

February 12, 2021

The Honorable Kumar Barve  
Chair, House Environment and Transportation Committee  
Room 251, House Office Building  
Annapolis Maryland 21401

***RE: Letter of Information – House Bill 334 – Maryland Transit Administration –  
Conversion to Zero Emission Buses (Zero Emission Bus Transition Act)***

Dear Chairman Barve and Committee Members:

The Maryland Department of Transportation (MDOT) takes no position on House Bill 334 but offers the following information for the Committee's consideration.

House Bill 334 prohibits the MDOT Maryland Transit Administration (MDOT MTA) from entering into a contract to purchase buses for its transit bus fleet that are not zero emission buses, as of fiscal year 2023. The bill also requires MDOT MTA to submit a report by January 1, 2022, and each January 1 thereafter, regarding the conversion of its bus fleet to electric buses.

MDOT MTA appreciates the intent of this bill and remains committed to reducing vehicle emissions from transit vehicles. Zero emission buses are an emerging technology, with approximately 2,500 battery electric buses and 100 hydrogen fuel cell buses manufactured to date. Most deployments in North America are pilots, and the transit industry is testing performance in revenue service and impacts on agency workflows, efficiency, and cost. Zero emission bus technology available today reduces trip range between charges, and current range can support only about 50% of MDOT MTA service. Conversion to a fully zero emission fleet is highly dependent on continued advancement of technology. Furthermore, MDOT MTA buses are occasionally deployed statewide for emergency evacuation or special event needs. It is important to note that the range and fueling limitations of zero emission buses could make certain statewide deployments impossible.

MDOT MTA has two zero emission bus pilots underway and will have the first battery electric buses in revenue service in 2022. The performance of these pilots will indicate whether zero emission buses available for purchase are robust enough for heavy use on many of the state of Maryland's roadways. Based on prior experience with diesel buses, MDOT MTA remains concerned that significant and costly custom upgrades from the manufacturer may be needed. Zero emission bus conversion requires a heavy investment in charging and maintenance infrastructure. MDOT MTA estimates the annual expenses could exceed \$25 million in addition to a one-time investment of \$375 to \$545 million for infrastructure upgrades to transition to a fully zero emission fleet.

The Honorable Kumar Barve  
Page Two

MDOT MTA appreciates that the legislation attempts to exclude Mobility vehicles and locally operated transit vehicles from the zero emission requirements, as zero emission buses are not yet readily available from manufacturers for these vehicle types. In order to clarify and reduce any possible effects of the legislation, MDOT MTA suggests two clarifying amendments: on Page 2, Line 6, striking the word “OR” and replacing it with “AND”. This would remove the accidental negation of the intent to exclude vehicles that carry less than 10 passengers. An additional amendment would be, on Page 3, Line 4, strike “TO A SIGNIFICANT EXTENT” from the definition of a plug-in electric drive vehicle. This would alleviate any uncertainty about which vehicles can be considered plug-in electric drive vehicles.

The Maryland Department of Transportation respectfully requests that the Committee consider this information while deliberating House Bill 334.

Respectfully submitted,

Dave Myers  
Director of Government Affairs  
Maryland Transit Administration  
410-767-0820

Melissa Einhorn  
State Legislative Officer  
Maryland Department of Transportation  
410-865-1102