

2023 HB830- FAV- PHI.pdf

Uploaded by: Anne Klase

Position: FAV



February 28, 2023

112 West Street
Annapolis, MD 21401

FAVORABLE – House Bill 830- Residential Construction or Significant Renovation- Electric Vehicle Charging

Potomac Electric Power Company (Pepco) and Delmarva Power & Light Company (Delmarva Power) support **House Bill 830- Residential Construction or Significant Renovation- Electric Vehicle Charging**. This legislation would require the installation of electric vehicle charging equipment during the construction or significant renovation of certain housing units and would also require a greater number of electric vehicle parking places.

Maryland has set an ambitious goal of 300,000 zero emission vehicles on the road by 2025 and 600,000 by 2030. By requiring the installation of electric vehicle charging infrastructure in new construction and renovations, this will lead to more electric vehicles on Maryland roads, effectively expanding the use of zero emission vehicles in the state. This is essential to achieving Maryland's climate and air quality goals. Finally, encouraging the growth of electric vehicles is critically important as transportation is the single largest GHG emissions generator in Maryland. Electric vehicles will play an integral role in helping Maryland meet its emission reduction goal.

Pepco and Delmarva Power are committed to helping Maryland achieve its electric vehicle goals. Accordingly, we support this legislation and respectfully request a favorable committee report. For reasons stated above, Pepco and Delmarva Power respectfully request a favorable report on House Bill 830 and we thank Delegate Terrasa for sponsoring this legislation.

Contact:

Anne Klase
Senior Manager, State Affairs
240-472-6641
Annek.klase@exeloncorp.com

Katie Lanzarotto
Manager, State Affairs
202-428-1309
Kathryn.lanzarotto@exeloncorp.com

2023-2-28 HB380 EV Charging Testimony.pdf

Uploaded by: Beth Hufnagel

Position: FAV

TESTIMONY TO THE HOUSE ENVIRONMENT AND TRANSPORTATION COMMITTEE

House Bill 830 – Residential Construction or Significant Renovation - Electrical Vehicle Charging Bill.

POSITION: Favorable

BY: Beth Hufnagel

HEARING DATE: Tuesday February 28, 2023

I live in an older townhouse community in Elkridge (Howard County) without a garage. I would very much like to contribute to reducing the release of gasoline byproducts into the air by buying an electric vehicle (EV), especially while federal tax credits are still available. This bill would help increase EV-friendly housing anywhere in the state that would permit me to purchase an EV in the future. This would also contribute to my household staying in the state when my partner retires later this year.

I have investigated buying an EV while still living in my community, but there are a number of barriers to charging it. My assigned parking space is about 120 feet away from the closest exterior electrical plug on my house. My Home Owners' Association will not permit wiring into their closer street light. (Someone else had asked that question, so I know I'm not the only one frustrated by this.) The closest commercial charging spot is at the Giant, 0.7 miles away, but there are only two spots.

This is so important to me that I created an MGA account to submit this testimony. I consider the availability of EV-friendly housing to be a basic utility.

I strongly urge a favorable report.

HB830_MDSierra Club_fav - 28Feb2023.pdf

Uploaded by: Brian Ditzler

Position: FAV



P.O. Box 278
Riverdale, MD 20738

Committee: Environment and Transportation

Testimony on: HB830 - “Residential Construction or Significant Renovation - Electric Vehicle Charging”

Position: Support

Hearing Date: February 28, 2023

The Maryland Chapter of the Sierra Club supports HB830. The bill would specify requirements for the installation of electric vehicle charging equipment during the construction or significant renovation of housing units that include at least one garage, carport, or driveway for each housing unit. New townhouses and multifamily buildings under construction that do not have at least one garage, carport or driveway for each housing unit but do have off-street communal parking must include at least one communal parking space for each 25 residential units featuring an electric vehicle (EV) charging station capable of at least Level 2 charging (alternating current electrical service with a minimum of 208 volts). Each communal parking space featuring EV charging equipment must be marked for EV charging only.

Current law requires the builder or builder’s agent of new single-family detached homes and townhouses with at least a garage, carport, or driveway for each housing unit to provide the home buyer the option to have an EV charging station installed capable of at least Level 2 charging or a dedicated electric line to support the addition of a charging station at a later date. HB830 would alter and strengthen that requirement so that EV charging equipment must be included in new single family detached homes, townhouses, and multifamily residential buildings with communal parking.

Transportation is now the largest contributor to climate-damaging greenhouse gas emissions in this country and is also a major source of toxic emissions including benzene, nitrogen oxides, and sulfur dioxide. Emissions from vehicle tailpipes are hazardous to human health and are linked to various cancers, heart disease, asthma, emphysema, other respiratory diseases, and premature death. Unlike gas and diesel-powered vehicles, plug-in EVs require little or no fossil fuel and emit little or no air pollution from their tailpipes.

In summary, HB830 would enable more plug-in EVs in our state to be used and recharged when parked. Approval of this bill also would encourage more people to purchase, lease, or operate plug-in EVs, which would reduce our dependence on petroleum and be better for our health and the environment. We urge this committee to issue a favorable report on HB830.

Brian E. Ditzler
Chapter Transportation Chair
Brian.Ditzler@MDSierra.org

Josh Tulkin
Chapter Director
Josh.Tulkin@MDSierra.org

Founded in 1892, the Sierra Club is America’s oldest and largest grassroots environmental organization. The Maryland Chapter has over 70,000 members and supporters, and the Sierra Club nationwide has over 800,000 members and nearly four million supporters.

CE Ball 2023 - HB 830 Residential Electric Vehicle

Uploaded by: Calvin Ball

Position: FAV



HOWARD COUNTY OFFICE OF COUNTY EXECUTIVE

3430 Courthouse Drive ■ Ellicott City, Maryland 21043 ■ 410-313-2013 Voice/Relay

Calvin Ball
Howard County Executive
cball@howardcountymd.gov

www.howardcountymd.gov
FAX 410-313-3051

February 28, 2023

Delegate Kumar Barve, Chair
House Environment & Transportation Committee
House Office Building, Room 251
Annapolis, Maryland 21401

Re: **TESTIMONY OF SUPPORT**: HB 830: Residential Construction or Significant Renovation
– Electric Vehicle Charging

Dear Chair Barve, Vice Chair Stein, and Members of the Committee,

I commend Delegate Terrasa on sponsoring House Bill 830 and her consistent environmental advocacy efforts.

Howard County's investment in installing public electric vehicle charging infrastructure has been a catalyst for creating accessibility for residents who now drive electric vehicles. This bill aims to expand the opportunity to residents to do in their homes. Transportation accounts for the largest share of contributing emissions to greenhouse gases and climate change, so this legislation will be critical in encouraging behaviors that are in alignment with removing barriers to electric vehicle infrastructure.

Howard County's dedication and demonstrated leadership in the fight against climate change is why we are now a LEED Platinum community. This prestigious designation from the U.S. Green Building Council is due to our dedication to implementing environmental and sustainability programs that advance solar power, improve transit and electric vehicles, and build accessible and green infrastructure.

Last October, I signed an Executive Order that committed Howard County to reduce our greenhouse gas emissions by 60% by the year 2031 and reaching net-zero emissions by 2045. These goals mirror the goals set forth in the Climate Solutions Now Act. Our goals are not just for government operations but for all of Howard County and House Bill 830 will play a critical role in achieving them.

As County Executive, I will continue to advocate for a clean and environment for generations to come and am proud to partner with the Delegate to be environmental stewards of our land. I welcome your support and urge a favorable report on House Bill 830.

All the Best,

Calvin Ball
Howard County Executive

HB0830 ZEEVIC Legislation Support Letter 2023 Sess

Uploaded by: David Proctor

Position: FAV



February 24, 2023

Re: Zero Emission Electric Vehicle Infrastructure Legislation Support

To Whom It May Concern:

The Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) has reviewed legislation related to electric vehicles (EVs) introduced in the 2023 Legislative Session. ZEEVIC was established via legislation in 2011 and expanded in 2019 with a mission to evaluate zero emission vehicle (ZEV) ownership and charging station incentives; develop recommendations for a statewide infrastructure plan; and propose policies to promote the successful integration of EVs into Maryland's communities and transportation system. ZEEVIC's responsibilities are directly related to helping Maryland meet its greenhouse gas emissions reduction goals.

ZEEVIC supports the goals of the following bills, which are generally consistent with ZEEVIC's mission and priorities:

- [HB0007](#): Electric Vehicle Recharging Equipment Rebate Program – Renewal
Provides a meaningful monetary incentive to individuals and various entities to install EV recharging equipment. The bill increases funding and will boost incentive access and EV adoption.
- [HB0101/SB0593](#): Condominiums – Common Elements – Clean Energy Equipment
Addresses some of the unique access barriers to EV adoption faced by residents of condominiums within the State. This bill authorizes certain condominium governing bodies to grant the installation and use of leased clean energy equipment, including EV chargers, on common elements.
- [HB0312](#): Vehicle Emissions Inspection Program - Not Subject to Inspection – Fee
Helps fund EV infrastructure development and EV sales rebates by establishing a \$14 fee collected once every two years from vehicles that exempt from inspections, which includes Battery Electric Vehicles (BEVs).
- [HB0550/SB0548](#): Maryland Energy Administration (MEA)– Energy Programs – Modifications (Clean Transportation and Energy Act)
Improves the State's rebate program for installing EV recharging equipment. The bill also clarifies certain aspects of the Medium/Heavy-Duty Zero-Emission Vehicle Grant Program, including prioritization of grants to benefit low-income or environmental justice communities.
- [HB0830/SB0477](#): Residential Construction or Significant Renovation – Electric Vehicle Charging
Supports EV readiness in homes by requiring builders to install charging equipment for EVs during new construction or significant renovation. This bill also addresses EV readiness in multi-unit residential communities by requiring at least one EV charger per 25 spaces.

- [HB0889](#): Retail Service Stations - Electric Vehicle Charging Stations and Property Tax Credit for Service Station Conversions
Expands EV charging infrastructure at gas stations, by requiring that new gas stations be constructed with the same number of EV fast chargers as gas pumps.

ZEEVIC encourages policymakers to consider cross-cutting issues that will have an impact on the outcome of any of these bills, including sustainability of incentive funding, availability of vehicle models, and feasibility of implementation and compliance.

Additional information about ZEEVIC's legislative mandated mission and goals are available in the attached flyer. ZEEVIC's Legislative Working Group welcomes the opportunity to review these bills and we look forward to reviewing future legislative efforts regarding EVs and infrastructure. ZEEVIC member organizations may reach out separately about any specific concerns or bill nuances.

Respectfully,



Kevin George Miller
Chair, Legislative Workgroup
ZEEVIC

Attachment

ZEEVIC Purpose and Role



What is ZEEVIC?

ZEEVIC is the Zero Emission Electric Vehicle Infrastructure Council.

Who created ZEEVIC?

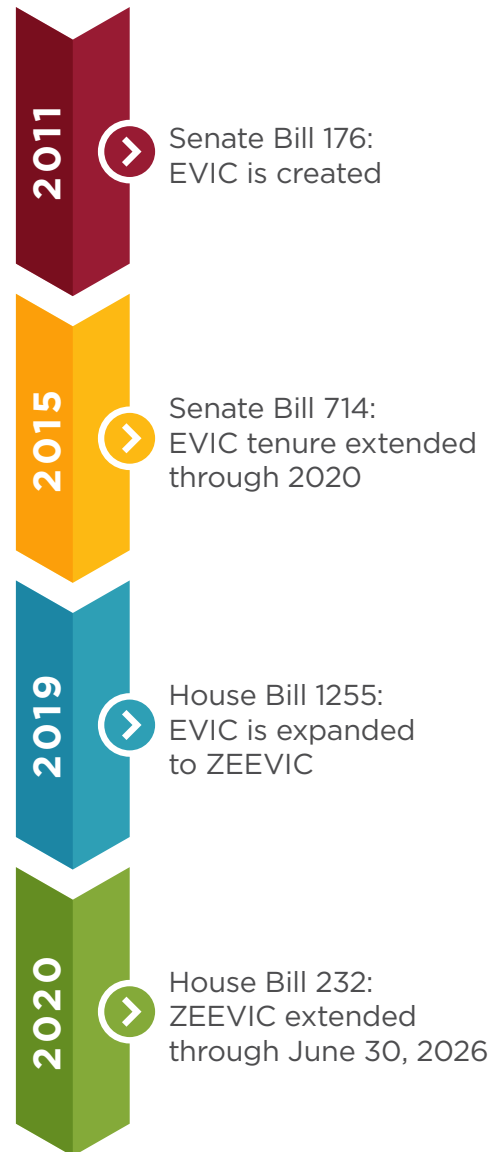
The Maryland Legislature created the Electric Vehicle Infrastructure Council (EVIC) in 2011 to address and remove barriers related to electric vehicle (EV) adoption in Maryland. In 2019, the membership, responsibilities, and reporting requirements of EVIC were expanded to include zero emission vehicles (ZEVs) and fuel cell electric vehicles (FCEVs). To reflect the expanded responsibilities of the council, EVIC was renamed the Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC).¹ In 2020, the membership of ZEEVIC was expanded further and the Council's sunset date was extended to 2026.²

What does ZEEVIC do?

The ZEEVIC is charged with supporting the development of:

- Policies, recommendations, and incentives that increase awareness of ZEVs, support the ownership of ZEVs, and promote investment by the private sector in ZEVs;
- Recommendations for a statewide EV charging and hydrogen refueling infrastructure plan; and,
- Other potential policies to promote and facilitate the successful integration of ZEVs into Maryland's transportation network.

ZEEVIC's responsibilities support Maryland's greenhouse gas (GHG) emissions reductions goals outlined in the Climate Solutions Now Act (CSNA). The CSNA sets a goal of **60% GHG emissions reductions by 2031** and net-zero by 2045. Because transportation is the single largest GHG emissions generator in Maryland, representing over one-third of total GHG emissions, ZEVs play an integral role in helping Maryland meet the CSNA emissions reduction goal.



¹ Chapter 213, Acts of 2019

² House Bill 232, 2020

Who is part of ZEEVIC?

Name	Representing
R. Earl Lewis, Jr. , Deputy Secretary (Council Chair)	Maryland Department of Transportation
Hyeon-Shic Shin , PhD., Morgan State University	Academic Community; a Maryland institution of higher education with relevant expertise
Weston Young , Worcester County	Maryland Association of Counties; rural region
Vacant	Maryland Association of Counties; urban or suburban region
Nina Forsythe , City of Frostburg	Maryland Municipal League; rural region
David Edmondson , City of Frederick	Maryland Municipal League; urban or suburban region
Elvia Thompson , Annapolis Green	EV Driver Advocacy Organization
Kristy Fleischmann-Groncki , BGE Robert Stewart , PEPCO Holdings, Inc. Jeff Shaw , SMECO	Electric Companies (3)
Jason Tai , Tesla Consultant	Electric Vehicle Manufacturer
Kevin Miller	Electric Vehicle Charging Station Manufacturer
Robert Wimmer , Toyota	Fuel Cell Electric Vehicle Manufacturer
Joe Alfred , Ally Power Inc.	Fuel Cell Electric Vehicle Infrastructure Equipment Manufacturer
Steven Koerner , BP Pulse Fleet	Fleet Operators
Michael A. Wall , Clinton Electric Company	Electrical Workers
Scott Wilson , Electric Vehicle Association of D.C. Vacant	Environmental Community (2)
Paul Verchinski	Member of the public, with expertise in energy or transportation policy
Vacant	New Vehicle Dealer Association
Senator Clarence K. Lam , M.D., District 12 Baltimore & Howard Counties	Maryland State Senate
Delegate Tony Bridges , District 41, Baltimore City Delegate David Fraser-Hidalgo , District 15, Montgomery County	Maryland House of Delegates (2)
Bihui Xu , Transportation Planning	Maryland Department of Planning
Secretary	Maryland Department of the Environment
Secretary	Maryland Department of Commerce
Kevin Mosier , Wholesale Markets Liaison	Maryland Public Service Commission
David Lapp , People's Counsel	Office of People's Council
Mike Jones , Transportation Program Manager	Maryland Energy Administration

Where can you learn more?

ZEEVIC: MDOT.Maryland.gov/ZEEVIC

MDEV: MarylandEV.org

Electric Vehicles: MDOT.Maryland.gov/EV



MDOT.Maryland.gov/ZEEVIC



MarylandEV.org

HB830FavorableEVSE New ConstructionHCCA(1) (002).p

Uploaded by: Howard Citizens Assoc

Position: FAV



HCCA

Howard County Citizens Association

Since 1961...

The Voice Of The People of Howard County

HB830 - FAVORABLE

The Honorable Kumar Barve, Chair
Environmental and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401

As introduced, HB830 would establish and alter certain requirements related to the installation of equipment for the charging of electric vehicles during the construction or significant renovation of certain housing units; clarifying that a county or municipal corporation may require a greater number of electric vehicle parking spaces under certain circumstances; and generally relating to electric vehicle supply equipment (EVSE) on new residential construction and residential construction undergoing significant renovation.

This legislation would affect the 1% of new housing in MD built each year as well as major renovations. Maryland is seeking to electrify transportation since 40% of Green House Gas Emissions come from the Internal Combustion Engine transportation sector. Needed for owners of Electric Vehicles (EV) is a place to charge their vehicles. Studies have shown that EV owners expect to charge their cars at home 90% of the time. This legislation would begin this phase in of EVSEs where people live.

We ask that your committee report out this bill favorably.

Howard County Citizens Association
Authorized by Board
Paul Verchinski, Board Member
5475 Sleeping Dog Lane
Columbia, MD 21045

Sponsor Testimony, HB830.pdf

Uploaded by: Jen Terrasa

Position: FAV

JEN TERRASA
Legislative District 13
Howard County



Annapolis Office
The Maryland House of Delegates
6 Bladen Street, Room 217
Annapolis, Maryland 21401
410-841-3246 · 301-858-3246
800-492-7122 Ext. 3246
Jen.Terrasa@house.state.md.us

Environment and Transportation
Committee

House Chair

Joint Committee on Children,
Youth, and Families

THE MARYLAND HOUSE OF DELEGATES
ANNAPOLIS, MARYLAND 21401

February 28, 2023

To: The Honorable Kumar P. Barve
Chair, Environment and Transportation Committee

From: Delegate Jen Terrasa
District 13, Howard County

Re: Sponsor Testimony in Support of HB830, Residential Construction or
Significant Renovation - Electric Vehicle Charging

Dear Chairman Barve, Vice Chair Stein, and Members of the Environment and Transportation Committee,

Thank you for the opportunity to present HB830, which requires installation of EV charging equipment during the construction or significant renovation of all residential homes - including single family homes, townhouses, and multifamily housing. This bill is cross-filed by Senator Brian Feldman.

HB830 is based on successful Howard County legislation, which I sponsored in 2018 when I served on the County Council. That bill has been recognized as a model for other jurisdictions across the country.

According to the U.S. Department of Energy, around 80% of electric vehicle charging occurs at home. The accessibility of home charging is currently a major barrier for residents who may want to buy an electric vehicle but choose not to because their housing lacks the needed charging equipment or station infrastructure.

Retrofitting EV charging infrastructure presents significant challenges and can be two to four times more expensive than installation during new construction, and can be nearly impossible in a townhome community with no driveways and no way to plug a car into a home. In many cases, the only option would be running a cord across a communal sidewalk or convincing an HOA to place an EV charging station on communal open space. By making these installations common practice during new construction or major renovations, this bill reduces the costs of installation and allows more Marylanders to feasibly consider buying an electric vehicle.

Maryland has also set an ambitious goal of 300,000 zero emission vehicles on the road by 2025 and 600,000 by 2030. Currently, only 3-6% of all vehicles on the road are EV. Requiring the installation of electric vehicle charging infrastructure in new construction and renovations will lead to more electric vehicles on Maryland roads, helping us reach our climate and zero emission goals and weaken the reliance on fossil fuels and pollutant emitting vehicles.

HB830 requires the installation of electric vehicle charging equipment during the construction or significant renovation of residential properties that include at least one garage, carport, or driveway. If townhouses without garages and multifamily residential buildings include off-street communal parking, HB830 specifies that the construction must include at least one communal parking space for each 25 residential units featuring an electric vehicle charging station capable of providing at least Level 2 charging.

If we want folks to switch to electric vehicles, we need to make it possible for them to plug in safely and conveniently. Passing HB830 will promote electric vehicle adoption and ensure that Marylanders have adequate access to charging stations at their place of residence.

I urge a favorable report of HB830.

Ext. Comm. - Testimony - 2023 - Maryland HB 830 -

Uploaded by: Joshua Fisher

Position: FAV



February 24, 2023

The Honorable Kumar Barve
Chair, House Environment and Transportation Committee
Annapolis, Maryland 21401

**HB 830: Residential Construction or Significant Renovation - Electric Vehicle Charging
Position: Favorable**

Dear Chair Barve,

The Alliance for Automotive Innovation (Auto Innovators) requests a favorable report for HB 830, which seeks to update the state's building codes to accommodate the increasing numbers of electric vehicles (EVs) on Maryland's roads. 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.

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 59,000 EVs have been sold in Maryland, well short of its goals.¹ Long ago, Maryland also chose to follow the California Advanced Clean Car rules which were updated last year to include a mandate for 100% of all new vehicle sales to be electric in 2035.

More work needs to be done to accomplish these requirements, and it is on this point that HB 830 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 parking spots in new multi-unit dwellings (MUDs) and single-family homes.

According to BestPlaces.net², 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.

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

² <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 HB 830 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.³ 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.⁴ 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.⁵

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.

³ 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.

⁴ Id. See Table

⁵ 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)⁶:

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 830 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

⁶ 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.

HB 830_Consumer Protection Division_Fav_2023.pdf

Uploaded by: Kira Wilpone-Welborn

Position: FAV

ANTHONY G. BROWN
Attorney General

CANDACE MCLAREN LANHAM
Chief of Staff

CAROLYN QUATTROCKI
Deputy Attorney General



WILLIAM D. GRUHN
Chief
Consumer Protection Division

STATE OF MARYLAND
OFFICE OF THE ATTORNEY GENERAL
CONSUMER PROTECTION DIVISION

Writer's Fax No.

Writer's Direct Dial No.
410-576-6986
kwilponewelborn@oag.state.md.us

February 24, 2023

To: The Honorable Kumar P. Barve
Chair, Environment and Transportation Committee

From: Kira Wilpone-Welborn, Assistant Attorney General
Consumer Protection Division

Re: House Bill 830 – Residential Construction or Significant Renovation - Electric Vehicle Charging (SUPPORT)

The Consumer Protection Division of the Office of the Attorney General (the “Division”) supports House Bill 830 sponsored by Delegates Terrasa, Lehman, Charkoudian, Fraser-Hidalgo, and Wu. Currently, Md. Code Ann., Public Safety § 12-205 requires that buyers of newly constructed single-family detached homes or townhomes be given the option to include, in the garage, carport, or driveway, an electric vehicle charging station or a dedicated electric line to support at least Level 2 charging. House Bill 830 would amend Public Safety § 12-205 to require all newly constructed single-family detached homes and townhomes to include electric vehicle charging stations capable of providing at least Level 2 charging and would expand Public Safety § 12-205 by including multifamily residential buildings with off-street communal parking in this requirement. House Bill 830 also expands the requirements of providing electric vehicle charging stations capable of providing at least Level 2 charging to existing housing units, including multifamily residential buildings, undergoing substantial renovation.

House Bill 830 enables consumers who reside in newly constructed multifamily residential buildings with off-street communal parking, as well as housing units with parking for each housing unit, to have access to electric vehicle charging stations. Electric vehicles reduce individuals’ carbon footprint and help to protect the environment. The limited availability of electric vehicle charging stations can make owning an electric vehicle impractical for individuals residing in housing with only off-street communal parking available. Providing consumers access to an electric vehicle charging station at or near their homes, and removing impediments that may make ownership of these vehicles difficult for consumers residing in multifamily residential buildings with only access to communal parking, furthers Maryland’s clean energy goals by increasing the likelihood that individuals will purchase an electric vehicle if they wish to do so.

The Division requests that the Environment and Transportation Committee give House Bill 830 a favorable report.

Cc: The Honorable Jen Terrasa
The Honorable Mary A. Lehman
The Honorable Lorig Charkoudian
The Honorable David Fraser-Hidalgo
The Honorable Chao Wu
Members, Environment and Transportation Committee

HB830_2023_LannyHartmann.pdf

Uploaded by: Lanny Hartmann

Position: FAV

HB 830 — Residential Construction or Significant Renovation - Electric Vehicle Charging
Position: **Favorable**

February 28, 2023

The Honorable Kumar Barve
Chair, Environment and Transportation Committee
House Office Building
Annapolis, MD 21401

Dear Chairman Barve and Members of the Committee:

I am writing to express my strong support for House Bill 830, which aims to establish requirements related to the installation of electric vehicle (EV) charging equipment during the construction or significant renovation of housing units.

As the use of EVs becomes increasingly popular, it is crucial that we take steps to ensure that these vehicles have access to convenient and reliable charging options. This bill will not only make it easier for homeowners to adopt EVs, but it will also promote the growth of clean transportation and help reduce our dependence on fossil fuels.

To help facilitate this transition, it is imperative that new home construction be built to be "EV-Ready" with wiring to the garage or parking space. Installing the wiring for electric vehicle charging during construction will make it easier for homeowners to adopt EVs and help Maryland reach its goal of 300,000 Zero Emission Vehicles on the road by 2030.

Additionally, the bill provides clarity on the role of counties and municipalities in requiring a certain number of EV-Ready parking spaces. This will ensure that local governments have the flexibility they need to respond to the specific needs of their communities.

Finally, I would like to commend the sponsor of this bill, Delegate Terrasa, for her foresight and leadership in promoting clean transportation and addressing the challenges associated with the growth of EVs.

I strongly urge you to **support** House Bill 830 and help advance this important initiative.

Sincerely,



Lanny Hartmann
Columbia, Maryland

HB0830 Residential Construction Significant Renova

Uploaded by: Laurie McGilvray

Position: FAV



Committee: Environment and Transportation
Testimony on: HB0830 - Residential Construction or Significant Renovation
– Electric Vehicle Charging
Organization: Maryland Legislative Coalition Climate Justice Wing
Submitting: Laurie McGilvray, Co-Chair
Position: Favorable
Hearing Date: February 28, 2022

Dear Chair and Committee Members:

Thank you for allowing our testimony today in support of HB830. The Maryland Legislative Coalition (MLC) Climate Justice Wing, a statewide coalition of over 50 grassroots and professional organizations, urges you to vote favorably on HB830.

HB830 will remove some of the barriers to electric vehicle (EV) charging, including for people living in multifamily residential buildings. The bill requires that the construction of new housing units (including multifamily residential buildings) or the significant renovation of existing housing units include EV charging in each garage, carport, or driveway. Specifically, one dedicated parking space with EV supply equipment must be installed or one EV-ready parking space. Each communal parking space with an EV charger must be marked as intended for EV charging only. The bill repeals the requirement to provide each buyer or prospective buyer with the option to include an EV charger parking place and instead requires installation of one EV charger parking space or one EV-ready parking space.

Transportation is Maryland's number one source of greenhouse gas emissions. The State's 2020 Greenhouse Gas Emissions Inventory shows that gasoline and diesel powered on-road and offroad vehicles account for nearly 46 percent of the State's greenhouse gas emissions. Transitioning to EVs necessitates that people be able to charge their vehicles near their homes. HB830 will ensure that new housing is constructed to include EV charging; removing a barrier particularly for people living in multifamily housing. We recommend a **FAVORABLE** report for HB830 in committee.

hb830fAVORABLEVerchinskiResidential EVSEs.pdf

Uploaded by: Paul Verchinski

Position: FAV

HB830
FAVORABLE

The Honorable Kumar Barve, Chair
Environment and Transportation Committee
Room 251, House Office Building
Annapolis, MD 21401

As introduced, HB830 would require the installation of an EV-ready space for housing with a garage, carport, or driveway when there is new construction or significant renovation. In order to help EV drivers in townhouse and multifamily residential communities, this bill would require one charger for every 25 residential units. HB830 would also help Maryland reach its target to reduce greenhouse gas emissions by 60% by 2031 and reach net-zero emissions by 2045.

Future proofing new residences for EVSEs is a prudent action to take today. Maryland has currently over 64,000 electric vehicles registered. The MD Green House Gas Reduction Plan includes 300,000 electric vehicles by 2025. This will result in significant CO2 tailpipe reductions in the light duty car fleet. Forty percent of CO2 emissions in Maryland come from the transportation sector.

Electric vehicle owners want convenience in charging their cars. Ninety percent of electric vehicle owners expect to charge at home. This bill will aid in consumers building out the EVSE infrastructure in Maryland and encourage car drivers to replace their internal combustion engine cars..

I ask that your committee report out this bill favorably.

Paul Verchinski, Zero Emissions Electric Vehicle Infrastructure Council, member
representing the Public

5475 Sleeping Dog Lane
Columbia, MD 21045

HB830_IndivisibleHoCoMD_FAV_RuthAuerbach.pdf

Uploaded by: Ruth Auerbach

Position: FAV



HB830 – Residential Construction or Significant Renovation – Electric Vehicle Charging

Testimony before House Environment and Transportation Committee

February 28, 2023

Position: Favorable

Dear Environment and Transportation Committee Members,

My name is Ruth Auerbach, and I represent the 750+ members of Indivisible Howard County. We are providing written testimony today to **support SB477**, requiring the installation of electric vehicle [EV] charging infrastructure during the construction or significant renovation of certain housing units and increasing the number of electric vehicle parking spaces under certain circumstances. Indivisible Howard County is an active member of the Maryland Legislative Coalition (with 30,000+ members). We are grateful for the leadership of Delegate Terrasa in sponsoring this bill.

For environmental and health reasons, Maryland should be hastening the transition from internal combustion vehicles to EVs. However, one of the obstacles for this transition is charging infrastructure. Fred Meier's cars.com article, "Do I Need a Home Charger to Own an Electric Car?", replies to the question in the title with, "The answer for now (and for the foreseeable future) is probably yes.... By home charging, we mean a Level 2 charger (...) that you control...." Many Marylanders will require access to EV charging at their homes to be willing to switch to owning an EV. SB477 is a step towards upgrading Maryland housing for EVs, especially town houses and multifamily residences.

I currently live in a town house with off street communal parking and without access to EV charging. My town home owner association currently does not have plans to install EV charging. However, with the passage of this bill, if the association needed a parking upgrade involving trenching in or around parking spaces, the association would be required to install EV charging, which would make it much more likely that my next car, and probably many of my neighbors, would be an EV.

Thank you for your consideration of this important legislation. **We respectfully urge a favorable report on this bill.**

Ruth Auerbach, PhD
9455 Clocktower Lane
Columbia, MD 21046

Wilson HB 830 FAV.pdf

Uploaded by: Scott Wilson

Position: FAV

Testimony to the House Environment and Transportation Committee
HB 830 Residential Construction or Significant Renovation - Electric Vehicle Charging

Position: Favorable

24 February 2023

The Honorable Kumar Barve, Chair
Room 251, House Office Building
Annapolis, MD 21401

Honorable Chair Barve and Members of the House Environment and Transportation Committee:

My name is Scott Wilson, and I currently drive a 2017 Chevy Bolt EV and a 2013 Nissan Leaf. I serve on the Maryland Zero Emission Electric Vehicle Infrastructure Council, and I'm also Vice President of the Electric Vehicle Association of Greater Washington DC. I recommend the passage of HB 830 for the following reasons.

When we bought our first electric car in 2012, we installed a 240V charger on the wall of the garage. Since there was no available 240V circuit in the garage, we pulled wiring from a disused air conditioner on one side of the house and ran it to the other side of the house and up into the garage. As required by code, we also installed a manual service disconnect within sight of the charger. This added about \$700 to the cost of the charger itself.

How much simpler it would have been to be able to buy a charger, hang it on the wall of the garage, and plug it into an existing 240V outlet, safely preinstalled when the house was constructed. It would have saved time and money, and it would have lowered a barrier faced by someone just thinking about buying an electric car and how to charge it at home. I was willing to put in the effort to make it happen, but many people would not have been willing or able to.

HB 830 is meant to lower the "barrier of effort" needed to easily and conveniently install an EV car charger when a current or future homeowner decides to purchase an electric car. Just like air conditioning and hot water, new homes need to come standard with a 240V outlet in the garage. If not used by an original homeowner, it likely will be used by successive ones.

HB 830 also gives residents of multifamily properties and townhomes the same opportunity as single-family homeowners to enjoy the benefits of EV ownership without undue and expensive burdens. We need to level the playing field and give multifamily

residents substantially similar access to EV charging as that enjoyed by single-family homeowners.

Thank you for your time,

Scott Wilson

HB 830 Support.pdf

Uploaded by: Tom Clark

Position: FAV



International Brotherhood of Electrical Workers
JOSEPH F. DABBS: Business Manager • THOMAS C. MYERS: President • RICHARD D. WILKINSON: Vice President
CHRISTOPHER M. CASH: Financial Secretary • RICHARD G. MURPHY: Recording Secretary • PAULO C. HENRIQUES: Treasurer



**TESTIMONY IN SUPPORT OF HB 830
RESIDENTIAL CONSTRUCTION OR SIGNIFICANT RENOVATION-
ELECTRIC VEHICLE CHARGING
February 28, 2023**

TO: Del. Kumar Barve, Chair and members of the Environment and Transportation Committee
FROM: Tom Clark, Political Director, International Brotherhood of Electrical Workers Local 26

Mr. Chair, Mr. Vice Chair and members of the Committee, I respectfully ask that you give a **favorable** report for **HB 830**. This innovative, responsible bill puts the green energy future at the doorstep (actually the driveway) of Marylanders. This legislation is well thought out and adds solutions to what will soon be an overwhelming demand for electrical vehicle charging stations.

The Freestate encourages clean energy use from its citizens and those that build. HB 830 lays out a plan for both, in the most cost-effective way. Addressing the installation of a residential Electric Vehicle Charging Station at time of construction or major renovation saves time, money and neighborhood aesthetics. I can attest that the installation of such a residential charging station after construction or renovation would quadruple the cost. This additional cost comes mostly from excavating. You would have to dig up areas that would include asphalt, side walk, grass, and concrete. This obtrusive approach makes for an expensive eye sore. Of course, not addressing the demand for electric vehicle charging stations at all would have the neighborhood filled with extensions cords and hazardous conditions for residents and especially playing children. (Please note the picture submitted. A car parked in a Fire Zone, to reach multiple extension cords used to charge the vehicle. The electrocution hazard for children, especially during the rain. Of course, the other end of this cord is leaving the residents sliding glass back door ajar, an invitation for intruders.)

The demand for residential vehicle chargers is upon us. Please address the needs of your constituents at their front door and with a simple **favorable** vote. I commend the authors and sponsors of this bill for addressing a need for electric vehicle charging stations that are “environmentally smart” now, and a “must” 30 years from now. The single-family homes, townhomes and apartments that we are building now will be standing 200 years from now, let’s equip them with the energy gear the residents and planet earth need now. I ask that you **support HB 830 and support clean energy now**. Thank you.



HB 830 Support.pdf

Uploaded by: Tom Clark

Position: FAV



International Brotherhood of Electrical Workers

JOSEPH F. DABBS: Business Manager • THOMAS C. MYERS: President • RICHARD D. WILKINSON: Vice President
CHRISTOPHER M. CASH: Financial Secretary • RICHARD G. MURPHY: Recording Secretary • PAULO C. HENRIQUES: Treasurer



TESTIMONY IN SUPPORT OF HB 830 RESIDENTIAL CONSTRUCTION OR SIGNIFICANT RENOVATION- ELECTRIC VEHICLE CHARGING February 28, 2023

TO: Del. Kumar Barve, Chair and members of the Environment and Transportation Committee

FROM: Tom Clark, Political Director, International Brotherhood of Electrical Workers Local 26

Mr. Chair, Mr. Vice Chair and members of the Committee, I respectfully ask that you give a **favorable** report for **HB 830**. This innovative, responsible bill puts the green energy future at the doorstep (actually the driveway) of Marylanders. This legislation is well thought out and adds solutions to what will soon be an overwhelming demand for electrical vehicle charging stations.

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The demand for residential vehicle chargers is upon us. Please address the needs of your constituents at their front door and with a simple **favorable** vote. I commend the authors and sponsors of this bill for addressing a need for electric vehicle charging stations that are “environmentally smart” now, and a “must” 30 years from now. The single-family homes, townhomes and apartments that we are building now will be standing 200 years from now, let’s equip them with the energy gear the residents and planet earth need now. I ask that you **support HB 830 and support clean energy now**. Thank you.



2023 TESLA HB 830 Terrasa.pdf

Uploaded by: Ashlie Bagwell

Position: FWA

TESTIMONY REGARDING HB 830
being heard by the Maryland House of Delegates Environment and Transportation Committee
on Tuesday, February 28, at 1:00 PM

Dear Chair Barve, Vice Chair Stein, and Members of the Committees:

Thank you for the opportunity to provide input on HB 830, which will increase the deployment of electric vehicle (EV) charging equipment in new home construction and significant home renovation.

Tesla's mission is to accelerate the world's transition to sustainable energy through the deployment of electric vehicles, energy storage, solar energy systems, and charging infrastructure. In 2022, Tesla delivered over 1.3 million EVs globally, accounting for about 65% of all EVs sold in the US market last year.¹ 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 set an ambitious goal of 300,000 zero emission vehicles (ZEV) on the road by 2025 and 600,000 by 2030. To meet this goal, it is important for the state to develop policies that encourage ZEV adoption, including those that make it easier and less expensive to deploy charging equipment wherever those vehicles are, whether it be at home, work, or during recreation. HB 830 is a sensible approach to increase the availability of home charging and will reduce the cost of home charging installation. It is significantly more cost-effective to install an EV charger when homes are under construction, rather than retrofitting homes later. Retrofits often require significant electrical work that will well exceed the cost of the actual charger².

Tesla supports HB 830 and recommends the below additions and amendments to reduce barriers to EV adoption by providing buyers with access to charging options where needed most, at home and while on the go.

1. In addition to the construction of new housing units and the significant renovation of existing housing units in §12-205 (b), **Tesla recommends the addition of new construction and significant renovation of commercial-designated properties that have more than 50 parking spaces.** Application of this legislation to larger facilities increases access to EV charging options at work, during recreation, and while shopping, without imposing undue burden on small businesses.
2. Under §12-205 (c)(D)(1), relating to multifamily residential buildings with off-street communal parking, HB 1146 requires at-least one (1) EVSE-installed space for each 25 residential units—a rate of only 4% EVSE-installed. To ensure that jurisdictions are not under planning for future EV adoption, a baseline of 20% EV-readiness for multifamily parking spaces is recommended. Thus, **Tesla recommends inclusion of at least four (4) parking spaces per 25 units be EV-Ready,**

¹ <https://www.spglobal.com/mobility/en/research-analysis/new-ev-entries-nibbling-away-at-tesla-ev-share.html>

² Minezaki, T, Et al. *Electric Vehicle Infrastructure Cost Analysis Report for Peninsula Clean Energy & Silicon Valley Clean Energy* (Energy Solutions, 2019), 14-16.

meaning full circuit installations include 208/240V, 40-amp panel capacity, raceway, wiring, receptacle, and overprotection devices, in addition to the EVSE-Installed requirement.

3. Section 12-205 (c)(D)(2) gives municipalities the authority to pass more inclusive and ambitious EV-readiness requirements for multifamily buildings and townhomes, but does not mention single family homes. **Tesla recommends the inclusion of single-family homes in this section.**

Thank you for the opportunity to provide this testimony.

Shatorah Roberson
Staff Policy Advisor
Tesla

HB 830 - AOBA - FWA .pdf

Uploaded by: Brian Anleu

Position: FWA



Bill No: HB 830 – Residential Construction or Significant Renovation - Electric Vehicle Charging

Committee: Environment and Transportation

Date: February 28, 2023

Position: Favorable with amendments

The Apartment and Office Building Association of Metropolitan Washington (AOBA) represents members that own or manage more than 23 million square feet of commercial office space and 133,000 apartment rental units in Montgomery and Prince George’s Counties.

AOBA supports efforts to expand electric vehicle charging capacity throughout the state. However, AOBA members are concerned about the cost of adding EV charging stations to existing housing units that undergo significant renovations. The bill defines significant renovations as any renovation that includes electric panel upgrades that increase capacity of the panel or parking upgrades that involve trenching in or around parking spaces.

While electric panel upgrades may increase capacity to meet new appliance or building system requirements, the new capacity may not be sufficient for a level 2 EV charging station. Thus, this bill could require significantly higher capital investments than housing providers had intended when deciding to make such upgrades. These costs come at a time when the rental housing industry is already under significant strain due to increased operating costs, such as utilities, labor, and insurance; increased delinquencies due to the pandemic; and new legal mandates, such as the Building Energy Performance Standards.

For these reasons, AOBA urges the committee to amend out existing housing units from the bill and only apply it to new construction. For further information, contact Brian Anleu, AOBA Vice President of Government Affairs for Maryland at (240)381-0494 or banleu@aoba-metro.org.

ChargePoint Testimony HB830:SB477_2.28.2023_Jena G

Uploaded by: Jena Ginsburg

Position: FWA



ChargePoint, Inc.
254 East Hacienda Avenue | Campbell, CA 95008 USA
+1.408.841.4500 or US toll-free +1.877.370.3802

HB830/SB477
Residential Construction or Significant Renovation - Electric Vehicle Charging Bill

February 28, 2023
Environment and Transportation Committee

Re: HB830/SB477
Residential Construction or Significant Renovation - Electric Vehicle Charging Bill

To the Committee on Environment and Transportation:

Thank you for the opportunity to provide written testimony on the above-referenced legislation and for your commitment to the electrification of transportation in Maryland. ChargePoint is a strong supporter of the complete decarbonization of the transportation system and looks forward to continuing to work with the General Assembly on legislation such as the proposed to accelerate these efforts.

Background on ChargePoint

ChargePoint is the nation’s leading electric vehicle (“EV”) charging network, with charging solutions for every charging need and all the places EV drivers go: at home, work, around town and on the road.

ChargePoint’s primary business model is not to operate charging stations ourselves, but to provide smart, networked charging solutions directly to businesses and organizations. We are committed to making it easy for cities, towns, state agencies, businesses, multifamily buildings, fleet operators, as well as individual drivers and public transit riders to go electric.

Our free downloadable app allows drivers to find charging stations (not only our stations but other stations under networks we have roaming agreements with), access data about how long a session takes, and pay for their session if payment is required. Site hosts can use our software to collect data about drivers and charge fees. We believe smart networked charging is the way of the future and are committed to making the experience a positive one for the driver and the owners and operators of our chargers. Additionally, ChargePoint has designed its network to allow other parties, such as electric utilities, the ability to access charging data and conduct load management to enable efficient EV load integration onto the electric grid.

There are currently 426 public charging stations on the ChargePoint network across Maryland.

Position on HB830/SB477

ChargePoint supports and applauds the intent of this bill. We believe updating code to include EV Ready requirements for parking spaces across residential dwellings is an effective way for the state to be proactive in ensuring there is enough EV charging infrastructure for Maryland residents as EV adoption continues to scale. Currently, it is estimated that 80-90% of charging takes place at home and ensuring that more drivers are able to transition to electric is critical for the state’s transportation electrification goals. Likewise, updating these building codes to ensure

the basic electrical infrastructure for EV charging is installed at the time of building construction will make it easier and cheaper for families, building developers/operators to install EV charging equipment as it is demanded. There are substantial studies from across the country that demonstrate that future proofing new residential construction today with EV-ready infrastructure is significantly more cost effective than installing this infrastructure post construction as a retrofit. However, ChargePoint also supports the legislation's requirements that significant renovations that would increase the existing capacity of a housing unit would also integrate EV charging at such properties. Likewise, significant renovations that would accommodate the demand for future charging would also be more cost effective than piece-meal EVSE installations over time.

We offer the following recommendations based on our experience working on EV Readiness legislation in other states, which we believe will make the legislation stronger and clearer to the variety of businesses and organizations that would have to comply with these provisions.

1. ChargePoint believes that as proposed, Section (2)(D)(1)(I) sets a very low goal for multifamily residential buildings to incorporate EV Readiness into their properties. As drafted, only 4% of a residence's parking facilities would be required to support EV charging for a property. For residents in multifamily buildings, this could drastically impact their willingness to convert to an EV. Moreover, the 4% benchmark is not consistent with the current demand for EVs, which continues to grow. ChargePoint encourages that this provision be modified to allow for the future expansion of EV-charging and establish a minimum percentage of total number of parking spaces. ChargePoint recommends that in lieu of requiring at least one communal parking space for each 25 residential units be an EV-installed parking space for L2 charging, multifamily residential be required to provide the following percentages of EV-Ready Parking Spaces depending on the property's size:

1-6 spaces: 20 % EV ready
7-24 spaces: 30% EV ready
25+: 40% EV ready

As stated, the current requirements will not impactfully influence multifamily residential buildings' charging service offerings. By requiring newly constructed properties to install the necessary conduit and wiring at the time of construction through the proposed EV-Ready benchmarks above, the legislation will ensure that there is sufficient electrical capacity to accommodate EV adoption and continued growth.

It is also critical to bear in mind that EV-Ready requirements can result in significant cost savings. While infrastructure needs vary by building type, studies have shown that the cost of an EV-Ready Space can save at least \$2,500 as opposed to retrofit construction.¹

2. ChargePoint requests modifying the EV-Ready Parking Space definition in the proposed legislation. ChargePoint's proposed definition also integrates energy management practices, which will significantly reduce the cost of complying with the bill's

¹ The City of Orlando highlighted a [local EV-Ready building cost](#) example prior to the passage of the [City's EV-Ready Ordinance](#) in 2021 and found that from a multi-family or commercial parking lot with 10 spaces, 2 of which would be EV ready, making 20% of the parking lot EV ready would cost \$916 for new construction vs \$3,460 in retrofit costs.

requirements. Networked Level 2 charging stations can share power among stations so every car can be charged optimally, without ever exceeding the rated electrical capacity for the site. Ensuring that building operators can share power from a single branch circuit will support the installation of a large number of EV chargers without requiring building developers to oversize the electrical panel, and without exceeding the capacity of the circuit.

Across North America, jurisdictions are increasingly integrating “circuit sharing” in municipal building code requirements. Enabling these cost-saving measures would help Maryland significantly decarbonize the transportation sector and, nationally, will help balance potentially competing interests across all beneficial electrification technologies.

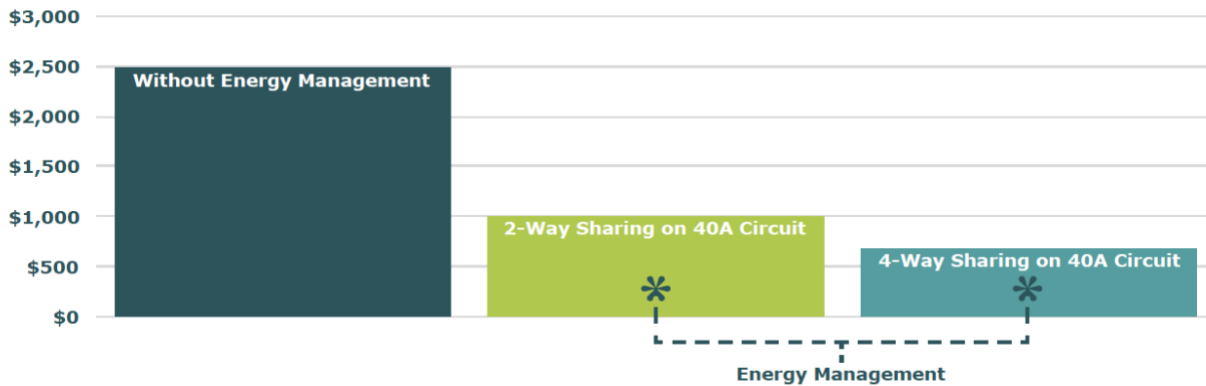


Fig. 1: Cost per parking space to provide 100% “EV Ready” parking in a new 6-story multifamily building with or without energy management.

ChargePoint respectfully recommends the following EV-Ready Space definition to be consistent with current EV-ready provisions across the country as well as adding the underlined text to enable the use of energy management systems to control EVSE loads:

"EV-ready parking space" means a dedicated parking space that features an electrical branch circuit terminating in a junction box or receptacle for Level 2 Electric Vehicle Supply Equipment located in close proximity to the proposed location of the EV parking space. Each branch circuit serving EV-ready spaces shall terminate at an outlet or enclosure, located within 3 feet (914 mm) of each EV ready space it serves. The panelboard or other electrical distribution equipment directory shall designate the branch circuit as "For electric vehicle supply equipment (EVSE)" and the outlet or enclosure shall be marked "For electric vehicle supply equipment (EVSE)." The capacity of each branch circuit serving multiple EV ready spaces designed to be controlled by an energy management system providing load management in accordance with NFPA 70, shall have a minimum capacity of 4.1 kVA per space.

OR, at minimum, ChargePoint requests that the legislation’s current definition be modified accordingly to ensure that is consistent with existing national standards and definitions for an EV-Ready Parking Space:

“EV-Ready Parking Space” means a dedicated parking space that has a full circuit installation of a minimum of ~~30~~**40**-ampere, 208/250-volt circuit panel capacity, raceway wiring, a ~~NEMA 14-50R~~ receptacle, and circuit overprotection devices.

3. To support the recommendations for energy management practices being integrated into the proposed definition of an EV-Ready Parking Space, ChargePoint also encourages the addition of the definition of EV Energy Managements Systems as follows:

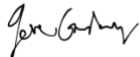
“EV Energy Management Systems” means a system to control electric vehicle supply equipment electrical loads comprised of monitor(s), communications equipment, controller(s), timer(s) and other applicable devices.

Conclusion

Thank you again for the opportunity to provide feedback on the proposed legislation included in this testimony. ChargePoint applauds the Committee for its focus on transportation electrification as one of the keys to unlocking further greenhouse gas emission reductions in Maryland.

We look forward to serving as a resource to the Committee as it continues to evaluate policies that can reduce emissions while leveraging significant private capital and creating thousands of jobs across Maryland.

Sincerely,



Jena Ginsburg
Manager, Public Policy
ChargePoint

HB0830(SB0477) - FWA - Residential Construction or

Uploaded by: Landon Fahrig

Position: FWA



Maryland Energy Administration

TO: Members, House Environment & Transportation Committee
FROM: Paul Pinsky - Director, MEA
SUBJECT: HB 830 - Residential Construction or Significant Renovation - Electric Vehicle Charging
DATE: February 28, 2023

MEA Position: FAVORABLE WITH AMENDMENTS

The Maryland Energy Administration (MEA) supports the Sponsor's efforts to ensure the installation of electric vehicle supply equipment (EVSE) is mandated during the construction phase of certain projects.

Typically, the construction phase is the most cost-effective point in time to install EVSE, also known as electric vehicle chargers. Retrofitting a property, or several properties, to receive EVSE installations typically involves navigating wire or conduit through existing walls and obstacles (causing damage and requiring mitigation), replacement of electricity panels before the end of their useful life (or the addition of a panel), and can result in other significant costs, especially where excavation or other heavy equipment may be required.

Maryland has established the goal of putting 300,000 Zero Emission Vehicles (ZEVs) on the road, and, along with 16 other states and DC, Maryland has joined in a Memorandum of Understanding (MOU) to support the deployment of Medium- and Heavy-Duty (MHD) ZEVs. **The broad and efficient deployment of EVSE is a necessary step in achieving our state's goals, while doing so at the lowest possible cost.**

While the installation of EVSE during the construction phase is efficient, MEA would limit the scope of EV charger requirements to new construction only. "Significant renovations" is an unclear term, and EVSE installation may still be expensive during significant renovations. This could inadvertently disincentivize or delay investment in renovations.

The committee may wish to consider requiring ESVE installation for *multifamily buildings* undergoing significant renovations. Multifamily buildings are particularly challenging for residents to add ESVE on their own. Residents are also more likely to be of low or moderate income, so the equities may favor requiring ESVE for these buildings undergoing significant renovation.

In an effort to avoid unintended consequences, and for the sake of clarity, **MEA offers an amendment on the following page that would limit the scope of the bill to new construction only.**

For the foregoing reasons, MEA urges the committee to issue a **favorable report as amended.**

AMENDMENT NO. 1

On page 1, in line 12, after “12-205” insert “(a), (c), and (d)”.

On page 1, in lines 2 and 5, on page 3 in lines 19 and 29, and on page 4, in line 4, in each instance, strike “**OR SIGNIFICANT RENOVATION**”.

On page 2, strike beginning with “**SIGNIFICANT**” in line 20 down through “**(9)**” in line 24; on the same page, strike beginning with the colon in line 26 down through “**(1)**” in line 27.

On page 3, strike beginning with the bracket in line 1 down through “**UNITS**” in line 2; strike beginning with “**OR**” in line 5 down through “**RENOVATION**” in line 7 and substitute “**THE CONSTRUCTION**”.

MBIA letter of support with amendment hb830.pdf

Uploaded by: Lori Graf

Position: FWA

February 28, 2023

The Honorable Kumar P. Barve
Environment & Transportation Committee
House Office Building, Room 251,
6 Bladen St., Annapolis, MD, 21401

RE: Letter of Support with Amendments for HB830 - Residential Construction or Significant Renovation - Electric Vehicle Charging

Dear Chairman Barve:

The Maryland Building Industry Association, representing 100,000 employees statewide, appreciates the opportunity to participate in the discussion surrounding **HB830 Residential Construction or Significant Renovation - Electric Vehicle Charging**. MBIA **Supports with Amendments** the Act in its current version.

While MBIA Supports the concept of creating the infrastructure for Elective Vehicles, we have some concerns about the current language in the bill. This bill imposes significant costs on families undergoing major renovations and may discourage renovations all together. A family that wants to finish their basement or expand their home could be put in the position of having to spend thousands of extra dollars for putting an EV charging station in that they don't need and can't use.

In 2020, the National Association of Home Builders conducted a study that shows for every \$1000 increase in the cost of a new house, 2,881 Marylanders are priced out of housing. This bill also drives up the costs of new construction. There may not be a need in that community for that much EV charging capability and those costs are going to be passed on to renters and homebuyers.

MBIA has been working with other stakeholders to develop amendments that achieve the goal of more infrastructure but that are not overly burdensome. MBIA requests that the committee evaluates the following when considering HB830:

- The definition of "Major Renovation" is overly broad. We have a lot of concern about the implications of this definition and requirement.
- Consider "Electric Vehicle Capable" requirements as opposed to "Electric Vehicle Supply Equipment"
- Look at the IECC 2024 Code proposals and try to align the bill with these proposals.
- Many projects take years to complete, grandfathering should be considered
- Ensure that Electric Vehicle parking spaces are included in local parking requirements
- Allow for local code officials to change requirements based on feasibility or other issues
- Provide a cap or limit on preemption allowed by local jurisdictions

For these reasons, MBIA respectfully requests the Committee give this measure a favorable report and adopt amendments to ensure housing affordability and making these requirements more feasible. We look forward to working on this with the Sponsor and other advocates. Thank you for your consideration.

For more information about this position, please contact Lori Graf at 410-800-7327 or lgraf@marylandbuilders.org.

cc: Members of the House Environment and Transportation Committee

HB 830 - MoCo_Elrich_SWA (GA 23).pdf

Uploaded by: Marc Elrich

Position: FWA



OFFICE OF THE COUNTY EXECUTIVE

Marc Elrich
County Executive

February 28, 2023

TO: The Honorable Kumar P. Barve
Chair, Environment and Transportation Committee

FROM: Marc Elrich
County Executive

RE: House Bill 830, *Residential Construction or Significant Renovation - Electric Vehicle Charging*
Support with Amendment

I am writing to express my support for House Bill 830, *Residential Construction or Significant Renovation - Electric Vehicle Charging*, and to request an amendment to the bill.

Electric vehicles (EVs) powered by a clean, renewable energy grid will play a critical role in achieving our state and local climate goals. EVs can also reduce local air pollution and improve public health. Owning an EV necessitates having parking spaces available where the vehicle can be charged.

This bill would establish requirements for the installation of electric vehicle charging equipment or EV-ready parking spaces in new construction and significant renovation of residential properties.

I support the requirements of the bill as they relate to new construction. These requirements will ensure that new homes are built ready to support the EV transition, with necessary infrastructure included in a manner that is most cost-effective and least disruptive to building owners and occupants.

I also support and appreciate language in the bill that would allow individual local governments to require a greater number of parking spaces to be constructed with installed EV charging equipment in certain circumstances.

The Honorable Kumar P. Barve
Re: House Bill 830
February 28, 2023
Page 2

I request one amendment to the way the bill would address existing buildings. As written, the bill states that any renovations that include electric panel upgrades that increase capacity of the panel (or parking upgrades that involve trenching in or around parking) would trigger the requirements of the bill related to ensuring the presence of EV-installed or EV-ready parking spaces. I agree that renovation projects involving electric panel upgrades often offer a cost-effective opportunity to also install EV charging equipment. However, I am concerned that this language would impose additional costs on homeowners whose budgets may already be stretched as they complete an upgrade to the electric panel and, for example, conversion from a gas furnace to a high efficiency electric heat pump.

There is a cost to adding a circuit and running wiring to a parking space, especially if that space is not immediately adjacent to the electric meter. In some instances, this requirement may increase the scope and cost of a renovation project such that it would dissuade from the homeowner from accomplishing their originally intended project, such as the heat pump installation example.

I suggest that, in the event of a renovation involving an upgrade to the electric panel, the property owner should be required to ensure that conduit is in place and there is space available in the electric panel to accommodate a new circuit for EV charging. However, the requirement to make the associated parking space(s) EV-ready with the addition of a circuit and wiring should only be triggered if the renovation project also involves the parking area.

We will continue to encourage property owners to make all of these upgrades to the extent feasible.

I respectfully request that the Environment Committee give this bill a favorable report with the inclusion of the suggested amendment.

cc: Members of the Environment and Transportation Committee

HB 830- Residential Construction or Significant Re

Uploaded by: Tom Ballentine

Position: FWA



February 24, 2023

The Honorable Kumar P. Barve, Chair
House Environment and Transportation Committee
House Office Building, Room 251
6 Bladen St., Annapolis, MD 21401

Support w Amendment: HB 830 – Residential Construction or Significant Renovation – Electric Vehicle Charging

Dear, Chair Barve and Committee Members:

The NAIOP Maryland Chapters represent 700 companies involved in development and ownership of commercial, mixed-use, multifamily, and light industrial real estate, including some of the largest property owners in the state. NAIOP's membership is comprised of a mix of local firms and publicly traded real estate investment trusts that are invested in the future of Maryland but also have experience in national and international markets.

NAIOP supports adoption of pragmatic strategies and technically sound, least-cost approaches to the reduction of greenhouse gas emissions on schedules that minimize economic disruption and result will result in a managed, orderly energy transition for building owners and occupants.

The building, fire and electric codes adopted by the state contain provisions to ensure the safe design and construction of electric vehicle infrastructure. House Bill 830 proposes changes to the Maryland Building Performance Standards that would specify when and how many residential parking spaces must be equipped to charge electric vehicles. The legislation builds upon existing installation requirements for new single family and townhouse construction and, for the first time, applies requirements to residential renovations and to multifamily buildings.

Maryland's climate goals and the state's adoption of California's emissions standards for cars and light trucks necessitate installation of electric vehicle charging infrastructure at an accelerated rate. Removing the barriers to electric vehicle infrastructure installation in multi-family residential buildings is a key element to meeting these requirements. Beyond that, the bill takes a pragmatic and essential step forward by proposing the retrofitting of existing single family and townhouses.

The importance of this issue makes NAIOP supportive of the goals of House Bill 830, but we are unable to support the bill as introduced. Complicating EV adoption is the lack of a recognized template for how to equitably allocate the costs and obligations of electric vehicle charging among the stakeholders – vehicle manufacturers, charging equipment companies, car owners, building owners and utilities. Today most of our members provide the charging at no cost. As the number of electric vehicles and electricity costs associated with charging increase, they will not be able to continue this practice.

Commercial building energy bills consist of energy use and demand charges. Demand charges are created to discourage excessive electricity use and reduce peak loads on the electric grid. Demand charges can influence monthly utility costs by more than 50 percent. The peak demand of an EV charger is equivalent to the peak demand of one house and that demand comes online when the EV is plugged in. In office buildings that would be early morning at the same time as building startup when heating and office equipment is also simultaneously ramping up. At higher percentages of EV parking spaces, the power requirements of the parking areas are more

than what is required to power the building. Analysis of workplace charging scenarios demonstrates that EVs could increase energy costs 45 to 89 percent.

Our primary concern with HB 830 is the cost and feasibility of retrofitting existing multi-family buildings. The literature on this subject shows retrofitting multifamily buildings is expensive and physically challenging. Existing buildings with structured parking, older structures not built to contemporary standards, and those subject to rent or sales price controls are particularly challenging. We believe these provisions should be removed from the bill.

We believe the bill needs fewer revisions to prepare a framework for installation in new multifamily buildings and would like the opportunity to work with the committee and bill sponsor to refine and clarify certain elements of the bill by:

- Removing multifamily retrofit requirements.
- Optimizing the infrastructure installation at new construction to limit instances of unused facilities.
- Refining and clarifying the definition of multi-family to align with the current building code.
- Clarifying how EV-ready affects electric load calculations and building level power requirements.
- Ensuring the caps on state grant and rebate programs align with multifamily eligibility.
- Authorizing local code officials to modify the requirements based on cost or feasibility.
- Including language to resolve potential conflicts with fire, electric and accessibility codes.
- Ensuring that dedicated EV charging spaces are counted toward parking minimums in local zoning.
- Adopting one statewide installation target and authority for limited local stretch requirements.
- Adopting a definition of significant renovation that aligns with the current building code.
- Adjusting carbon accounting methodology and inventory to ensure transportation sector emissions are not shifted to the building sector.

Thank you for the opportunity to offer comments and suggestions on HB 830. NAIOP appreciates your consideration of the industry's point of view.

Sincerely,



Tom Ballentine, Vice President for Policy

NAIOP Maryland Chapters - *The Association for Commercial Real Estate*

cc: Environment and Transportation Committee Members

Nick Manis – Manis, Canning Assoc.

HB0830-ET_MACo_OPP.pdf

Uploaded by: Dominic Butchko

Position: UNF



House Bill 830

Residential Construction or Significant Renovation - Electric Vehicle Charging

MACo Position: **OPPOSE**

To: Environment and Transportation
Committee

Date: February 28, 2023

From: Dominic J. Butchko

The Maryland Association of Counties (MACo) **OPPOSES** HB 830. The bill places strict requirements on the instillation of electric vehicle (EV) charging infrastructure for new and existing housing. While counties fully recognize and support the need to transition to a fully electric transportation infrastructure, counties have several concerns regarding how this legislation would be implemented.

Counties have long been testing policies to require EV charging infrastructure in new and existing housing with limited success. The complicating tradeoff is that requiring the installation of such infrastructure adds significant cost to the production and preservation of affordable housing. Frederick County's own foray into this field offers a possible middle ground solution, as the county currently requires the instillation of inexpensive tubing that can later be used to house much of the EV charging infrastructure. This largely negates the additional significant expenditure, and leaves open a conduit for future instillation. Under HB 830, however, this approach would be insufficient.

The bill raises further considerations around public safety. Private electrical wires, including those obligated under HB 830, are not marked or mapped like public utilities. However, these wires would lay within or beneath the same section of street. It is very possible that public works or private utility employees may need to access these underground utility connections, e.g. a water main break, and inadvertently strike one of these unmarked private electrical lines. Furthermore, there is no requirement for an easily accessible shut-off switch for these lines, so such a scenario could be made even more dangerous. The bill could be strengthened by adding language requiring private electrical lines to be marked and mapped just like public utilities, as well as requiring shut-offs that can be easily accessed by public works or private utility employees – but these considerations add to affordability concerns.

Finally, while counties agree with the spirit of the legislation, there are concerns that this bill may step into areas long seen as the purview of local governments. Maryland's uniquely tailored political system has – appropriately - left specifics regarding building requirements and regulations to the discretion of its counties.

HB 830 mandates a rigid, potentially costly, and conceivably dangerous obligation on home builders, setting aside practical efforts underway locally to accomplish similar goals, creating the surely unintended consequence of making Maryland's affordable housing crisis that much more difficult to overcome. Accordingly, MACo urges the Committee to issue an **UNFAVORABLE** report for HB 830.

HB0830-2023-Electric Vehicle Charging Final.pdf

Uploaded by: Ella Ennis

Position: UNF



Ella Ennis, Legislative Chairman
Maryland Federation of Republican Women
PO Box 6040, Annapolis MD 21401
Email: eee437@comcast.net

The Honorable Kumar P. Barve, Chairman
And Members of the Environment and Transportation Committee
Maryland House of Delegates

Re: **HB 0830** – Residential Construction or Significant Renovation – Electric Vehicle Charging - **OPPOSE**

Dear Chairman Feldman and Committee Members,

The Maryland Federation of Republican Women opposes HB 0830 which requires that every new housing unit or any home that installs an upgraded electric panel must install electric vehicle supply equipment (EVSE) at an estimated cost of \$600 to \$2,000.

Marylanders' rights are being stripped away. The General Assembly is working to limit citizens' ability to choose the home heating system of their choice, whether they can use a wood or gas fireplace, the type of vehicle they can own, the cooking range of their choice, the kind of emergency generators they can own -- all in the name of a perceived climate crisis. HB 0830 will now mandate installation of an EVSE at their home, whether they own an electric vehicle or not.

ENOUGH! Smoke detectors and carbon monoxide alarms mandated in Maryland homes were enacted for safety reasons – to prevent loss of life. There is no safety rationale for an EVSE requirement. This mandate is neither necessary nor justified.

Maryland is leading the nation in responding to climate change. According to the U.S. Energy Information Administration, Maryland's per capita petroleum consumption is the second lowest among the states. We are doing our part to lower pollution emissions. No one should be forced to install an EVSE if they don't own an electric vehicle.

Maryland should not duplicate the California Air Resources Board's vehicle standards as revised and updated (as required in SB 224 Heavy Duty Trucks). California is not a success story. They experience rolling blackouts during extreme weather events. Massive wildfires caused by failed and inadequate electric transmission systems have destroyed communities. California is not the ideal to emulate.

Maryland needs an energy mix of nuclear, renewable and, yes, fossil fuels. A goal of reliance almost exclusively on a single resource (e.g. renewable energy) is ill-advised. The renewable energy supply can be intermittently diminished or totally unavailable. Thirty-eight percent of all energy currently produced in Maryland is nuclear energy that runs continuously. This is very important during extreme weather events.

Maryland is lacking transmission system capacity sufficient to go all-electric. Offer an incentive to those who want an EVSE but do not mandate installation of an EVSE. Substantial effort must be directed to upgrading Maryland's electric transmission system before mandating EVSEs.

Please vote an **UNFAVORABLE** report for **HB 0830**.

Sincerely,
Ella Ennis

MMHA_FWA_HB830.pdf

Uploaded by: Lauren Graziano

Position: UNF



Date: February 28, 2023

Committee: Environment and Transportation

Bill: House Bill 830- Residential Construction or Significant Renovation - Electric Vehicle Charging

Position: Favorable with Amendments

This testimony is offered on behalf of the Maryland Multi-Housing Association (MMHA). MMHA is a professional trade association established in 1996, whose members consist of owners and managers of more than 210,000 rental housing homes in over 958 apartment communities. Our members house over 538,000 residents of the State of Maryland.

House Bill 830 (HB 830) prescribes new requirements for electric vehicle supply equipment for both newly constructed and significantly renovated housing units. The bill amends the statute to require existing housing units undergoing significant renovation to install one electric vehicle supply space for every garage, carport, or driveway. New construction residential buildings with communal off-street parking must have one electric vehicle supply parking space for every 25 units, however, local jurisdictions are expressly permitted to increase this requirement.

It is predicted that electric vehicles will make up more than half of all U.S. car sales by 2030.¹ As such, many property owners have already started to respond to the anticipated need by installing charging stations at their properties. However, it is universally accepted that the best time to install an electric vehicle charging station is during construction. As RCLCO Real Estate Consulting notes, “owners who neglect to deploy EVC during construction if the opportunity is available will incur significantly higher installation costs post-development.”² In fact, costs for installation post development can be three to five times more for retrofitting projects.

For these reasons, MMHA recommends amending the bill to limit the proposed electric vehicle installation requirements to new construction projects only.

Amendment:

On page 2, line 20, strike in their entirety lines 20 through 23.

On page 3, strike beginning with “and” in line 1, through “units” in line 2

On page 3, strike beginning with “or” in line 5, through “shall” in line 7

For more information, please contact Lauren C. Graziano, Senior Government Affairs Manager, 518.522.3529

¹ <https://www.naahq.org/powering-providing-charging-stations-evs-your-property>

² <https://www.rclco.com/wp-content/uploads/2020/03/Electric-Vehicle-Charging-Station-Strategy-for-Real-Estate-Implementation-in-the-US.pdf>

HB 830 - EV Charging - UNF - REALTORS.pdf

Uploaded by: Lisa May

Position: UNF



House Bill 830 – State Building Code - Electric Vehicles

Position: Oppose

While we appreciate efforts to expand access to electric vehicle infrastructure, Maryland REALTORS® opposes HB 830 for the mandates placed upon homeowners in the state.

HB 830 requires that for all new construction and substantially renovated single-family and townhouse units, an EV-installed or EV-ready parking space be constructed.

Even “substantial renovations” 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.

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 General Assembly passed updates to Public Safety Article 12-205, which went into effect in 2021. These boost awareness of electric vehicle infrastructure options while still preserving homeowner choice. REALTORS® believe that is a better approach than the one outlined in HB 830, for which we recommend an unfavorable report.

**For more information contact lisa.may@mdrealtor.org or
christa.mcgee@mdrealtor.org**

HB0830-ENT-OPP.pdf

Uploaded by: Nina Themelis

Position: UNF



BRANDON M. SCOTT
MAYOR

*Office of Government Relations
88 State Circle
Annapolis, Maryland 21401*

HB 0830

February 28, 2023

TO: Members of the House Environment and Transportation Committee

FROM: Nina Themelis, Interim Director of Mayor's Office of Government Relations

RE: House Bill 0830 – Residential Construction or Significant Renovation - Electric Vehicle Charging

POSITION: Opposes

Chair Barve, Vice Chair Stein, and Members of the Committee, please be advised that the Baltimore City Administration (BCA) **opposes** House Bill (HB) 830.

HB 0830 is a mandate for every housing unit that is newly constructed or with qualifying renovations. While we understand the goal is to provide sufficient electrical charging to encourage adoption of EVs; there are potentially unintended consequences here. When the city begins renovation for affordable housing, those residents likely do not own vehicles; Baltimore City's zoning code discounts required parking for that reason. The renovation or new construction of these affordable properties must include EV ready parking spaces.

It also appears that the intent is for those spaces to not be used by any vehicle other than an EV. Those spaces will therefore increase cost and are not likely to be used. It would appear that if the parking lot on a public housing site is trenched, then it will need to be improved with EV Charging at the same time.

While we understand the goal, the mandate will not impact all property owners in the same way. For these reasons, the BCA respectfully requests an unfavorable report for HB 830.

OPPOSE HB0830.pdf

Uploaded by: Suzanne Duffy

Position: UNF

I adamantly OPPOSE HB0830 by Delegate Terrasa on Residential Construction or Significant Renovation - Electric Vehicle Charging, this is simply an overreach of power, a cost no one should be forced to incur and quite frankly ridiculous.

HB0830 Unfavorable.pdf

Uploaded by: Virginia Kolakoski

Position: UNF

HB0830 Unfavorable

There are already so many burdens on people who are trying to renovate their homes. This is another expense and deterrent! Is the goal to burden homeowners, so they don't renovate?