

California Air Resources Board: Innovative Clean Transit Regulation Summary

Applicability: All transit agencies that own, lease or operate buses with a gross vehicle weight rating over 14,000 lbs. Buses subject to the regulation include cutaway buses, transit buses (including bus rapid transit), articulated buses, commuter coaches, double-deckers, trolley buses and vintage trolley buses. Fleet size based on 2019 fleets. *** May be expanded to include non-bus modes, including vans and cars.*

Purchase Requirement:

January 1, 2020: Large fleets with over 100 buses would need to purchase **25 percent** zero-emission buses (ZEB) when bus purchase made or implement an equivalent innovative zero-emission mobility program

2022: Informational update to assess zero emission technology, fleet experiences, costs and to evaluate the regulatory structure for achieving mobility improvements and a complete transition to zero emission technology.

January 1, 2023: Medium size fleets (more than 30 buses) and Large Fleets would have to meet a **50 percent** purchase requirement.

January 1, 2026: All transit fleets, would need to meet a **75 percent** purchase requirement.

January 1, 2029: **100 percent** purchase requirement for all fleets.

Renewable Fuel Requirements:

Large transit agencies with 100 or more transit buses required to purchase renewable fuels when diesel or natural gas contracts are renewed. *** Emission credits are counted under Low Carbon Fuel Standard.*

Low-NOx Engine Purchase Requirement:

All transit agencies are required to include low nitric oxide (NOx) engines when purchases are made if available for the bus type purchased (notes that they are currently not available for diesel or gasoline buses).

- Early action credit for low NOx engines purchased previous to the requirement.
- Only applies to areas that do not meet federal NOx requirements.

*** California Air Resources Board (ARB) plans on doing a low NOx engine regulation for all heavy duty engines in 2019, which will apply to 2023 engines and later.*

Purchase Requirement Early Action Credits:

Early actions would allow for a 1:1 credit for future purchase requirements if the bus is put in service between January 1, 2018 and January 1, 2023. If put in service prior to December 1, 2017, and still in operation as of January 1, 2018, there would be a 1:1 credit for electric battery buses and a 2:1 credit for fuel cell electric buses.

Joint ZEB Compliance Option:

Multiple transit agencies can petition the ARB Executive Director to implement a joint ZEB deployment within a region, where they would comply as if they were one joint agency, submitting one annual report. To do this, the agencies would have to jointly comply with the number of ZEB purchases the partners would otherwise have to purchase individually, which they could jointly fund through a common MPO or

other transportation policy-making organization. Various other requirements must be met, including operating buses with intent to meet FTA useful life requirements, providing appropriate maintenance and storage facilities, and demonstrating how deployment benefits disadvantaged communities.

Innovative Zero-Emission Mobility Option:

Innovative zero-emission mobility options include non-bus (or fixed guideway) transportation services provided by the transit agency with lighter zero-emission vehicles like micro transit, on-demand van or car transportation, or autonomous shuttle services.

If implementing such service, transit agency can apply to ARB Executive Officer for credit towards purchase requirement. In the application, it will have to identify the how the miles and passenger count will be measured. Credit will be applied such that 350,000 zero emission passenger miles per year from the program would be equivalent to purchasing one ZEB.

Off-Ramps:

ARB Executive Officer can provide a 1-year extension based on specific situations. These include:

- If delay occurs because utility cannot supply sufficient power to put the battery electric bus in service when they are delivered.
- Delay for reasons outside transit agency's control that would not allow a fuel cell electric bus to be put in service when delivered. This includes delays to hydrogen fueling station construction.
- When the equivalent ZEB has not completed Altoona testing. Only applies if the transit agency has no other purchase option.
- If the ZEB fleet expansion cannot be completed in compliance with local permitting requirements or safety requirements that could not have been foreseen and addressed prior.

No off-ramps are offered for:

- Requirements that would lead to a reduction in service or other extreme hardship.
- Funding reductions, such as if SB 1 (Chapter 5, Statutes of 2017) is repealed.
- Because a bus cannot meet necessary range requirements.
- Because of space constraints for necessary charging equipment.

Note: regulation specifies that transit agency is not out of compliance due to manufacturer delays.

Reporting Requirements:

Starting in 2020, each transit agency will be required to annually report information for all modes they operate dating back to 2015 as the proposed baseline year. This information will be used to determine whether the regulation should be expanded to include non-bus modes, whether zero-emission miles or another metric should be used for compliance or whether the zero-emission mobility option should be expanded.

Potential Performance Based Option (future discussion):

Discusses the potential for a zero-emission-miles-based fleet-wide approach to set a performance goal that can be used in lieu of the bus purchase mandate. This will include all modes from bicycles to light rail. The potential for this path will be informed by the annual reports received from transit agencies.