

LEGISLATIVE FISCAL ESTIMATE

[Second Reprint]

SENATE, No. 4077

STATE OF NEW JERSEY  
219th LEGISLATURE

DATED: DECEMBER 14, 2021

SUMMARY

- Synopsis:** Requires DEP to develop and implement electric school bus program; provides for \$15 million in first year and \$15 million annually in subsequent two years to DEP, subject to availability, to provide grants.
- Type of Impact:** Three-year increase in State costs and local revenue; potential annual local cost savings.
- Agencies Affected:** Department of Environmental Protection; New Jersey Economic Development Authority; and New Jersey Board of Public Utilities.

Office of Legislative Services Estimate

| Fiscal Impact                     | <u>Year 1</u>      | <u>Year 2</u>      | <u>Year 3</u>      |
|-----------------------------------|--------------------|--------------------|--------------------|
| State Expenditure Increase        | Up to \$15 million | Up to \$15 million | Up to \$15 million |
| Local Revenue Increase            | Up to \$15 million | Up to \$15 million | Up to \$15 million |
| Potential Net Local Cost Decrease |                    | Indeterminate      |                    |

- The Office of Legislative Services (OLS) finds that this bill will result in an increase in State expenditures of up to \$45 million over three years to fund and administer the program. Participating local school districts will realize the same amount in increased grant revenue to purchase electric buses and electric charging infrastructure, less any monies retained by the Department of Environmental Protection (DEP) to administer the grant.
- The program may also generate an indeterminate amount of net local cost savings throughout the duration of the program and possibly longer. Electric vehicles generally require lower operating and maintenance costs during the life of the vehicle compared to diesel powered ones, but participating school districts will likely incur some upfront costs associated with the program that they otherwise would not have incurred with their current diesel fleet. The magnitude of any savings cannot be accurately stated at this time due to uncertainty about the cost benefits a local school district will realize from the use of electric buses as opposed to conventional diesel buses.

## **BILL DESCRIPTION**

This bill requires the DEP to develop and implement a three-year electric school bus program. The purpose of the program is to determine the operational reliability and cost effectiveness of replacing diesel-powered school buses with electric school buses for daily transportation of students.

The DEP is to award grants to districts or bus contractors selected to participate in the program to purchase or lease electric school buses and to purchase or lease and install electric school bus charging infrastructure. An electric school bus and charging infrastructure vendor purchase or lease arrangement is to include certain provisions as described in the bill. Under the bill, \$45 million is made available for grants provided under the program. The DEP is to provide \$15 million in grants for each year of the three-year program. The DEP may use available monies to provide grants from the following sources: the societal benefits charge revenues and the Global Warming Solutions Fund.

The DEP is to establish a committee, chaired by a representative of the DEP, which also includes a representative of the Board of Public Utilities and the Economic Development Authority. The committee is to meet monthly to review the reports and recommend solutions to any issue raised in a quarterly report submitted by a program participant. The bill requires the submission of reports to the Governor and Legislature within six months following the conclusion of the program.

## **FISCAL ANALYSIS**

### ***EXECUTIVE BRANCH***

None received.

### ***OFFICE OF LEGISLATIVE SERVICES***

The OLS finds that this bill will result in an increase in State costs of up to \$45 million over three years to fund and administer the program. Participating local school districts will realize the same amount in increased grant revenue to purchase electric buses and electric charging infrastructure, less any monies retained by the DEP to administer the grant.

The program may also generate an indeterminate amount of net local cost savings throughout the duration of the program and possibly longer. Electric vehicles generally require lower operating and maintenance costs during the life of the vehicle compared to diesel powered ones, but participating school districts will likely incur some upfront costs associated with the program that they otherwise would not have incurred with their current diesel fleet. These costs may include upgrades to the electric power infrastructure of bus garages, the cost of electric charging equipment, acquiring different vehicle parts and tools, and training bus maintenance personnel to work with different equipment. These costs can vary greatly based on the specific buses chosen, characteristics of the existing garages, and the skill level of current employees. These costs are to be covered under the terms of the grant.

Recent studies have found that the average cost of an electric bus can be between at least two to three times that of a diesel bus. However, purchase costs of electric buses are getting closer to diesel buses at a rapid pace. In terms of related equipment, in 2017, Aspen, Colorado purchased electric bus charging stations at a cost of \$80,000 each and spent \$20,000 for installation costs. It is likely that, assuming each region receives equal allocations of the \$15 million for their respective

districts, those regions will be able to purchase and operate approximately ten to 15 buses depending on the model of electric bus purchased and charging infrastructure.

The local districts in turn will realize lower operating and maintenance costs for those electric vehicles. The magnitude of savings are the subject of the program itself, and the success of the program will hinge on whether the costs to school districts over the projected life of the electric school buses is greater or less than the \$45 million used to purchase and operate the electric buses and related infrastructure.

A 2016 study by Columbia University found the lifecycle cost of maintaining a diesel commuter bus was \$378,000 in fuel and \$420,000 in maintenance costs. An electric bus by comparison costs \$78,000 in electricity and \$252,000 in maintenance. This suggests that electric buses may have a lifecycle operating cost about 59 percent lower than conventional diesel powered buses. Those reduced operating costs will likely mitigate the increase in initial costs, but the magnitude of any savings cannot be determined at the present time due to variability in the factors mentioned above.

The bill requires the DEP to establish a committee to meet at least monthly and review the reports required to be submitted as part of the program. The committee is also required to submit a comprehensive report to the Governor and the Legislature within six months after the conclusion of the program. The bill allows for up to five percent of monies made available to the program to support the administrative costs of the program.

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This legislative fiscal estimate has been produced by the Office of Legislative Services due to the failure of the Executive Branch to respond to our request for a fiscal note.

This fiscal estimate has been prepared pursuant to P.L.1980, c.67 (C.52:13B-6 et seq.).