



January 25, 2018

Fiscal and Management Control Board
Massachusetts Bay Transportation Authority (MBTA)
10 Park Plaza, Boston, MA 02116

Re: Path to Zero Emission Electric Fleet at Massachusetts Bay Transportation Authority (MBTA)

Dear Honorable Members of the Fiscal and Management Control Board,

Thank you for the opportunity to testify in favor of zero emission electric buses at the Fiscal and Management Control Board (FMCB) meeting on December 4, 2017. This letter supplements the written testimony submitted on November 10, 2017 urging MBTA to adopt binding targets to convert to **all zero-emission electric bus purchases by 2030**.

We are pleased that MBTA is developing a roadmap to integrate battery electric buses (BEBs) into the fleet as part of its *'Integrated Fleet and Facilities Plan (IFFP)*. We welcome the nine-month joint DOT–MBTA, 40 ft. battery electric bus feasibility study and pilot in North Cambridge. While we appreciate that the IFFP aims to establish goals and timelines for moving to a zero-emission fleet, we are concerned that this long-term strategy will mean that near term bus procurements, like the replacement of the Neoplan diesel fleet with 194 hybrid buses, will hinder substantial progress in reducing harmful pollution and emissions from the transportation sector. We are also disappointed that the deployment of five 60 ft. electric buses on the Silverline has been further delayed with delivery now expected in late 2018.

Since 2016 MBTA has added [175 compressed natural gas \(CNG\)](#), [194 diesel hybrid buses](#) to its fleet. Taking into account the 194 hybrid buses expected to replace the Neoplan diesel fleet and the 369 buses recently deployed, 563 fossil fuel buses— 56% of the current fleet size—are likely to be in service till 2030. Further, with most of MBTA's fleet approaching its useful life of 12 years¹, additional buses will need to be retired soon, some before results of the BEB feasibility study are available or can be implemented. This means that a significant percentage of MBTA's bus fleet will remain tied to the polluting fossil fuel economy for over a decade. We ask that MBTA consider alternative procurement models, including leasing options for near term bus replacements to accelerate the integration of electric buses into the fleet.

Transportation accounts for the largest share of carbon dioxide emissions in the state². In FY16, the MBTA bus fleet contributed over 25% of Mass DOT GHG emissions. To achieve our commitments under the Global Warming Solutions Act, it is critical that both near and long term investments in fleet replacement and expansion—including the planned [annual procurement of 100 buses](#)—take into account impact on climate, emission levels and public health. While the BEB feasibility study and the DOT review of in-service performance data of electric buses operating in Massachusetts is a step in the right direction, a speedier transition to a zero-emission bus fleet is crucial to reduce transportation related emissions. Here, Volkswagen Settlement funds applied to procure electric buses and charging

¹ <https://d3044s2alrsxog.cloudfront.net/sites/default/files/fmcb-meeting-docs/reports-policies/2017-mbta-strategic-plan.pdf>

² <http://www.mass.gov/eea/air-water-climate-change/climate-change/massachusetts-global-warming-solutions-act/ma-ghg-emission-trends/>

infrastructure will go a long way to bring clean transportation options to residents, especially in underserved and environment justice communities.

We would also like to take this opportunity to provide input on the following questions regarding fleet electrification that were raised during the FMCB meeting.

- ***Reliability of electric buses in cold weather conditions*** – We understand that this is an important consideration before committing to any technology. While we continue to advocate for electric buses in public transit, we also want to make sure that the technology is geared to provide reliable, uninterrupted service to the public. Chicago, Illinois has operated two electric buses since 2014 and recently announced plans to add another [45 electric buses](#) to their fleet. [Duluth, Minnesota](#) which experiences a harsh winter and has hilly terrain will soon be receiving 6 electric buses. The [electric bus feasibility study in Edmonton](#), Canada found that electric buses could operate effectively in winter. Electric buses are also in service in several cities in cold weather [European countries](#) including Switzerland, Poland, and Germany.
- ***Load study to understand impact of fleet electrification on the grid*** – A electric load study will be important to assess potential routes and charging infrastructure requirements for an electric fleet. We have brought this to the attention of Eversource and encourage you to connect with Kevin Boughan, Manager, Research and Business Development, Eversource with questions or for information that you might need. He can be reached at kevin.boughan@eversource.com or 203-297-1610.

We welcome an opportunity to engage further with the different departments at MBTA and DOT to establish a path forward for a zero-emission bus fleet.

Respectfully,



Emily Norton
MA Chapter Director

CC: Honorable Stephanie Pollack, Secretary and Chief Executive Officer of the Department of Transportation
Luis Manuel Ramírez, General Manager and CEO, MBTA
Jeff Gonneville, Deputy General Manager, MBTA
Bill Griffiths, Senior Director Vehicle Fleet Maintenance & Strategy at MBTA