September 24, 2018

Ms. Mary Nichols
Chairman
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Subject: **Comments on Innovative Clean Transit Regulation Discussion Document**

Dear Chairman Nichols:

The Orange County Transportation Authority (OCTA) appreciates the opportunity to offer comments on the California Air Resources Board's (ARB) Proposed Innovative Clean Transit Regulation (Proposed ICT), dated August 7, 2018. Since the release of the ICT Discussion Document in December 2017, work has been done by transit agencies across the state, including OCTA, and ARB staff to find a path forward which would allow for further adoption of zero-emission transit technologies, while also recognizing each transit agency's service requirements, and any technological or financial limitations. Progress has been made since the ICT Discussion Document was released, including the inclusion of provisions which provide additional deference to an individual agency as to the path the agency will take to transition to a zero-emission fleet by 2040, and more explicit recognition of areas where an extension or an exemption from fleet transition requirements may be necessary. However, there are continued concerns about the Proposed ICT's focus on mandatory purchase requirements, insufficient identification of funding to meet the requirements, lack of regulatory language requiring a regular assessment of technology and cost benchmarks to ensure the new buses are meeting their stated goals, and an emphasis on uniform standards statewide, rather than flexibility to consider an agency's specific technology and cost dynamics. These concerns, plus the insufficiencies in the correlating economic and environmental analysis, may lead to the implementation of a regulation with significant unintended impacts to transit agencies.

Many of the continued concerns can be addressed through further refinements to the proposed regulatory language, and more expansive analysis that reflects the fiscal impacts and identification of funding sources to meet expected cost increases. Attached to this letter are details on specific issues that OCTA encourages the ARB to address if the Proposed ICT is to move forward for eventual adoption. Furthermore, OCTA is also supportive of the comments

submitted by the California Transit Association. Without addressing these issues, as currently drafted, the Proposed ICT could jeopardize not only existing transit service levels, but present challenges in meeting fleet operating needs. These implications directly contradict the ARB's goals in pursuing the ICT, namely improving transit service and reducing emissions.

OCTA appreciates the time and effort ARB staff has taken to meet with transit agencies statewide to discuss the Proposed ICT, and hopes to continue to build on existing efforts by transit agencies to expand zero-emission technology in an economically sustainable manner. This includes OCTA's actions to obtain over ten hydrogen fuel cell buses, exclusive use of renewable natural gas for the existing fleet, and integration of low nitrogen oxide engines. With these efforts in mind, OCTA hopes to continue discussions with the ARB and develop collaborative solutions that will help reduce emissions and improve transit service statewide. If you or your staff have any questions regarding OCTA's comments, please contact Kristin Essner, Manager of State and Federal Relations, at (714) 560-5754 or kessner@octa.net.

Sincerely,

Darrell E. Johnson
Chief Executive Officer

DJ:ke
Attachment

c: Members, California Air Resources Board
Richard Corey, Executive Officer, California Air Resources Board
Steve Cliff, Deputy Executive Office, California Air Resources Board
Jack Kitowski, Chief, Mobile Source Control Division, California Air Resources Board
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**Orange County Transportation Authority Comments on the California Air Resources Board's Proposed Innovative Clean Transit Regulation**

1. Funding is not identified to bridge the gap between existing technology and zero-emission buses, which could directly impact existing transit service.

The Proposed Innovative Clean Transit Regulation (Proposed ICT) would create a new unfunded mandate for transit agencies, without the identification of sufficient resources to compensate for the increased costs needed to implement the proposed purchase requirement. For the Orange County Transportation Authority (OCTA), it is estimated that it would cost an additional $442 million, at current cost estimates, to convert its fleet to zero-emission technology. This is more than double what it would cost to replace the fleet with traditional fuel vehicles. In addition, it is estimated that to replace OCTA's fixed route buses, it would cost as much as $39 million in infrastructure costs based on the estimates provided by ARB in the Proposed ICT. This cost could be more for hydrogen fueling infrastructure. These estimates do not include other costs including those associated with training, increased fuel costs, and right-of-way needs. The bus replacement estimate assumes the cost differential between existing compressed natural gas (CNG) buses, and the need to increase the fleet size to integrate zero-emission buses (ZEB). OCTA's buses must meet a 300 mile range. Replacing a CNG bus with a ZEB, powered by current electric battery technology, is not a straight one-to-one comparison. Instead, because ZEBs cannot meet existing fleet range requirements, transit agencies will have to expand their fleet to comply with the purchase requirement and maintain existing service.

Already, OCTA has budgeted funding from existing sources, including the Low Carbon Fuel Standard, Transportation Development Act, State Transit Assistance, cap-and-trade, SB 1 (Chapter 5, Statutes of 2017) and federal transit sources, to maintain existing service levels. These funding sources are the only funding identified in the regulation to help transit agencies meet the requirements of the ICT Proposal, beyond state grant sources which transit agencies cannot access after regulatory requirements are in force and/or are subject to annual appropriations by the Legislature.

Thus, the Proposed ICT assumes that transit agencies will have to divert existing funds used for operations purposes to meet the purchase requirements. In this scenario, transit agencies like OCTA would have to analyze potential service reductions. In order to meet the $442 million funding gap, OCTA would have to reduce service by more than 20 percent; a level surpassing what was done during the last recession. This would not only immediately impact the most transit dependent areas of the state, but may also lead to an increase in vehicle miles travelled, which is counter-productive to other California Air Resources Board (ARB) environmental initiatives. These secondary impacts are not analyzed in the environmental analysis done for the Proposed ICT or in the economic analysis.

There also is no discussion about electricity costs and how that will vary based on time of day, and based on various fleet fueling requirements. Currently there is no certainty

about the future of these costs, or what rates will be imposed for transit agencies. Many of the previous demonstrations of this technology were operating under special rate provisions which should not be held as the standard to determine costs for this regulation. The ICT Proposal should therefore be updated to do the following:

- Identify funding sources beyond existing sources already being used for transit operations purposes, to close the cost gap between the requirements of the Proposed ICT and current technology.
- Explicitly ensure that all ARB grant funding programs where ICT activities are eligible can continue to be used by transit agencies to meet the requirements put in place by the ICT Proposal.
- Update the economic and environmental analysis to account for secondary ramifications from the implementation of the Proposed ICT, including potential service reductions impacting emission reduction efforts and economic impacts to transit riders.
- Update the economic analysis so it is focused on the actual implementation period, and does not include out years beyond the Proposed ICT requirements. This otherwise unfairly includes potential cost decreases in those years.
- Include analysis of alternative regulatory frameworks to achieve the 2040 goal, which may be less burdensome, including CTA's initial counterproposal.
- Include updated analysis related to electricity and fueling costs, without consideration of existing agreements with transit agencies that have provided for a temporary reduction in rates.

2. <u>The regulatory timeline for implementation does provide for an assessment of economic or technological benchmarks to ensure that the technology is meeting its stated goals prior to enforcement of purchase requirements</u>

While the Proposed ICT includes language in its justification stating that a benchmark analysis will be done of various cost and technology factors, there is nothing in the regulation that ensures that this analysis will be done prior to a purchase requirement being put in place. This could present significant hardship for agencies which abide by the purchase requirement and are forced to integrate a significant number of zero-emission buses, which may not be meeting that fleet's service needs. For instance, under OCTA's existing procurement process, OCTA will potentially be looking at replacing 58 percent of its fleet by 2023. Under the Proposed ICT, potentially 25 percent of this purchase would have to be zero-emission technology. If the new technology cannot meet OCTA's requirements related to such things as range and reliability, this could put future federal funding into jeopardy.

The ICT proposal should ensure that technology and economic assessments are done before any requirement is enforced, including prior to 2023. In addition, if at any time a requirement is found to be technologically or economically infeasible, a grace period

should be applied to all transit agencies, including agencies with a procurement in process.

3. The Proposed ICT should only include cutaways, articulated buses, and over-the-road coaches into the regulation after a complete cost and technology assessment is completed.

OCTA appreciates efforts by the ARB to defer the inclusion of various bus types under the purchase requirement until those buses have undergone more rigorous testing. However, under the current Proposed ICT, these buses are automatically included under the purchase requirement in 2026, or once they complete Altoona testing, whichever is later. While none have been Altoona-tested, and therefore are not eligible for federal funding, more substantive analysis is still needed to ensure that these buses can meet various agencies' operational needs. This is of heightened concern with cutaway buses, which are used to fulfill critical American with Disabilities Act (ADA) paratransit services, if the buses are not able to meet an agency's operational requirements, this may not only lead to impacts to paratransit service, but could impact a transit agency's compliance with ADA.

4. The Proposed ICT should the extend the "waiver of purchase requirement" framework into future years.

Currently, the Proposed ICT only allows for a waiver of the purchase requirement if a statewide target is met in the years of 2020 and 2021. This concept should continue into future years, aligned with each agency's rollout plan. This would prevent a transit agency from being subject to an arbitrary purchase requirement, and allow additional flexibility for an agency to purchase a bus when necessary. In either case, a transit agency would still have to submit a rollout plan for transitioning its fleet to zero-emission by 2040, maintaining that statewide target. The ARB would also have an opportunity to set statewide targets each year based on actual data and need, rather than simply implementing a one-size fits all requirement. This concept should at least be considered in the years leading up to the 2029 100 percent purchase requirement mandate.

5. The individual agency rollout plan required under the Proposed ICT should include a section for a transit agency to outline anticipated challenges in meeting its 2040 goal.

While the rollout plan would require a transit agency to include a wealth of information related to how it plans to meet a fleet transition to zero-emission buses by 2040, including planned procurement dates, funding, and technology choice, it does not include a section that allows an agency to communicate where it foresees potential challenges or where flexibility may be needed. For instance, the rollout plan would currently require each agency to identify funding to meet the fleet transition, even when the agency does not know where that funding may come from. While new sources of grant funding may eventually become available, no agency can presuppose that taking place. The requirements related to the rollout plan should therefore be clarified to ensure that the plan is not meant to be financially constrained, and that agencies may deviate from their

original plan. Furthermore, it would help inform the regulation's implementation going forward for agencies to communicate their specific technology requirements and where they foresee challenges. This could include fuel prices, electricity demand, range needs, and reliability. This would provide an opportunity for ARB to know where monitoring may be necessary as the regulation is implemented.

6. Early action credits should be granted in a manner that takes into account all transit agency actions taken prior to any new requirement taking effect.

OCTA supports ARB efforts to recognize those agencies that have taken steps to implement advanced technologies prior to any new regulatory requirements. Currently, the ICT Proposal provides for different credit levels depending on whether the bus was put into service before or after January 1, 2018 for hydrogen buses. It is unclear why that differentiation is made. Instead, the two credits should be awarded for all hydrogen buses procured prior to the regulation taking effect, regardless of when that bus was put into service.

7. The proposed extensions and exemptions in the Proposed ICT need clarification, and should include automatic statewide regulatory exemptions in emergency situations.

OCTA appreciates efforts to include scenarios where the ARB Executive Director may approve extensions or exemptions for compliance with the requirements when certain conditions are present. While each of the scenarios presented are valid, clarification is needed in the following areas:

- For the scenarios related to bus delivery or range, these should be complete exemptions if the situation cannot be resolved within the one-year extension.
- Any extension or exemption for a bus being unable to meet a transit agency's requirement should be based on that agency's highest mileage routes. Currently, the Proposed ICT states that as long as a bus is able to meet the range requirements for at least one route within that agency's system, no extension will be given. However, when transit agencies purchase significant quantities of buses at one time, those buses will have to be used systemwide, including the higher range routes, which could be 300 plus miles. In order to prevent any disruption in service, or the creation of several sub-fleets, a transit bus will therefore have to meet a transit agency's longest ranges.

8. Personnel training will be required for any technology transition, which is not currently addressed in the Proposed ICT.

Traditionally, the work-force found in the transit industry includes a high degree of expertise with diesel engines, with transition now occurring because of the introduction of natural gas engines. With high demand for this knowledge in fields outside of transit, there are also numerous existing issues in attracting talent to fill maintenance and operations

roles. ARB's Proposed ICT will create an added level of difficulty, by requiring a completely new type of staff knowledge, without any identified training opportunities.

A transition to ZEBs would require complete retraining on the technological operating elements of a bus, and the safety aspects. Without any existing large operation of ZEBs at existing transit facilities, many of the implications of the technology change are unknown. Gradual implementation of the technology would allow transit agencies to mitigate these risks and prepare and protect their staff. There should be a discussion within the Proposed ICT of resources available, including expansion of eligibility for existing resources to be spent for training programs, and plans for training not only the existing workforce, but also those wishing to enter the workforce, on this new technology.

9. The definitions included in the Proposed ICT must account for fleet differences.

The Proposed ICT includes several common definitions which set the basis for the regulation. However, a number of these definitions may differ based on the agency. For instance, while the definition of "useful life" is based on what is needed to meet federal requirements (12 years), many transit agencies, including OCTA, have extended out their useful life to allow the agency to maximize the funding dedicated for operations purposes. The Proposed ICT should be amended in this case, to account for any agency-specific differences that may exist.

10. A bus should still count towards an agency's purchase requirement, even when the bus fails through no fault of the transit agency.

The Proposed ICT currently states that a bus only counts towards an agency's purchase requirement if it remains in service for at least five years. However, the only reason an agency would remove a bus from service prior to the bus meeting its useful life is if the bus was unable to safely be operated along an agency's routes, or if the bus was in an accident which prevented further operation. This could be due to a multitude of factors beyond the transit agency's control. If the bus is removed from service, this would also create challenges in a transit agency's ability to replace the bus using federal funding since the bus was unable to meet the federal standards related to useful life. The Proposed ICT should recognize the original intent of the transit agency in complying with the regulation, and count these buses towards a Proposed ICT purchase requirement.