



Committee: Ways and Means  
Support HB 1451 School Bus Purchasing – Zero-Emission Vehicle - Requirement  
Hearing Date: March 4, 2020

On behalf of our supporters, Earthjustice writes in support of HB 1451: School Bus Purchasing – Zero-Emission Vehicle. This bill would require county school boards to purchase zero-emissions school buses starting in 2023, and require transportation contracted by county school boards to be zero emissions starting in 2026. Earthjustice applauds Delegates Fraser-Hidalgo, Barve, Charkoudian, Healey, Lierman, Luedtke, Moon and Stein for their leadership on this important issue. Diesel-fueled school buses emit harmful air pollutants known to impact children’s health. Shifting to electric buses eliminates this pollution source and improves air quality. In addition, the economics of electric buses continue to improve, and reports already recognize savings over the total cost of ownership of electric buses compared to diesel. By passing HB 1451, Maryland can become a leader in electric bus adoption, reduce air pollution impacts on children across the state and contribute to the growing electric bus economy.

A 2002 study published by Environment and Human Health, Inc. found that “nearly 600,000 school buses transport 24 million students to school daily.”<sup>1</sup> Most of these buses are diesel-fueled even though diesel is a known pollutant and a probable carcinogen. Diesel combustion leads to emissions of fine particulate matter as well as 40 hazardous air pollutants. Children are particularly susceptible to this pollution because their rate of respiration is higher per unit of bodyweight. Moreover, the Environment and Human Health study found that “children were exposed to airborne particulate concentrations in tested buses that were sometimes 5-15 times higher than background levels of PM2.5.” In other words, the continued use of diesel school buses means we are repeatedly exposing some of our most vulnerable breathers to extremely elevated concentrations of known toxic pollution. By switching from diesel to electric buses, school boards will immediately reduce air emissions from transportation in the state. This reduction in pollution will benefit children’s health as well as local air quality.

A significant barrier to broader adoption of electric buses is the upfront cost. The economics of these buses have improved and early studies have shown the gap in total cost of ownership closing and electric buses becoming increasingly cost competitive. Because they do not have an internal combustion engine, electric buses have fewer maintenance requirements. *Research and Markets* reported in September 2019 that electric buses “offer life cycle-cost advantages” and are “less complicated” leading to easier maintenance.<sup>2</sup> As the Blue Bird bus company writes on its website, “Less parts mean less maintenance.”

A 2018 Bloomberg New Energy Finance (BNEF) report<sup>3</sup> found that “E-buses have much lower operating costs and can already be cheaper on a total cost of ownership basis than conventional buses today.” As battery costs continue to decline these upfront costs will only decline. BNEF noted that battery prices have fallen by 24% since 2016 and 79% since 2010.

Thank you for considering this testimony. We urge the committee to pass this bill.

For information, please contact Jessica Ennis, [jennis@earthjustice.org](mailto:jennis@earthjustice.org), 202-745-5202.

---

<sup>1</sup> <http://www.ehhi.org/reports/diesel/diesel.pdf>

<sup>2</sup> [https://www.researchandmarkets.com/reports/4912399/u-s-electric-bus-market-by-vehicle-type-by?utm\\_source=dynamic&utm\\_medium=Ci&utm\\_code=trnvsz&utm\\_campaign=1348301+-+United+States+Electric+Bus+Market%3a+Size%2c+Share%2c+Development%2c+Growth+and+Demand+Forecast+\(2015-2024\)&utm\\_exec=joca220cid](https://www.researchandmarkets.com/reports/4912399/u-s-electric-bus-market-by-vehicle-type-by?utm_source=dynamic&utm_medium=Ci&utm_code=trnvsz&utm_campaign=1348301+-+United+States+Electric+Bus+Market%3a+Size%2c+Share%2c+Development%2c+Growth+and+Demand+Forecast+(2015-2024)&utm_exec=joca220cid)

<sup>3</sup> [https://c40-production-images.s3.amazonaws.com/other\\_uploads/images/1726\\_BNEF\\_C40\\_Electric\\_buses\\_in\\_cities\\_FINAL\\_APPROVED\\_%282%29.original.pdf?1523363881](https://c40-production-images.s3.amazonaws.com/other_uploads/images/1726_BNEF_C40_Electric_buses_in_cities_FINAL_APPROVED_%282%29.original.pdf?1523363881)