LEGISLATIVE EDUCATION STUDY COMMITTEE
BILL ANALYSIS
53rd Legislature, 2nd Session, 2018

Bill Number HJM6 **Sponsor** Roybal Caballero, Lopez

Tracking Number .209216.1 **Committee Referrals** HENRC

Short Title VW Settlement Funds for Electric School Buses

Original Date 1/19/18
Analyst Bedeaux **Last Updated** 1/29/18

BILL SUMMARY

Synopsis of Joint Memorial

HJM6 requests the governor to direct the use of the Volkswagen trust settlement fund for the purchase of electric school buses.

FISCAL IMPACT

Joint memorials do not carry the binding force of law. The memorial requests the governor to direct the agency responsible for distributing Volkswagen settlement funds to use an expected $18 million to purchase electric school buses. The receipt of these funds is contingent on New Mexico being named a beneficiary by the trustee.

The responsible agency will likely be the New Mexico Environment Department (NMED), which submitted New Mexico's application for beneficiary status to the designated trustee in the settlement. NMED may choose to distribute these funds to the Public Education Department (PED) to purchase electric school buses, given that PED has traditionally been responsible for the acquisition of school buses.

SUBSTANTIVE ISSUES

Volkswagen Lawsuit. In 2015, a class action lawsuit was filed against Volkswagen alleging the company's clean diesel engines contained devices designed to bypass emissions standards. In 2017, Volkswagen settled for $2.7 billion. The Volkswagen Environmental Mitigation Trust was established October 2, 2017 with Wilmington Trust, N.A. as the acting trustee. NMED filed New Mexico's application for beneficiary status on November 29, 2017. Wilmington Trust is expected to publish the final list of beneficiaries by January 31, 2018.

According to the settlement agreement, New Mexico is eligible to receive approximately $18 million to implement projects that reduce nitrogen oxide emissions from vehicles. The terms of the settlement allow for the funds to be used to purchase school buses, among several other types of vehicles. NMED published a webpage on which members of the public can review current

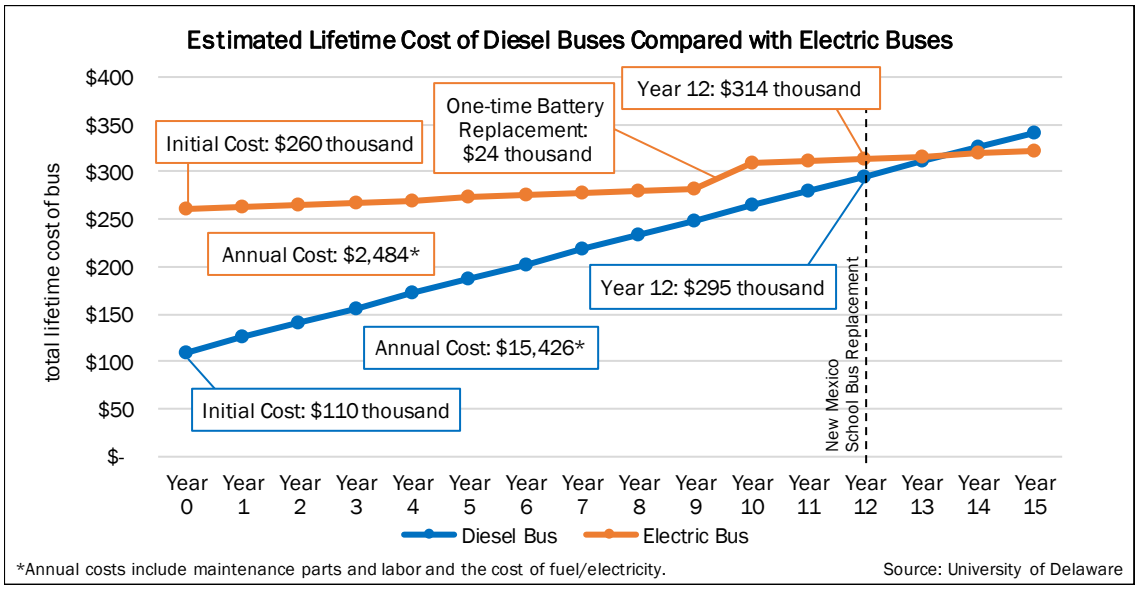
projects under the settlement, see the times of public meetings as they are scheduled, and submit proposals for the use of the Volkswagen funds. Currently, these elements of the webpage are listed as "under construction."

Costs and Benefits of Electric School Buses. PED replaces school buses owned by school districts and school bus contractors on a 12-year schedule. Due to budget shortfalls, PED is behind in replacing school district-owned buses. In FY19, PED requested $27.1 million to replace 315 school district-owned buses purchased in 2005, 2006, and 2007.

A 2014 study by Lance Noel and Regina McCormack for the University of Delaware performs a cost-benefit analysis of using electric school buses compared with traditional diesel school buses. The study examined the cost of a Smith Newton eTrans electric school bus equipped with an on-board charger. The eTrans with a charger had an estimated cost of $260 thousand per bus, compared with a traditional diesel Type C school bus, which costs close to $110 thousand according to the U.S. Department of Transportation. The $18 million in settlement funds could purchase approximately 69 electric school buses.

The high initial cost of electric buses is offset by much lower annual maintenance and operational costs. Noel and McCormack note electric school buses have a much simpler drive system with fewer moving parts than a diesel engine. Additionally, the cost of charging an electric bus battery is much lower than the cost of diesel fuel. At about year nine, electric school buses need a one-time battery replacement, an estimated cost of $24 thousand.

In their study, Noel and McCormack assume that a school bus will travel 50 miles per day, or about 8,850 miles per year, in the Red Clay Consolidated School District, the largest school district in Delaware, which includes mostly urban and suburban driving conditions. Based on these assumptions, at the end of a 12-year period, an electric bus will have cost approximately $314 thousand, where a diesel bus will have cost approximately $295 thousand. Electric buses become more cost effective than diesel buses in years 14 and beyond.



Electric school buses become more efficient and cost effective when used in a vehicle-to-grid (V2G) system. V2G systems are new systems designed to use the energy stored in the batteries of vehicles that are parked and plugged in. Electricity flows freely in and out of parked vehicles, allowing electric vehicle batteries to generate power on the grid. Noel and McCormack estimate

that a single V2G-capable school bus parked for 18 hours per day would generate energy revenue of approximately $15 thousand per year. V2G systems are still in early development and have not been implemented in New Mexico.

Electric vehicles would significantly reduce carbon emissions. According to the Environmental Protection Agency, a diesel bus emits about 22 pounds of carbon through its tailpipe for each gallon of diesel consumed, over 30 thousand pounds per year for a bus that travels 8,850 miles. Electric buses have no direct emissions, but have indirect emissions from the use of electricity generated by coal or natural gas. Noel and McCormack estimate the average emissions rate to be 1.18 pounds of carbon per kilowatt-hour, which equates to roughly 7,800 pounds of carbon per year for an electric bus that travels 8,850 miles. These emissions would be reduced if the state pursued the development of V2G systems and capable buses.

ADMINISTRATIVE IMPLICATIONS

As the lead agency listed on New Mexico's beneficiary application, NMED would receive the funds if New Mexico is held as a beneficiary by the trustee. The agency would need to be granted budget authority by the Legislature to be able to spend the funds, either through an appropriation or budget adjustment request language.

Traditionally, the acquisition of school buses is handled by PED. If the governor directs NMED to spend the funds on electric school buses, NMED and PED would need to coordinate to ensure appropriate oversight and administration of the funds.

ALTERNATIVES

The Legislature may wish to consider enacting a bill that appropriates $18 million to NMED for the purchase of electric school buses. The appropriation would need to be contingent on the receipt of funds from the Volkswagen settlement.

RELATED BILLS

Related to HB86, School Bus Replacement & Contracts, which would increase the statutory school bus replacement cycle from 12 years to 15 years, or 300 thousand miles, whichever occurs first.

Related to *SB94, General Obligation Bond Projects, which proposes a general obligation bond totaling $2 million for the purchase of school buses.

Related to HJM15, VW Settlement Funds for Electric Vehicles, which requests agencies to use 15 percent of the settlement funds to deploy a light-duty zero emission vehicle charging network.

SOURCES OF INFORMATION

- LESC Files

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