Department of Legislative Services

Maryland General Assembly
2019 Session

FISCAL AND POLICY NOTE
First Reader

Senate Bill 987 (Senator Lam)
Judicial Proceedings

Public Safety - Building Codes - Electric Vehicle Charging Infrastructure

This bill requires specified new buildings in the State that include the creation of 20 or more parking spaces to install "electric vehicle charging infrastructure," as defined by the bill, for 5% of all parking spaces. It also requires electrical rooms in new buildings to accommodate the bill's requirements.

Fiscal Summary

State Effect: Any increase in State construction costs is anticipated to be minimal and absorbed within existing resources. Revenues are not affected.

Local Effect: The bill's requirements can likely be handled with existing local resources. Revenues are not affected.

Small Business Effect: Minimal.

Analysis

Bill Summary: The bill defines "electric vehicle charging infrastructure" (EVCI) as equipment that transfers electrical energy to a battery or other energy storage device in an electric vehicle.

The bill applies to the construction of a new building serving as (1) a business occupancy; (2) a hotel; (3) a motel; or (4) a residential occupancy, as specified, including apartment units and assisted living facilities.

An electrical room of a new building must be designed to accommodate electrical and distribution equipment required to serve at least 20% of the total parking spaces with EVCI meeting specified criteria. The installation of EVCI must (1) provide the minimum number of 208/240 V 40-amp electric vehicle charging stations that serve the designated parking spaces or (2) provide (a) additional service capacity, including space for future meters, panel capacity, or space for additional panels and raceways for future installation of EVCIs meeting specified criteria and (b) a raceway that terminates at accessible electric vehicle parking spaces. The bill establishes requirements relating to raceways and future raceways.

If EVCI is required, each accessible electric vehicle parking space must be serviced by EVCI. The EVCI may also serve an adjacent parking space not designated as accessible electric vehicle parking.

Although not defined in the bill or statute, a "raceway" is an enclosed conduit that forms a physical pathway for electrical wiring.

Current Law/Background: According to the U.S. Department of Energy, as of February 2019, Maryland had 554 public electric vehicle charging stations and 1,504 charging outlets, which ranks twelfth in the United States in terms of the number of charging stations per state.

Sales of Plug-in Vehicles

Plug-in vehicles, which include hybrid-electric vehicles (*e.g.*, the Chevrolet Volt) and vehicles without gasoline-powered motors (*e.g.*, the Nissan Leaf and Tesla), have experienced a recent resurgence in popularity that has led to commercialization of more than two dozen vehicle models from major manufacturers. Although plug-in electric vehicles represent a small percentage of total vehicle sales, the rate of growth in sales for these vehicles has generally been significant.

The Maryland Clean Cars Act of 2007, requires Maryland to adopt a Zero Emissions Vehicle program applicable to vehicles beginning in model year 2011. State regulations require manufacturers to comply with California Zero Emission Vehicle Requirements, which generally rely on the use of a system of credits to ensure that a sufficient number of low- and zero-emission vehicles are sold.

According to data from the Motor Vehicle Administration and the Maryland Electric Vehicle Infrastructure Council (EVIC), only 1 plug-in electric vehicle was registered in Maryland in fiscal 2010, 72 plug-in electric vehicles were registered in fiscal 2011, and 2,597 plug-in electric vehicles were registered in fiscal 2012. Although the number of new registrations for plug-in electric vehicles dropped sharply in fiscal 2013 (with 2,727 total registered electric vehicles), a sharp increase occurred once again in fiscal 2014 and the

first half of fiscal 2015. According to EVIC data, in fiscal 2017, the most recent year for which data is available, there were 5,624 plug-in electric vehicles registered in Maryland.

Implementation of Maryland Electric Vehicle Infrastructure Council Recommendations

Chapters 400 and 401 of 2011 established EVIC and required it to develop a plan to expand the adoption of electric vehicles and develop an infrastructure charging network. In its final report issued in December 2012, the council issued several recommendations, including (1) extending EVIC through June 2015; (2) increasing the amount of zero-emission State fleet vehicle purchases to 10% by 2020 and at least 25% by 2025; (3) establishing a grant program for electric vehicle support equipment installation and procurement of transaction management software for multiunit dwellings; and (4) extending the recharging equipment tax credit through December 2016, and the qualified electric vehicle excise tax credit to July 1, 2016.

To implement EVIC's recommendations, Chapters 64 and 65 of 2013 extended EVIC through June 2015. Further, Chapters 359 and 360 of 2014 extended the termination date of the tax credit program through fiscal 2017, altered the value of the tax credits, and replaced the electric vehicle recharging equipment income tax credit with a rebate program. Chapter 378 of 2015 subsequently extended EVIC to June 30, 2020, and shifted the reporting deadline to December 1 of each year, with a final report due June 30, 2020.

Chapter 734 of 2016 extended the authorization of plug-in electric vehicles to use high-occupancy vehicle (HOV) lanes regardless of the number of passengers through September 30, 2018, and allowed qualified hybrid vehicles to use HOV lanes through September 30, 2018. Chapters 678 and 679 of 2018 extended both authorizations through September 30, 2022.

The January 1, 2015, EVIC interim report contained two recommendations for future legislation: (1) establishing HOV lane reciprocity with Virginia; and (2) prohibiting homeowners associations, condominium associations, and landlords from prohibiting or unreasonably restricting the installation of charging equipment by residents in such developments. Neither recommendation has been implemented to date.

Electric Vehicle Recharging Station and Equipment Costs

The Department of General Services (DGS) advises that the average cost to purchase and install each electric vehicle recharging station is approximately $8,000, and ongoing operating and maintenance costs total approximately $1,900 annually. One-time costs can increase if electrical upgrades are necessary.

Electric Vehicle Recharging Equipment Rebate Program

Chapters 359 and 360 of 2014 repealed the electric vehicle recharging equipment income tax credit and replaced the credit with a rebate program administered by the Maryland Energy Administration (MEA). The Acts authorized MEA to award an annual maximum of $600,000 in rebates in fiscal 2015 through 2017. The rebate was equal to 50% of the cost of property that is located in the State and used for recharging vehicles propelled by electricity, subject to specified maximum values. Chapters 359 and 360 also authorized MEA to reimburse a person for the reasonable costs of installing the qualifying equipment. An individual may not receive more than one rebate. MEA awarded the annual maximum amount of authorized rebates in each year ($600,000) in fiscal 2016 and 2017.

Chapters 362 and 363 of 2017 (1) extended the program's termination date through fiscal 2020; (2) doubled to $1.2 million the maximum amount of rebates MEA may award in each year; and (3) generally decreased the value of the incentives. In fiscal 2018, MEA awarded approximately $777,000 in rebates. MEA advises that for fiscal 2019, it has already awarded the maximum amount of rebates ($1.2 million). The Governor's proposed fiscal 2020 budget includes $1.2 million in special funds from the Strategic Energy Investment Fund for the rebate program.

State Expenditures: DGS advises that some State facilities may qualify under the "business occupancy" provision of the bill. Although this increases the cost of new construction to include EVCI and related infrastructure, DGS anticipates these costs to be minimal in terms of total construction costs. As the State does not construct a large number of new buildings, DGS assumes the bill affects one new building every few years. In addition, any agency maintaining EVCIs and related infrastructure incurs ongoing maintenance costs, but those costs can likely be absorbed with existing resources.

It is assumed that the bill does not affect spending under MEA's Electric Vehicle Recharging Equipment Rebate Program. MEA advises that it has already awarded rebates totaling $1.2 million (the maximum amount it can award) for fiscal 2019.

Additional Comments: This analysis assumes that the bill's reference to "accessible" electric vehicle parking spaces applies to general public access to a vehicle charging station, and does not require the installation of EVCIs and relative parking spaces to be accessible to disabled individuals as required under the Maryland Accessibility Code (MAC). The Department of Labor, Licensing, and Regulation (DLLR), however, advises that the bill may require MAC compliance in regard to the accessibility of EVCIs and parking spaces for disabled individuals. Under this scenario, DLLR needs to hire a project engineer to establish regulations for accessible electric vehicle recharging stations and corresponding parking spaces and ensure ongoing compliance of the installed EVCIs and

related infrastructure with MAC, at cost of approximately $61,000 in fiscal 2020, increasing to approximately $82,000 by fiscal 2024.

Additional Information

Prior Introductions: None.

Cross File: None.

Information Source(s): Baltimore City; City of Bowie; Department of General Services; Department of Labor, Licensing, and Regulation; Maryland Energy Administration; Maryland Association of Counties; Maryland Municipal League; Prince George's County; Department of Legislative Services

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