

The California Transit Association's Requests:

The California Transit Association made the following request related to “cost and performance benchmarking” and the planned performance review in its letter, dated September 24, 2018, and in meetings with ARB members:

1. Move the existing language on the “Performance Review of Zero-Emission Bus Technologies” scheduled to occur “at least one year prior to the initiation of any purchase requirements” from the ISOR (pp. I-13 to I-14) to the proposed regulation. The relevant language reads:

“The performance review would identify the status of ZEB technology and would help the State design policies to further advance zero-emission technologies, and inform funding strategies related to zero-emission vehicles and infrastructure. The review would occur at least one year prior to the initiation of any purchase requirements. This review would look at bus categories, such as cutaway buses and standard buses individually, to ensure categorical needs and characteristics are considered. Staff envisions the performance review will comprise the following components:

- *Costs. Costs include infrastructure and vehicle capital, operating and maintenance costs. Infrastructure capital costs include charging/refueling equipment, installation, and utility upgrade costs.*
 - *Battery performance. Batteries used in the ZEBs will degrade over time. The assessment will help identify how battery degradation may affect daily operating range as vehicles age, and whether transit buses would require mid-life battery replacement. The assessment can help to estimate the remaining battery capacity after the end of their useful life in buses.*
 - *Operating range. The maximum operating range of a vehicle after it is fully charged or refueled. Range assessment will take into consideration various factors, such as energy storage capacity, battery degradation, HVAC, passenger loading, and grades. Understanding real world operating range is essential for a transit agency to plan for its routes and schedule using ZEB technologies.*
 - *Performance and reliability. Different from small pilot or demonstration projects, a successful system-wide transition to the ZEB technologies must demonstrate the reliability and viability of the technologies. Measurements could include bus availability, road call frequency, and other performance metrics, such as fuel efficiency and factors affecting fuel efficiency, refueling or charging time and frequency, and parts availability.”*
2. Add language to the proposed regulation that establishes benchmarks for ZEB cost and performance and funding availability.

- a. These benchmarks should be sourced from the inputs and assumptions used by ARB staff in the Original SRIA, Draft Environmental Analysis and Cost Update
3. Add language to the proposed regulation that requires the Board to temporarily halt the initiation of an upcoming year's purchase requirement, if real-world ZEB cost and performance and funding availability are misaligned with the benchmarks established in the proposed regulation.

The California Transit Association made the following request related to funding regulatory compliance in its letter, dated September 24, 2018, and in meetings with ARB members:

1. Add language to the proposed regulation that authorizes a transit agency that has submitted a ZEB rollout plan to ARB to access incentive funding, like HVIP, to pay for regulatory compliance
 - a. In recognition that several of ARB's incentive funding programs have statutory prohibitions on paying for regulatory compliance, this authorization would apply only to incentive funding programs for which no such statutory prohibition applies

ARB Staff's Response:

In response to the Association's requests, ARB is expanding the conditions for which a transit agency can claim a temporary exemption from the ZEB purchase requirement to include situations where a transit agency can document that it cannot offset the incremental costs of purchasing any zero emission bus by considering all available zero emission buses of the relevant bus type, or cannot offset the electricity costs for operating a depot charging battery electric bus when compared to the same type of internal combustion engine bus. It reads:

"A transit agency may request an exemption from the zero-emission bus purchase requirements set forth 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 Board of Directors 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."