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Environment and Transportation Committee
Chair
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THE MARYLAND HOUSE OF DELEGATES
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Sponsor Testimony in Support of HB832
Public Utilities-Electric School Bus Pilot Program
Testimony by Delegate David Fraser-Hidalgo
February 18, 2021- The Economic Matters Committee

There are just over 7,000 school buses in Maryland. These buses are required to be replaced every 12 to 15 years. HB832 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 three areas in which electric school buses are a better choice than diesel school buses.

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 EPA under the Obama Administration pushed to have local school systems limit the amount of idling that their school buses do on a daily basis.[i] 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 NIH.[ii] Zero-emission school buses would provide a solution to both of these pollution problems.

Environmental Benefits: Transportation is the single largest contributor of greenhouse gas emissions in the United States, making up 28% of all greenhouse gas emissions every year.[iii] 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.[iv] What's more, school buses are on a perfect schedule for electric power because their routes are generally relatively short, which allows them time to charge.

Positive Economic Impact: Even though the upfront cost of an electric school bus is more than a traditional diesel 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 smog check/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 buses in the long-term. According to one study conducted by the US Public Interest Research Group (PIRG), the lifetime savings in fuel and maintenance costs would be about $140,000 per school bus.[v]

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 are on the line. That is why I have introduced and urge the passage of HB832.

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[i] Why Idle Reduction Matters – EPA
[ii] Noise Pollution and Impact on Children Health – National Library of Medicine, NIH
[iii] Carbon Pollution from Transportation – EPA
[iv] ELECTRIC BUSES IN AMERICA – US PIRG
[v] Paying for Electric Buses Financing Tools for Cities and Agencies to Ditch Diesel – US PIRG