BRIEFING NOTE: Electric School Bus Procurement

Environmental Goals and Climate Change Reduction Act
May 2022

GOALS IN EGCCRA:

- While there is no Electric School Bus Procurement goal in EGCCRA, Electric School Bus procurement supports the following:

- 6: The Government's targets for greenhouse gas emissions reductions are (a) by 2030, to be at least 53% below the levels that were emitted in 2005;

- Additionally, it complements the electric vehicle goals:

- 7 (j): to develop and implement a zero-emission vehicle mandate that ensures, at a minimum, that 30% of new vehicle sales of all light duty and personal vehicles in the Province will be zero-emission vehicles by 2030; (k) to develop and implement supporting initiatives for the goal in clause (j);

RECOMMENDATION:

- The Government of Nova Scotia should mandate that all new school bus purchases after 2025 be zero-emissions, that 75% of all school buses on the road be electric by 2030, and that Nova Scotia's school bus fleet go all-electric by 2035.

ACHIEVING THE GOAL:

- In light of the multiple federal funding and financing programs available, the Government of Nova Scotia has a unique opportunity to lower the upfront costs of ESBs through joint bulk-purchase arrangements while leveraging the Zero Emissions Transit Fund (ZETF) or the Green Infrastructure Stream of the Investing in Canada Infrastructure Plan (GIS ICIP) funding to cover 50 per cent of the upfront purchase costs. ZEFT funding can be stacked with other sources of federal funding, such as the Canada Community Building Fund (CCBF), and can be employed in concert with financing opportunities through the Canada Infrastructure Bank (CIB) to cover up to 100 per cent of upfront project costs.

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ACHIEVING THE GOAL CONTINUED:

- Electrifying school buses in Nova Scotia presents an opportunity for the provincial government to empower students in Nova Scotia to make sustainable choices, and can also be deployed in conjunction with educational resources on sustainable transportation, as exemplified by BC Hydro Power Smart for Schools activities.

- Absent any concrete procurement targets, Nova Scotia risks falling behind other jurisdictions and missing a key opportunity to demonstrate its commitment to achieving its climate goals.

ADDITIONAL INFORMATION:

- The transportation sector represents the second-largest source of emissions in the province, with Nova Scotia's 1,298 diesel school buses producing roughly 23,000 tons of CO2 in 2019.[1]

- With a daily ridership of over 72,000 students per day, school buses in Nova Scotia are an important part of the daily routine of students and parents across the province. The electrification of student transportation in Nova Scotia represents a public-facing initiative that could engage youth, parents and teachers in climate action and demonstrate to Nova Scotians that the province is serious about eliminating GHG emissions across the transportation sector.

- Diesel emissions are widely acknowledged to be detrimental to human health, with children and asthmatics at greater risk for adverse health effects. Diesel emissions cause an estimated 2,200,000 acute respiratory symptom days, 170,000 asthma symptom days and 3,000 child acute bronchitis episodes in Canada every year. Health Canada estimates that air pollution resulting from chemical compounds produced by diesel tailpipe emissions, including nitrogen dioxide (NO2), ground-level ozone, and fine particulate matter (PM2.5), contributes to 270 premature deaths per year in Nova Scotia.

- Provinces are leading in electric school bus adoption in Canada. Last year, Quebec announced a goal of electrifying 65 per cent of school buses in the province by 2030.

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ADDITIONAL INFORMATION CONTINUED:

- PEI's directive to local school boards instructing them to exclusively purchase electric school buses going forward has made the province one of the largest ESB operators in North America, with total school bus fleet electrification anticipated in the next 10 years. British Columbia school boards recently purchased 18 ESBs – the first ever to be produced by US school bus manufacturer Navistar International. In Ontario, roughly 200 ESBs have been ordered by fleet operators, and are expected to begin operation between 2022 and 2026.

- U.S jurisdictions with weather conditions similar to Atlantic Canada have begun to announce mandatory procurement targets for electric school buses. New York State announced a legislated requirement that all new school bus purchases be zero-emission by 2027, and that all buses on the road be electric by 2035. The city of Boston has followed suit, announcing plans to replace its entire fleet with electric school buses by 2030.

- School transportation providers have begun transitioning their fleets to electric. A commitment to fully electrify every school bus in the province by 2035 would send a clear message to contracted service providers that Nova Scotia should be prioritized in terms of electric school bus deployment. Roughly 37 per cent of school buses in Nova Scotia are owned and operated by school transportation providers, including Student Transportation of Canada, which has announced plans to purchase 1,000 electric school buses.

CONTACT:

Thomas Arnason McNeil, Climate Policy Coordinator,
Sustainable Transportation (Electric Vehicles)

Email: thomas.arnasonmcneil@ecologyaction.ca

1. This estimate is based on data from the New Brunswick EECD, which estimates that each diesel bus in New Brunswick emits roughly 18T CO2/year. As the number of kilometres driven by Nova Scotia's school bus fleet in 2019 is nearly identical to New Brunswick, an inference can be made buses in both provinces emit roughly the same amount of CO2 annually.

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