

Department of Legislative Services
 Maryland General Assembly
 2020 Session

FISCAL AND POLICY NOTE
 First Reader

House Bill 1233 (Delegate Fraser-Hidalgo, *et al.*)
 Environment and Transportation

State Vehicle Fleet - Conversion to Zero-Emission Electric Vehicles

This bill prohibits the State, beginning in fiscal 2022, from entering into a contract to purchase or lease vehicles for the State vehicle fleet that are not zero-emission electric vehicles.

Fiscal Summary

State Effect: No effect in FY 2021. General fund, Transportation Trust Fund, and other special fund expenditures increase by \$3.72 million in FY 2022 to purchase zero-emission vehicles, which takes into consideration fuel savings and the cost of additional electric vehicle charging stations. Any increase in State utility costs is not included. Costs may be substantially higher if the bill applies to vehicle classes other than standard sedans. Out-year costs reflect cumulative fuel savings from a growing number of electric vehicles in the fleet. No effect on revenues.

(\$ in millions)	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Revenues	\$0	\$0	\$0	\$0	\$0
GF/SF Exp.	0	3.72	3.41	3.10	2.79
Net Effect	\$0.00	(\$3.72)	(\$3.41)	(\$3.10)	(\$2.79)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate increase; (-) = indeterminate decrease

Local Effect: None.

Small Business Effect: None.

Analysis

Current Law: “Zero-emission vehicle” is not defined by the bill, nor is it defined in the State Finance and Procurement Article. However, only for purposes related to the Vehicle Emissions Inspection Program, the Transportation Article defines a “zero-emission vehicle” as (1) any vehicle that the Secretary of Transportation determines to be of a type that does not produce any tailpipe or evaporative emissions and (2) has not been altered from the manufacturer’s original specifications. The Secretary must adopt regulations that specify which vehicles are zero-emission, but the relevant regulations include no such specification beyond the statutory definition.

The Department of General Services (DGS) purchases vehicles for the State based on standards developed by the Department of Budget and Management (DBM) and approved by the Board of Public Works. DBM administers the State vehicle fleet. The standards developed by DBM must, as far as practicable and feasible, be based on the lowest possible life-cycle cost of the vehicle.

Background: DGS procures and negotiates blanket purchase orders (BPOs) from which agencies can purchase cars for State use. The current BPOs include pricing for standard sedans and standard all-electric sedans. They also include pricing for light-duty pickup trucks, cargo vans, and sport utility vehicles (SUVs), but there is no all-electric option for any vehicle type other than standard sedans. The Department of Public Safety and Correctional Services (DPSCS) notes that, currently, only luxury vehicle manufacturers are producing all-electric SUVs, which are generally cost prohibitive and, therefore, not included in the State BPOs. There is also no all-electric option for law enforcement vehicles.

The State also has a BPO for the purchase and installation of electric vehicle charging stations. The costs for a single charging station range from \$1,225 to \$3,958 depending on the type and location, and the costs for a dual charging station range from \$2,903 to \$6,087.

DBM indicates that it has five zero-emission electric vehicles in the State fleet, with five more currently on order.

State Fiscal Effect:

Vehicle Purchases and Related Fuel Savings

For fiscal 2020, the BPO price for a standard sedan is \$17,590, and the price for an all-electric standard sedan is \$28,194, a price differential of \$10,604. This analysis assumes that this price differential remains constant in future years.

Based on annual driving distances of 12,000 miles at 30 miles per gallon and an average gasoline price of \$2.50 per gallon, the State spends approximately \$1,000 on gasoline for a standard sedan each year. Beginning in fiscal 2022 and each year thereafter, the State saves about \$1,000 in fuel costs for each zero-emission vehicle in the fleet. This estimate does not account for any increased electric utility costs related to charging electric vehicles.

DBM advises that the State vehicle fleet consists of approximately 9,075 vehicles, including law enforcement vehicles. DBM further advises that the State purchases about 750 new vehicles each year, and the Maryland Department of Transportation (MDOT) advises that about 41% of those purchases are for sedans. As all-electric options for other vehicle types are not available for purchase under State BPOs, this analysis further assumes that purchases for other vehicle types are not affected. **Exhibit 1** summarizes the State fiscal effect on general and special funds, based on annual purchases of 307 sedans (41% of 750 annual purchases). If the bill is interpreted to require purchase of all electric vehicles in other vehicle classes, the fiscal effect is substantially higher given the much higher price premium for all-electric SUVs, trucks, and cargo vans.

Exhibit 1
Net Fiscal Effect of Purchasing Zero-emission Vehicles

<u>Year of Purchase</u>	<u>ZEVs Purchased</u>	<u>Price Differential</u>	<u>Cumulative Fuel Savings</u>	<u>Net Fiscal Effect</u>
FY 2022	307	\$3,255,428	\$307,000	\$2,948,428
FY 2023	307	3,255,428	614,000	2,641,428
FY 2024	307	3,255,428	921,000	2,334,428
FY 2025	307	3,255,428	1,228,000	2,027,428
FY 2026	307	\$3,255,428	\$1,535,000	\$1,720,428

ZEV: zero-emission vehicle

Source: Department of Budget and Management; Department of Legislative Services

Electric Vehicle Charging Stations

State facilities will need to add charging stations to accommodate the substantial increase in electric vehicles purchased each year. As charging typically happens overnight, vehicles cannot share charging stations. Thus, this analysis assumes that charging stations for 307 new vehicles are added each year to facilities throughout the State. Assuming that parking facilities can accommodate that rate of growth and that dual access stations are used, this analysis assumes an average cost of \$5,000 per station, for an annual cost of

\$767,500 beginning in fiscal 2022. The need for new stations is mitigated in the future, however, this analysis assumes that additional stations continue to be needed for the period covered by this fiscal and policy note. As noted above, this analysis does not include any potential increase in State utility costs as a result of converting to all-electric vehicles.

Additional Comments: DBM advises that the driving range for electric vehicles is not comparable to that of gasoline or hybrid vehicles and, therefore, may affect or limit the ability of State employees who drive long distances to conduct their official business. Similarly, DPSCS indicates that the driving range for electric vehicles does not conform to the long distances driven and 24/7 requirements of its vehicle fleet.

MDOT notes that the bill is unclear in its application to vehicles that are not typically considered part of the State's vehicle fleet (such as buses). If the bill is interpreted to apply to buses and other commercial or industrial vehicles for which all-electric options are either not available or significantly more expensive than gas-powered vehicles, the bill's fiscal effect is likely even greater.

Additional Information

Prior Introductions: None.

Designated Cross File: None.

Information Source(s): Department of Budget and Management; Department of General Services; Department of Public Safety and Correctional Services; Maryland Department of Transportation; Department of Legislative Services

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