LEGISLATIVE FISCAL ESTIMATE

[First Reprint]

ASSEMBLY, No. 1971

STATE OF NEW JERSEY
219th LEGISLATURE

DATED: JUNE 24, 2021

SUMMARY

Synopsis: Directs BPU to develop and implement electric school bus pilot program.

Type of Impact: Three-year increase in State costs and local revenue; potential annual local cost savings.

Agencies Affected: Board of Public Utilities, local school districts, Department of Transportation, Department of Education, and the New Jersey Motor Vehicle Commission

Office of Legislative Services Estimate

Fiscal Impact	Year 1	Year 2	Year 3
State Cost Increase		Up to $10 million	
Local Revenue Increase		Up to $10 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 $10 million over three years to fund the cost of the pilot program. Participating local school districts will realize the same amount in increased grant revenue to purchase electric buses and electric charging infrastructure.

- The program may also generate an indeterminate amount of net local cost savings throughout the duration of the pilot 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 pilot 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 Board of Public Utilities (BPU), in consultation with the Department of Transportation, Department of Education, and New Jersey Motor Vehicle Commission, to develop and implement, a three-year Electric School Bus Pilot Program. The purpose of the pilot 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 bill requires the BPU to select at least three school districts or school bus contractors, one from each region of the State, for participation in the pilot program. One of the districts or contractors is to be located in a "low-income, urban, or environmental justice community" as defined pursuant to law.

The BPU is to award grants up to $10 million in total to districts or contractors selected to participate in the pilot program to purchase electric school buses and to purchase and install electric school bus charging infrastructure. The BPU may use available monies to provide grants from three sources of funds, which are the societal benefits charge revenues, the Plug-in Electric Vehicle Incentive Fund, or the Volkswagen Mitigation Trust Fund.

The bill requires the districts or contractors selected to participate in the pilot program to submit periodic reports to the BPU detailing the cost to operate electric school buses and any reliability issues related to the operation of the buses. Lastly, the bill requires the BPU to submit a report with certain information to the Governor and Legislature no later than six months after the completion of the pilot 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 $10 million over three years to fund the cost of the pilot program. Participating local school districts will realize the same amount in increased grant revenue to purchase electric buses and electric charging infrastructure.

The program may also generate an indeterminate amount of net local cost savings throughout the duration of the pilot 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 pilot 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.

Recent studies have found the average cost of an electric bus can be between 50 percent and 100 percent higher than 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 of the three districts receive $3.3 million grants, they will be able to purchase and operate approximately three to eight buses depending on type of vehicle purchased.

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 pilot program itself, and the success of the pilot will hinge on whether the costs to school districts over the projected life of the electric school buses is greater or less than the $10 million used to purchase and operate the electric buses.

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.

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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.).