A) shall be subject to the Health and Safety Code section 43211 civil penalty applicable to a manufacturer that sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the ZEV deficits are not balanced by the end of the specified time allowed by subdivision 1962.1.1(g)(7)(A). For the purposes of Health and Safety Code section 43211, the number of vehicles not meeting the state board's standards shall

~~be equal to the manufacturer's credit deficit, rounded to the to the nearest 1/1000th for model years 2009 through 2014 and rounded to the nearest 1/100th for model years 2015 through 2017, calculated according to the following equations, provided that the percentage of a manufacturer's ZEV requirement for a given model year that may be satisfied with PZEV allowance vehicles or credits from such vehicles may not exceed the percentages permitted under subdivision 1962.1.1(b)(2):~~

~~For 2009 through 2014 model years:~~

~~(No. of credits required to be generated for the model year) — (Amount of credits submitted for compliance for the model year) / (the fleet average requirement for PCs and LDT1s for the model year)~~

~~For 2015 through 2017 model years: (No. of credits required to be generated for the model year) — (Amount of credits submitted for compliance for the model year)~~

~~(h) Test Procedures.~~

~~(1) Determining Compliance.~~ The certification requirements and test procedures for determining compliance with this section 1962.1.1 are set forth in "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," adopted December 17, 2008, and last amended December 6, 2012, which is incorporated herein by reference.

~~(2) NEV Compliance.~~ The test procedures for determining compliance with subdivision 1962.1.1(d)(5)(F)1. are set forth in ETA-NTP002 (revision 3) "Implementation of SAE Standard J1666 May 93: Electric Vehicle Acceleration, Gradeability, and Deceleration Test Procedure" (December 1, 2004), and ETA-NTP004 (revision 3) "Electric Vehicle Constant Speed Range Tests" (February 1, 2008), both of which are incorporated by reference herein.

~~(i) ZEV-Specific Definitions.~~ The following definitions apply to this section 1962.1.1.

~~(1) "Advanced technology PZEV" or "AT PZEV" means any PZEV with an allowance greater than 0.2 before application of the PZEV early introduction phase in multiplier.~~

- (2) ~~"Auxiliary power unit" or "APU" means any device that provides electrical or mechanical energy, meeting the requirements of subdivision 1962.1.1(c)(2), to a Type I.5x or Type IIx vehicle, after the zero emission range has been fully depleted. A fuel fired heater does not qualify under this definition for an APU.~~
- (3) ~~"Battery electric vehicle" means any vehicle that operates solely by use of a battery or battery pack, or that is powered primarily through the use of an electric battery or battery pack but uses a flywheel or capacitor that stores energy produced by the electric motor or through regenerative braking to assist in vehicle operation.~~
- (4) ~~"Charge depletion range actual" or "Rceda" means the distance achieved by a hybrid electric vehicle on the urban driving cycle at the point when the zero-emission energy storage device is depleted of off vehicle charge and regenerative braking derived energy.~~
- (5) ~~"Conventional rounding method" means to increase the last digit to be retained when the following digit is five or greater. Retain the last digit as is when the following digit is four or less.~~
- (6) ~~"East Region pool" means the combination Section 177 states east of the Mississippi River.~~
- (7) ~~"Electric drive system" means an electric motor and associated power electronics which provide acceleration torque to the drive wheels sometime during normal vehicle operation. This does not include components that could act as a motor, but are configured to act only as a generator or engine starter in a particular vehicle application.~~
- (8) ~~"Enhanced AT PZEV" means any model year 2009 through 2011 PZEV that has an allowance of 1.0 or greater per vehicle without multipliers and makes use of a ZEV fuel. Enhanced AT PZEV means Transitional Zero Emission Vehicle.~~
- (9) ~~"Neighborhood electric vehicle" or "NEV" means a motor vehicle that meets the definition of Low Speed Vehicle either in section 385.5 of the Vehicle Code or in 49 CFR 571.500 (as it existed on July 1, 2000), and is certified to zero emission vehicle standards.~~

- (10) ~~"Placed in service" means having been sold or leased to an end-user and not to a dealer or other distribution chain entity, and having been individually registered for on-road use by the California DMV.~~
- (11) ~~"Proportional value" means the ratio of a manufacturer's California applicable sales volume to the manufacturer's Section 177 state applicable sales volume. In any given model year, the same applicable sale volume calculation method must be used to calculate proportional value.~~
- (12) ~~"Range Extended Battery Electric Vehicle" means a vehicle powered predominantly by a zero emission energy storage device, able to drive the vehicle for more than 75 all electric miles, and also equipped with a backup APU, which does not operate until the energy storage device is fully depleted, and meeting requirements in subdivision 1962.1.1(d)(5)(G).~~
- (13) ~~"Regenerative braking" means the partial recovery of the energy normally dissipated into friction braking that is returned as electrical current to an energy storage device.~~
- (14) ~~"Section 177 state" means a state that is administering the California ZEV requirements pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).~~
- (15) ~~"Transitional Zero Emission Vehicle" means a PZEV that has an allowance of 1.0 or greater, and makes use of a ZEV fuel.~~
- (16) ~~"Type 0, I, I.5, II, III, IV, and V ZEV" all have the meanings set forth in section 1962.1.1(d)(5)(A).~~
- (17) ~~"West Region pool" means the combination of Section 177 states west of the Mississippi River.~~
- (18) ~~"ZEV fuel" means a fuel that provides traction energy in on-road ZEVs. Examples of current technology ZEV fuels include electricity, hydrogen, and compressed air.~~
- (j) ~~*Abbreviations.* The following abbreviations are used in this section 1962.1.1:~~
~~"AER" means all electric range.~~
~~"APU" means auxiliary power unit.~~
~~"AT PZEV" means advanced technology partial zero emission vehicle.~~

~~"CFR" means Code of Federal Regulations.~~
~~"DMV" means the California Department of Motor Vehicles.~~
~~"EAER" means equivalent all-electric range.~~
~~"EAERu40" means the urban equivalent all-electric range that a 40-mile Reda plug-in hybrid electric vehicle achieves.~~
~~"FR" means Federal Register.~~
~~"HEV" means hybrid electric vehicle.~~
~~"LDT" means light-duty truck.~~
~~"LDT1" means a light truck with a loaded vehicle weight of 0-3750 pounds.~~
~~"LDT2" means a "LEV II" light-duty truck with a loaded vehicle weight of 3751 pounds to a gross vehicle weight of 8500 pounds, or a "LEV I" light-duty truck with a loaded vehicle weight of 3751-5750 pounds.~~
~~"LVM" means large volume manufacturer.~~
~~"MDV" means medium-duty vehicle.~~
~~"Non-Methane Organic Gases" or "NMOG" means the total mass of oxygenated and non-oxygenated hydrocarbon emissions.~~
~~"NEV" means neighborhood electric vehicle.~~
~~"NOx" means oxides of nitrogen.~~
~~"PC" means passenger car.~~
~~"PZEV" means partial allowance zero-emission vehicle, any vehicle that is delivered for sale in California and that qualifies for a partial ZEV allowance of at least 0.2.~~
~~"Reda" means urban charge depletion range actual.~~
~~"SAE" means Society of Automotive Engineers.~~
~~"SULEV" means super-ultra-low emission vehicle.~~
~~"TZEV" means transitional zero-emission vehicle.~~
~~"Type I.5x" means range extended 75 mile to 100 mile all electric range battery electric vehicle.~~
~~"Type IIx" means range extended 100 mile or greater all electric range battery electric vehicle.~~
~~"UDDS" means urban dynamometer driving cycle.~~
~~"UF" means utility factor.~~
~~"US06" means the US06 Supplemental Federal Test Procedure~~
~~"VMT" means vehicle miles traveled.~~
~~"ZEV" means zero-emission vehicle.~~

~~(k) Severability. Each provision of this section is severable, and in the event that any provision of this section is held to be invalid, the remainder of this article remains in full force and effect.~~

~~(l) *Public Disclosure.* Records in the Board's possession for the vehicles subject to the requirements of section 1962.1.1 shall be subject to disclosure as public records as follows:~~

~~(1) Each manufacturer's annual production data and the corresponding credits per vehicle earned for ZEVs (including ZEV type), TZEVs, AT PZEVs, and PZEVs for the 2009 through 2017 model years; and~~

~~(2) Each manufacturer's annual credit balances for 2010 through 2017 years for:~~

~~(A) Each type of vehicle: ZEVs (minus NEVs), Type I.5x, and Type IIx vehicles, NEVs, TZEVs, AT PZEVs, and PZEVs; and~~

~~(B) Advanced technology demonstration programs; and~~

~~(C) Transportation systems; and~~

~~(D) Credits earned under subdivision 1962.1.1(d)(5)(C), including credits acquired from, or transferred to another party.~~

~~Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 38562, 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43018.5, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43204, 43205, 43205.5 and 43206, Health and Safety Code.~~

1962.2.1 Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles. (Alternative)

For purposes of this section, any cross-referenced section in title 13 or title 17 of the California Code of Regulations shall refer to the section identified as the alternative version "(Alternative)" for the corresponding section, to the extent an alternative version of that section exists.

~~(a) *ZEV Emission Standard.* The Executive Officer shall certify new 2018 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles as ZEVs, vehicles that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions.~~

~~(a) *Percentage ZEV Requirements.*~~

~~(1) *General ZEV Credit Percentage Requirement.*~~

~~(A) *Basic Requirement.* The minimum ZEV credit percentage requirement for each manufacturer is listed in the table below as the percentage of the PCs and LDTs, produced by the manufacturer and delivered for sale in California that must be ZEVs, subject to the conditions in this subdivision 1962.2.1(b). The ZEV requirement will be based on the annual NMOG production report for the appropriate model year.~~

Model Year	Credit Percentage Requirement
2018	4.5%
2019	7.0%
2020	9.5%
2021	12.0%
2022	14.5%
2023	17.0%
2024	19.5%
2025 and subsequent	22.0%

~~(B) *Calculating the Number of Vehicles to Which the Percentage ZEV Requirement is Applied.* For 2018 and subsequent model years, a manufacturer's production volume for the given model year will be based on the three-year average of the manufacturer's volume of PCs and LDTs, produced and delivered for sale in California in the prior second, third, and fourth model year [for example, 2019 model year ZEV requirements will be based on California production volume average of PCs and LDTs for the 2015 to 2017 model years]. This production averaging is used to~~

determine ZEV requirements only, and has no effect on a manufacturer's size determination (eg. three-year average calculation method). In applying the ZEV requirement, a PC or LDT, that is produced by one manufacturer (e.g., Manufacturer A), but is marketed in California by another manufacturer (e.g., Manufacturer B) under the other manufacturer's (Manufacturer B) nameplate, shall be treated as having been produced by the marketing manufacturer (i.e., Manufacturer B).

~~1. [Reserved].~~

~~1. [Reserved].~~

~~2. A manufacturer may apply to the Executive Officer to be permitted to base its ZEV obligation on the number of PCs and LDTs, produced by the manufacturer and delivered for sale in California that same model year (ie, same model-year calculation method) as an alternative to the three-year averaging of prior year production described above, for up to two model years, total, between model year 2018 and model year 2025. For the same model-year calculation method to be allowed, a manufacturer's application to the Executive Officer must show that their volume of PCs and LDTs produced and delivered for sale in California has decreased by at least 30 percent from the previous year due to circumstances that were unforeseeable and beyond their control.~~

~~(A) [Reserved].~~

~~(A) Exclusion of ZEVs in Determining a Manufacturer's Sales Volume. In calculating a manufacturer's applicable sales, using either method described in subdivision 1962.2.1(b)(1)(B), a manufacturer shall exclude the number of NEVs produced and delivered for sale in California by the manufacturer itself, or by a subsidiary in which the manufacturer has more than 33.4% percent ownership interest.~~

~~(1) Requirements for Large Volume Manufacturers.~~

~~(A) [Reserved].~~

~~(A) [Reserved].~~

~~(B) [Reserved].~~

~~(C) [Reserved].~~

~~(D) Requirements for Large Volume Manufacturers in 2018 and through 2025 Model Years. LVMs must produce credits from ZEVs equal to minimum ZEV floor percentage requirement, as enumerated below.~~

Model Years	Total ZEV Percent Requirement	Minimum ZEV floor	TZEVs
2018	—4.5%	—2.0%	2.5%
2019	—7.0%	—4.0%	3.0%
2020	—9.5%	—6.0%	3.5%
2021	—12.0%	—8.0%	4.0%
2022	—14.5%	—10.0%	4.5%
2023	—17.0%	—12.0%	5.0%
2024	—19.5%	—14.0%	5.5%
2025	—22.0%	—16.0%	6.0%

~~(E) Requirements for Large Volume Manufacturers in Model Year 2026 and Subsequent. In 2026 and subsequent model years, a manufacturer must meet a total ZEV credit percentage of 22%. The maximum portion of a manufacturer's credit percentage requirement that may be satisfied by TZEV credits is limited to 6% of the manufacturer's applicable California PC and LDT production volume. ZEV credits must satisfy the remainder of the manufacturer's requirement.~~

~~(1) Requirements for Intermediate Volume Manufacturers. For 2018 and subsequent model years, an intermediate volume manufacturer may meet all of its ZEV credit percentage requirement, under subdivision 1962.2.1(b), with credits from TZEV.~~

~~(1) Requirements for Small Volume Manufacturers. A small volume manufacturer is not required to meet the ZEV credit percentage requirements. However, a small volume manufacturer may earn, bank, market, and trade credits for the ZEVs and TZEVs it produces and delivers for sale in California.~~

~~(2) [Reserved].~~

~~(3) [Reserved].~~

~~(4) Changes in Small Volume and Intermediate Volume Manufacturer Status.~~

~~(A) Increases in California Production Volume. In 2018 and subsequent model years, if a small volume manufacturer's average California production volume exceeds 4,500 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years (i.e., total production volume exceeds 13,500 vehicles in a three-year period), for three consecutive averages, the manufacturer shall no longer be treated as a small volume manufacturer, and must comply with the ZEV requirements for intermediate volume manufacturers beginning with the next model year after the last model year of the third consecutive average. For example, if (a small volume) Manufacturer A exceeds 4,500 PCs, LDTs, and MDVs for their 2018–2020, 2019–2021, and 2020–2022 model year averages, Manufacturer A would be subject to intermediate volume requirements starting in 2023 model year.~~

~~If an intermediate volume manufacturer's average California production volume exceeds 20,000 units of new PCs, LDTs, and MDVs based on the average number of vehicles produced and delivered for sale for the three previous consecutive model years (i.e., total production volume exceeds 60,000 vehicles in a three-year period), for three consecutive averages, the manufacturer shall no longer be treated as an intermediate volume manufacturer and shall comply with the ZEV requirements for large volume manufacturers beginning with the next model year after the last model year of the third consecutive average. For example, if (an intermediate volume) Manufacturer B exceeds 20,000 PCs, LDTs, and MDVs for its 2018–2020, 2019–2021, and 2020–2022 average, Manufacturer B would be subject to large volume manufacturer requirements starting in 2023 model year. Any new requirement described in the this subdivision will begin with the next model year after the last model year of the third consecutive average when a manufacturer ceases to be a small or intermediate volume manufacturer in 2018 or subsequent years due to the aggregation requirements in majority ownership situations.~~

~~(B) Decreases in California Production Volume. If a manufacturer's average California production volume falls below 4,500 or 20,000 units of new PCs, LDT1 and 2s, and MDVs, based on the average number of vehicles produced and delivered for sale for the three previous consecutive model~~

years, for three consecutive averages, the manufacturer shall be treated as a small volume or intermediate volume manufacturer, as applicable, and shall be subject to the requirements for a small volume or intermediate volume manufacturer beginning with the next model year. For example, if Manufacturer C falls below 20,000 PCs, LDTs, and MDVs for its 2019–2021, 2020–2022, and 2021–2023 averages, Manufacturer C would be subject to IVM requirements starting in 2024 model year.

~~(A) Calculating California Production Volume in Change of Ownership~~

~~Situations.~~ Where a manufacturer experiences a change in ownership in a particular model year, the change will affect application of the aggregation requirements on the manufacturer starting with the next model year. When a manufacturer is simultaneously producing two model years of vehicles at the time of a change of ownership, the basis of determining next model year must be the earlier model year. The manufacturer's small or intermediate volume manufacturer status for the next model year shall be based on the average California production volume in the three previous consecutive model years of those manufacturers whose production volumes must be aggregated for that next model year. For example, where a change of ownership during the 2019 calendar year occurs and the manufacturer is producing both 2019 and 2020 model year vehicles resulting in a requirement that the production volume of Manufacturer A be aggregated with the production volume of Manufacturer B, Manufacturer A's status for the 2020 model year will be based on the production volumes of Manufacturers A and B in the 2017–2019 model years. Where the production volume of Manufacturer A must be aggregated with the production volumes of Manufacturers B and C for the 2019 model year, and during that model year a change in ownership eliminates the requirement that Manufacturer B's production volume be aggregated with Manufacturer A's, Manufacturer A's status for the 2020 model year will be based on the production volumes of Manufacturers A and C in the 2017–2019 model years. In either case, the lead time provisions in subdivisions 1962.2.1(b)(7)(A) and (B) will apply.

~~(b) Transitional Zero-Emission Vehicles (TZEV).~~

~~(1) Introduction.~~ This subdivision 1962.2.1(c) sets forth the criteria for identifying vehicles delivered for sale in California as TZEVs.

~~(1) *TZEV Requirements.* In order for a vehicle to be eligible to receive a ZEV allowance, the manufacturer must demonstrate compliance with all of the following requirements:~~

~~(A) *SULEV Standards.* Certify the vehicle to the 150,000-mile SULEV 20 or 30 exhaust emission standards for PCs and LDTs in subdivision 1961.2(a)(1). Bi-fuel, fuel flexible and dual-fuel vehicles must certify to the applicable 150,000-mile SULEV 20 or 30 exhaust emission standards when operating on both fuels. Manufacturers may certify 2018 and 2019 TZEVs to the 150,000-mile SULEV exhaust emission standards for PCs and LDTs in subdivision 1961(a)(1);~~

~~(A) *Evaporative Emissions.* Certify the vehicle to the evaporative emission standards in subdivision 1976(b)(1)(G) or 1976(b)(1)(E);~~

~~(B) *OBD.* Certify that the vehicle will meet the applicable on-board diagnostic requirements in sections 1968.1 or 1968.2, as applicable, for 150,000 miles; and~~

~~(C) *Extended Warranty.* Extend the performance and defects warranty period set forth in subdivisions 2037(b)(2) and 2038(b)(2) to 15 years or 150,000 miles, whichever occurs first except that the time period is to be 10 years for a zero-emission energy storage device used for traction power (such as a battery, ultracapacitor, or other electric storage device).~~

~~(2) *Allowances for TZEVs.*~~

~~(A) *Zero-Emission Vehicle Miles Traveled TZEV Allowance Calculation.* A vehicle that meets the requirements of subdivision 1962.2.1(c)(2) and has zero-emission vehicle miles traveled (VMT), as defined by and calculated by the "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, last amended December 6, 2012, which is incorporated herein by reference, and measured as equivalent all-electric range (EAER) capability will generate an allowance according to the following equation:~~

UDDS Test Cycle Range (AER)	Allowance
<10 all electric miles	0.00
≥10 all electric miles	TZEV Credit = [(0.01) * EAER + 0.30]
>80 miles (credit cap)	1.10

~~1. Allowance for US06 Capability. TZEVs with US06 all electric range capability (AER) of at least 10 miles shall earn an additional 0.2 allowance. US06 test cycle range capability shall be determined in accordance with section G.7.5 of the "California Exhaust Emission Standards and Test Procedures for the 2018 and Subsequent Model Zero Emission Vehicles, and Hybrid Electric Vehicles in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," adopted March 22, 2012, last amended December 6, 2012, which is incorporated herein by reference.~~

~~(B) [Reserved].~~

~~(A) [Reserved].~~

~~(B) [Reserved].~~

~~(C) Credit for Hydrogen Internal Combustion Engine Vehicles. A hydrogen internal combustion engine vehicle that meets the requirements of subdivision 1962.2.1(c)(2) and has a total range of at least 250 UDDS miles will earn an allowance of 0.75, which may be in addition to allowances earned in subdivision 1962.2.1(c)(3)(A), and subject to an overall credit cap of 1.25.~~

~~(c) Qualification for Credits From ZEVs.~~

~~(1) [Reserved].~~

~~(1) [Reserved].~~

~~(2) [Reserved].~~

~~(3) [Reserved].~~

~~(4) Credits for 2018 and Subsequent Model Year ZEVs.~~

~~(A) ZEV Credit Calculations.~~ Credits from a ZEV delivered for sale are based on the ZEV's UDDS all-electric range, determined in accordance with the "California Exhaust Emission Standards and Test Procedures for the 2018 and Subsequent Model Zero-Emission Vehicles, and Hybrid Electric Vehicles in the Passenger Car, Light-Duty Truck, and Medium-Duty Vehicle Classes," adopted March 22, 2012, which is incorporated herein by reference, using the following equation:

$$\text{ZEV Credit} = (0.01) * (\text{UDDS range}) + 0.50.$$

~~1. A ZEV with less than 50 miles UDDS range will receive zero credits.~~

~~1. Credits earned under this provision 1962.2.1(d)(5)(A) are be capped at 4 credits per ZEV.~~

~~(A) [Reserved].~~

~~(A) [Reserved].~~

~~(B) [Reserved].~~

~~(C) Counting Specified ZEVs Placed in Service in a Section 177 State and in California.~~ 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 1962.2.1(b). The credits earned are multiplied by the ratio of a manufacturer's applicable production volume for a model year, as specified in subdivision 1962.2.1(b)(1)(B), in the state receiving credit to the manufacturer's applicable production volume as specified in subdivision 1962.2.1(b)(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 1962.2.1(d)(5)(A).

~~1. 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 1962.2.1(b)(2)(E) in each section 177 state equal to the following percentages of their sales volume determined under subdivision 1962.2.1(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	3.50%	6.00%	8.75%	12.00%

- ~~i. 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 model year ZEV and TZEV credits within the West Region pool to meet the same model year requirements in subdivision 1962.2.1(d)(5)(E)2.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 (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 model year ZEV and TZEV credits within the East Region pool to meet the same model year requirements in subdivision 1962.2.1(d)(5)(E)2.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 (2019 model year) ZEV credits from State Z, within the East Region pool.~~

~~ii. *Trading and Transferring ZEV and TZEV Credits between the 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 model year ZEV and TZEV credits to meet the same model year requirements in subdivision 1962.2.1(d)(5)(E)2.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 (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 within the East Region pool and within the West Region pool. The itemized list shall include the following:

i. ~~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 1962.2.1(b)(1)(B).~~

ii. ~~Make, model, vehicle identification number, credit earned, and section 177 state where delivery for sale of each TZEV and ZEV occurred and to meet manufacturer's requirements under subdivision 1962.2.1(d)(5)(E)2.a.~~

c. ~~*Failure to Meet Optional Section 177 State Compliance Path Requirements.*~~ A manufacturer that elects the optional section 177 state compliance path under subdivision 1962.1(d)(5)(E)3, and does not meet the modified percentages in subdivision 1962.2.1(d)(5)(E)2.a. in a model year or make up their deficit within the specified time and with the specified credits allowed by subdivision 1962.2.1(g)(7)(A) in all section 177 states of the applicable pool, shall be treated as subject to the total ZEV percentage requirements in section 1962.2.1(b) for the 2018 through 2021 model years in each section 177 state, and the pooling provisions in subdivision 1962.2.1(d)(5)(E)2.a. shall not apply. Any transfers of ZEV or TZEV credits between section 177 states will be null and void if a manufacturer fails to comply, and ZEV or TZEV credits will return to the section 177 state in which the credits were earned. Penalties shall be calculated separately by each section 177 state where a manufacturer fails to make up the ZEV deficits by the end of the 2018 model year.

- ~~d. The provisions of section 1962.2.1 shall apply to a manufacturer electing the optional section 177 state compliance path, except as specifically modified by this subdivision 1962.2.1(d)(5)(E)2.~~

~~(D) NEVs. NEVs must meet the following to be eligible for 0.15 credits:~~

- ~~1. *Specifications.* A NEV earns credit when it meets all the following specifications:~~

~~a. *Acceleration.* The vehicle has a 0-20 mph acceleration of 6.0 seconds or less when operating with a payload of at least 332 pounds and starting with the battery at a 50% state of charge.~~

~~b. *Top Speed.* The vehicle has a minimum top speed of 20 mph when operating with a payload of at least 332 pounds and starting with the battery at a 50% state of charge. The vehicle's top speed shall not exceed 25 mph when tested in accordance with 49 CFR 571.500 (68 FR 43972, July 25, 2003).~~

~~c. *Constant Speed Range.* The vehicle has a minimum 25-mile range when operating at constant top speed with a payload of at least 332 pounds and starting with the battery at 100% state of charge.~~

- ~~2. *Battery Requirement.* A NEV must be equipped with one or more sealed, maintenance-free batteries.~~

- ~~3. *Warranty Requirement.* A NEV drive train, including battery packs, must be covered for a period of at least 24 months. The first 6 months of the NEV warranty period must be covered by a full warranty; the remaining warranty period may be optional extended warranties (available for purchase) and may be prorated. If the extended warranty is prorated, the percentage of the battery pack's original value to be covered or refunded must be at least as high as the percentage of the prorated coverage period still remaining. For the purpose of this computation, the age of the battery pack must be expressed in intervals no larger than three months. Alternatively, a manufacturer may cover 50 percent of the original value of the battery pack for the full period of the extended warranty. Prior to credit approval, the Executive Officer may request that the manufacturer provide copies of~~

~~representative vehicle and battery warranties.~~

~~4. *NEV Charging Requirements.* A NEV must meet charging requirements specific in subdivision 1962.3(c)(2).~~

~~(E) *BEVx.* A BEVx must meet the following in order to receive credit, based on its all electric UDDS Range, through subdivision 1962.2.1(d)(5)(A):~~

~~1. *Emissions Requirements.* BEVxs must meet all TZEV requirements, specified in subdivision 1962.2.1(c)(2)(A) through (D).~~

~~1. *APU Operation.* The vehicle's UDDS range after the APU first starts and enters "charge sustaining hybrid operation" must be less than or equal to the vehicle's UDDS all electric test range prior to APU start. The vehicle's APU cannot start under any user-selectable driving mode unless the energy storage system used for traction power is fully depleted.~~

~~2. *Minimum Zero Emission Range Requirements.* BEVxs must have a minimum of 75 miles UDDS all electric range.~~

~~(d) *[Reserved]*.~~

~~(e) *[Reserved]*.~~

~~(f) *Generation and Use of Credits; Calculation of Penalties.*~~

~~(1) *Introduction.* A manufacturer that produces and delivers for sale in California ZEVs or TZEVs in a given model year exceeding the manufacturer's ZEV requirement set forth in subdivision 1962.2.1(b) shall earn ZEV credits in accordance with this subdivision 1962.2.1(g).~~

~~(1) *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 1962.2.1(d)(5)(E)2.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.~~

- ~~(A) 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 1962.2.1(d)(5)(E)2.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.~~
- ~~(B) Separate Credit Accounts. Credits from a manufacturer's ZEVs, BEVxs, TZEVs, and NEVs shall each be maintained in separate accounts.~~
- ~~(C) Rounding Credits. ZEV credits and debits shall be rounded to the nearest 1/100th only on the final credit and debit totals using the conventional rounding method.~~
- ~~(2) ZEV Credits for MDVs. Credits from ZEVs and TZEVs classified as MDVs, may be counted toward the ZEV requirement for PCs and LDTs, and included in the calculation of ZEV credits as specified in this subdivision 1962.2.1(g) if the manufacturer so specifies.~~
- ~~(3) ZEV Credits for Advanced Technology Demonstration Programs.~~
- ~~(A) [Reserved].~~
- ~~(A) 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 1962.2.1(g)(4). A manufacturer's vehicles in excess of the 25-vehicle cap will not be eligible for advanced technology demonstration program credits.~~

~~(4) ZEV Credits for Transportation Systems.~~

~~(A) [Reserved]~~

~~(A) [Reserved]~~

~~(B) Cap on Use of Transportation System Credits.~~

~~1. ZEVs. Transportation system credits earned or allocated by ZEVs or BEVxs pursuant to subdivision 1962.1 (g)(5), not including any credits earned by the vehicle itself, may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation in any given model year, and may be used to satisfy up to one-tenth of a manufacturer's ZEV obligation which must be met with ZEVs, as specified in subdivision 1962.2.1(b)(2)(E) or, if applicable, requirements specified under subdivision 1962.2.1(d)(5)(E)2.a.~~

~~1. TZEVs. Transportation system credits earned or allocated by TZEVs pursuant to subdivision 1962.1(g)(5), not including all credits earned by the vehicle itself, may be used to satisfy up to one-tenth of the portion of a manufacturer's ZEV obligation that may be met with TZEVs, or, if applicable, the portion of a manufacturer's obligation that may be met with TZEVs specified under subdivision 1962.2.1(d)(5)(E)2.a. in any given model year, but may only be used in the same manner as other credits earned by vehicles of that category.~~

~~(5) 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 1962.2.1(b). 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.

~~(A) Use of Discounted PZEV and AT PZEV Credits and NEV Credits.~~ For model years 2018 through 2025, discounted PZEV and AT PZEV credits, and NEV credits may be used to satisfy up to one-quarter of the portion of a manufacturer's requirement that can be met with credits from TZEVs, or, if applicable, the portion of a manufacturer's obligation that may be met with TZEVs specified under subdivision 1962.2.1(d)(5)(E)2.a. Intermediate volume manufacturers may fulfill their entire requirement with discounted PZEV and AT PZEV credits, and NEV credits in model years 2018 and 2019. These credits may be earned previously by the manufacturer or acquired from another party. Discounted PZEV and AT PZEV credits may no longer be used after model year 2025 compliance.

~~(A) Use of BEVx Credits.~~ BEVx credits may be used to satisfy up to 50% of the portion of a manufacturer's requirement that must be met with ZEV credits.

~~(B) GHG-ZEV Over Compliance Credits.~~

~~1. Application.~~ Manufacturers may apply to the Executive Officer, no later than December 31, 2016, to be eligible for this subdivision 1962.2.1(g)(6)(C), based on the following qualifications:

- ~~a. A manufacturer must have no model year 2017 compliance debits and no outstanding debits from all previous model year compliance with sections 1961.1 and 1961.3, or must have demonstrated compliance with the National greenhouse gas program as allowed by subdivisions 1961.1(a)(1)(A)(ii) and 1961.3(c); and~~
- ~~b. A manufacturer must have no model year 2017 compliance debits and no outstanding debits from all previous model year compliance with section 1962.1; and~~
- ~~c. A manufacturer must submit documentation of its projected product plans to show over compliance with the manufacturer's~~

~~section 1961.3 requirements, or over compliance with National greenhouse gas program requirements as allowed by subdivision 1961.3(c), by at least 2.0 gCO₂/mile in each model year through the entire 2018 through 2021 model year period, and its commitment to do so in each year.~~

~~2. *Credit Generation and Calculation.* Manufacturers must calculate their over compliance with section 1961.3 requirements, or over compliance with the National greenhouse gas program requirements as allowed by subdivision 1961.3(c), for model years 2018 through 2021 based on compliance with the previous model year standard. For example, to generate credits for this subdivision 1962.2.1(g)(6)(C) for model year 2018, manufacturers would calculate credits based on model year 2017 compliance with section 1961.3, or over compliance with the National greenhouse gas program as allowed by subdivision 1961.3(c).~~

~~a. At least 2.0 gCO₂/mile over compliance with section 1961.3, or over compliance with the National greenhouse gas program as allowed by subdivision 1961.3(c), is required in each year and the following equation must be used to calculate the amount of ZEV credits earned for purposes of this subdivision 1962.2.1(g)(6)(C), and:~~

$$\frac{[(\text{Manufacturer US PC and LDT Sales}) \times (\text{gCO}_{196}/\text{mile below manufacturer GHG standard for a given model year})]}{(\text{Manufacturer GHG standard for a given model year})}$$

~~b. Credits earned under subdivision 1961.3(a)(9), or credits earned under 40 CFR, part 86, Subpart S, §86.1866-12(a), §86.1866-12(b), or §86.1870-12, may not be included in the calculation of gCO₂/mile credits for use in the above equation in subdivision a. All ZEVs included in the calculation above must include upstream emission values found in section 1961.3.~~

~~c. Banked gCO₂/mile credits earned under sections 1961.1 and 1961.3, or under the National greenhouse gas program requirements as allowed by subdivision 1961.3(c), from previous model years or from other manufacturers may not be included in the calculation of gCO₂/mile credits for use in the above equation in subdivision a.~~

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 1962.2.1(g)(6)(C).

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

Credits earned in any given model year under this subdivision 1962.2.1(g)(6)(C) may only be used in the applicable model year and may not be used in any other model year.

gCO₂/mile credits used to calculate GHG-ZEV over compliance credits under this provision must also be removed from the manufacturer's 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).

4. ~~Reporting Requirements.~~ Annually, manufacturers are required to submit calculations of credits for this subdivision 1962.2.1(g)(6)(C) for the model year, any remaining credits/debits from previous model years under section 1961.3 or under the National greenhouse gas program requirements as allowed by subdivision 1961.3(c), and projected credits/debits for future years through 2021 under section 1961.3 or under the National greenhouse gas program requirements as allowed by subdivision 1961.3(c) and this subdivision 1962.2.1(g)(6)(C). If a manufacturer, who has been granted the ability to generate credits under this subdivision 1962.2.1(g)(6)(C), fails to over comply by at least 2.0 gCO₂/mile in any one year, the manufacturer will be subject to the full ZEV requirements for the model year and future model years, and will not be able to earn credits for any other model year under this subdivision 1962.2.1(g)(6)(C).

~~(6) Requirement to Make Up a ZEV Deficit.~~

- (A) ~~General.~~ A manufacturer that produces and delivers for sale in California fewer ZEVs than required in a given model year shall make up the deficit by the next model year by submitting to the Executive Officer a commensurate amount of ZEV credits. The amount of ZEV credits required to be submitted shall be calculated by [i] adding the number of credits from ZEVs produced and delivered for sale in California by the

~~manufacturer for the model year to the number of credits from TZEVs produced and delivered for sale in California by the manufacturer for the model year (for a LVM, not to exceed that permitted under subdivision 1962.2.1(b)(2)), and [ii] subtracting that total from the number of credits required to be produced and delivered for sale in California by the manufacturer for the model year. BEVx, TZEV, NEV, or converted AT PZEV and PZEV credits are not allowed to be used to fulfill a manufacturer's ZEV deficit; only credits from ZEVs may be used to fulfill a manufacturer's ZEV deficit.~~

~~(7) *Penalty for Failure to Meet ZEV Requirements.* Any manufacturer that fails to produce and deliver for sale in California the required number of ZEVs and submit an appropriate amount of credits and does not make up ZEV deficits within the specified time allowed by subdivision 1962.2.1(g)(7)(A) shall be subject to the Health and Safety Code section 43211 civil penalty applicable to a manufacturer that sells a new motor vehicle that does not meet the applicable emission standards adopted by the state board. The cause of action shall be deemed to accrue when the ZEV deficit is not balanced by the end of the specified time allowed by subdivision 1962.2.1(g)(7)(A). For the purposes of Health and Safety Code section 43211, the number of vehicles not meeting the state board's standards shall be equal to the manufacturer's credit deficit, rounded to the nearest 1/100th, calculated according to the following equation, provided that the percentage of a manufacturer's ZEV requirement for a given model year that may be satisfied with TZEVs or credit from such vehicles may not exceed the percentages permitted under subdivision 1962.2.1(b)(2):~~

~~(No. of ZEV credits required to be generated for the model year) - (Amount of credits submitted for compliance for the model year)~~

~~(g) *Test Procedures.*~~

~~(1) *Determining Compliance.* The certification requirements and test procedures for determining compliance with this section 1962.2.1 are set forth in "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, last amended December 6, 2012, which is incorporated herein by reference.~~

~~(1) *NEV Compliance.* The test procedures for determining compliance with subdivision 1962.1(d)(5)(F)1. are set forth in ETA-NTP002 (revision 3)~~

~~"Implementation of SAE Standard J1666 May 93: Electric Vehicle Acceleration, Gradeability, and Deceleration Test Procedure" (December 1, 2004), and ETA-NTP004 (revision 3) "Electric Vehicle Constant Speed Range Tests" (February 1, 2008), both of which are incorporated by reference herein.~~

~~(h) ZEV Specific Definitions. The following definitions apply to this section 1962.2.1.~~

- ~~(1) "Auxiliary power unit" or "APU" means any device that provides electrical or mechanical energy, meeting the requirements of subdivision 1962.2.1(c)(2), to a BEVx, after the zero emission range has been fully depleted. A fuel fired heater does not qualify under this definition for an APU.~~
- ~~(1) "Charge depletion range actual" or "Reda" means the distance achieved by a hybrid electric vehicle on the urban driving cycle at the point when the zero-emission energy storage device is depleted of off vehicle charge and regenerative braking derived energy.~~
- ~~(2) "Conventional rounding method" means to increase the last digit to be retained when the following digit is five or greater. Retain the last digit as is when the following digit is four or less.~~
- ~~(3) "Discounted PZEV and AT PZEV credits" means credits earned under section 1962 and 1962.1 by delivery for sale of PZEVs and AT PZEVs, discounted according to subdivision 1962.1(g)(2)(F).~~
- ~~(4) "East Region pool" means the combination of Section 177 states east of the Mississippi River.~~
- ~~(5) "Energy storage device" means a storage device able to provide the minimum power and energy storage capability to enable engine stop/start capability, traction boost, regenerative braking, and (nominal) charge sustaining mode driving capability. In the case of TZEVs, a minimum range threshold relative to certified, new vehicle range capability is not specified or required.~~
- ~~(6) "Hydrogen fuel cell vehicle" means a ZEV that is fueled primarily by hydrogen, but may also have off vehicle charge capability.~~
- ~~(7) "Hydrogen internal combustion engine vehicle" means a TZEV that is fueled exclusively by hydrogen.~~

- (8) ~~"Majority ownership situations" means when one manufacturer owns another manufacturer more than 33.4%, for determination of size under CCR Section 1900.~~
- (9) ~~"Manufacturer US PC and LDT Sales" means a manufacturer's total passenger car and light duty truck (up to 8,500 pounds loaded vehicle weight) sales sold in the United States of America in a given model year.~~
- (10) ~~"Neighborhood electric vehicle" or "NEV" means a motor vehicle that meets the definition of Low Speed Vehicle either in section 385.5 of the Vehicle Code or in 49 CFR 571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.~~
- (11) ~~"Placed in service" means having been sold or leased to an end-user and not to a dealer or other distribution chain entity, and having been individually registered for on-road use by the California DMV.~~
- (12) ~~"Proportional value" means the ratio of a manufacturer's California applicable sales volume to the manufacturer's Section 177 state applicable sales volume. In any given model year, the same applicable sales volume calculation method must be used to calculate proportional value.~~
- (13) ~~"Range Extended Battery Electric Vehicle" or "BEVx" means a vehicle powered predominantly by a zero-emission energy storage device, able to drive the vehicle for more than 75 all-electric miles, and also equipped with a backup APU, which does not operate until the energy storage device is fully depleted, and meeting requirements in subdivision 1962.2.1(d)(5)(G).~~
- (14) ~~"Section 177 state" means a state that is administering the California ZEV requirements pursuant to section 177 of the federal Clean Air Act (42 U.S.C. § 7507).~~
- (15) ~~"Transitional zero-emission vehicle" or "TZEV" means a vehicle that meet the all criteria of subdivision 1962.2.1(c)(2) and qualifies for an allowance in subdivision 1962.2.1(c)(3)(D) or (E).~~
- (16) ~~"West Region pool" means the combination of Section 177 states west of the Mississippi River.~~
- (17) ~~"Zero-emission vehicle" or "ZEV" means a vehicle that produces zero exhaust emissions of any criteria pollutant (or precursor pollutant) or~~

~~greenhouse gas under any possible operational modes or conditions.~~

~~(18) "Zero emission vehicle fuel" means a fuel that provides traction energy in on-road ZEVs. Examples of current technology ZEV fuels include electricity, hydrogen, and compressed air.~~

~~(i) Abbreviations. The following abbreviations are used in this section 1962.2.1:~~

~~"AER" means all-electric range.~~

~~"APU" means auxiliary power unit.~~

~~"AT PZEV" means advanced technology partial zero emission vehicle.~~

~~"BEVx" means range extended battery electric vehicle.~~

~~"CFR" means Code of Federal Regulations.~~

~~"CO₂" means carbon dioxide.~~

~~"DMV" means the California Department of Motor Vehicles.~~

~~"EAER" means equivalent all-electric range.~~

~~"FR" means Federal Register.~~

~~"g" means grams.~~

~~"HEV" means hybrid electric vehicle.~~

~~"LDT" means light-duty truck.~~

~~"LDT1" means a light truck with a loaded vehicle weight of 0-3750 pounds.~~

~~"LDT2" means a "LEV II" light-duty truck with a loaded vehicle weight of 3751 pounds to a gross vehicle weight of 8500 pounds, or a "LEV I" light-duty truck with a loaded vehicle weight of 3751-5750 pounds.~~

~~"LVM" means large volume manufacturer.~~

~~"MDV" means medium-duty vehicle.~~

~~"NMOG" means non-methane organic gases, or the total mass of oxygenated and non-oxygenated hydrocarbon emissions.~~

~~"NEV" means neighborhood electric vehicle.~~

~~"NO_x" means oxides of nitrogen.~~

~~"PC" means passenger car.~~

~~"PZEV" means partial allowance zero emission vehicle~~

~~"SAE" means Society of Automotive Engineers.~~

~~"SULEV" means super-ultra-low emission vehicle.~~

~~"TZEV" means transitional zero emission vehicle.~~

~~"UDDS" means urban dynamometer driving cycle.~~

~~"US" means United States of America.~~

~~"US06" means the US06 Supplemental Federal Test Procedure~~

~~"VMT" means vehicle miles traveled.~~

~~"ZEV" means zero emission vehicle.~~

~~(j) **Severability.** Each provision of this section is severable, and in the event that any provision of this section is held to be invalid, the remainder of this article remains in full force and effect.~~

~~(k) **Public Disclosure.** Records in the Board's possession for the vehicles subject to the requirements of section 1962.2.1 shall be subject to disclosure as public records as follows:~~

~~(1) Each manufacturer's annual production data and the corresponding credits per vehicle earned for ZEVs and TZEVs for the 2018 and subsequent model years; and~~

~~(1) Each manufacturer's annual credit balances for 2018 and subsequent years for:~~

~~(A) Each type of vehicle: ZEV (minus NEV), BEVx, NEV, TZEV, and discounted PZEV and AT PZEV credits; and~~

~~(A) Advanced technology demonstration programs; and~~

~~(B) Transportation systems; and~~

~~Credits earned under section 1962.2.1(d)(5)(A), including credits acquired from, or transferred to another party, and the parties themselves. Note: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 38562, 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43018.5, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43107, 43204 and 43205.5, Health and Safety Code.~~

(a) **ZEV Emission Standard.** The Executive Officer shall certify new 2018 and subsequent model year passenger cars, light-duty trucks, and medium-duty vehicles as ZEVs, vehicles that produce zero exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas, excluding emissions from air conditioning systems, under any possible operational modes or conditions.

(b) **[Reserved.]**

(c) **[Reserved.]**

(d) **[Reserved.]**

(e) [Reserved.]

(f) [Reserved.]

(g) [Reserved.]

(h) Test Procedures.

(1) Determining Compliance. The certification requirements and test procedures for determining compliance with this section 1962.2 are set forth in "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, which is incorporated herein by reference.

(2) NEV Compliance. The test procedures for determining compliance with subdivision 1962.1(d)(5)(F)1. are set forth in ETA-NTP002 (revision 3) "Implementation of SAE Standard J1666 May 93: Electric Vehicle Acceleration, Gradeability, and Deceleration Test Procedure" (December 1, 2004), and ETA-NTP004 (revision 3) "Electric Vehicle Constant Speed Range Tests" (February 1, 2008), both of which are incorporated by reference herein.

(i) [Reserved.]

(j) [Reserved.]

(k) [Reserved.]

(l) [Reserved.]

NOTE: Authority cited: Sections 39600, 39601, 43013, 43018, 43101, 43104 and 43105, Health and Safety Code. Reference: Sections 38562, 39002, 39003, 39667, 43000, 43009.5, 43013, 43018, 43018.5, 43100, 43101, 43101.5, 43102, 43104, 43105, 43106, 43107, 43204 and 43205.5, Health and Safety Code.