March 12, 2025

The Honorable Marc Korman
Chair, House Environment and Transportation Committee
Annapolis, Maryland 21401

HB 1496: Building Code - Construction and Significant Renovation of Housing Units - Electric Vehicle Parking Spaces
Position: Favorable

Chair Korman:

The Alliance for Automotive Innovation[1] (Auto Innovators) requests a favorable report for HB 1496. HB 1496 builds on critical legislation from the 2023 session and will extend necessary electric vehicle (EV) charging to residents at multi-unit dwellings.

Current State-of-Play

Maryland EV sales comprised 11.98% percent of new vehicles sales through the first three quarters of 2024[2]. The challenge of reaching the California Air Resource Board (CARB) ACC II mandate of 100 percent electric vehicle market share by 2035, requires Maryland to address several hurdles to consumer acceptance.

The ACC II regulations require very aggressive increases in EV sales starting with MY2027 when 43% of all new vehicles delivered to Maryland car dealers will be EVs. These are staggering, required sales increases for a new technology that relies heavily on customer acceptance and market readiness.

Maryland has slightly under 5,000 publicly available EV charging ports and around 118,000 EVs on the road. To support the number of EVs required to be sold in 2026, Maryland will need around 16,000 public EV charging ports. This means that within two years, Maryland will need over three times as many publicly available charging ports as today **- the equivalent of 13 new charging ports coming online every day between now and the end of 2026. And it only increases from there as the EV sales requirements increase each year.**

Based on the average transaction price of EVs, EV buyers are far more likely to be affluent single-family homeowners with modern electric panels just a few feet from their garage where they will charge their EVs. These buyers do not represent a full cross-section of Maryland's new car buyers,

[1] From the manufacturers producing most vehicles sold in the U.S. to autonomous vehicle innovators to equipment suppliers, battery producers and semiconductor makers – Alliance for Automotive Innovation represents the full auto industry, a sector supporting 10 million American jobs and five percent of the economy. Active in Washington, D.C. and all 50 states, the association is committed to a cleaner, safer and smarter personal transportation future. www.autosinnovate.org.

[2] https://www.autosinnovate.org/posts/papers-reports/get-connected-q3-2024

and achieving even 30, 70, or 100 percent of the new car market will require reaching buyers of more moderate means. It will also require action well beyond automakers' ability to produce more 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 parking spots in new multi-unit dwellings (MUDs).

According to BestPlaces.net[3], the median residential unit age in Maryland is 40 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.

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.[4] 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

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[3] https://www.bestplaces.net/housing/state/maryland

[4] 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.

$2,000 per charging station.[5] 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.[6]

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 have lower incomes, this further exacerbates inequities and widens economic divides.

The California Energy Commission (CEC) summarizes this well in their most recent study (January 2021)[7]:

> *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 HB 1496 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,

Josh Fisher
Director, State Affairs, Alliance for Automotive Innovation

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[5] Id. See Table

[6] See CPUC Decision 20-08-045 "Decision Authorizing Southern California Edison Company's Charge Ready 2 Infrastructure And Market Education Programs," August 27, 2020.

[7] 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.