



THE PRINCE GEORGE'S COUNTY GOVERNMENT


Office of Audits and Investigations


April 4, 2022

FISCAL AND POLICY NOTE

TO: Robert J. Williams, Jr.
Council Administrator

William M. Hunt
Deputy Council Administrator

THRU: Josh Hamlin 
Director of Budget and Policy Analysis

FROM: Arian Albear 
Legislative Budget and Policy Analyst

RE: Policy Analysis and Fiscal Impact Statement
CB-015-2022

CB-015-2022 (*Proposed and presented by:* Council Members Dernoga, Glaros, Ivey, and Burroughs)

Assigned to the Committee of the Whole

AN ACT concerning Electric Charging Infrastructure for the purpose of requiring electric vehicle charging infrastructure for charging electric vehicles in certain new residential structures.

Fiscal Summary

Direct Impact

Expenditures: No additional expenditures likely.

Revenue: No additional revenue likely.

Indirect Impact

Potentially positive.

Legislative Summary

CB-015-2022¹, proposed by Council Members Dernoga, Glaros, Ivey, and Burroughs was presented on March 8, 2022 and referred to the Committee of the Whole (COW). CB-15-2022 would create “Division 3. Electric Vehicle Charging Infrastructure” under the County Building Code and add definitions for “Electric Vehicle,” “Electric Vehicle Supply Equipment,” “Level 2 Electric Vehicle Charging Station Ready Outlet,” “Level 2 Charging,” and “Dedicated Level 2 Charging Device.”

More significantly, the Bill would impose a requirement that each newly constructed² residential dwelling unit³ be built with electrical wiring in place to support a Level 2 charging station.

Council staff expects that a proposed Draft 2 of the Bill will be offered for discussion at the COW session on April 5, 2022. The proposed Draft 2 will clarify some of the definitions and requirements in Draft 1 but will not fundamentally alter the intent or effect of the Bill.

Background/Current Law

The current Prince George’s County Building Code, under Subtitle 4 of the County Code, does not include any mention of electric vehicles or related infrastructure requirements. The bill would be the first in creating standard definitions and mandating infrastructure on new or converted dwellings.

Resource Personnel

Hugo E. Cantu, Policy Director, District 1.
Melinda Bolling, Director, Department of Permitting, Inspections, and Enforcement.

Discussion/Policy Analysis

A. Federal, State, and County Legislation

¹ [CB-015-2022](#).

² The requirement would apply to a dwelling unit with a building permit approved after July 1, 2023.

³ The bill applies to single-family detached dwellings, townhouses and duplexes, two- and three-family dwellings, and conversions of single-family detached dwellings. Notably, the bill does not impose a mandate on commercial or multifamily units, regardless of the type of parking spaces.

Recent federal, State, and County legislation dovetails with CB-15-2022 to provide, expand, and accelerate the adoption of EV technology. Below are recently proposed or enacted legislation at the different levels of government and in neighboring jurisdictions.

- Federal Government

As part of the Infrastructure Investment and Jobs Act of 2021, the federal government commits \$7.5 billion to build a national network of EV charging stations.⁴ The funds will be allocated in a variety of ways over a five-year period with 50% of the amount available each year reserved for community grants with priority in rural and low- and moderate-income neighborhoods and other similar communities⁵

- State of Maryland

Maryland's Climate Solutions Now Act of 2022⁶ provides tax credits for individuals who buy electric vehicles or plug-in hybrids as part of the Electric Vehicle Recharging Equipment Rebate Program. The Program also provides rebates to businesses, and State and local governments.

Regarding EV charging station infrastructure, HB 784 (2021) – Residential Construction – Electric Vehicle Charging⁷, which took effect October 1, 2021, requires builders to provide buyers with the option of including EV charging stations or a dedicated line capable of providing at least level 2 charging.

- Prince George's County

CB-15-2022 would implement one of the recommendations of the County's Climate Action Plan: to "build out [the] electric vehicle charging network."⁸ As such, by requiring that new residential constructions with designated parking lots have ready-made infrastructure upgrades for electric vehicles, it ensures that the County is keeping pace with the national and regional trends in green energy consumption.

- Neighboring Jurisdictions

Frederick County, Maryland enacted Bill 22-01, which would require home builders to include EV charging infrastructure in certain new home constructions. Specifically, the bill requires at least one (1) dedicated parking space with an electrical panel to support a minimum 240 volts/40 amps branch circuit. Written confirmation is required from the home purchaser to decline this infrastructure.⁹

⁴ [Infrastructure Investment and Jobs Act, 2021.](#)

⁵ [Infrastructure Investment and Jobs Act – Electric Vehicles, Busses and Ferries, 2022.](#)

⁶ [Climate Solutions Now Act, 2022, Fiscal Note.](#)

⁷ [HB 784 \(2021\) – Residential Construction – Electric Vehicle Charging.](#)

⁸ [Prince George's County, Climate Action Plan.](#)

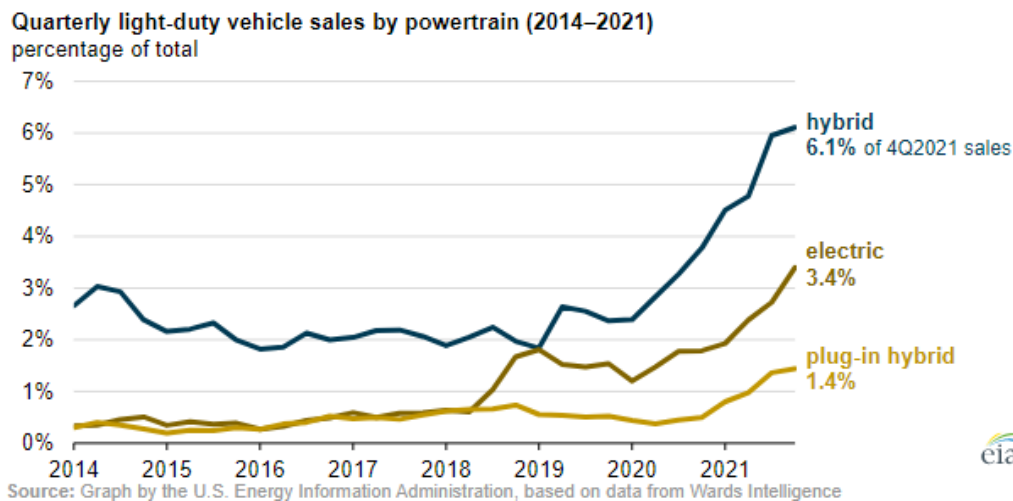
⁹ [Frederick County, Maryland. Bill 22-01.](#)

Howard County, Maryland has, since 2018, required the provision of electric vehicle charging infrastructure in each newly constructed residential unit with a garage, carport, or driveway, and further required that one (1) parking space per each 25 residential units not otherwise covered by the law be energized outlets for electric vehicle charging.¹⁰

While Washington, D.C. has not mandated any electric vehicle infrastructure requirements for nonpublic buildings, the city has over 500 public charging stations provided by third-party vendors.¹¹ Additionally, the District requires that the District Department of Transportation (DDOT) install at least 15 EV charging stations, including one per each ward.¹²

B. Trends in Electric, Hybrid, and Plug-In Hybrid Vehicles

Energy efficient vehicles, in the form of electric, hybrid, and plug-in hybrid vehicles, continue an upward trend in the United States. The chart below, from the U.S. Energy Information Administration (EIA), shows that in the last quarter of 2021, these vehicles accounted for 11% of light-duty vehicle sales.¹³



While the U.S. Department of Energy counts just over 1 million electric vehicle registrations in the U.S. as of June 2021 (1.8% of those in Maryland),¹⁴ the Pew Research Institute notes that, in 2021, 39% of adults stated that they were very or somewhat likely to seriously consider buying one.¹⁵ In addition to the local legislation discussed above relating to encouraging EV charging

¹⁰ Howard County, Maryland. [CB76-2018](#).

¹¹ Chargehub.com, [Washington, District of Columbia](#).

¹² Code of the District of Columbia, 50-921-23- [Electric Vehicle Charging Station Pilot Program](#).

¹³ U.S. Energy Information Administration, Today in Energy, [Electric and hybrids surpass 10% of U.S. light-duty vehicle sales](#), 9 February 2022.

¹⁴ U.S. Department of Energy, [Alternative Fuels Data Center](#), June 2021.

¹⁵ Pew Research Institute, [Today's electric vehicle market: Slow growth in U.S., faster in China, Europe](#), 7 June 2021.

infrastructure in new residential construction, several other jurisdictions across the United States have also taken action in this regard.¹⁶

C. Electric Vehicles and Climate Change

According to the Environmental Protection Agency's (EPA) *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019*,¹⁷ the "transportation" sector accounts for 29% of U.S. greenhouse gas emissions – light-duty vehicle emissions driving over half (58%) of the total. Full electric vehicles would eliminate much of this sector's emission component, albeit transferring part of the emissions to the 6% emitted by "residential," if the local grid is not powered by renewables. Even if fully reliant on a grid that uses 100% nonrenewable, EVs create about 60% less carbon dioxide (CO²) than gas-powered vehicles.¹⁸

Within Prince George's County, several agencies have begun to put in place infrastructure to support electric vehicles. In addition to the County Administrative Building, the Prince George's Community College (PGCC) has eight (8) operable EV charging stations and expect four (4) more with the new construction of Marlboro Hall.¹⁹ Additionally, the College is under an agreement with PEPCO, the local electric company, to possibly install an additional 12 more charging stations.²⁰ The College notes that they have no financial interest in the stations, and they are solely operated by PEPCO. The Prince George's County Memorial Library (PGCMLS) currently operates four (4) charging stations at the Laurel and New Carrollton branches earning the Library \$800 and \$37, respectively. Additional stations are planned for the Hyattsville, Bladensburg, and Surratts-Clinton branches and two (2) stations each owned directly by PEPCO at the Largo-Kettering and Spaulding branches.²¹

D. Cost of EV Infrastructure

The Maryland Department of General Services (DGS) estimates that a Level 2 charging station costs around \$1,000; however, the associated costs of preparation and enhanced electrical requirements may push the total cost of EV infrastructure up to \$10,000 per port.²² Nevertheless, the State saves an average of \$1,240 per EV sedan per year from gasoline costs estimated at \$3.10 per gallon. Similar savings would be expected for individual homeowners with an electric vehicle. Additionally, as part of the Maryland Energy Administration's Electric Vehicle Supply Equipment (EVSE) Rebate Program, individuals may apply to receive 40% (up to \$700) of the price of retrofitting charging stations in their homes.²³

¹⁶ International Code Council, [Electric Vehicles and Building Code: A Strategy for Greenhouse Gas Reductions](#), 2021.

¹⁷ Environmental Protection Agency, [Fast Facts on Transportation Greenhouse Gas Emissions](#).

¹⁸ Pepco.com, [Frequently Asked Questions](#).

¹⁹ Prince George's Community College, FY 2023 Budget Review First-Round Responses, PDF.

²⁰ Ibid.

²¹ Princes George's County Memorial Library System, FY 2023 Budget Review First-Round Responses, PDF.

²² [Climate Solutions Now Act](#), 2022, [Fiscal Note](#).

²³ Maryland Energy Administration, Electric Vehicle Supply Equipment (EVSE) [Rebate Program](#).

In their testimony on CB-15-2022, the Maryland Building Industry Association (MBIA) estimates that the cost of including the cable and outlet components can vary between \$500-\$1,000, which is added to the final listing price of the home.²⁴ Comparing the cost estimates provided by MBIA to the DGS estimated cost of retrofitting infrastructure to accommodate EV charging stations, future homeowners would greatly benefit from having the infrastructure included from the onset. The additional savings from reduced gasoline consumption could ultimately counterbalance any of these initial costs given, of course, that the homeowner eventually owns an electric vehicle.

As an additional amenity, installing EV charging stations serve to increase the value of a property vis-à-vis another which does not include EV infrastructure.²⁵ A 2019 study from realtor.com found a link between availability of EV stations and home prices²⁶ - although this correlation may be to the current exclusivity and price of electric vehicles. The added value will be relative to the availability of infrastructure in other similar homes and the EV ownership rate and need for charging stations. If electric vehicle ownership increases over time along with the accompanying infrastructure to charge them, then such infrastructure will become a common requirement, akin to an outlet for a washer and dryer, with no added value.

Fiscal Impact

- *Direct Impact*

CB-15-2022 is not expected to have any direct fiscal impact to the County as the bill only establishes definitions and future mandates in the County Code. The Department of Permitting, Inspections, and Enforcement (DPIE) noted that any additional requirements may be added to the “Use and Occupancy” inspection for no additional cost to County. DPIE also noted that the Department already maintains EV charging station guidelines for commercial buildings which may be easily converted for residential inspections.

- *Indirect Impact*

CB-15-2022 could have a long-term positive indirect impact in furthering County regulations and allowing for controlled and scheduled growth of green infrastructure. The requirement that building permits for some new constructions contain built-in EV charging infrastructure would keep the County at pace with neighboring jurisdictions and ensure that Prince George’s County receives its share of green infrastructure-related growth in the region. By maintaining a housing stock that conforms to the latest standards, the County can ensure that local housing prices are not negatively affected by outdated electric code.

²⁴ Maryland Building Industry Association, 14 March 2022. PDF.

²⁵ Evocharge, [How an EV Station can Increase Property Value](#), 2022.

²⁶ Forbes, [It Pays To Be Green: Homes Near Electric-Vehicle Charging Stations Fetch Top Dollar](#), 2019.

Effective Date of Proposed Legislation

The proposed Bill shall be effective forty-five (45) calendar days after it becomes law.

If you require additional information, or have questions about this fiscal impact statement, please email me.