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THE MARYLAND HOUSE OF DELEGATES  
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**Sponsor Testimony in Support of HB696  
Public Utilities-Electric School Bus Pilot Program**

Testimony by Delegate David Fraser-Hidalgo

February 10, 2022- The Economic Matters Committee and The Environment and  
Transportation Committee

There are approximately 7,300 school buses in Maryland. These buses are required to be replaced every 12 to 15 years. HB696 establishes an electric school bus pilot program run by the Public Service Commission that will last a minimum of three years and a maximum of five years, and will authorize eligible electric companies to apply to the Commission to implement the pilot program.

I would like to present four areas in which electric school buses are a better choice than diesel school buses.

**Environmental Benefits:** Transportation is the single largest contributor of greenhouse gas emissions in the United States, making up 29% of all greenhouse gas emissions every year.<sup>i</sup> To break our dependence on fossil fuels and meet our CO2 reduction commitments, we must transition to zero-emission vehicles. If we were to replace all diesel buses in the United States with electric buses, it would cut a staggering 2 million tons of GHG emissions.<sup>ii</sup>

**Health & Welfare of Marylanders:** Greenhouse gas emissions have lasting, and often deadly, consequences on our population's health. According to the Maryland Department of Health, in 2018 there were 29,534 asthma-related emergency department visits in Maryland (52.4 per 10,000 residents); among children under five years old, the ER visit rate was 119.4 per 10,000 residents.<sup>iii</sup> This cost the State \$27.7 billion in healthcare costs.<sup>iv</sup> In 2019, the Maryland Department of Health also reported that chronic lower respiratory diseases, which includes asthma, were the fifth leading cause of death in the State, with a mortality rate of 29.2 per 100,000 residents.<sup>v</sup> A study from 2019 of 869 counties in the U.S. found

that there is a strong correlation between ozone and fine particulate pollution and respiratory ER visits among all age groups.<sup>vi</sup>

**Health & Welfare of Children and Bus Drivers:** Diesel school buses emit aerosol contaminant particles that concentrate around the exterior as well as in the cabin. Our students are subjected to air pollution almost everywhere, but the concentration of contaminants surrounding school buses can be higher because of the diesel fuel they use. Repeated exposure to diesel can lead to decreased lung function, aggravation of asthma, and even development of some types of cancer. This is why the United States Environmental Protection Agency under the Obama Administration pushed to have local school systems limit the amount of idling that their school buses do on a daily basis.<sup>vii</sup> In addition to air pollution, children and bus drivers alike are subjected to high levels of sound pollution, which can lead to hearing loss and other negative health consequences for those who are regularly exposed, according to the National Institutes of Health.<sup>viii</sup> Zero-emission school buses would provide a solution to both of these pollution problems.

**Positive Economic Impact:** Even though the upfront cost of an electric school bus is more than a traditional diesel school bus, there are many factors to look at to measure the economic impact of transitioning to electric school buses. In addition to the reduced maintenance and fuel costs, they can provide stability to the power grid, and produce extra power to store or sell via a Vehicle to Grid system.

Likewise, the electric motor is maintenance free, eliminating downtime and costs associated with maintenance. That means:

- No engine oil changes
- No engine air filter changes
- No VEIP/smog testing
- No spark plugs, glow plugs or coil replacements
- No degradation of the air intake/vacuum system
- No fluid check or change associated with transmission
- Brake pad change interval increases
- Fewer coolant changes needed

As a result, the costs associated with transitioning to electric school buses could actually be far cheaper than those required by diesel school buses in the long-term. According to one study conducted by the US Public Interest Research Group, the lifetime savings in fuel and maintenance costs would be about \$140,000 per school bus.<sup>ix</sup>

In light of these long-term benefits, many states are using mitigation and settlement funds to offset the short-term upfront costs. We are also seeing utility companies

stepping up to the plate. Because Maryland consumes five times as much energy as it produces and it has very limited fossil fuel reserves to tap into, purchasing electricity would keep dollars in Maryland.

The physical, environmental, and economic health of the state and our children are on the line. That is why I have introduced and urge the passage of HB696.

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- i [Fast Facts on Transportation Greenhouse Gas Emissions-](#) US EPA
  - ii [ELECTRIC BUSES IN AMERICA](#) – US PIRG
  - iii [Pages - Asthma \(maryland.gov\)-](#) MD Department of Health
  - iv [Pages - Asthma \(maryland.gov\)-](#) MD Department of Health
  - v [2019Annual.pdf \(maryland.gov\)-](#) MD Department of Health
  - vi [Age-Specific Associations of Ozone and Fine Particulate Matter with Respiratory Emergency Department Visits in the United States | American Journal of Respiratory and Critical Care Medicine \(atsjournals.org\)](#)
  - vii [Why Idle Reduction Matters](#) – EPA
  - viii [Noise Pollution and Impact on Children Health](#) – National Library of Medicine, NIH
  - ix [Paying for Electric Buses Financing Tools for Cities and Agencies to Ditch Diesel](#) – US PIRG