

**2022-SB627 EV Building Codes-PHI FAV.pdf**

Uploaded by: Alexis Gallagher

Position: FAV



February 15, 2022

112 West Street  
Annapolis, MD 21401

**FAVORABLE - Senate Bill 627  
State Building Code – Electric Vehicles**

Potomac Electric Power Company (Pepco) and Delmarva Power & Light Company (Delmarva Power) support **Senate Bill 627 State Building Code – Electric Vehicles**. Senate Bill 627 will adopt regulations around state building codes to require that newly constructed buildings, and those undergoing significant renovation, include an electrical panel for parking upgrades to include provisions for electrical capacity for charging electric vehicles (EVs). These codes would apply to privately owned commercial buildings, multi-family residential buildings and mixed use spaced (residential and commercial), and single family/townhomes and require these spaces to have a minimum percentage of EV-capable, EV-ready, and electric vehicle charging station (EVCS) installed parking spaces in a garage or parking area.

The use and popularity of electric vehicles is on the rise, and with it, the increased need for electric vehicle charging stations. This legislation would help to facilitate the adoption of electric vehicles in Maryland by removing barriers to residential charging. Accordingly, Pepco and Delmarva Power launched our EVSmart Programs, which support efforts to increase utilization of electric vehicles and will help to reduce greenhouse gas reduction emissions. The EVSmart Programs provide rebates, tools and information to help customers make more informed decisions to make the transition to a cleaner transportation option. As part of the EVSmart Program, Pepco and Delmarva Power have installed a total of 108 public EV chargers throughout Maryland, with a goal to install 350 EV chargers in our Maryland service area by 2024. In addition, our EVsmart programs would help to mitigate the cost of implementing Senate Bill 627, because the program incentivizes the installation of charging infrastructure at 1,000 residential and 125 multi-unit dwelling properties.

Encouraging the growth of EVs is critically important because transportation is the largest contributor to greenhouse gas emissions in Maryland. In summary, this bill is a common-sense approach to standardizing reasonable processes regarding the approval and installation of electric vehicle charging infrastructure. For the above reasons Pepco and Delmarva Power respectfully requests a favorable report on Senate Bill 627.

Contact:

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State Affairs Manager  
609-412-6345

[Alexis.gallagher@exeloncorp.com](mailto:Alexis.gallagher@exeloncorp.com)

Katie Lanzarotto  
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# **Maryland SB 627 - Alliance for Automotive Innovati**

Uploaded by: Amy Brink

Position: FAV



February 15, 2022

The Honorable Paul Pinsky  
2 West  
Miller Senate Office Building  
Annapolis, Maryland 21401

**SB 627: State Building Code - Electric Vehicles  
Position: Favorable**

Dear Chair Pinsky,

The Alliance for Automotive Innovation (Auto Innovators) requests a favorable report for SB 627, which seeks to update the state's building codes to accommodate the increasing numbers of electric vehicles (EVs) on Maryland's roads. Auto Innovators represents automakers that produce about 98 percent of new vehicles in the United States, original equipment suppliers, technology, and other automotive-related companies and trade associations.

**Expanding EV Charging is Critical to Maryland's Goals**

Maryland previously set a goal of 60,000 EVs on the road by 2020 and 300,000 EVs by 2025. To date, approximately 42,000 EVs have been sold in Maryland, well short of its goals.<sup>1</sup> Long ago, Maryland also chose to follow the California Advanced Clean Car rules which are expected to be updated later this year to include a requirement for 100% of all new vehicle sales to be electric in 2035.

More work needs to be done to accomplish these goals, and it is on this point that SB 627 can help advance the acceptance of EVs.

**The Time to Act is Now**

According to the U.S. Department of Energy, roughly 80% of EV charging occurs at home, making access to home charging a top priority for customers considering an EV. Lack of access to home charging is a major barrier to EV adoption. As a first and most cost-effective step, states should immediately begin adopting residential building codes to require EV-ready charging capabilities in 100% of parking spots in new multi-unit dwellings (MUDs) and single-family homes.

According to BestPlaces.net<sup>2</sup>, the median residential unit age in Maryland is 42 years. Housing being built today will likely be around through at least 2050 or 2060. Consequently, if EV charging infrastructure is not installed as a new construction, it will need to be a retrofit installation afterwards which is a costly endeavor.

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<sup>1</sup> <https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard>

<sup>2</sup> <https://www.bestplaces.net/housing/state/maryland>

Historically, only about 1% of residential units are newly constructed each year. Consequently, in 2035, the year the requirement for 100% of all new vehicle sales to be EVs would kick in, the language in SB 627 will still only cover about 12-15% of all residential units. It's not perfect, but it's a start.

### **MUD Residents Should be Able to Charge at Home**

While most charging occurs at home, MUD residents often face the most costly and burdensome obstacles to installing residential EV charging. For MUD residents, the additional costs to upgrade the electrical panel, install conduit between the electrical panel and their parking space, and the logistical challenges of securing building owner approval, coordinating the billing with the building owner, and persuading an owner to make a long-term investment on a rental property, make it nearly impossible to be an EV driver in a MUD.

Nonetheless, some suggest that while those in single family homes can charge at home, MUD residents can simply charge elsewhere, such as DC fast charge stations or public chargers. Not only is this patently unfair it also raises equity and access concerns for some communities where MUDs are the dominant housing option due to cost or geography. Ensuring access for all communities should be a priority particularly those that have been traditionally underserved.

Charging at home is far cheaper, far more convenient, and far more reliable. It would be unreasonable to expect MUD residents to pay 2 or 3 times as much for charging and spend hours away from home each week just to charge their vehicles. This will lead them away from EVs and is not consistent with Maryland's stated goals.

### **Updating Codes Will Save Money**

Numerous studies show the costs to retrofit EV charging is several times more expensive than installing it during new construction.<sup>3</sup> In fact, compared to the cost of a new residential unit, the cost of installing even 208/240v 7.2 kW EV Ready charging is relatively small and typically well under \$2,000 per charging station.<sup>4</sup> Compare this to the California Public Utilities Commission's approval of ratepayers funding up to \$15,000 per charger make-ready to retrofit charging stations at MUDs.<sup>5</sup>

Failing to update building codes that do not adequately plan for 100 percent EVs, does not help long-term housing affordability. Instead, it trades small savings today for vastly higher costs down the road. Moreover, these higher costs will be borne by MUD residents (or ratepayers). To the extent MUD residents are lower income, this further exacerbates inequities and widens economic divides.

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<sup>3</sup> For example, see Pike, Ed, Jeffery Steuben, Shayna Hirshfield. 2020. City of Oakland Plug-in Electric Vehicle Readiness Grant. California Energy Commission. Publication Number: CEC-600-2020- 116.

<sup>4</sup> Id. See Table

<sup>5</sup> See CPUC Decision 20-08-045 "Decision Authorizing Southern California Edison Company's Charge Ready 2 Infrastructure And Market Education Programs," August 27, 2020.

The California Energy Commission (CEC) summarizes this well in their most recent study (January 2021)<sup>6</sup>:

*Building codes are often a cost-effective tool to support state policy, ensure equitable outcomes, and reduce barriers to adoption. Increased charging options at MUDs are needed to ensure that all Californians have access to convenient charging. This is all too often an issue at apartments, condos, and for renters where the motivations of tenants and landlords do not always align. Building codes that address new construction as well as major renovations to existing buildings such as when new parking is added or during repaving of an existing parking lot can materially address the EV charging infrastructure gap.*

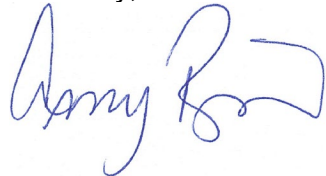
### **EV Ready**

In using the term, “EV Ready” we mean panel capacity, breaker installed, with wiring to the parking spot terminating in either a receptacle or EV charger. MUD residents (in many cases, renters) cannot be expected to bear the significant costs and coordination responsibility associated with obtaining landlord permission, local permitting, and hiring contractors to install breakers, wiring, and chargers. This is unlikely to happen, and residents need access to charging to realize Maryland’s EV goals.

### **Conclusion**

Passing SB 627 aligns with, and will support, Maryland’s climate and transportation goals. The bill will also save Maryland residents money while ensuring they have access to EV charging in the future. Thank you in advance for your consideration of our views. For more information, please contact our local representative, Bill Kress, at (410) 375-8548.

Sincerely,

A handwritten signature in blue ink, appearing to read "Amy Brink". The signature is fluid and cursive, with a large initial "A" and a stylized "B".

Amy Brink  
Vice President, State Affairs  
Alliance for Automotive Innovation

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<sup>6</sup> Crisostomo, Noel, Wendell Krell, Jeffrey Lu, and Raja Ramesh. January 2021. Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment: Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030. California Energy Commission. Publication Number: CEC-600-2021-001.

**SB627\_IndivisibleHoCoMD\_FAV\_BrianWessner.pdf**

Uploaded by: Brian Wessner

Position: FAV



**SB0627 – State Building Code - Electric Vehicles**  
**Testimony before**  
**Senate Education, Health, and Environmental Affairs Committee**  
**February 15, 2022**  
**Position: Favorable**

Mr. Chair, Madame Vice Chair and members of the committee, my name is Brian Wessner, and I represent the 750+ members of Indivisible Howard County - an active member of the Maryland Legislative Coalition (with 30,000+ members). We are providing written testimony today in **support of SB0627**, to modify State building code to mandate a certain percentage of EV-capable, EV-ready and EVCS installed parking spaces for certain newly constructed buildings and buildings undergoing certain renovations. We appreciate the leadership of Senator Waldstreicher in moving this bill.

The number of registered EVs in Maryland has more than doubled – from 17,970 in December of 2020 to 40,587 as of November of 2021. MDOT projects there will be 790,000 EVs in Maryland by 2030 – with ownership extending to a large portion of Maryland residents. Nine states, with 629,000 registered EVs, covering 13 major metropolitan areas, determined this is an important issue for the adoption of EVs and have passed EV-ready building codes.

The International Code Council provides guidance for building codes used worldwide. 2021 updates to their International Energy Conservation Code (IECC) recommend adoption of EV charging codes. These code updates are supported by the American Council for an Energy Efficient Economy, Natural Resources Defense Council, and National Electrical Manufacturers Association.

Eighty percent of EV owners charge their vehicles overnight at home - it is the most convenient option and takes advantage of lower overnight electricity rates. Post construction charging at-home requires the installation of equipment which can cost homeowners \$1500 or more; costs to multifamily building owners can be up to \$4000 per parking space. When installed during construction, these costs are reduced 40% - 75% when these installations become common practice as part of State building code.

A fiscal analysis conducted by the General Assembly determined that Maryland Department of Labor would be able to adopt the EV building code with existing resources, without incurring any additional costs, and with no material impact to government operations.

Thank you for your consideration of this important legislation.

**We respectfully urge a favorable report.**

Brian Wessner  
Columbia, MD 21044



**SB 627\_CBF SUPPORT.pdf**

Uploaded by: Doug Myers

Position: FAV



# CHESAPEAKE BAY FOUNDATION

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Environmental Protection and Restoration  
Environmental Education

## Senate Bill 627

State Building Code – Electric Vehicles

Date: February 15, 2022

Position: **Support**

To: Education, Health and Environmental Affairs

From: Josh Kurtz, MD Executive Director

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Chesapeake Bay Foundation (CBF) **SUPPORTS** Senate Bill 627, which repeals existing building codes around electric vehicle (EV) charging and replaces them with a requirement for the Department of Labor to develop regulations that would require certain percentages of parking spaces on new buildings and significantly renovated buildings to accommodate EV charging stations.

### **Electrification of the private vehicle fleet is critical for meeting our state greenhouse gas emission goals and supporting the Bay Blueprint.**

The transportation sector is responsible for 32.1 MMT CO<sub>2</sub> equivalent emissions or around 40% of total emissions in the state of Maryland.<sup>1</sup> Electrification of the vehicle fleet is the primary way to reduce these emissions. Not only does reducing this emission source reduce greenhouse gas emission goals but it helps meet the Chesapeake Bay Blueprint and improve water quality because fossil fuel-powered vehicles also emit NO<sub>x</sub>. NO<sub>x</sub> accounts for 1/3 of the total nitrogen deposition into the Bay.

### **SB 627 aims to tackle a significant hurdle to the electrification of our private vehicle fleet.**

One of the hurdles to residents purchasing electric vehicles for personal use is finding a charging location, especially for those Marylanders who live in multi-family housing. By ensuring a certain percentage of parking spots accommodate electric vehicles there will be greater assurances for Marylanders interested in moving to electric vehicles to meet their transportation needs. Maryland has seen a steady growth in EVs since they came on the market with 26,672 on the road at the end of FY21.<sup>2</sup> This legislation also takes action to incentivize DC or fast charging stations, which accommodate more vehicles and are more efficient.

**CBF urges the Committee's FAVORABLE report on SB 627.** For more information, please contact Robin Jessica Clark, Maryland Staff Attorney, at [rclark@cbf.org](mailto:rclark@cbf.org) and 443.995.8753.

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<sup>1</sup> Maryland Department of the Environment, [The 2030 Greenhouse Gas Emissions Reduction Act Plan](#), last visited February 14, 2022.

<sup>2</sup> Maryland Zero Emission Electric Vehicle Infrastructure Council, [Annual Report 2020](#), last visited February 14, 2022.  
Maryland Office • Philip Merrill Environmental Center • 6 Herndon Avenue • Annapolis • Maryland • 21403  
Phone (410) 268-8816 • Fax (410) 280-3513

# **SB627\_2022\_LannyHartmann.pdf**

Uploaded by: Lanny Hartmann

Position: FAV

**SB 627** — State Building Code - Electric Vehicles  
Position: **Favorable**

February 15, 2022

The Honorable Paul G. Pinsky  
Chair, Education, Health, and Environmental Affairs Committee  
Senate Office Building  
11 Bladen St., Annapolis, MD 21401

Dear Chairman Pinsky and Members of the Committee:

Electric vehicle drivers typically recharge their car overnight while parked at home. The ability to charge at home is a key factor in the convenience of driving a plug-in electric car.

Home charging stations will gradually supplant going to the neighborhood gas station as electric vehicles become more common. To help ease this transition, new home construction should be encouraged to be “EV-Ready” with wiring to the garage or parking pad.

Installing the wiring for electric vehicle charging when new homes are constructed will help Maryland reach its goal of 300,000 Zero Emission Vehicles on the road by 2030.

Home builders should prepare by installing wiring for EV charging now. This is similar to how homes are built to accommodate electric clothes dryers and other modern appliances.

The future of transportation is electric. This bill will help Maryland achieve that future.

I respectfully ask for a **favorable report** on SB 627.

Sincerely,

A handwritten signature in black ink, appearing to read "Lanny Hartmann". The signature is fluid and cursive, written in a professional style.

Lanny Hartmann  
Columbia, Maryland

**20220215 MD SB 627 State Building Code Electric Ve**

Uploaded by: Zachary Kahn

Position: FWA

**TESTIMONY REGARDING SB 627**  
**being heard by the Maryland Senate Education, Health, and Environmental Affairs Committee**  
**on Tuesday, February 15, 2022 at 1:00 PM**

Dear Chair Pinsky, Vice Chair Kagan, and Members of the Committee:

Thank you for the opportunity to provide input on SB627, State Building Code - Electric Vehicles, which builds upon the tremendous work this legislature did last year in passing HB 784 to also include commercial, multi-family residential, and mixed-use buildings, in addition to single-family residential buildings. This bill will make Maryland a regional leader in utilizing the State Building Code to account for the need to develop robust electric vehicle charging infrastructure throughout the state to support the growth of electric vehicles. By passing this bill, Maryland will demonstrate its support for increasing accessibility to electric vehicles through reducing the cost for electric vehicle charging infrastructure.

Tesla's mission is to accelerate the world's transition to sustainable energy through the deployment of electric vehicles (EV), EV charging, and energy storage solutions and solar. To date, Tesla has delivered more than two million EVs globally. This experience gives us unique insight into what it takes to deploy electric vehicles at volume and which policy mechanisms are most effective in furthering adoption.

Maryland has an ambitious goal of 300,000 zero emission vehicles on the road by 2025. To meet this goal, it is important to develop policies that encourage EV adoption, including those that make it easier to deploy charging equipment in commercial, residential, and mixed-use parking lots. SB 627 would codify the latest best practices for EV building codes and reduce the cost of EV charging in new buildings. Retrofitting an existing building with the necessary electrical infrastructure to support an EV charger is 4-6 times more expensive than if completed during new construction.<sup>1</sup> In particular, residents of existing multi-family buildings often face significant obstacles to cost effectively retrofit their buildings. For those living in multi-family buildings, the additional cost to upgrade the electrical panel, install conduit between the electrical panel and their parking space, and the logistical challenges of securing building owner or ownership association approval, make it often nearly impossible or cost prohibitive.

Tesla suggests two minor amendments to the bill that incorporate model EV-ready code language being developed in the International Energy Conservation Code committees with input from a robust number of industry, government, environmental, and building stakeholders. These also remove requirements, such as the 40 ampere and 208/240 volt specifications, from the actual definitions and move them more appropriately into the body of the code requirements.

- Amend the definition of EV-Capable Parking Space in 12-205(A)(5) to: "EV-capable parking space" means a designated parking space that is provided with electrical infrastructure, such as, but not limited to, raceways, cables, electrical capacity, and panelboard or other electrical distribution equipment space, necessary for the future installation of an Electric Vehicle Charging Station.
- Amend the definition of EV-Capable Parking Space in 12-205(A)(5) to: "EV-ready parking space" means a parking space that is provided with a branch circuit and either an outlet or receptacle, that will support an installed Electric Vehicle Charging Station.

Thank you for the opportunity to provide this testimony.

Zach Kahn  
Senior Policy Advisor, Northeast

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<sup>1</sup> <https://caletc.aodesignsolutions.com/assets/files/CALGreen-2019-Supplement-Cost-Analysis-Final-1.pdf>

**SB 627\_realtors\_UNF.pdf**

Uploaded by: Lisa May

Position: UNF



**Senate Bill 627 – State Building Code - Electric Vehicles**

**Position: Oppose**

While we appreciate efforts to expand access to electric vehicle infrastructure, Maryland REALTORS® opposes SB 627 for the mandates placed upon homeowners in the state.

SB 627 requires that 100% of the parking spaces for all new construction and substantially renovated single-family and townhouse units be EV-ready. The term “dedicated parking space” for these dwellings is not clearly defined and could include garage, carport, or driveway capacity. For larger properties, this could mean requiring many multiples of spaces to be EV-ready.

What constitutes a “substantial renovation” is likewise unclear. Even large remodeling projects which include electrical panel upgrades may not be directly adjacent to the home’s parking areas. This would require homeowners to disturb parts of the property not under renovation and add significant costs.

Finally, and most importantly, this bill requires owners to pay for EV-ready capacity when they may never personally use it and where they may not see a return on their investment at resale.

The existing provisions of Public Safety Article 12-205, which just went into effect on October 1, boost awareness of electric vehicle infrastructure options while still preserving homeowner choice. REALTORS® believe that is a better approach than the one outlined in SB 627, for which we recommend an unfavorable report.

**For more information contact [bill.castelli@mdrealtor.org](mailto:bill.castelli@mdrealtor.org),  
[susan.mitchell@mdrealtor.org](mailto:susan.mitchell@mdrealtor.org), [lisa.may@mdrealtor.org](mailto:lisa.may@mdrealtor.org) or  
[theresa.kuhns@mdrealtor.org](mailto:theresa.kuhns@mdrealtor.org)**



**MBIA Letter of Opposition SB 627.pdf**

Uploaded by: Lori Graf

Position: UNF

(Date), 2022

The Honorable Paul G. Pinsky  
Senate Education, Health & Environmental Affairs Committee  
Miller Senate Office Building,  
2 West Wing 11 Bladen St.,  
Annapolis, MD, 21401

**RE: SB 627 State Building Code – Electric Vehicles**

Dear Chairman Pinsky:

The Maryland Building Industry Association, representing 100,000 employees statewide, appreciates the opportunity to participate in the discussion surrounding **SB 627 State Building Code – Electric Vehicles**. MBIA **Opposes** the Act in its current version.

This bill would repeal the Electric Building code and the 2021 Supplement and replace it with new charging station requirements. MBIA respectfully opposes this measure. Changing courses after passing SB 144 before the law can be fully implemented is not a recipe for consistent policy and makes project planning and management more difficult since it erodes faith in a consistent EV charging policy. This bill would also require that the new code will apply to ALL buildings including private residential buildings forcing people that do not drive electric cars to make costly upgrades for vehicles that they do not use. In 2019 the number of cars that were fully electric in the United States represented only about 250,000 vehicles spread out over 50 states. That is a tiny percentage of current vehicles and there is no need for a complete overhaul of the electric vehicle infrastructure of the state to be so dramatically adjusted. There is also the potential for these programs to conflict with county electric vehicle mandates creating confusion. Montgomery County for example already has electric vehicle programs in place that this bill would conflict with.

Additionally, the character of and market in certain jurisdictions that have established criteria, such as Howard and Montgomery is not indicative of the market throughout the State. The comparatively few electric vehicles registered in Maryland are located in higher-density areas, and they are not common. Areas like the Eastern Shore and Southern Maryland do not have a market for electric vehicles yet, but this measure would apply to all new construction across the State, whether such infrastructure will be needed in the near future or not. The Statewide market simply isn't ready for such far-reaching legislative mandates in this area.

This bill will require large scale infrastructure improvements that will spread the costs out among tenants and renters that do not derive any benefit from the program. It is likely that these EV charging stations will not even see regular use. As the market for electric vehicles grows and their usage increases there will be organizations that address their fueling needs in order to meet a market demand. This program would deprive them of that opportunity and mandate an overdeveloped electric vehicle system to meet a demand that may not materialize.

For these reasons, MBIA respectfully requests the Committee give this measure an unfavorable report. Thank you for your consideration.

For more information about this position, please contact Lori Graf at 410-800-7327 or [lgraf@marylandbuilders.org](mailto:lgraf@marylandbuilders.org).

cc: Members of the Senate Education, Health & Environmental Affairs Committee