

**Department of Legislative Services**  
 Maryland General Assembly  
 2022 Session

**FISCAL AND POLICY NOTE**  
**Third Reader**

House Bill 94 (Delegate Fraser-Hidalgo, *et al.*)  
 Environment and Transportation

Budget and Taxation

**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 passenger cars and other light-duty vehicles in the State vehicle fleet be zero-emission vehicles (ZEVs) by 2031 and 2036, 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 \$4.24 million in FY 2023 to purchase ZEVs, which takes into account fuel savings and the cost of additional electric vehicle charging stations. Any increase in State utility costs is not included. Costs increase to approximately \$7.8 million beginning in FY 2026, primarily due to the bill’s requirements to accelerate the purchase of ZEVs in that year. General fund expenditures for the Department of General Services (DGS) increase by \$306,900 in FY 2023 to manage the installation of vehicle charging stations; out-year costs reflect annualization and ongoing operating costs. Reimbursable revenues for DGS decline beginning in FY 2023 from reduced fuel sales to State agencies.

(\$ in millions)	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027
ReimB. Rev.	(-)	(-)	(-)	(-)	(-)
GF Expenditure	\$0.31	\$0.37	\$0.38	\$0.39	\$0.40
GF/SF Exp.	4.24	4.00	3.77	7.80	7.33
Net Effect	(\$4.54)	(\$4.37)	(\$4.15)	(\$8.18)	(\$7.73)

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

**Local Effect:** Local government finances are not materially affected in the short term.

**Small Business Effect:** Potential minimal.

## 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 2023 through 2025, inclusive, at least 25% of passenger cars purchased for the State fleet are ZEVs;
- in fiscal 2026 and 2027, at least 50% of passenger cars purchased for the State fleet are ZEVs;
- beginning in fiscal 2028, 100% of passenger cars purchased for the State fleet are ZEVs;
- in fiscal 2028 through 2030, inclusive, at least 25% of all other light-duty vehicles purchased for the State fleet are ZEVs;
- in fiscal 2031 and 2032, 50% of all other light-duty vehicles purchased for the State fleet are ZEVs; and
- beginning in fiscal 2033, 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 ZEVs 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 Revenues:** The Statewide Fuel Program administered by DGS generates approximately \$800,000 annually in reimbursable and other funds from a per-gallon fee associated with the sale of fuel at approximately 100 State fueling stations. Depending on

the pace with which fuel-powered vehicles are replaced with ZEVs, DGS will experience lost reimbursable revenue that is used by the Inventory Standards and Support Services Division for operating expenses. A reliable estimate of the lost revenue is not feasible, but the amount may be significant over time as State agencies purchase less fuel. Lost revenue may need to be backfilled with general funds in the out-years, but any such effect is not reflected in this analysis.

**State Expenditures:** DGS procures and negotiates blanket purchase orders (BPOs) from which agencies 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 car manufacturers have 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.

A Level 2 charging station generally costs less than \$1,000, but DGS advises that, with site preparation costs, enhanced electrical transmission requirements for multiple ports, and other installation costs, a Level 2 charging station can cost up to \$10,000 per port to install. Although DGS believes that two cars can share one port, electric vehicles typically must charge overnight, requiring each car to have its own port. Therefore, this analysis assumes that the State builds one charging port for each ZEV vehicle purchased (which is current DGS practice).

DBM indicates that, during fiscal 2021, the State fleet had 9 ZEV electric vehicles, with 40 more purchased during the year.

#### *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 by State agencies using 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 \$3.10 per gallon, the State spends approximately \$1,240 on gasoline for a standard compact sedan each year. Beginning in fiscal 2023 and each year thereafter, the State, therefore, saves about \$1,240 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, in fiscal 2021, the State vehicle fleet included 5,572 light-duty vehicles (including 49 ZEVs). DBM further advises that the State purchased 361 new vehicles in fiscal 2021; this figure is higher than the 238 vehicles purchased in fiscal 2020, but still lower than in previous years (prior to the COVID-19 pandemic), when DBM advised that it purchased about 750 new vehicles each year. This analysis assumes that vehicle purchases will resume at previous levels beginning in fiscal 2023, in large part because that is the level of new purchases necessary to achieve the bill’s goals of replacing more than 5,500 non-ZEVs by fiscal 2036, based on the pacing requirements in the bill.

This analysis extends only through fiscal 2027. For fiscal 2023 through 2025, the bill requires that 25% of passenger cars purchased be ZEVs; the percentage increases to 50% for fiscal 2026 and 2027. Based on the assumptions that the State purchases 750 vehicles each year, the bill, therefore, applies to the purchase of 187 light-duty vehicles in fiscal 2023 through 2025 (25%) and 375 vehicles in fiscal 2026 and 2027 (50%). **Exhibit 1** summarizes the State fiscal effect on general and special funds, based on annual purchases of light-duty vehicles.

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**Exhibit 1**  
**Net Fiscal Effect of Purchasing Zero-emission Vehicles**  
**FY 2023-2027**

<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 2023	187	\$2,597,711	\$231,880	\$2,365,831
FY 2024	187	2,597,711	463,760	2,133,951
FY 2025	187	2,597,711	695,640	1,902,071
FY 2026	375	5,209,313	1,160,640	4,048,673
FY 2027	375	5,209,313	1,625,640	3,583,673

ZEVs: 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

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### *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 187 new vehicles are added throughout the State in each of fiscal 2023 through 2025 and for 375 vehicles in each of fiscal 2026 and 2027. Assuming that parking facilities can accommodate that rate of growth, this analysis assumes an average cost of \$10,000 per station (with installation), for an annual cost of \$1.9 million beginning in fiscal 2023, increasing to \$3.8 million 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 2028 due to the requirements to purchase zero-emission SUVs and light-duty trucks. However, those costs are not reflected in this analysis.

### *Staffing*

DGS advises that it needs six new positions to oversee and manage the installation and operation of several thousand vehicle charging stations throughout the State. The Department of Legislative Services concurs that additional staff are necessary for an endeavor of that size but believes that only four additional staff are necessary.

Therefore, general fund expenditures increase by \$306,930 in fiscal 2023, which accounts for the bill's October 1, 2022 effective date. This estimate reflects the cost of hiring two engineers/project managers, one account manager, and one procurement administrator. The engineers will develop electrical designs and project scopes for the installation of charging stations; the account manager will institute centralized invoicing and payment processes to track charging station payments; and the procurement administrator will manage the procurement of contractors to install the charging stations. The estimate includes salaries, fringe benefits, one-time start-up costs, and ongoing operating expenses.

Positions	4.0
Salaries and Fringe Benefits	\$258,808
Automobile Operations for Site Visits	18,750
Other Operating Expenses	<u>29,372</u>
<b>FY 2023 State Personnel Expenditures</b>	<b>\$306,930</b>

Future year expenditures reflect full salaries with annual increases and employee turnover as well as annual increases in ongoing operating expenses.

### *Fuel Station Decommissioning*

As the number of the State's fuel-powered vehicles decreases dramatically over time, DGS advises that it may need to decommission some of the approximately 100 fueling stations it maintains throughout the State. These fueling stations also serve local governments and nonprofit organizations, as well as some heavy-duty State vehicles that remain fuel-powered. Therefore, it is unlikely that all stations will be decommissioned. Moreover, given the slow pace of vehicle conversion in the early years, it is unlikely that any stations will be decommissioned during the five years covered by this fiscal and policy note. Thus, any costs associated with decommissioning of fuel stations, which DGS estimates to be \$250,000 per station, is not reflected in this analysis. However, there may be substantial costs associated with decommissioning in the out-years.

**Additional Comments:** The fiscal effect of this bill is substantially greater than that for the version of House Bill 592 of 2021 that passed the House, which was identical to this bill. There are two main reasons for the increase in State expenditures. The first and most consequential reason is that for this bill, DBM provided a more precise count of the number of light-duty vehicles that need to be replaced within the timeframe established by the bill, which proved to be higher than the estimate used for House Bill 592. The second reason is the additional staffing required by DGS to oversee the installation of an extensive electric vehicle charging infrastructure, which was not reflected in fiscal analyses for House Bill 592.

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## **Additional Information**

**Prior Introductions:** HB 592 of 2021, which was amended to be identical to this bill, passed the House, but no further action was taken. HB 1233 of 2020, a similar bill, received a hearing from the House Environment and Transportation Committee, but no further action was taken.

**Designated Cross File:** None.

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

**Fiscal Note History:** First Reader - January 18, 2022  
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