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Alameda-Contra Costa Transit District

Mike Hursh, General Manager

April 24, 2018

Jack Kitowski, Chief, Mobile Source Control Division  
Tony Brasil, Branch Chief, Heavy Duty Diesel Implementation Branch  
California Air Resource Board  
1001 I Street  
Sacramento, CA 95814

**RE: Innovative Clean Transit Draft Discussion Proposal**

Dear Mr. Kitowski and Mr. Brasil:

On behalf of the Alameda-Contra Costa Transit District (AC Transit), I want to start by thanking you and your staff for the significant time and attention your division has spent on the development of the Innovative Clean Transit (ICT) rule. As stated in the recently released ICT progress document, AC Transit has been a world leader in the development of hydrogen fuel cell electric buses, and the district remains committed to a zero emission future.

As you are aware AC Transit currently operates 13 hydrogen fuel cell electric buses, with an additional 10 vehicles on order. While vehicle and fuel costs remain a concern, the performance of these vehicles has exceeded expectations. In addition, AC Transit will be receiving 5 battery electric buses. This will enable AC Transit to compare battery and fuel cell vehicles in real world conditions. This will generate the data AC Transit needs to find the most cost effective balance in vehicle technologies.

AC Transit's long history in the development of zero emission bus technology underscores its commitment to transitioning to 100% zero emission buses by 2040. However, AC Transit must point out some fundamental issues with the current discussion draft that must be addressed in order to implement a successful ICT rule.

Our primary concern is imposing a purchase mandate does not recognize logistical and funding constraints. It also interferes with the economics of zero emission bus prices, and creates an incentive for transit operators to scale back vehicle purchases. The purchase mandate does not take into consideration the significant upfront investment and construction required for fueling, charging and maintenance infrastructure that must be in place prior to operating zero emission vehicles.

Transitioning to a zero emission fleet is not impossible, but the rule must provide flexibility to address unique funding and infrastructure constraints of each operator. There must also be a strong commitment from the Legislature and California Air Resource Board (CARB) for a multi-year funding commitment for rebates and infrastructure investments – these funds must be eligible for compliance with the regulations.

AC Transit would support an Innovative Clean Transit Rule that includes the following elements:

- Each operator, either individually or in a local or regional partnership, shall develop and submit a plan to CARB on how that operator will transition its fleet to zero emission by 2040. This would include midterm goals or benchmarks on achieving the 2040 100% zero emission goal. Review and verification of the transition plan benchmarks should be conducted by an independent body. If inadequate progress is being made, as verified by an independent body, then CARB could trigger a purchase mandate for that operator beginning in 2027.
- Centralized collection of fleet and infrastructure reliability. Reliable data is needed to properly plan whether the stated range of a vehicle in year 1 will be similar to the range of the vehicle in year 6 and beyond. Up to this point the transit operators were responsible for the development of zero emission technology. Now that the technology is beginning to mature the regulations should now be expanded to place performance standards on the manufacturers.
- Uniform standards on charging and fueling infrastructure must be in place by the time operators are required to submit transition plans. One of the biggest uncertainties is the scalability of the fueling and charging systems, and the useful life is currently unknown. At our division in Oakland we fuel 200 diesel buses in 10 hours. Cost and feasibility to scale up fueling and charging systems to the capacity of 200 buses in a 10 hours window is also unknown. The lack of standards will inhibit the scalability of these systems.
- Off-ramps are a reality that must be incorporated into the Rule. Economic downturns are inevitable and the need to adjust transition plans in order to maintain service levels should be allowed. In addition, there remain significant vehicle technology constraints, necessitating an off-ramp due to the lack of appropriate zero emission vehicle technology, and there remains uncertainties with scalability and the lack of charging standards.
- A key component in making zero emission technology financially feasible is addressing the uncertainty and volatility of electricity rates. CARB should include as part of the ICT rule a resolution requiring the California Public Utilities Commission to adopt a fixed rate structure for public transit operators. Further, CARB should work with the Governor's office and legislature to ensure a fixed rate structure is in place before mandating transition to a 100% ZEB fleet.

- Consistent with the existing ICT proposal the zero emission buses currently in operation should be credited toward the transition goals.

AC Transit supports the goal of a zero emission fleet, but the fleet size, location, route structure, and funding availability require flexibility in how the zero emission goal is reached by each operator. AC Transit believes these changes would establish a path forward that we can support. We would also like to note that we have been working closely with the California Transit Association and support their proposal for the Rule.

On behalf of AC Transit, thank you for your time invested in this issue. If you have any questions or require more information, please do not hesitate to contact me at (510) 891-4753.

Sincerely,



Michael Hursh  
General Manager

Cc: Senator Nancy Skinner  
Senator Bob Wieckowski  
Assemblyman Tony Thurmond  
Assemblyman Rob Bonta  
Assemblyman Bill Quirk  
Assemblyman Kansen Chu  
Steve Cliff, Deputy Executive Officer, California Air Resources Board  
Yachun Chow, Manager, Zero Emission Bus Truck and Bus Section, California Air Resources Board  
Shirin Barfjani, Air Pollution Specialist, Mobile Source Control Division, California Air Resources Board  
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