

Advanced Clean Trucks Regulation Proposed Draft Regulation Language

Manufacturer Sales Requirement

California Air Resources Board

Advanced Clean Trucks Workshop

August 21, 2019

POTENTIAL DRAFT REGULATORY LANGUAGE FOR STAKEHOLDER REVIEW:
This document provides potential draft regulatory language for the Advanced Clean Trucks rulemaking. This document is only intended to encourage public feedback, is incomplete, and should not be construed as a formal regulatory proposal.

PROPOSED REGULATION ORDER

**** New Regulation ****

Adopt new sections 1963.0, 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5, title 13, California Code of Regulations, to read as follows:

(Note: The entire text of sections 1963.0 - 1963.5 set forth below is new language in "normal type" proposed to be added to the California Code of Regulations.)

§ 1963.0 Advanced Clean Trucks Purpose, Applicability, Definitions, and General Requirements.

- (a) *Purpose.* The purpose of this subarticle is to reduce emissions of oxides of nitrogen (NOx), fine particulate matter (PM), other criteria pollutants, toxic air contaminants, and greenhouse gases (GHG) from medium- and heavy-duty vehicles.
- (b) *Scope and Applicability.* Any manufacturer that certifies vehicles over 8,500 lbs. gross vehicle weight rating for sale in California is subject to sections 1963., 1963.1, 1963.2, 1963.3, 1963.4, and 1963.5.
- (c) *Definitions.* The following definitions apply for sections 1963. through 1963.5:
- (1) "Battery-Electric Vehicle" has the same definition as "Electric Vehicle" in Title 40, Code of Federal Regulations (CFR) § 1037.801, last amended by the United States Environmental Protection Agency (U.S. EPA) on June 17, 2013, hereby incorporated by reference herein.
 - (2) "Class 2b to 3" means a vehicle with a GVWR that is 8,501 pounds up to 14,000 pounds.
 - (3) "Class 4" means a vehicle with a GVWR that is 14,001 pounds up to 16,000 pounds.

- (4) "Class 5" means a vehicle with a GVWR that is 16,001 pounds up to 19,500 pounds.
- (5) "Class 6" means a vehicle with a GVWR that is 19,001 pounds up to 26,000 pounds.
- (6) "Class 7" means a vehicle with a GVWR that is 26,001 pounds up to 33,000 pounds.
- (7) "Class 8" means a vehicle with a GVWR that is 33,000 pounds and above.
- (8) "Excluded bus" means a vehicle that meets the following conditions:
 - (A) A passenger-carrying vehicle with a gross vehicle weight rating (GVWR) as defined in California Vehicle Code Section 350 that is 14,001 pounds or more; and
 - (B) has a load capacity of fifteen (15) or more passengers; and
 - (C) is not a cutaway vehicle as defined in 13 CCR § 2023.0(b)(17); and
 - (D) is not a school bus as defined in the California Vehicle Code Section 545.
- (9) "Fuel-Cell Electric Vehicle" has the same definition as that in 40 CFR § 86.1803-01 amended on July 1, 2011, incorporated by reference herein.
- (10) "Gross Vehicle Weight Rating (GVWR)" has the same meaning as GVWR in California Vehicle Code Section 350.
- (11) "Manufacturer" means any person engaged in the manufacturing or assembling of new motor vehicles, or importing such vehicles for resale, or who acts for and is under the control of any such person in connection with the distribution of new motor vehicles, but shall not include any dealer with respect to new motor vehicles received in commerce. In general, this term includes any person who manufactures or assembles a vehicle (including a trailer or another incomplete vehicle) for sale in California or otherwise introduces a new motor vehicle into commerce in California. This includes importers who import vehicles for resale and entities that assemble glider vehicles.
- (12) "Model year" or "MY" means a designation meeting the definition of "model year" under 17 CCR §95662(a)(16).
- (13) "PHEV Credit" means a credit generated by producing and selling in California a PHEV, as specified per section 1963.3.

- (14) "Pickup truck" means a vehicle that is originally sold by the manufacturer with an OEM equipped open bed as defined in 13 CCR §150.04, and does not include a vehicle that is equipped with a bed-mounted storage compartment unit commonly called a "utility body."
- (15) "Plug-in hybrid electric vehicle" or "PHEV" has the same definition as that in 40 CFR § 86.1803-01, amended on July 1, 2011, incorporated by reference herein.
- (16) "Tractor" means a vehicle meeting one of the following definitions:
- (A) The definition of "tractor" in 17 CCR § 95662(a)(23), or
 - (B) The definition of "vocational tractor" in section 17 CCR § 95662(a)(27), or
 - (C) An on-road yard tractor, as defined in section 1963(c)(19).
- (17) "Useable energy capacity" has the same definition as 13 CCR § 1956.8 Part I, B. of the "California Standards and Test Procedures for New 2021 And Subsequent Model Heavy-Duty Zero-Emission Powertrains", as adopted June 27, 2019, and incorporated by reference herein, and is determined by performing the "Certification Testing for New Battery Modules or Packs" as described in 13 CCR § 1956.8 Part I, D. of the "California Standards and Test Procedures for New 2021 And Subsequent Model Heavy-Duty Zero-Emission Powertrains", as adopted June 27, 2019.
- (18) "Vehicle" means equipment that meet the following criteria:
- (A) Has a GVWR that is 8,501 pounds and above; and
 - (B) Is equipment intended for use on highways, and that meets the definition set forth in 17 CCR § 95662(a)(26); and
 - (C) Is not a trailer as defined in 17 CCR § 95662(a)(24); and
 - (D) Is not an excluded bus as defined in section 1963.(c)(8).
- (19) "Yard Truck" means a vehicle, with an on-road engine and a hydraulically elevated fifth wheel, that is used in moving and spotting trailers and containers at locations or facilities. Yard trucks are also commonly known as yard goats, hostlers, yard dogs, trailer spotters, or jockeys.
- (20) "Zero-emission vehicle" or "ZEV" means a vehicle with a drivetrain that produces zero exhaust emission of any criteria pollutant (or precursor

pollutant) or greenhouse gas under any possible operational modes or conditions.

(21) "ZEV Credit" means a credit generated by producing and selling a ZEV into California, weighted per section 1963.3.

(d) *General Requirements.* Except as provided in section 1963.(e), A manufacturer is subject to the following requirements:

(1) *Credits Must Match or Exceed Deficits.* Except as provided in section 1963.2(b), a manufacturer must meet all of the following conditions to be determined to be in compliance:

(A) *Non-Tractor Deficits.* The number of ZEV and PHEV credits retired in the Class 2b through 8 weight class categories, which includes tractor credits, must equal or exceed the annual aggregate deficits incurred in a given model year in the Class 2b through Class 8 non-tractor weight class categories.

(B) *Tractor Deficits.* The number of tractor ZEV and tractor PHEV credits retired in the Class 7 to 8 tractor weight class category must exceed the annual aggregate deficits incurred in a given model year in the Class 7 to 8 tractor weight class categories.

(e) *Low Volume Exemption.* Manufacturers with average annual sales volumes that never exceed 500 Class 2b to 8 vehicles, as calculated per Section 1963.1(a)(1)(A), are exempt from the requirements of sections 1963.1 through 1963.5.

(f) *Voluntary Credit Generation.* Any manufacturer that is exempt from the regulation requirements per section 1963.(e) may elect to generate ZEV or PHEV credits per the provisions of section 1963.3. If a manufacturer chooses to generate ZEV or PHEV credits, it must comply with the credit generation, banking, and trading provisions of section 1963.3, the reporting and recordkeeping requirements of section 1963.4, and the enforcement provisions of section 1963.5.

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

§ 1963.1. Advanced Clean Trucks Deficits

(a) *Basic Requirement.* Beginning with the applicable effective dates, a manufacturer must comply with the following requirements:

(1) *Deficit Generation.* Starting with the 2024 model year, a manufacturer shall annually incur deficits based on the manufacturer's average annual sales volume. The aggregate number of deficits incurred annually must be matched

as set forth in section 1963.2 with at minimum the same number of ZEV and PHEV credits generated per section 1963.3.

(A) *Calculating Average Annual Sales Volume.* A manufacturer's average annual sales volume for a given model year and weight class category is calculated using the average of the number of vehicles produced and delivered for sale in California in the three prior model years [for example, 2024 average annual sales volume for Class 4 to 5 is equal to the average of the California sales volumes of Class 4 to 5 vehicles in the 2021, 2022, and 2023 model years].

1. *Pickup Exclusion.* Pickup truck sales in the Class 2B to 3 category are excluded from the average annual sales volume until the 2027 model year.

(B) *Deficit Calculation.* For a given model year and weight class category, a manufacturer must multiply the weight class category average annual sales volume by the model year percentage requirement from Table A-1 and multiply the product by the weight class category weight class modifier from Table A-2 using Equation A-1. The summed deficits for each category are the annual aggregate deficits used to determine compliance in section 1963.2.

1. *Tractor Deficits Must Be Met With Tractor Credits.* Annual deficits incurred in the Class 7 to 8 Tractor category can only be met with Class 7 to 8 Tractor credits.

Table A-1. ZEV Sales Percentage Schedule

Model Year	Class 2B to 3*	Class 4 to 5	Class 6 to 7**	Class 8**	Class 7 to 8 Tractors
2024	3%	7%	7%	7%	3%
2025	5%	9%	9%	9%	5%
2026	7%	11%	11%	11%	7%
2027	9%	13%	13%	13%	9%
2028	11%	24%	24%	24%	11%
2029	13%	37%	37%	37%	13%
2030 and beyond	15%	50%	50%	50%	15%

*Excluding pickup trucks until 2027 MY

**Excludes Tractors

Table A-2. Weight Class Modifiers

	Class 2B to 3	Class 4 to 5	Class 6 to 7**	Class 8**	Class 7 to 8 Tractors
Weight Class Modifier	0.6	1	1.5	2	2

**Excludes tractors

Equation A-1. Deficit Calculation

$$\text{Weight Class Category Deficit} = (\text{Average Annual Sales Volume} * \text{ZEV Sales \%} * \text{Weight Class Modifier})$$

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

§ 1963.2. Advanced Clean Trucks Compliance Determination

- (a) *CARB Determination.* CARB will annually calculate a manufacturer's deficit and credit account balances using a manufacturer's end of year report per section 1963.4 and shall make a determination of the manufacturer's compliance status.
- (b) *Requirement to Make Up a Deficit.* A manufacturer that retires fewer ZEV or PHEV credits than required to meet its credit obligation in a given model year must make up the deficit by the next model year by submitting a commensurate number of ZEV credits to the Executive Officer to satisfy the deficiency. Deficits carried over to the following year cannot be made up with PHEV credits.
- (c) *Credit Retirement Order.* CARB shall debit a manufacturer's credit accounts using the following conventions:
 - (1) CARB shall retire weight class category credits in the following order:
 - (A) First, Class 7 to 8 tractor credits to meet Class 7 to 8 tractor deficits;
 - (B) Second, Class 2b through 8 non-tractor credits to meet Class 2b through 8 non-tractor deficits;
 - (C) Last, Class 7 to 8 tractor credits to meet Class 2b through 8 non-tractor deficits; and
 - (2) CARB shall retire credits on a first in, first out basis in order of model year generated starting with the oldest model year until deficits are met; and
 - (3) CARB shall first retire PHEV credits up to the cap described in 1963.3(e), then retire ZEV credits until deficits are met.
- (d) *50% PHEV Credit Limit.* A manufacturer may use Class 2b through 8 PHEV credits to satisfy, at maximum, 50% of the annual aggregate weighted deficits for the Class 2B through 8 non-tractor category, and may use Class 7 to 8 tractor PHEV credits to satisfy, at maximum, 50% of the annual deficit for the Class 7 to 8 tractor category.

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

§ 1963.3. Advanced Clean Trucks Credit Generation, Banking, and Trading

Beginning with the 2021 model year, the following requirements apply:

- (a) *ZEV Credit Calculation.* A manufacturer may generate ZEV credits for each ZEV produced and sold into California for the current model year. The number of ZEV credits generated is calculated by multiplying the number of ZEVs sold into California in a given weight class during the current model year by the weight class modifier in Table A-2 of section 1963.1.
- (b) *PHEV Credit Calculation.* Until the end of the 2030 model year, a manufacturer may generate PHEV credits for each PHEV produced and sold into California in a weight class for the current model year. The number of PHEV credits generated is calculated by multiplying the number of PHEVs sold into California in a given weight class during the current model year by the weight class modifier in Table A-2 of section 1963.1, then multiplying by the PHEV factor as calculated by Equation A-3.
- (1) *PHEV Factor Value.* If the PHEV achieves a minimum all-electric range (AER) as defined and tested per the requirements of section 86.1819-14(k)(7)(ii)(B) of “California Greenhouse Gas Exhaust Emission Standards and Test Procedures for 2014 And Subsequent Model Heavy-Duty Vehicles” last amended by CARB on December 19, 2018, incorporated by reference herein, the PHEV factor used to calculate PHEV credits shall be calculated with Equation A-4, but shall not exceed 0.75.

Equation A-3

$$PHEV\ Factor = (0.01 * Useable\ Energy\ Capacity)$$

- (c) *Rounding.* If the calculated number of credits is not equal to a whole number, the manufacturer must round up to the nearest tenth when the fractional part of the required number of credits is equal to or greater than 0.05, and round down if less than 0.05.
- (d) *Credit Banking.* Credits generated in excess of the annual deficit requirements may be banked for future use. Manufacturers may use banked credits to satisfy future deficits.
- (e) *Credit Trading and Transfer.* Banked credits may be traded, sold, or otherwise transferred between manufacturers. Credits transferred in this manner must be reported to the Executive Officer in accordance with the requirements of section 1963.4.

- (f) *Credit Accounting.* Credits must be separately accounted for based on model year generated. PHEV credits must be accounted for separately from ZEV credits. Class 7 and 8 Tractor weight class category credits must be accounted for separately from Class 2b through 8 non-tractor weight class category credits.
- (g) *Limited Credit Lifetime.* Credits have limited lifetimes as follows:
- (1) *2021 to 2023 Model Year.* Credits generated in the 2021 through 2023 model years expire at the end of the 2030 model year, and are no longer available to be used to meet compliance with the requirements of section 1963.2. For example, credits generated during the 2022 model year may be used to meet compliance requirements until the end of the 2030 model year, and may not be used to meet 2031 model year compliance requirements.
 - (2) *2024 Model Year and Beyond.* Credits generated with 2024 and subsequent model years expire at the end of the 4th subsequent model year following the current model year and are no longer available to be used to meet compliance with the requirements of section 1963.2. For example, credits generated during the 2024 model year may be used to meet compliance requirements until the end of the 2028 model year, and may not be used to meet 2029 model year compliance requirements.
- (h) *Zero-Emission Powertrain Certification Requirement.* Beginning with the 2024 MY, manufacturers shall only receive ZEV or PHEV credits for vehicles over 14,000 pounds gross vehicle weight rating) and incomplete medium-duty vehicles (from 8,501 through 14,000 pounds gross vehicle weight rating produced and delivered for sale in California that meet the requirements of 13 CCR § 1956.8(a)(8) and 17 CCR § 95663 of the Zero-Emission Powertrain Certification regulation, as adopted June 27, 2019, incorporated by reference herein.
- (i) *No Double Counting for ACC ZEV.* Manufacturers that produce and deliver for sale in California Class 2b to 3 ZEVs may choose to count those vehicle as earning credits towards meeting the requirements of 13 CCR § 1962.2 "Zero-Emission Vehicle Standards for 2018 and Subsequent Model Year Passenger Cars, Light-Duty Trucks, and Medium-Duty Vehicles", incorporated by reference herein, or may count those vehicles as earning credits to meeting the requirements of section 1963.2, but may not count the same vehicles as earning credits in both sections. Manufacturers must report information per section 1963.4(d) to declare which section the vehicle sales will be counted toward.

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

§ 1963.4. Advanced Clean Trucks Reporting and Recordkeeping

(a) *Sales Reporting.* Beginning with the 2021 model year, a manufacturer must report by March 31 of each year the following information to CARB for each type of vehicle produced and delivered for sale in California for each model year:

- (1) Vehicle weight class; and
- (2) Whether the vehicle type is a tractor or non-tractor; and
- (3) Whether the vehicle is a ZEV, PHEV, conventional, or other non-ZEV and non-PHEV; and
- (4) The production volume sold into California for the vehicle type.

(b) *Credit Transfer Reporting.* A manufacturer that transfers to or receives credits from another manufacturer must submit to the Executive Officer an annual report of all credit trades, transfers, and transactions. CARB will not recognize any credit transfers until the report is received.

(1) *Transfer Reporting Deadline.* Reports must be submitted no later than March 31 of each year to comply with the current model year requirement or to make up shortfall from the prior year.

(2) *Required Credit Transfer Information.* Manufacturers that transfer or receive credits must submit a letter or document signed by authorized agents of both parties to the transaction summarizing the transfer, which must include the following:

- (A) Corporate name of credit transferor.
- (B) Corporate name of credit transferee.
- (C) Number of credits transferred for each model year, rounded to the nearest tenth per 1963.3(c).
- (D) Indicate whether credits are ZEV or PHEV credits.
- (E) Indicate whether credits are Class 7 to 8 Tractor credits, or Class 2b to 8 non-tractor credits.

(c) *Class 2b - 3 Credit Declaration.* A manufacturer that generates ZEV or PHEV credits from the Class 2b to 3 weight class category must submit by March 31 of each year a declaration to the Executive Officer which includes:

- (1) The number of vehicles sold into California to generate credits per section 1963.2; and

- (2) The number of vehicles sold into California to generate credits per 13 CCR § 1962.2.

(d) *Retention of Records.* Records must be kept by manufacturers for CARB to audit for a period of eight (8) years from the model year vehicles were produced.

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

§ 1963.5. Advanced Clean Trucks Enforcement

(a) *Enforcement of Requirements.* A manufacturer is subject to the following:

- (1) *Audit of Records.* A manufacturer must make records of vehicle sales into California available to CARB at its request for audit to verify the accuracy of information reported to CARB. In the event the records are not made available within 30 days of the request, CARB may assess penalties for noncompliance. Submitting false information to CARB is a violation of this regulation and violators will be subject to penalty.
- (2) *Authority to Suspend, Revoke, or Modify.* If the Executive Officer finds that any ZEV or PHEV credit was obtained based on false information, the credit will be deemed invalid. Each falsely claimed credit is a violation of the requirements as set forth in section 1963.3.
- (3) *Public Disclosure.* Information in the Board's possession for the vehicles subject to the requirements of section 1963.1 and 1963.3 shall be subject to disclosure as public records as follows:
 - (A) Each manufacturer's annual production data and the corresponding credits per vehicle earned for the 2021 and subsequent model years; and
 - (B) Each manufacturer's annual credit balances for 2021 and subsequent years for ZEVs and PHEVs; and
 - (C) Credits earned under section 1963.3, including credits acquired from, or transferred to another party, and the parties themselves.

NOTE: Authority cited: sections XXXX, Health and Safety Code. Reference: sections XXXX, Health and Safety Code [; section XXXX, [Vehicle Code].

Discussion Draft