



THE MARYLAND HOUSE OF DELEGATES  
ANNAPOLIS, MARYLAND 21401

**HOUSE BILL 1316**

**RESIDENTIAL CONSTRUCTION -- ELECTRIC VEHICLE CHARGING**

**February 25, 2020**

**Sponsors: Delegates Mary Lehman and Jen Terrasa**

Chair Barve, Vice Chair Stein, members of the Environment and Transportation Committee, thank you for the opportunity to talk about HB 1316, Residential Construction - Electric Vehicle Charging. This bill will reduce barriers associated with EV ownership by making charging infrastructure available in all new homes, which will in turn increase the number of Zero Emission Vehicles (ZEVs) on the road in Maryland. ZEV's will reduce greenhouse gas emissions and combat the effects of climate change.

**The Problem**

As this committee is aware, under current law, Maryland is supposed to be reducing its greenhouse gas emissions by 40% from 2006 levels by 2030 (the Greenhouse Gas Emissions Reduction Act of 2016). However, the Climate Solutions Act of 2020 (HB 1425) aims to increase the statewide greenhouse gas (GHG) emissions reduction requirement to 60% from 2006 levels by 2030 and requires the State to achieve net-zero statewide GHG emissions by 2045.

As part of reaching the current 40% goal, Maryland has a goal of getting 60,000 zero emission vehicles on the road by 2020 and 300,000 by 2025. However, as of December 2019, according to MDOT, there were fewer than 24,000 ZEV's on the road, up only 15,000 in the last 3 years.

To meet these worthy goals, help combat the climate crisis, and reverse global warming, we need to reduce the number of cars on Maryland roads that emit carbon dioxide. By reducing the challenges of owning an electric vehicle, we will increase the number of Maryland residents willing to buy one.

Barriers to getting this done include both vehicle affordability and availability of EV infrastructure for charging where people live.



There are several federal and state rebate programs for the purchase of electric vehicles and some state rebate and grant programs to offset the cost of charging stations. However, much more work needs to be done to promote the infrastructure rebate programs, which are for both new construction and retrofits.

Other than the cost of the vehicles, which have come down significantly, there are substantial costs associated with the charging infrastructure and equipment. There are a number of factors that go into the cost of EV charging infrastructure, but research shows that retrofitting installation of full electric circuits for plug-in EV Level 2 charging in an existing building can cost two to four times more than pre-construction installation.

- One study found that installing the high-voltage circuitry needed for EV charging equipment costs on average \$1500-1600 in existing single-family houses and \$4000 per parking space in existing commercial buildings.
- The same infrastructure would cost about \$860-\$920 per space if installed during new construction.

### **What Our Bill Does**

HB 1316 recognizes that it is significantly more cost-effective to install EV charging capability during construction. This bill applies to the construction of new housing single-family detached homes, town houses, and multi-family residential buildings. Specifically, the legislation:

- Requires one charging station OR dedicated electric line capable of providing Level 2 charging if the construction of the housing unit includes a garage, carport or driveway.
- Otherwise, the construction must have at least one communal parking space with an EV charging station for every 25 housing units.

HB 1316 is based on successful Howard County legislation sponsored by then Councilwoman Terrasa that passed in 2018.

Based on the success of that Howard County legislation, Maryland's Electric Vehicle Infrastructure Council stated in its 2018 annual report that it *will pursue partnerships with the Maryland Municipal League and the Maryland Association of Counties to educate their members on the right to charge and to provide the Howard County legislation as an example.*

### **Demand for EVs is Growing**

Meeting customer demand, the auto industry has announced plans for more makes and models of electric vehicles, including trucks and SUVs, to be introduced this fall.

Homeowner demand is high for the capability to charge zero emission vehicles (different from hybrids) at home. "Charge anxiety" is rapidly gaining on "range anxiety" as a worry for potential EV buyers. For properties that are owned, EV charging infrastructure would be an attractive selling point; in rental housing, EV charging infrastructure would be an amenity that can help landlords attract tenants.

In January 2020, the International Code Council (ICC) approved changes to building standards that preview a world in which every home has at least one electric car. The building standards organization, which sets voluntary guidelines for new homes, voted to approve a new provision that, functionally, will make all new homes built in the US "EV-ready." These standards are typically adopted by states, so it is smart for Maryland to embrace this concept early and codify it in law.

### **Conversation with Stakeholders**

We've reached out to a number of stakeholders about this legislation, including: the State of Maryland's Zero Emission Electric Vehicle Infrastructure Council and other EV advocates, Baltimore Gas & Electric, the MD Building Industry Association, the Chesapeake Climate Action Network, the League of Conservation Voters and the IBEW (International Brotherhood of Electrical Workers). Some of them will testify before the committee, others have submitted written statements.

### **Request**

This bill is timely and it is needed to increase ZEV ownership as a key component of Maryland's ambitious strategy to tackle global warming and reverse climate change. We urge a favorable report.



# The Challenge of EV Ownership in Townhouse & Apartment Communities

