LEGAL DISCLAIMER & USER'S NOTICE

Unofficial electronic version of the Innovative Clean Transit regulation

Unofficial Electronic Version

This unofficial electronic version of the Innovative Clean Transit regulation was produced by California Air Resources Board (CARB) staff for the reader's convenience. CARB staff removed the underline and strikeout formatting which exists in the Final Regulation Order approved by the Office of Administrative Law (OAL) on August 13, 2019, effective October 1, 2019. The following version is not an official legal edition of title 13, California Code of Regulations (CCR), sections 2023 and 2023.1–2023.11. While reasonable steps have been taken to make this unofficial version accurate, the officially published CCR takes precedence if there are any discrepancies.

Official Legal Edition

The official legal edition of title 13, CCR, sections 2023 and 2023.1–2023.11 is available at the OAL website: https://oal.ca.gov/publications/ccr/

Online California Code of Regulations: https://govt.westlaw.com/calregs/index

Title 13. Motor Vehicles
Division 3. Air Resources Board
Chapter 1. Motor Vehicle Pollution Control Devices
Article 4.3. Innovative Clean Transit

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Final Regulation Order

Amend sections 2023, 2023.1, 2023.2, 2023.3, and 2023.4, title 13, California Code of Regulations, to read as follows, add new sections 2023.5 – 2023.11, and codify under new Article 4.3.

Article 4.3. Innovative Clean Transit.

§ 2023. Innovative Clean Transit Regulations Applicability and Scope.

(a) Applicability.

- (1) Except as provided in sections 2023(a)(2), these Innovative Clean Transit regulations, title 13, article 4.3, California Code of Regulations, apply to a transit agency that owns, operates, leases, rents, or contracts with another entity to operate buses in California.
- (2) These regulations do not apply to any of the following:
 - (A) Vehicles that operate on rails, trolleybuses, or school buses, even if operated by a transit agency;
 - (B) Caltrans, Caltrain, Amtrak, or any local school district.
- (b) **Definitions**. For the purposes of the regulations in this Article 4.3, the following definitions apply:
 - (1) "Active Bus" means a bus in a particular fleet at year-end that is available to operate in revenue service, including a spare bus and a bus temporarily out of service for routine maintenance and minor repairs. A bus in storage, an emergency contingency vehicle, a bus removed from the active bus fleet and awaiting sale, or a bus out of service for an extended period of time for major repairs is not considered an active bus.

- (2) "Air Basin" has the same meaning as defined in section 39012 of the Health and Safety Code.
- (3) "Annual Maximum Service" means the number of buses in revenue service that are operated during the peak season of the year, on the week and day that maximum service is provided, but excludes demand response buses. Annual maximum service excludes the following:
 - (A) An atypical day, on which the transit agency provides extra service to meet demands for special events such as conventions, parades, or public celebrations, or operates significantly reduced service because of unusually bad weather (e.g., snowstorms, hurricanes, tornadoes, earthquakes) or major public disruptions (e.g., terrorism); or
 - (B) One-time special events.
- (4) "Articulated Bus" is a 54-foot to 60-foot bus with two connected passenger compartments.
- (5) "Battery Electric Bus" means a bus that has an all-electric propulsion system and relies only on batteries to store electricity received from an external power source of the vehicle. It has no internal combustion engine in the powertrain for the vehicle.
- (6) "Bus" means a rubber-tire vehicle designed to transport passengers by road with gross vehicle weight rating (GVWR) greater than 14,000 pounds, but does not include a trolleybus as specified in section 2023(a)(2)(A).
- (7) "Bus Purchase" or "Purchase" means the transit agency has identified, committed and encumbered funds and executes one of the following:
 - (A) A written "Notice to Proceed" executed by a transit agency to a bus manufacturer to begin production of a bus either:
 - 1. Under a previously-entered purchase contract; or

2. To execute a contract option;

or,

- (B) If no Notice to Proceed is issued, a written purchase agreement between a transit agency and a bus manufacturer that specifies the date when the bus manufacturer is to proceed with the work to manufacture the bus; or
- (C) A signed written lease agreement between a transit agency and a bus manufacturer or sales representatives for a new bus to be placed in revenue service for a contract term of five years or more.
- (8) "Bus Testing Report" means the complete test report for a bus model required by title 49 of the Code of Federal Regulations (CFR) section 665.13. These bus tests are also commonly called "Altoona Testing".
- (9) "Bus Type" means a bus body configuration, including a bus, articulated bus, over-the-road bus, double-decker bus, and cutaway buses.
- (10) "CalEnviroScreen" means a mapping tool that is developed by the Office of Environmental Health Hazard Assessment (OEHHA) at the request of the California Environmental Protection Agency (CalEPA) to identify California's most pollution-burdened and vulnerable communities based on geographic, socioeconomic, public health, and environmental hazard criteria. The CalEnviroScreen is available for public use at https://oehha.ca.gov/calenviroscreen.
- (11) "CARB" is the same as California Air Resources Board.
- (12) "Compressed Natural Gas" or "CNG" has the same meaning as specified in the Low Carbon Fuel Standard Regulation, title 17, California Code of Regulations, section 95481(a)(27).
- (13) "Conventional Internal Combustion Engine Bus" means a bus with an internal combustion engine (ICE) propulsion system or a combination of an

- internal combustion engine with an electric propulsion system commonly referred to as a hybrid powertrain.
- (14) "Conversion to a Zero-Emission Bus" means converting a conventional internal combustion engine bus to a zero-emission bus as defined in section 2023(b)(54).
- (15) "Criteria Pollutants" or "Criteria Air Pollutants" are air pollutants for which air quality criteria have been issued by the Administrator of the United States Environmental Protection Agency under title 42 of the, U.S.C. section 7408.
- (16) "Curb Weight" has the same meaning as defined in title 49 of Code of Federal Regulations, section 571.3.
- (17) "Cutaway Bus" means a vehicle in which a bus body designed to transport passengers is mounted on the chassis of a van or light- or medium-duty truck chassis, and that has a GVWR greater than 14,000 pounds but not more than 26,000 pounds. The original van or light- or medium- duty truck chassis may be reinforced or extended. A cutaway bus may accommodate some standing passengers.
- (18) "Date In-Service" means the date a purchased bus is brought into revenue service.
- (19) "Demand Response" has the same meaning as defined in title 49 of the Code of Federal Regulations, section 604.3(g).
- (20) "Diesel" has the same meaning as defined in title 13, California Code of Regulations, sections 2281 and 2282.
- (21) "Double-Decker" means a high-capacity bus that has two levels of seating, one over the other, connected by one or more stairways. Total bus height is usually 13 to 14.5 feet, and typical passenger seating capacity ranges from 40 to 80 people.

- (22) "Emergency" has the same meaning as defined in title 49 of U.S.C., section 5324(a)(2).
- (23) "Emergency Contingency Vehicle" is a revenue vehicle removed from an active bus fleet for local emergencies after this revenue vehicle has reached the end of its normal minimum useful life.
- (24) "Engine Family Name" or "EFN" is an identifier, which is unique to an engine of a specific model year, build, and manufacturer, and can be found on the emission control label located on the engine.
- (25) "Executive Officer" means the Executive Officer of the California Air Resources Board (CARB) or his/her designee.
- (26) "FTA" is the Federal Transit Administration.
- (27) "Fuel Cell Electric Bus" or "FCEB" means an electric bus that uses both a hydrogen fuel cell stack and a battery for propulsion. The fuel cell stack generates electricity on board to charge the battery that powers the on board motor. It has no internal combustion engine in the powertrain. A fuel cell electric bus relies on its hydrogen tank and fuel cell stack on board for its energy supply.
- (28) "Gradeability" means a vehicle's ability to climb slopes.
- (29) "Gross Vehicle Weight Rating" or "GVWR" has the same meaning as defined in California Vehicle Code, section 350, subdivision (a).
- (30) "Large Transit Agency" means either:
 - (A) A transit agency that operates either in the South Coast or the San Joaquin Valley Air Basin and operates more than 65 buses in annual maximum service; or
 - (B) A transit agency that does not operate in the South Coast or San Joaquin Valley Air Basin and has at least 100 buses in annual maximum service in

- an urbanized area with a population of at least 200,000 as last published by the Bureau of Census before December 31, 2017.
- (31) "Low-NOx Engine" has the same meaning as defined in title 13 of the California Code of Regulations, section 2208(c)(18).
- (32) "Manufacture Year" means the year of original manufacture of the vehicle. It is not necessarily the same as the model year.
- (33) "Metropolitan Planning Organization" or "MPO" has the same meaning as defined in 49 U.S.C. section 5303(b)(2).
- (34) "Minimum Useful Life" means the minimum years of service or accumulations of miles at which a transit agency is allowed to retire its federally funded bus without penalty under the terms of federal funding requirements.
- (35) "New Bus" means a bus, the equitable or legal title to which has never been transferred to a first entity who in good faith purchases the bus for purposes other than resale.
- (36) "New Entrant" means a transit agency that is newly established or is created through a merger of two or more transit agencies on or after December 31, 2017.
- (37) "Notice to Proceed" means a written direction to a bus manufacturer to commence production of a bus as provided in a contract.
- (38) "NOx" means oxides of nitrogen.
- (39) "NOx Exempt Areas" means the following counties and air basins: Alpine, Amador, Butte, Calaveras, Colusa, Del Norte, Eastern Kern (portion of Kern County within the Eastern Kern Air Pollution Control District), Glenn, Humboldt, Inyo, Lake, Lassen, Mariposa, Mendocino, Modoc, Mono, Monterey, Nevada, Northern Sonoma (as defined in title 17, California Code

- of Regulations, section 60100(e)), Plumas, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz, Shasta, Sierra, Siskiyou, Northern Sutter (portion of Sutter County that is north of the line that extends from the south east corner of Colusa County to the southwest corner of Yuba County), the portion of El Dorado that is within the Lake Tahoe Air Basin (as defined in title 17, California Code of Regulations, section 60113), the portion of Placer that is East of Highway 89 or within the Lake Tahoe Air Basin, Trinity, Tehama, Tuolumne, and Yuba.
- (40) "Orange County Bus Cycle" means a chassis dynamometer test developed by West Virginia University based on real bus operating data from the Orange County Transportation Authority. The test is based on Society of Automotive Engineers (SAE) International Recommended Practice for Measuring Fuel Economy and Emissions of Hybrid-Electric and Conventional Heavy-Duty Vehicles J2711_200209 (September 20, 2002), available at: https://www.sae.org/standards/content/j2711_200209/, which is incorporated by reference.
- (41) "Over-The-Road Bus" means a bus characterized by an elevated passenger deck located over a baggage compartment. They are customarily used for long-distance bus services or connecting outlying areas with central cities with limited stops. Over-The-Road buses are also commonly called Coaches or Motor Coaches.
- (42) "Regional Transportation Planning Organization" has the same meaning as defined in 49 U.S.C. section 5303(b)(5).
- (43) "Renewable Diesel" or "Renewable Hydrocarbon Diesel" has the same meaning as defined in title 17, California Code of Regulations, section 95481(a)(123).
- (44) "Renewable Natural Gas" or "Biomethane" or "RNG" has the same meaning as defined in title 17, California Code of Regulations, section 95481(a)(20).

- (45) "Repower" means to replace an older engine with a newer model engine that has reduced emissions.
- (46) "Revenue Service" means the status of a bus being available to the general public for the purpose of carrying passengers.
- (47) "Revenue Vehicle" means a bus that is available to operate in revenue service carrying passengers.
- (48) "School Bus" has the same meaning as defined in California Vehicle Code, section 545.
- (49) "Small Transit Agency" means a transit agency that is not a large transit agency.
- (50) "Spare Bus" means a revenue vehicle that is maintained by the transit agency to preserve scheduled service operations during periods of:
 - (A) routine and unplanned maintenance; or
 - (B) unexpected vehicle breakdowns or accidents.
- (51) "Transit Agency" has the same meaning as defined in title 13, California Code of Regulations, section 2020(b). A transit agency does not mean a correctional facility, airport, college or university, national park, tour bus service providers, or an entity that provide shuttle services solely for patrons of its organization.
- (52) "Trolleybus" means a rubber-tired, electrically powered passenger vehicle operated on city streets drawing power from overhead wires using trolley poles.
- (53) "Urbanized Area" has the same meaning as defined in 23 U.S.C. section 101(a)(34).
- (54) "Zero-Emission Bus" or "ZEB" means a bus with zero tailpipe emissions and

is either a battery electric bus or a fuel cell electric bus.

(55) "Zero-Emission Passenger Miles" means the number of miles traveled by passengers determined by multiplying the number of passengers who board zero-emission vehicles, other than buses with a GVWR greater than 14,000 pounds, by the length of their trips.

§ 2023.1. Zero-Emission Bus Requirements.

(a) Zero-Emission Bus Purchase Requirements.

- (1) In any given calendar year, transit agencies must purchase or operate a minimum number of zero-emission buses as determined by the following schedules:
 - (A) For a large transit agency:
 - Starting January 1, 2023, twenty-five percent of the total number of new bus purchases in each calendar year must be zero-emission buses;
 - Starting January 1, 2026, fifty percent of the total number of new bus purchases in each calendar year must be zero-emission buses; and
 - 3. Starting January 1, 2029, all new bus purchases must be zero-emission buses.
 - (B) For a small transit agency:
 - Starting January 1, 2026, twenty-five percent of the total number of new bus purchases in each calendar year must be zero-emission buses; and
 - 2. Starting January 1, 2029, all new bus purchases must be zero-emission buses.
- (2) If the calculated required minimum number of zero-emission buses as set forth in section 2023.1(a) in a given calendar year does not result in a whole number, the number must be rounded to the nearest integer.
- (3) The zero-emission bus purchase requirements set forth in section 2023.1(a) apply only to the total number of new bus purchases in a calendar year. The

following are not considered to be new bus purchases for the purposes of calculating the minimum number of zero-emission buses required in a given calendar year:

- (A) Purchase of used buses;
- (B) Conversion of conventional internal combustion engine buses to zeroemission buses; and
- (C) Purchase of a cutaway bus, over-the-road bus, double-decker, or articulated bus, until the latter of either January 1, 2026 or until the criteria specified in section 2023.1(c) have been met.
- (4) The required minimum number of zero-emission buses in section 2023.1(a) can be achieved with any combination of new zero-emission bus purchases and zero-emission buses already present in the fleet, less any available zero-emission bus bonus or zero-emission mobility credits, as provided in sections 2023.3 and 2023.5. The number of zero-emission buses in the fleet include all of the following zero-emission buses regardless of how and when they are acquired:
 - (A) Any zero-emission bus from a previous purchase that has been delivered;
 - (B) Any leased zero-emission bus that has been delivered; and
 - (C) Any zero-emission bus that is converted from a conventional internal combustion engine bus and is an active bus.

A zero-emission bus identified in section 2023.1(a)(4)(A) through (C) may only be used once in accounting for the required minimum number of zero-emission buses in section 2023.1(a)(1).

(5) If a transit agency cancels a Notice to Proceed at any time before the bus delivery date, the purchase will be considered invalid and will not count towards required total new bus purchases.

- (6) Starting January 1, 2023, a transit agency must retain a newly purchased zero-emission bus for at least five years starting from the date of being placed in the active bus fleet to satisfy the zero-emission bus purchase requirements.
- (7) Annual compliance with the zero-emission bus purchase requirements is determined as of December 31 of each calendar year.
- (b) **Discharge of the Initial Zero-Emission Bus Purchase Requirements.** The zero-emission bus purchase requirements in section 2023.1(a) for calendar year 2023 and 2024 are discharged if the following circumstances exist:
 - (1) The zero-emission bus purchase requirements for calendar year ending December 31, 2023, are discharged if California transit agencies collectively have at least eight hundred and fifty (850) zero-emission buses purchased or in active bus fleets by December 31, 2020, based on the reporting data for the end of calendar year 2020.
 - (2) If the 2023 zero-emission bus purchase requirement is discharged as a result of the implementation of section 2023.1(b)(1), then the zero-emission bus purchase requirements for calendar year ending December 31, 2024, are discharged if California transit agencies collectively have at least one-thousand two hundred fifty (1,250) zero-emission buses purchased or in active bus fleet by December 31, 2021, based on the reporting data for the end of calendar year 2021.
 - (3) Zero-Emission Bus Bonus Credits as specified in section 2023.3 cannot be used to meet the requirements of sections 2023.1(b)(1) and (2).
- (c) Zero-Emission Cutaway, Over-The-Road, Double-Decker, and Articulated Bus Purchase Requirements. Purchases of cutaway, over-the-road, double-decker, or articulated buses are subject to the zero-emission bus purchase requirements as specified in section 2023.1(a) on or after January 1, 2026, if the cutaway, over-the-road, double-decker, or articulated bus type has a model that

- has passed the bus testing procedure and obtained a Bus Testing Report as described in section 2023(b)(8) for a given weight class.
- (d) **Zero-Emission Bus Rollout Plan Requirements.** A transit agency must submit a Zero-Emission Bus Rollout Plan (Rollout Plan) to the Executive Officer that meets the following requirements.
 - (1) Rollout Plans must include all of the following components:
 - (A) A goal of full transition to zero-emission buses by 2040 with careful planning that avoids early retirement of conventional internal combustion engine buses;
 - (B) Identification of the types of zero-emission bus technologies a transit agency is planning to deploy, such as battery electric or fuel cell electric bus;
 - (C) A schedule for construction of facilities and infrastructure modifications or upgrades, including charging, fueling, and maintenance facilities, to deploy and maintain zero-emission buses. This schedule must specify the general location of each facility, type of infrastructure, service capacity of infrastructure, and a timeline for construction;
 - (D) A schedule for zero-emission and conventional internal combustion engine bus purchases and lease options. This schedule for bus purchases must identify the bus types, fuel types, and number of buses;
 - (E) A schedule for conversion of conventional internal combustion engine buses to zero-emission buses, if any. This schedule for bus conversion must identify number of buses, bus types, the propulsion systems being removed and converted to:
 - (F) A description on how a transit agency plans to deploy zero-emission buses in disadvantaged communities as listed in the latest version of CalEnviroScreen (https://oehha.ca.gov/calenviroscreen);

- (G)A training plan and schedule for zero-emission bus operators and maintenance and repair staff; and
- (H) Identification of potential funding sources.
- (2) Each transit agency's governing body must approve the Rollout Plan through the adoption of a resolution, and submit the Rollout Plan and a copy of the resolution to the Executive Officer according to the following schedule:
 - (A) A large transit agency must submit its governing body approved Rollout Plan along with its approval to the Executive Officer by July 1, 2020;
 - (B) A small transit agency must submit its governing body approved Rollout Plan along with its approval to the Executive Officer by July 1, 2023.
- (3) Transit agencies that are collectively complying with the requirements of Joint Zero-Emission Bus Groups as set forth in section 2023.2 may submit one joint Rollout Plan in lieu of an individual transit agency Rollout Plan along with governing body approval from each participating transit agency. The joint Rollout Plan must be submitted to the Executive Officer based on the submittal date of the largest transit agency in the Joint Group, as set forth in section 2023.1(d)(2).
- (e) **New Entrant**. A new entrant must meet the following requirements:
 - (1) It must submit a compliance report by March 31 following its existence and every year thereafter as specified in section 2023.8; and
 - (2) It must submit a Rollout Plan within 18 months of its existence.

NOTE: Authority cited: Sections 38501, 38510, 38560, 39002, 39003, 39500, 39600, 39601, 39667, 40000, 43000.5, 43013, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43701(b), 43801 and 43806, Health and Safety Code. Reference: Sections 38501, 38510, 38560, 39002, 39003, 39017, 39027, 39500, 39600, 39601, 39650,

39655, 39667, 40000, 43000.5, 43013, 43018, 43101, 43104, 43105, 43701(b), 43801 and 43806, Health and Safety Code; Sections 233, 350, 545, and 28114, Vehicle Code; section 5303, title 49, United States Code; Code of Federal Regulations, title 49, section 665.13.

§ 2023.2. Compliance Option for Joint Zero-Emission Bus Groups.

- (a) Two or more transit agencies may choose to form a Joint Zero-Emission Bus Group (Joint Group) to comply with the requirements of section 2023.1 collectively. A Joint Group must meet at least one of the following eligibility criteria:
 - All participating transit agencies are located within the same service area of a Metropolitan Planning Organization or Regional Transportation Planning Organization;
 - (2) All participating transit agencies are located within the same Air Basin;
 - (3) All participating transit agencies are located within the same Air Quality Management District, Air Pollution Control District, or Air Resources District; or,
 - (4) All participating transit agencies share infrastructure.

(b) Procedure to form a Joint Group.

- (1) A group of transit agencies forming a Joint Group must provide the Executive Officer a notice at least one year before the Joint Group takes effect. The notice must include all of the following information:
 - (A) A list of all participating transit agencies;
 - (B) A statement of intent to form the Joint Group from a responsible official for each participating transit agency;
 - (C) The proposed start year and if known the end date of the Joint Group;
 - (D) A description on which criteria specified in section 2023.2(a) are met to form a Joint Group.
- (2) The Executive Officer will approve the joint agreement if,

- (A) At least one of the criteria set forth in section 2023.2(a) has been met, and(B) The notice required by section 2023.2(b)(1) has been provided.
- (3) The Executive Officer will assign a Joint Group Number to the group to be used by each participating transit agency for the purpose of annual reporting as specified in section 2023.8.

(c) Joint Group Compliance Requirements.

- (1) Members of a Joint Group collectively may submit one joint Rollout Plan in lieu of individual transit agency Rollout Plans, along with the approval from each transit agency's governing body as set forth in section 2023.1(d)(3).
- (2) Subject to section 2023.3(c), members of a Joint Group must collectively purchase and operate at least the same total number of zero-emission buses annually as each transit agency would be required to purchase and operate individually as set forth in section 2023.1(a).
- (3) A Joint Group that is requesting a deferral from zero-emission bus purchase requirements as described in section 2023.4 must explain why the compliance requirements cannot be met by each member of the Joint Group.
- (4) If a Joint Group fails to comply with the zero-emission bus requirements set forth in section 2023.1 in a given year, each transit agency will be evaluated for compliance individually.
- (5) If the largest transit agency in a Joint Group is a large transit agency, this transit agency must have the required minimum number of zero-emission buses as a percentage of its total new bus purchases in that calendar year as set forth in section 2023.1(a).
- (d) **Changes to a Joint Group.** In case of a change in membership, all participating transit agencies, including the new or departing transit agency, must collectively submit a request to change membership to the Executive Officer explaining the

change and its expected effective date. The member change request must be signed by the responsible official of each participating transit agency, including the new or departing transit agency, and must be submitted to the Executive Officer along with the governing body approval of each participating transit agency, for such a change.

(e) All transit agencies participating in a Joint Group must individually meet the reporting and record-keeping requirements of sections 2023.8 and 2023.9.

§ 2023.3. Zero-Emission Bus Bonus Credits.

- (a) A transit agency may earn Zero-Emission Bus Bonus Credits (Bonus Credits) for each early acquisition of a zero-emission bus as determined based on the following criteria:
 - (1) Each fuel cell electric bus that was in the fleet as of January 1, 2018 receives two Bonus Credits;
 - (2) Each fuel cell electric bus placed in service between January 1, 2018 and December 31, 2022 receives one Bonus Credit;
 - (3) Each battery electric bus that was in the fleet as of January 1, 2018 receives one Bonus Credit;
 - (4) Each electric trolleybus placed in service between January 1, 2018, and December 31, 2019, receives one-tenth of a Bonus Credit that will expire by December 31, 2024.
- (b) Unless as specified in section 2023.3(a)(4), transit agencies that have Bonus Credits can use them in any subsequent year until December 31, 2028 to meet the required minimum number of zero-emission buses as set forth in section 2023.1(a)(4).
 - (1) Each Bonus Credit may only be used once to meet the zero-emission bus purchase requirements set forth in section 2023.1(a)(4);
 - (2) All Bonus Credits will expire on December 31, 2028, which is when the one hundred percent zero-emission bus purchase requirement begins.
- (c) A Bonus Credit cannot be transferred to another transit agency, but may be used by transit agencies participating in a Joint Group to comply with zero-emission bus purchase requirements collectively as set forth in section 2023.2(c)(2).

§ 2023.4. Provisions for Exemption of a Zero-Emission Bus Purchase.

- (a) It is the intent of this section to ensure transit service is not adversely affected. Transit agencies may request an exemption from the zero-emission bus requirements set forth in section 2023.1. The Executive Officer will grant an exemption upon request, if the specified criteria in section 2023.4(c) are met.
- (b) A request for exemption for a particular calendar year's compliance obligation must be submitted to the Executive Officer by November 30th of that year.
- (c) A request for exemption must demonstrate as provided below that at least one of the following circumstances exists beyond the transit agency's control:
 - (1) Delay in bus delivery is caused by setback of construction of infrastructure needed for the zero-emission bus. A transit agency may request an exemption from the requirements of section 2023.1(a)(4) if it cannot finalize the zero-emission bus infrastructure within two years of the initial bus purchase and in time to operate the purchased buses after delivery due to circumstances beyond the transit agency's control.
 - (A) For purposes of this section, zero-emission bus infrastructure includes charging stations, hydrogen stations, and maintenance facilities; and circumstances beyond the transit agency's control may include:
 - Delays in installing zero-emission bus infrastructure that would require the transit agency to purchase new rights-of-way or construct new facilities.
 - 2. Change of a general contractor,
 - 3. Delays obtaining power from a utility,
 - 4. Delays obtaining construction permits,
 - 5. Discovery of archeological, historical, or tribal cultural resources under the California Environmental Quality Act, or

- 6. Natural disaster.
- (B) A transit agency must submit a request for exemption to the Executive Officer by submitting the following documentation:
 - 1. A letter from its governing body, and,
 - 2. A letter from the licensed contractor performing the work, related utility, building department, or other organizations involved in the project explaining the reasons for delay and estimating the completion date of the project.
- (C) The transit agency may request an exemption from the zero-emission bus purchase requirements in section 2023.1(a) if the transit agency can provide documentation that demonstrates the needed infrastructure cannot be completed within the two-year extension period or in time to operate the purchased buses after delivery, whichever is later.
- (D) A transit agency may purchase conventional internal combustion engine buses instead of zero-emission buses once the Executive Officer grants the exemption.
- (2) When available zero-emission buses cannot meet a transit agency's daily mileage needs.
 - A transit agency may submit a request for exemption from the zero-emission bus purchase requirements in section 2023.1(a) if no battery electric bus can meet the daily mileage needs of any similar bus type in the fleet by submitting documentation to show that the miles travelled between charges of all available depot charging battery electric buses cannot meet the transit agency's daily operational needs for any bus in the existing fleet.
 - (A) The request for exemption must include the following information:
 - 1. An explanation of why the exemption is needed including:

- a. How zero-emission buses that have already been purchased or placed in service were suitable, and
- Why the daily mileage range of any available depot charging battery electric bus is insufficient to meet the service needs of any conventional internal combustion engine bus in the transit agency's fleet of the same bus type;
- 2. A current monthly mileage report for each bus type in the fleet to show the daily usage for all of the buses of that type;
- A copy of the zero-emission bus request for proposal and resulting bids showing rated battery capacity that is available for each of the buses when new; and
- 4. If available, measured energy use data from zero-emission buses operated on daily assignments in the transit agency's service which includes, but is not limited to, battery degradation, air conditioning, passenger loading, grades, and driving behavior that shows typical energy usage over one month or more of regular revenue service.
- (B) The Executive Officer will grant an exemption if the transit agency's required range cannot be met based on its battery electric bus energy use data. If energy use data is not available for the transit agency, the tested energy use on the Orange County Bus Cycle described in section 2023(b)(40) will be used to determine the energy use per mile. If the minimum required range is higher than eighty (80) percent of the range on available battery electric buses (using the largest available battery pack), the transit agency will be granted an exemption from the zero-emission bus purchase requirement.
- (C) A transit agency may purchase internal combustion engine buses instead of zero-emission buses once the Executive Officer grants the exemption.

- (3) A transit agency may request an exemption if available zero-emission buses do not have adequate gradeability performance to meet the transit agency's daily needs for any bus in its fleet.
 - (A) The transit agency must provide the following information to the Executive Officer:
 - Documentation that shows no other buses in the fleet can meet the transit agency's gradeability requirements and that the available zero-emission buses of that bus type cannot be placed into service anywhere else in the fleet;
 - Topography information including the measurement of the grade(s)
 where the zero-emission buses would be placed in service along
 with the explanation of which bus types currently provide these
 services;
 - 3. A description of the bus types that currently serve the route(s) in question, and data showing the performance of conventional internal combustion engine buses of the same bus type that includes the passenger load, bus speed and grade of slope measured when operating on the route(s) the zero-emission buses would be placed in service;
 - 4. An explanation of why the gradeability of all available zero-emission buses are insufficient to meet the transit agency's service needs;
 - A copy of the zero-emission bus request for proposal, specifying the transit agency's required gradeability and minimum sustained speed, and the resulting bids; and
 - If available, empirical data including but not limited to grades, passenger loading, and speed data from available zero-emission buses operated on the same grade to show that available zero-

- emission buses are unable to meet the same speed requirements under the same operating conditions as the same type of conventional bus in the transit agency's fleet.
- (B) A transit agency may purchase internal combustion engine buses instead of zero-emission buses once the Executive Officer grants the exemption.
- (4) When a required zero-emission bus type for the applicable weight class based on gross vehicle weight rating (GVWR) is unavailable for purchase.
 - (A) A transit agency may request an exemption from an immediate zeroemission bus purchase requirement in section 2023.1(a) if no zero-emission buses are available as described below.
 - (B) A zero-emission bus type is considered unavailable for purchase if any of the following circumstances exists:
 - The zero-emission bus has not passed the complete Bus Testing and not obtained a Bus Testing Report as described in section 2023(b)(8);
 - 2. The zero-emission bus cannot be configured to meet applicable requirements of the Americans with Disabilities Act; or
 - The physical characteristics of the zero-emission bus would result in a transit agency violating any federal, state, or local laws, regulations, or ordinances.
 - (C) The request for exemption must include the following information:
 - A summary of all bus body-types, vehicle weight classes being purchased with their GVWR, chassis (if applicable), and the reasons why existing zero-emission buses are unavailable for purchase;

- 2. Current fleet information showing how many zero-emission buses of that bus type are already in service and how many are on order and a demonstration that any available zero-emission bus that would meet the purchase requirement has been purchased and that the zero-emission bus purchase requirement cannot be met with other zero-emission bus purchases in that year;
- 3. If the zero-emission bus type and vehicle weight class to be purchased cannot be adequately equipped to meet applicable Americans with Disabilities Act requirements, then the transit agency must submit documentation to show what Americans with Disabilities Act requirement cannot be met and why the manufacturer cannot meet it by submitting information from the manufacturer; and
- 4. If the zero-emission bus would result in a transit agency violating any federal, state, or local law, regulation, or ordinance, then the transit agency must submit a letter from its governing body that details how the physical characteristics of the zero-emission bus would violate such federal, state, or local law, regulation or ordinance and how the violation would be avoided with the purchase of a combustion engine bus of the same type. This letter must include all relevant citations to state and federal regulatory code sections.
- (D) The Executive Officer will grant an exemption from the requirements to purchase zero-emission buses if the criteria of section 2023.4(c)(4)(B) are met and the information required by section 2023.4(c)(4)(C) has been provided.
- (E) A transit agency may purchase conventional internal combustion engine buses instead of such unavailable zero-emission buses for that bus purchase once the exemption is granted.

- (5) When a required zero-emission bus type cannot be purchased by a transit agency due to financial hardship. A transit agency may request an exemption from the zero-emission bus purchase requirements in section 2023.1(a) due to financial hardship.
 - (A) Financial hardship would be granted if a fiscal emergency is declared under a resolution by a transit agency's governing body following a public hearing, a transit agency can demonstrate that it cannot offset the incremental cost of purchasing all available zero-emission buses when compared to the cost of the same type of conventional bus, or a transit agency can demonstrate that it cannot offset the managed, net electricity cost for depot charging battery electric buses when compared to the fuel cost of the same type of conventional internal combustion engine buses.
 - (B) The request for exemption must include the following documentation:
 - Either a resolution by a transit agency's governing body declaring a fiscal emergency; or
 - 2. Documentation showing a transit agency cannot offset the initial capital cost of purchasing zero-emission buses, including:
 - a. A letter from a transit agency's governing body declaring the transit agency in good faith has applied for all available funding and financing options that could be used to offset the higher capital costs of zero-emission buses and associated infrastructure;
 - b. Documentation to show the transit agency has been denied financing, or financing options are not available; and
 - c. Documentation to show the transit agency cannot offset the higher incremental costs of available zero-emission buses.

- (C) The Executive Officer will grant an exemption from the requirement to purchase zero-emission buses until the next bus purchase.
- (D) A transit agency may purchase conventional internal combustion engine buses instead of zero-emission buses once the Executive Officer grants the exemption.

§ 2023.5. Zero-Emission Mobility Option.

- (a) A transit agency may opt to use a Zero-Emission Mobility Program in lieu of making a zero-emission bus purchase to meet the required minimum number of zero-emission buses as set forth in section 2023.1(a)(4) if such program meets the following requirements:
 - (1) The program provides zero-emission mobility services by using bicycles, scooters, or other zero-emission vehicles with a GVWR of 14,000 pounds or less, or any combination of these;
 - (2) The program must be either directly operated by the transit agency or operated by a contractor to the transit agency;
 - (3) The transit agency must be able to track and record zero-emission passenger miles for each zero-emission vehicle.
 - (4) A transit agency must achieve the following zero-emission passenger miles per year to be eligible to receive each mobility credit:
 - (A) A large transit agency must achieve at least 320,000 zero-emission passenger miles per year;
 - (B) A small transit agency must achieve at least 180,000 zero-emission passenger miles per year.
- (b) Procedure to opt-in and opt-out of a Zero-Emission Mobility Option.

- (1) To opt into a Zero-Emission Mobility Option, a transit agency must submit a request to opt-in to the Executive Officer with the following information to prove it is meeting the requirements set forth in section 2023.5(a):
 - (A) A description of the types of vehicles, including their GVWR and types of propulsion systems;
 - (B) Documentation to show who will operate these services; and
 - (C) A description of the method of collecting accurate zero-emission passenger miles per vehicle.
- (2) A transit agency may choose to opt out from the Zero-Emission Mobility

 Option at any time with the submittal of a request to opt-out to the Executive

 Officer with expected date of program termination.
- (c) Calculation and issuance of mobility credits.
 - (1) Provided the criteria set forth in section 2023.5(a) has been met and the information required by section 2023.5(b) has been submitted to the Executive Officer, a transit agency that opts into a Zero-Emission Bus Mobility Option may receive one credit that is equivalent to operation of one zero-emission bus in the fleet based on the following calculations:
 - (A) When a bicycle is used in a Zero-Emission Mobility Option, a multiplier of three (3) shall apply when quantifying zero-emission passenger miles from a bicycle.
 - (B) The zero-emission mobility credit is calculated by dividing the total zero-emission passenger miles in each calendar year achieved by the Zero-Emission Mobility program by 320,000 passenger miles per year for a large transit agency or by 180,000 passenger miles per year for a small transit agency;

- (C) For each calendar year, if a transit agency maintains at least the same zero-emission passenger miles as required in section 2023.5(a)(4) then the mobility credits will continue to count as zero-emission buses in the fleet.
- (D) If the calculated number of mobility credits as set forth in section 2023.5(c)(1)(B) does not result to a whole number, the number must be rounded to the nearest integer to determine the number of credits.
- (d) Use of mobility credits.
 - (1) Each calculated credit as set forth in section 2023.5(c)(1)(B) will be treated the same as operating one zero-emission bus in the fleet in a given calendar year.
 - (2) Each mobility credit earned annually by a transit agency may be counted the same as having a zero-emission bus by the transit agency in its fleet when calculating the required minimum number of zero-emission buses in the following year of achieving passenger miles as set forth in section 2023.1(a)(4).
- (e) Reporting. Any transit agency that opts into the Zero-Emission Mobility Option must report annually to show the total zero-emission passenger miles achieved in the previous calendar year. A transit agency using the Zero-Emission Mobility Option must meet the reporting and record keeping requirements set forth in section 2023.9(c) for zero-emission passenger miles.

section 5303, title 49, United States Code; Code of Federal Regulations, title 49, section 665.13.

§ 2023.6. Low-NOx Engine Purchase Requirements.

- (a) Starting January 1, 2020, when new conventional internal combustion engine bus or hybrid bus purchases are made, transit agencies must purchase buses with Low-NOx engines if Low-NOx engines are available that meet both of the following criteria for the bus type and propulsion system type being purchased:
 - (1) The engine or hybrid propulsion system paired with the engine must have been commercially available for purchase or lease for at least two years; and
 - (2) The engine or hybrid propulsion system paired with the engine must be certified to the lowest level of NOx emissions per title 13 of the California Code of Regulations, section 2208(c)(18), at the time of purchase and suitable for the bus and fuel type of the engine being purchased.
- (b) The Low-NOx engine purchase requirements apply to the purchase of all new conventional internal combustion engine buses, except buses that will be dispatched from areas defined as NOx Exempt Areas as described in section 2023(b)(39).
- (c) Any Low-NOx engine purchases prior to January 1, 2020, including any voluntary Low-NOx engine repower, may be counted once towards meeting the requirements set forth in section 2023.6 (a) through (b).
- (d) A transit agency that is subject to Low-NOx engine purchase requirements must report annually as set forth in section 2023.8(g) and keep records of all conventional internal combustion engine bus purchases as required in section 2023.9(d).

NOTE: Authority cited: Sections 38501, 38510, 38560, 39002, 39003, 39500, 39600, 39601, 39667, 40000, 43000.5, 43013, 43018, 43100, 43101, 43102, 43104, 43105, 43106, 43701(b), 43801 and 43806, Health and Safety Code. Reference: Sections 38501, 38510, 38560, 39002, 39003, 39017, 39027, 39500, 39600, 39601, 39650,

39655, 39667, 40000, 43000.5, 43013, 43018, 43101, 43104, 43105, 43701(b), 43801 and 43806, Health and Safety Code; Sections 233, 350, 545, and 28114, Vehicle Code; section 5303, title 49, United States Code; Code of Federal Regulations, title 49, section 665.13.

§ 2023.7. Requirements to Use Renewable Fuels.

- (b) Starting January 1, 2020, a large transit agency must purchase only renewable diesel or renewable natural gas when renewing fuel purchase or delivery contracts for diesel or natural gas. A small transit agency is exempt from this requirement.
- (c) A large transit agency that is subject to the requirements set forth in section 2023.7(a) must meet the reporting and record keeping requirements set forth in sections 2023.8(h) and 2023.9(e) for all new and renewed fuel purchase or delivery contracts.

§ 2023.8. Reporting Requirements for Transit Agencies.

- (a) Commencing March 31, 2021, and continuing every year thereafter through March 31, 2050, each transit agency must annually submit by March 31 to the Executive Officer a compliance report meeting the requirements of this section for the prior calendar year.
- (b) The initial report must be submitted by March 31, 2021, and must include the number and information of active buses in the transit agency's fleet as of December 31, 2017.
- (c) Each transit agency must report the following information annually:
 - (1) Transit agency information.
 - (A) Name of the transit agency;
 - (B) Transit agency mailing address;
 - (C) National Transit Database (NTD) identification number;
 - (D) Name of related Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency;
 - (E) Air district;
 - (F) Air basin;
 - (G) Joint Group Number (if applicable as set forth in section 2023.2(b)(3));
 - (H) Name of the contact person;
 - (I) Contact person's e-mail address;
 - (J) Contact person's title; and
 - (K) Phone number.

(2) Information on each bus purchased, owned, operated, leased, or rented transit agency, including the following:	bya
(A) Information on vehicle.	
1. Vehicle identification number (VIN);	
2. License plate;	
3. Transit agency's vehicle ID;	
4. Ownership type (owned, leased, rented);	
5. Make;	
6. Model;	
7. Bus type;	
8. Bus length;	
9. Chassis (if applicable);	
10. Bus fuel type;	
11. GVWR;	
12. Manufacture year;	
13. Propulsion technology type;	
14. Vehicle status (active, emergency contingency, or retired);	
15. Date in-service; and	
16. Bus retired date.	
(B) Information on engine and propulsion system.	
Engine manufacturer;	
2. Engine model;	

- 3. Engine model year;
- 4. Engine family name;
- 5. Engine cylinder displacement size (liters);
- 6. Battery rated capacity or energy level (kWh);
- 7. Bus charging strategy type (on-route, in depot, or combination);
- 8. Fuel cell system manufacturer;
- 9. Fuel system model; and
- 10. Fuel system rated power (kW).
- (C) Information on bus purchases. Quantity of zero-emission and conventional internal combustion engine buses purchased in the calendar year and their status as new or used, effective date of a Notice to Proceed, and actual or expected bus delivery date; and
- (D) Information on converted buses. Quantity of buses fully converted to zero-emission from conventional internal combustion engine buses in each calendar year.
- (d) Each transit agency subject to the requirements of section 2023.2 must report the same information as required under sections 2023.8(a) through 2023.8(c) using the assigned Joint Group Number.
- (e) CARB will calculate the number of bonus credits set forth in section 2023.3(a) based on the required information in section 2023.8(c).
- (f) Each transit agency that opts into a Zero-Emission Mobility Option as set forth in section 2023.5 must report the following information:
 - (1) Total accumulated annual zero-emission passenger miles provided by scooters and other vehicles with a GVWR of 14,000 pounds or less;

- (2) Total accumulated annual zero-emission passenger miles provided by bicycles; and
- (3) CARB will calculate the number of mobility credits annually according to the requirement of section 2023.5(c) and reported total accumulated annual zero-emission passenger miles.
- (g) Each transit agency subject to the requirements for purchase of Low-NOx engines in section 2023.6 must submit an annual report identifying the general location a conventional internal combustion engine bus is dispatched from, the NOx Certification Standard, and the NOx Executive Order number.
- (h) Each transit agency subject to requirements to use renewable fuels as set forth in section 2023.7 must submit an annual report identifying fuel types used, quantity of renewable and non-renewable fuel purchased, and fuel contract number and its effective date and expected or actual end date.
- (i) A report that does not contain all required information in sections 2023.8(c) through (h) will not be considered complete. A report will be considered to be complete as of the date that all required information is submitted.

§ 2023.9. Record Keeping Requirements.

- (a) Each transit agency subject to the reporting requirements of section 2023.8 must maintain copies of the information reported under section 2023.8, as well as the records described in subsections (b) through (e) in this section, and retain such records as required below in subsection (g).
- (b) Each transit agency must maintain records of all purchased, leased, rented, or operated conventional internal combustion engine buses, zero-emission, and fully converted buses to zero-emission buses, for the purpose of demonstrating compliance with the requirements of sections 2023.1 through 2023.4 and section 2023.6. Transit agencies must keep records of the following:
 - Every Notice to Proceed sent to bus manufacturers or sales representatives for the purpose of purchasing buses;
 - (2) Bus purchase contracts that Notice to Proceeds are based upon;
 - (3) Any lease agreements with bus manufacturers or sales representatives;
 - (4) Documentation to show ownership transfer for purchase of used buses;
 - (5) Documentation to show when a conventional internal combustion engine bus is fully converted to a zero-emission bus;
 - (6) Copy of vehicle's registration;
 - (7) Proof of bus delivery date.
- (c) A transit agency that has opted-in to a Zero-Emission Mobility Option must keep records of zero-emission passenger miles generated by scooters, bicycles and other eligible zero-emission vehicles.
- (d) Each transit agency subject to requirements of section 2023.6 must maintain bus purchase contracts of conventional internal combustion engine buses, including the ones with Low-NOx engines, to demonstrate compliance.

- (e) Each large transit agency must maintain records of all fuel contracts that are executed on and after January 1, 2020, to demonstrate compliance with the requirements specified in section 2023.7.
- (f) Audit of Records. A transit agency must make the records required under section 2023.9(b)-(e) available to CARB within 10 calendar days of its request for an audit to verify the accuracy of the reported information.
- (g) Record Retention. A transit agency shall maintain the records required under section 2023.9(b)-(e) for each bus, zero-emission passenger miles, and fuel contracts that are subject to the reporting requirements of section 2023.8 and record keeping requirements of section 2023.9(b) through (e) for three (3) years after the bus is retired, ownership is transferred, or the fuel contract is expired.

§ 2023.10. Authority to Suspend, Revoke, or Modify.

(a) If the Executive Officer finds that any zero-emission bus bonus or mobility credit was obtained based on false information, the Executive Officer may revoke the credit. Each revoked credit is equivalent to one required zero-emission bus the agency has failed to purchase. A transit agency with a deficit in the number of required zero-emission buses is considered to be in violation of zero-emission bus requirements as set forth in section 2023.1.

§ 2023.11. Severability.

(a) If any subsection, paragraph, subparagraph, sentence, clause, phrase, or portion of the Innovative Clean Transit Regulations in this article 4.3 is for any reason held invalid, unconstitutional, or unenforceable by any court of competent jurisdiction, such portion shall be deemed as a separate, distinct, and independent provision, and such holding shall not affect the validity of the remaining portions of these Innovative Clean Transit Regulations.