

**Department of Legislative Services**  
 Maryland General Assembly  
 2021 Session

**FISCAL AND POLICY NOTE**  
**Third Reader - Revised**

House Bill 592 (Delegate Fraser-Hidalgo)  
 Environment and Transportation

**State Vehicle Fleet - Conversion to Zero-Emission Passenger Cars and Other Light-Duty Vehicles**

This bill establishes the intent of the General Assembly that 100% of both passenger cars and other light-duty vehicles in the State vehicle fleet be zero-emission vehicles (ZEVs) by 2030 and 2035, respectively. The bill does not apply to the purchase of vehicles (1) that have special performance requirements necessary for the protection and welfare of the public or (2) for paratransit service.

**Fiscal Summary**

**State Effect:** General fund, Transportation Trust Fund, and other special fund expenditures increase by \$1.34 million in FY 2022 to purchase ZEVs, which takes into consideration fuel savings and the cost of additional electric vehicle charging stations. Any increase in State utility costs is not included. Out-year costs reflect cumulative fuel savings from a growing number of electric vehicles in the fleet. Thus, costs increase to approximately \$2.44 million beginning in FY 2025, primarily due to the bill’s requirements to accelerate the purchase of ZEVs in that year. The Department of General Services (DGS) can complete the required annual reports with existing resources. No effect on revenues.

(in dollars)	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026
Revenues	\$0	\$0	\$0	\$0	\$0
GF/SF Exp.	1,338,800	1,260,800	1,182,800	2,443,700	2,287,700
Net Effect	(\$1,338,800)	(\$1,260,800)	(\$1,182,800)	(\$2,443,700)	(\$2,287,700)

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

**Local Effect:** None.

**Small Business Effect:** None.

## Analysis

**Bill Summary:** The bill defines “light-duty vehicle” as a vehicle with a gross weight of 8,500 pounds or less.

Subject to the availability of funding, the State must ensure that:

- in fiscal 2022 through 2024, inclusive, at least 25% of passenger cars purchased for the State fleet are ZEVs;
- in fiscal 2025 and 2026, at least 50% of passenger cars purchased for the State fleet are ZEVs;
- beginning in fiscal 2027, 100% of passenger cars purchased for the State fleet are ZEVs;
- in fiscal 2027 through 2029, inclusive, at least 25% of all other light-duty vehicles purchased for the State fleet are ZEVs;
- in fiscal 2030 and 2031, 50% of all other light-duty vehicles purchased for the State fleet are ZEVs; and
- beginning in fiscal 2032, 100% of all other light-duty vehicles purchased for the State fleet are ZEVs.

DGS must ensure the development of charging infrastructure to support the operation of zero-emission vehicles in the State fleet. By December 1 of each year, the Chief Procurement Officer (CPO) within DGS must report to the General Assembly on the implementation of the bill. Each State agency must cooperate with CPO in the collection and reporting of the information required for the annual reports.

**Current Law:** 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.

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.

**State Expenditures:** 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). DBM advises that, although there are ZEV options available for models other than standard sedans, these options are not successful in the State's contracting process because of their high purchase price and resultant life-cycle costs. Thus, ZEV options are not available for purchase under a State BPO for any model type other than a standard compact sedan. The Department of Public Safety and Correctional Services has previously noted that luxury vehicle manufacturers are industry leaders in producing all-electric SUVs, which are generally cost prohibitive and, therefore, not included in the State BPOs.

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 \$1,185 to \$3,958 depending on the type and location, and the costs for a dual charging station range from \$2,903 to \$6,486. DGS advises that, with installation costs included, a dual charging station can cost between \$10,000 and \$15,000.

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

#### *Vehicle Purchases and Related Fuel Savings*

This analysis is based on the pricing of compact sedans as that is the only body type and size for which ZEVs are available for purchase under BPOs. Based on the most recent BPO pricing available, the price of a standard compact sedan is \$18,200, and the average price for an all-electric standard compact sedan is \$32,091, a price differential of \$13,891. This analysis assumes that this price differential remains constant in future years and applies to all other light-duty and passenger vehicles.

Based on annual driving distances of 12,000 miles at 30 miles per gallon and an average gasoline price of \$2.60 per gallon, the State spends approximately \$1,040 on gasoline for a standard compact sedan each year. Beginning in fiscal 2022 and each year thereafter, the State saves about \$1,040 in fuel costs for each ZEV in the fleet. This estimate does not account for any increased electric utility costs related to charging electric vehicles. Fuel costs, and therefore fuel savings, are slightly higher for larger vehicles, but the marginal savings are not reflected in this analysis.

DBM advises that the State vehicle fleet consists of approximately 9,121 vehicles, including law enforcement vehicles; of those, 6,556 are light-duty vehicles. DBM further advises that the State purchased 238 new vehicles in fiscal 2021; this figure is lower than in previous years, when DBM advised that it purchases about 750 new vehicles each year, including gas-powered, alternative-fuel vehicles, and hybrid vehicles (gas-powered vehicles are typically more than half of all vehicles purchased). DBM advises that funding for new vehicle purchases was frozen for the latter part of the fiscal year due to the

COVID-19 pandemic; this analysis assumes that vehicle purchases will resume at previous levels beginning in fiscal 2022. It is further assumed that, based on prior estimates, about 40% of vehicles purchased are standard sedans.

This analysis extends only through fiscal 2026. For fiscal 2022 through 2024, the bill requires that 25% of passenger cars purchased be ZEVs; the percentage increases to 50% for fiscal 2025 and 2026. Based on the assumptions that the State purchases 750 vehicles each year and that 40% of them (300) are passenger sedans, the bill applies to the purchase of 75 sedans in fiscal 2022 through 2024 and 150 sedans in fiscal 2025 and 2026. **Exhibit 1** summarizes the State fiscal effect on general and special funds, based on annual purchases of 75 or 150 sedans (as appropriate).

**Exhibit 1**  
**Net Fiscal Effect of Purchasing Zero-emission Vehicles**

<b><u>Year of Purchase</u></b>	<b><u>ZEVs Purchased</u></b>	<b><u>Price Differential</u></b>	<b><u>Cumulative Fuel Savings</u></b>	<b><u>Net Fiscal Effect</u></b>
FY 2022	75	\$1,041,825	\$78,000	\$963,825
FY 2023	75	1,041,825	156,000	885,825
FY 2024	75	1,041,825	234,000	807,825
FY 2025	150	2,083,650	390,000	1,693,650
FY 2026	150	2,083,650	546,000	1,537,650

ZEV: zero-emission vehicle

Note: Costs for electric vehicle charging stations are not included above.

Source: Department of Budget and Management; Department of General Services; 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 75 new vehicles are added throughout the State in fiscal 2022 through 2024 and for 150 vehicles in fiscal 2025 and 2026. Assuming that parking facilities can accommodate that rate of growth and that dual access stations are used, this analysis assumes an average cost of \$10,000 per station (with installation), for an annual cost of \$375,000 beginning in fiscal 2022, increasing to \$750,000 in fiscal 2025 and 2026. 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 because the current fleet is not completely replaced by ZEVs during that time period. As noted above, this analysis does not include any potential increase in State utility costs as a result of converting to all-electric vehicles.

Costs increase further in fiscal 2027 due to the requirements to purchase zero-emission SUVs and light-duty trucks. However, those costs are not reflected in this analysis.

**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 (until rapid charging stations become more prevalent in the State).

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### **Additional Information**

**Prior Introductions:** HB 1233 of 2020 received a hearing in the House Environment and Transportation Committee, but no further action was taken on the bill.

**Designated Cross File:** None.

**Information Source(s):** Department of Budget and Management; Department of General Services; Department of Public Safety and Correctional Services; Board of Public Works; Department of State Police; Department of Legislative Services

**Fiscal Note History:** First Reader - February 10, 2021  
rh/ljm Third Reader - May 3, 2021  
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