



Maryland Zero Emission Vehicle Infrastructure

2024 Annual Report



Presented by the
Zero Emission Electric Vehicle Infrastructure Council
(SB 714, Chapter 378, Acts of 2015)



Presented to
Governor Wes Moore
and the Maryland General Assembly

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Acronyms

BEV	Battery Electric Vehicle
BMC	Baltimore Metropolitan Council
CFI	Charging and Fueling Infrastructure Grant Program
CPRG	Climate Pollution Reduction Grant
CSNA	Climate Solutions Now Act
DCFC	Direct Current Fast Charging
DGS	Department of General Services
EV	Electric Vehicle
EVAL	Electric Vehicle Adoption Leadership
EVC-RAA	EV Charger Reliability and Accessibility Accelerator Grant
EVIC	Electric Vehicle Infrastructure Council
EVSE	Electric Vehicle Supply Equipment
FCEV	Fuel Cell Electric Vehicle
FY	Fiscal Year (State): July 1 - June 30
GHG	Greenhouse Gas
MCEC	Maryland Clean Energy Center
MDE	Maryland Department of the Environment
MDOT	Maryland Department of Transportation
MEA	Maryland Energy Administration
MGA	Maryland General Assembly
MHDV	Medium- and Heavy-Duty Vehicle
MUD	Multi-Unit Dwelling
MVA	Motor Vehicle Administration
MWCOG	Metropolitan Washington Council of Governments
NEVI	National Electric Vehicle Infrastructure Program
OEM	Original Equipment Manufacturer
PHEV	Plug-in Hybrid Electric Vehicle
PSC	Public Service Commission
TOU	Time of Use
TRAIN	Transportation Revenue and Infrastructure Needs Commission
US EPA	United States Environmental Protection Agency
VW	Volkswagen Settlement Funding
WG	Working Group
ZEEVIC	Zero Emission Electric Vehicle Infrastructure Council
ZEV	Zero Emission Vehicle
ZEVIP	Zero Emission Vehicle Infrastructure Plan



Message from the Chair

It's been a banner year for vehicles in Maryland.

First, in January, MDOT launched our National Electric Vehicle Infrastructure program or NEVI. This landmark program was enacted in the Bipartisan Infrastructure Law, with Maryland receiving \$63 million to invest in electric vehicle chargers. By the end of the year, MDOT will have issued two Requests for Proposals and be well on the way to installation of stations that will be open by this time next year.

In addition to NEVI, the Bipartisan Infrastructure Law and Inflation Reduction Act include many competitive programs, and MDOT has been vying for that funding too. For example, a \$249-million Climate Pollution Reduction grant received in July supports deployment of clean truck chargers along the I-95 corridor spanning Maryland, Delaware, New Jersey, and Connecticut.

Meanwhile, in April, electric vehicle registrations crossed the 100,000 mark for the first time, prompting Transportation Secretary Paul J. Wiedefeld to note that it's "Maryland car buyers that are driving this transition toward clean transportation." That's exactly right – this is a broad-based movement to zero emission vehicles (ZEVs), embodied by ZEEVIC itself with membership from electric utilities to electric vehicle service equipment companies to local and State government leaders to advocates of all stripes.

And I'm proud to report that ZEEVIC has had a productive year!

As we turned the calendar page to 2024, we had recommendations in hand from our working group on energizing medium- and heavy-duty ZEVs, a hot topic. That issue was the centerpiece of our April quarterly meeting, including a presentation from an exciting new group – Powering America's Commercial Transportation (PACT). That meeting also featured great work by our legislative working group chaired by ZEEVIC member Josh Cohen, recapping a busy 2024 General Assembly session.

And our final two quarterly meetings covered other vital topics: battery recycling and reuse as well as electric utility programs for EV charging. We look forward to our collaboration with utilities moving forward, especially since the Public Service Commission tapped both ZEEVIC and MDOT as guides for the ongoing ZEV transition.



In sum, Maryland is on the move!

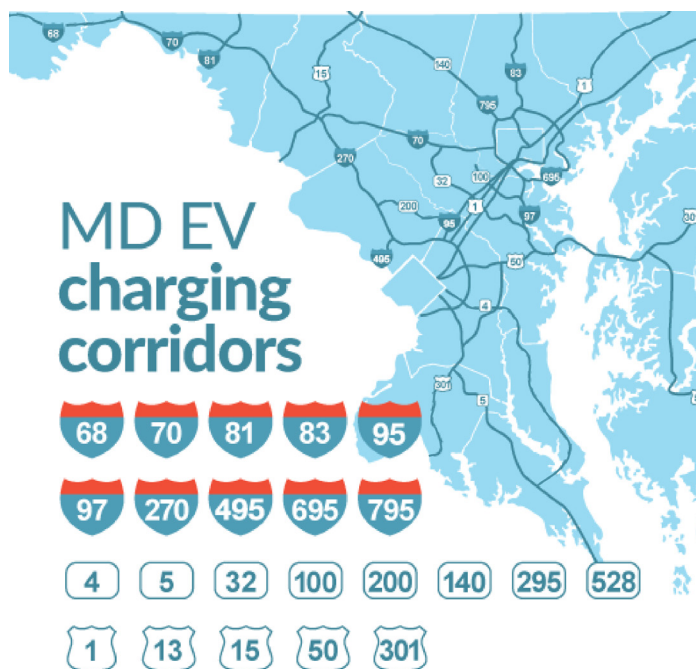
And we're just getting started. This is good news not just for consumers given the superior technology under the hood of cars and trucks with electric drivetrains – more efficiency, fewer moving parts, more durability – but also for Maryland's clean vehicle and climate goals. Currently there are almost 130,000 EVs on Maryland's roads, which is one-tenth of what's needed by 2031 to achieve Advanced Clean Cars II rule and Climate Solutions Now Act goals.

Those vehicles need to be charged. Fortunately, unlike internal combustion engines, EVs can often be charged slowly overnight at home. But Marylanders also need a substantial network of public, faster chargers. As of this fall, we had about 5,000 public charging ports in our State. MDOT estimates that we will need about nine times that many by 2031.

We have come quite far in a short period of time, and the way ahead is clear. A cleaner, more climate-friendly vehicle fleet is in sight. We just need to keep our foot on the accelerator until we take the checkered flag. Onward!

Deron Lovaas

Chief of Environment and Sustainable Transportation, MDOT



1. Purpose and Members

Introduction

The Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) was originally established as the Electric Vehicle Infrastructure Council (EVIC) in 2011. In 2015, the Maryland General Assembly extended EVIC through 2020 and established requirements for EVIC. The Clean Cars Act of 2019 expanded the scope of EVIC again to include fuel cell electric vehicles (FCEVs) powered by hydrogen, and the EVIC name was changed to ZEEVIC. In 2020, ZEEVIC's term was extended to June 2026. MDOT serves as Chair of the Council. The current members of ZEEVIC are presented in Table 1. See Appendix A for more information on directives issued to ZEEVIC in enabling legislation.

This document fulfills the requirement to submit an annual report of ZEEVIC's work and recommendations to the Governor and General Assembly under the Maryland Electric Vehicle Infrastructure Council Act.



ZEEVIC Members

Table 1: ZEEVIC Members

Member Name and Affiliation	ZEEVIC Membership Seat
Deron Lovaas , Chief of Environment and Sustainable Transportation (Council Chair)	Maryland Department of Transportation
Hyeon-Shic Shin, PhD. , Morgan State University	Member from a Maryland Institution of Higher Education
Weston Young , Worcester county	Maryland Association of Counties - Rural Region
Council Member Jolene Ivey , Prince George's county Council District 5	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
Scott Wilson , Electric Vehicle Association of Greater Washington D.C.	EV Driver Advocacy Organization
Kristy Fleischmann Groncki , BGE	Electric Companies
Vincent Wynne , PEPCO	
Jeff Shaw , SMECO	
<i>Vacant</i>	Light-Duty Electric Vehicle Manufacturer
Kelly Bobek , Volvo Group North America	Heavy-Duty Electric Vehicle Manufacturer
Joshua Cohen , SWTCH Energy	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
<i>Vacant</i>	Fleet Operator
Michael A. Wall , Clinton Electric Company	Electrical Workers
Ron Kaltenbaugh , Electric Vehicle Association of Greater Washington D.C.	Environmental Community
Sari Amiel , Sierra Club	
Paul Verchinski	Public with Expertise in Energy or Transportation Policy
John Bowis , Chevy Chase Automotive	New Vehicle Dealer Association
<i>Vacant</i>	Retail Electric Supplier Community
Marcel Heuver , LKQ Corporation	Zero Emission Vehicle Automotive Dismantler and Recycler
Senator Clarence K. Lam, M.D. , Anne Arundel and Howard counties District 12	State Senate
Delegate David Fraser-Hidalgo , Montgomery county District 15	House of Delegates
<i>Vacant</i>	
Bihui Xu , Secretary's Designee	Maryland Department of Planning
Tim Shepherd , Secretary's Designee	Maryland Department of the Environment
Ryan Powell , Secretary's Designee	Maryland Department of Commerce
Kevin Mosier , Executive Director's Designee	Maryland Public Service Commission
Diego Lopez , Director's Designee	Maryland Energy Administration
David Lapp , People's Counsel	Office of People's Counsel
Secretary's Designee	Maryland Department of General Services

2. ZEEVIC Meetings

ZEEVIC Meeting Schedule and Topics

ZEEVIC held five meetings in 2024. Meetings were held in a hybrid format virtually via Microsoft Teams and in person at MDOT Headquarters in Hanover. ZEEVIC meetings are open to the public and meeting agendas are posted on the ZEEVIC website in advance. All ZEEVIC meetings began with announcements and public comments. The ZEEVIC meeting dates and topics are presented in Table 2. Meeting notes are appended to this Report. See Appendices D to H.

Table 2: ZEEVIC Meeting Dates and Topics

Date	Meeting Topics
January 25, 2024	<ul style="list-style-type: none"> • 2024 Legislative Session of the Maryland General Assembly • PSC Orders related to EVs • Market Research Report: Understanding Marylanders’ perceptions towards EVs • MEA FY 2024 Grant Programs and Rebates
March 14, 2024	<ul style="list-style-type: none"> • ZEEVIC Draft Legislative Positions Letter
April 24, 2024	<ul style="list-style-type: none"> • 2024 Maryland General Assembly Legislative Session Recap • Zero Emission Commercial and Freight Transportation Corridors <ul style="list-style-type: none"> • National ZEV Freight Corridor Strategy • East Coast Commercial ZEV Corridor Project • Powering America’s Commercial Transportation (PACT) Coalition • Clean Corridor Coalition (C3) Proposal (Climate Pollution Reduction Grant Application) • Maryland’s Trucking Needs Assessment and Deployment Plan.
July 24, 2024	<ul style="list-style-type: none"> • Executive Order on Implementing Maryland’s Climate Pollution Reduction Plan • EV Batteries and Recycling <ul style="list-style-type: none"> • Challenges and Opportunities • “Is U.S. Battery Recycling Ready for Millions of EV’s?” • Utility 2024 Highlights
October 23, 2024	<ul style="list-style-type: none"> • Update – Governor’s Executive Order Implementing Maryland’s Climate Pollution Reduction Plan (CPRP) • 2024 By the Numbers – 2024 ZEEVIC Annual Report • Utility Proposals – EV Pilot Phase 2 <ul style="list-style-type: none"> • Public Service Commission Order 91297 • Utility EV Pilot Phase 2 Proposals

ZEEVIC Working Groups

At the discretion of the Chair, the Council may form working groups (WGs) for members to discuss topics of interest. The WGs are open to ZEEVIC members or alternates from the member's organization, and to invited speakers, at the discretion of the WG chair. ZEEVIC WGs provide the opportunity to share information and discuss ideas in a small group format. WG discussions are not decisional, but WGs have the opportunity to bring recommendations to the full Council for consideration. Three WGs were active in 2024.

1. **Legislative WG** met five times via virtual meetings in January and February to review and discuss legislative bills introduced during the 2024 Session of the Maryland General Assembly (MGA). Chaired by ZEEVIC Member Joshua Cohen, the WG drafted a letter offering ZEEVIC's proposed legislative positions on 2024 zero emission vehicle (ZEV)-related legislation. The WG presented the draft Legislative Positions Letter to the full Council at the March ZEEVIC meeting. The letter was approved by the Council and subsequently submitted to the relevant MGA committees on March 15, 2024.
2. **Interagency WG**, comprised of representatives from State agencies on ZEEVIC, was formed out of the interest and need for coordination and information sharing across State agencies. Chaired by MDOT, this WG built on work conducted by a previous ZEEVIC State Agency WG (which met in 2020 and 2021), and on other recent work completed by ZEEVIC WGs (ZEV Policy Scorecard and Medium- and Heavy-Duty ZEV Infrastructure Recommendations). Four Interagency WG meetings, which began in December 2023 and continued bi-monthly until June 2024, served as a forum for conversations, synergies, and strategizing for the development of a Statewide EV strategy.
3. **Communications WG**, seeks to fulfill ZEEVIC's requirement to increase consumer awareness and demand for ZEVs through public outreach. This effort includes ensuring that MarylandEV.org is regularly updated with the most timely and relevant material for Maryland consumers. Chaired by ZEEVIC Member Ron Kaltenbaugh, the WG was convened in November 2024 and is expected to meet quarterly in 2025.

State Agency Participants

- Maryland Department of Transportation
- Maryland Department of the Environment
- Maryland Energy Administration
- Maryland Department of Planning
- Public Service Commission
- Department of General Services
- Office of People's Counsel

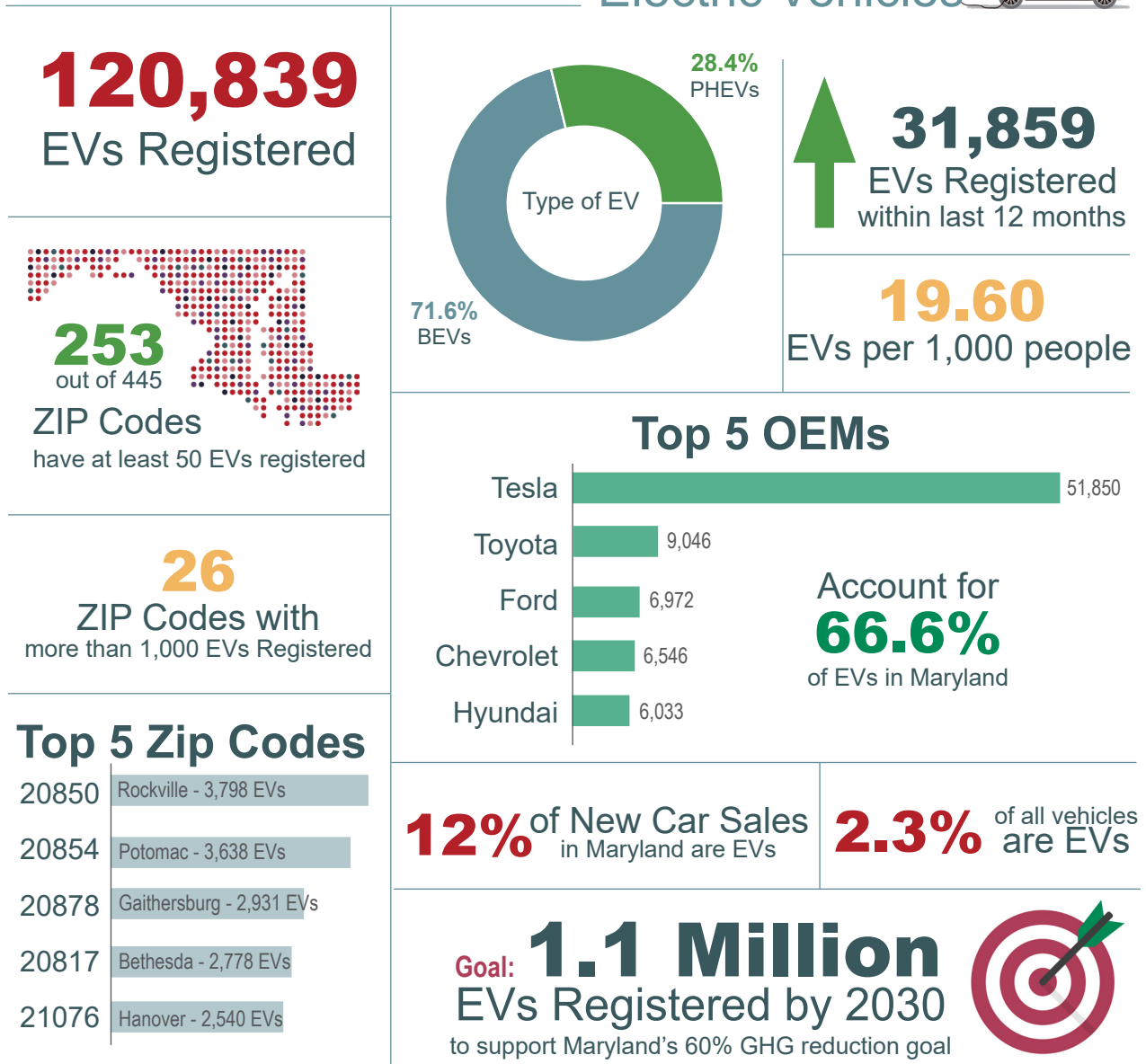
3. By the Numbers

2024 was another successful year for ZEVs and ZEV Infrastructure in Maryland. This section highlights key metrics about EV adoption, charging infrastructure, and a variety of ongoing efforts that support the transition to ZEVs in Maryland.

Electric Vehicles

Maryland continues to see considerable growth in the number of EVs registered. In 2024, Maryland surpassed the 100,000 registrations milestone. EVs are defined as the sum of battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs). For more detail about EV registrations, including a map of registrations by ZIP code, visit MDOT’s interactive [EV Dashboard](#).

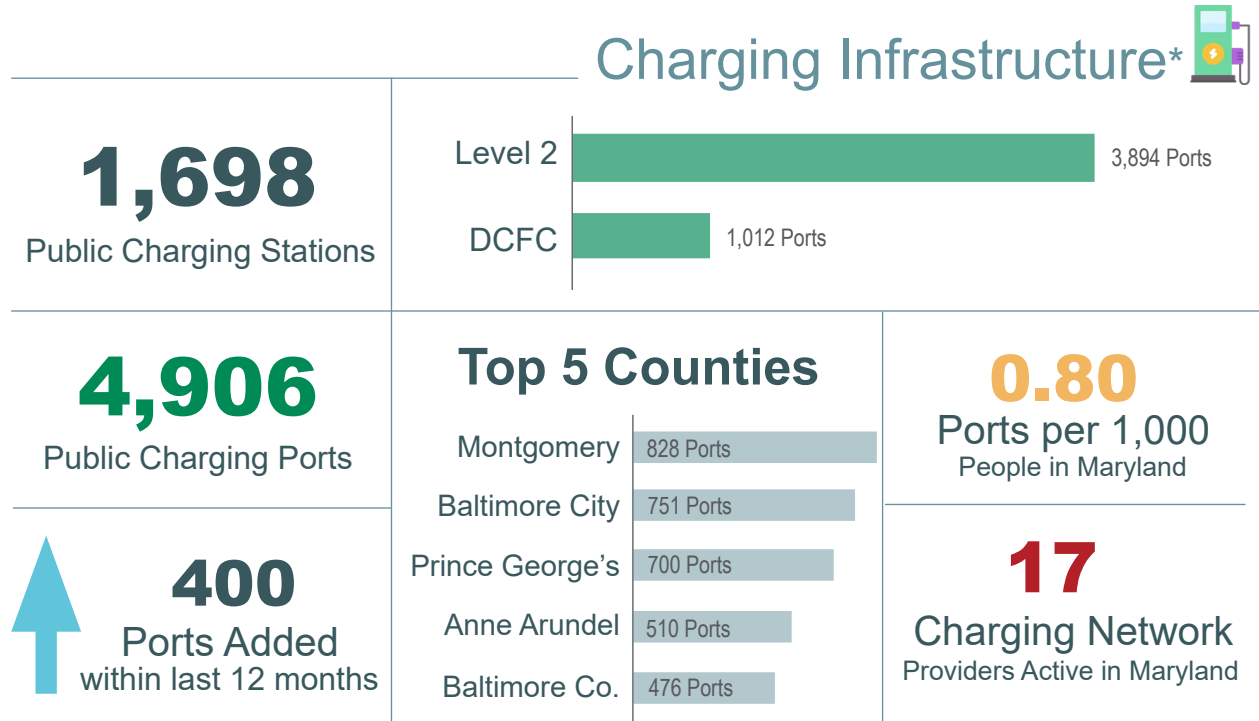
Electric Vehicles*



* Data as of October 31, 2024

Charging Infrastructure

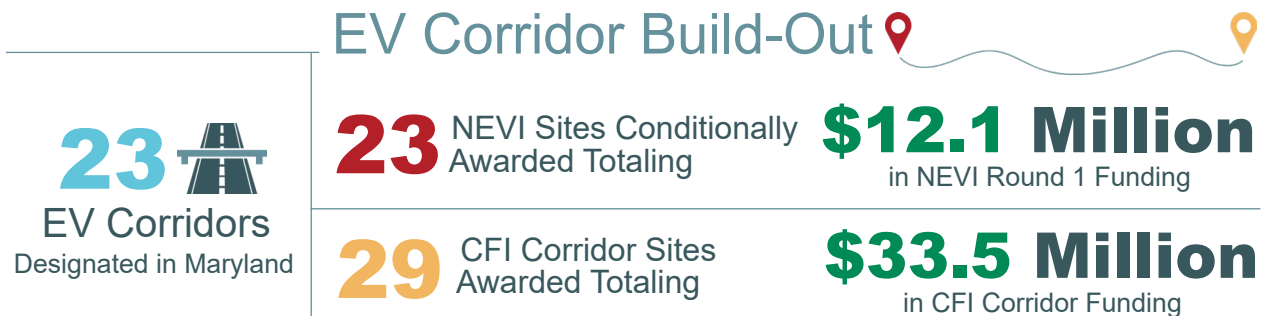
EV charging infrastructure across the State continues to expand. The availability of convenient and reliable charging is essential to support the continued growth in EVs.



* Data as of October 31, 2024

EV Corridor Build-Out with NEVI and CFI

Maryland has designated EV Alternative Fuel Corridors (EV Corridors) that are part of a national network of highway corridors established by the Federal Highway Administration (FHWA). With federal funding from the National Electric Vehicle Infrastructure (NEVI) Program and the Charging and Fueling Infrastructure (CFI) Corridor Grant Program, convenient, reliable, fast charging is expanding along Maryland's EV Corridors. In 2024, MDOT launched its first round of NEVI funding and made conditional awards for sites along EV Corridors. By the end of 2024, the Request for Proposals for the second round of NEVI will be released.




State Investment & Incentives

Maryland invests in EVs and EV infrastructure through a variety of incentives and programs administered by the Maryland Energy Administration (MEA), the Maryland Department of the Environment (MDE), and the Motor Vehicle Administration (MVA).

State Investment & Incentives

2,751
Vehicles Received
\$8.25 Million
in Excise Tax Credit in FY 24

2,662
Residential EVSE
Rebates Awarded in FY 24  Total Awarded:
\$1.6 Million

14 
Awards in FY 24
for the MHD ZEV Grant Program
Totaling More Than
\$8.6 Million
in FY 24 Funding for
54 EVs

225
Commercial EVSE
Rebates Awarded in FY 24  Total Awarded:
\$860,476

2 Projects
Awarded in FY 24
for OPEN Energy Grant Program
Totaling
\$403,000
in FY 24 Funding

10 Communities
Awarded in FY 24
for the Maryland Smart
Energy Communities Program
Receiving
\$649,750
in FY 24 Funding

State Investments Budgeted

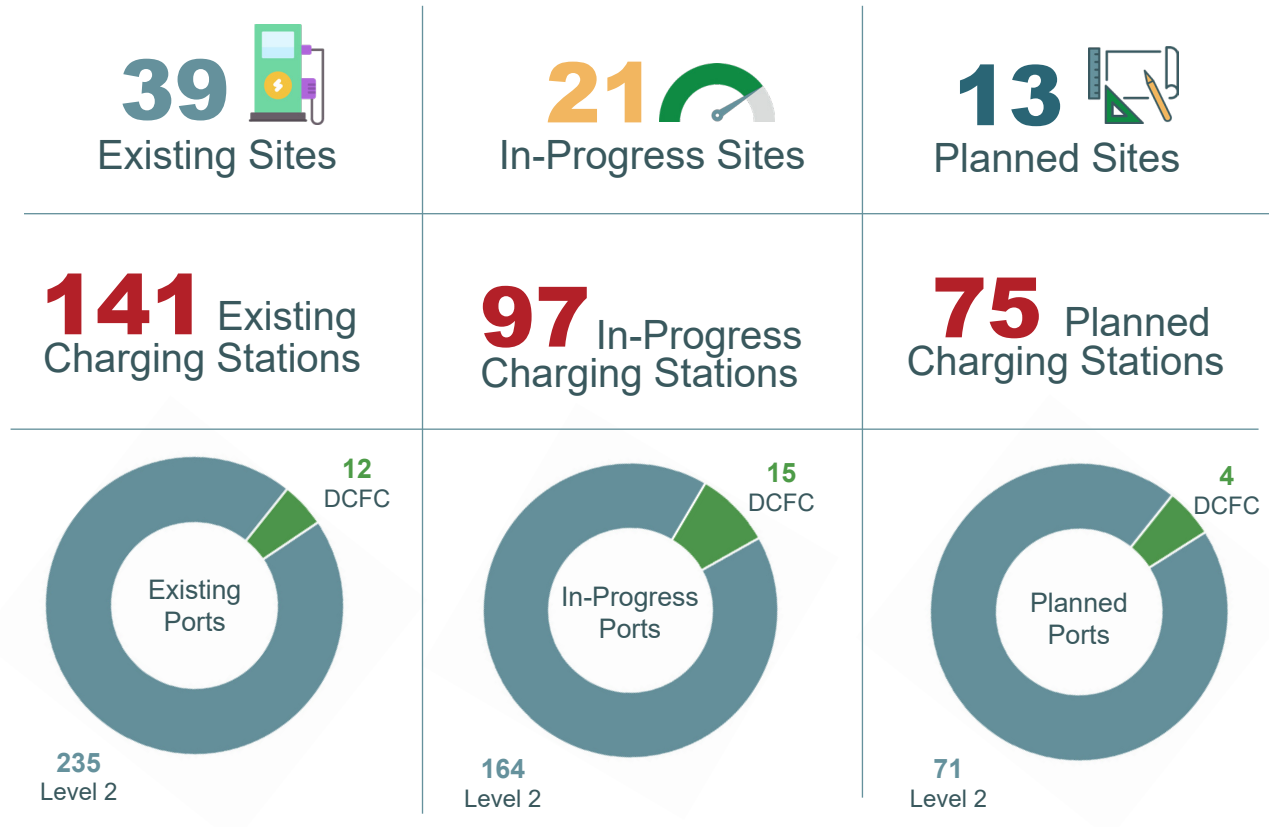
Excise Tax Credit (FY 25)	\$8.25 Million
EVSE Rebate Program (FY 25)	\$2.5 Million
EVSE Equity Program	\$23 Million
MHD ZEV Grant Program (FY 25)	\$10 Million
Electric Corridor and Charge Ahead Grant Programs (Round 3)	\$3.7 Million
Electric School Bus Grant Program (MDE)	\$3 Million
Electric School Bus Funding (VW Settlement Funds)	\$4-5 Million
Electric School Bus Grant Program (MEA)	\$17 Million
Maryland Smart Energy Communities (FY 25)	\$9.5 Million

OVER \$81 Million 
In State Investments Budgeted

State Fleet Charging Infrastructure

Electrification of State fleet vehicles is an important aspect of Maryland’s climate change mitigation strategy. The Department of General Services (DGS) coordinates installation of EV charging infrastructure at State-owned facilities to ensure charging is available as State agencies transition their fleets to ZEVs

State Fleet Charging Infrastructure



Public Service Commission & Utilities

Under the Public Service Commission (PSC) EV Pilot Program established in 2018, Utilities offer a variety of EV programs in their respective territories. These include Public Charging, whereby Utilities operate EV chargers accessible to the public on government property; enrollment of Utility customers in Time of Use (TOU) EV charging, to incentivize EV charging during off-peak hours; and programs that facilitate installation of chargers in multi-unit dwelling (MUD) communities.

Public Service Commission & Utilities*

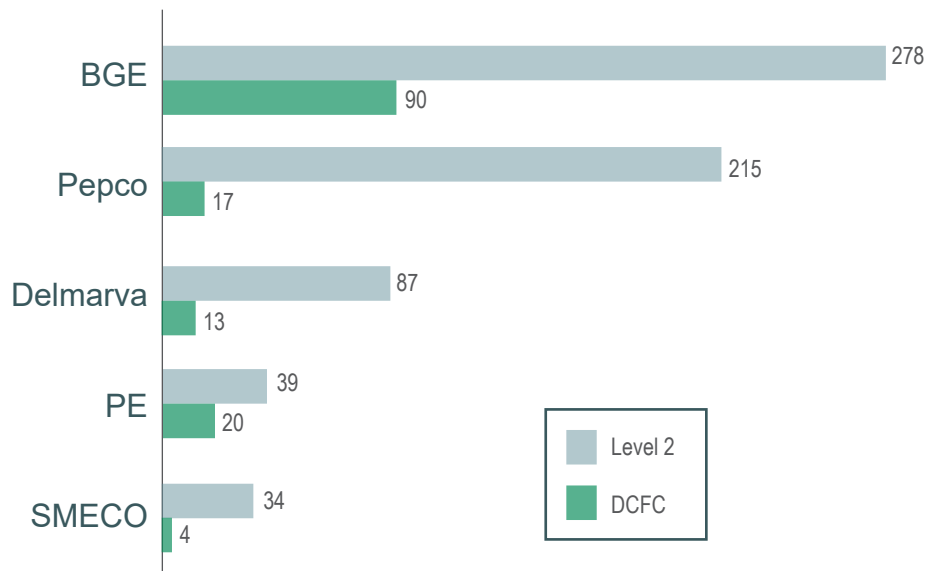
797 
Public Charging Stations

120 
MUD Sites with Utility-owned Chargers

138 Charging Stations
Installed on MUD Properties

4,666 
Customers Enrolled In EV TOU Rate Program

Public Charging Stations by Utility



* Utility Semi-Annual Progress Reports August 2024


Outreach & Education

ZEEVIC member organizations conduct outreach and educational efforts that promote the adoption of ZEVs in Maryland. These efforts include in-person events, the MarylandEV website, surveys, and webinars. These efforts are in accordance with the directive to ZEEVIC in its enabling legislation, to increase consumer awareness and demand for ZEVs through public outreach.

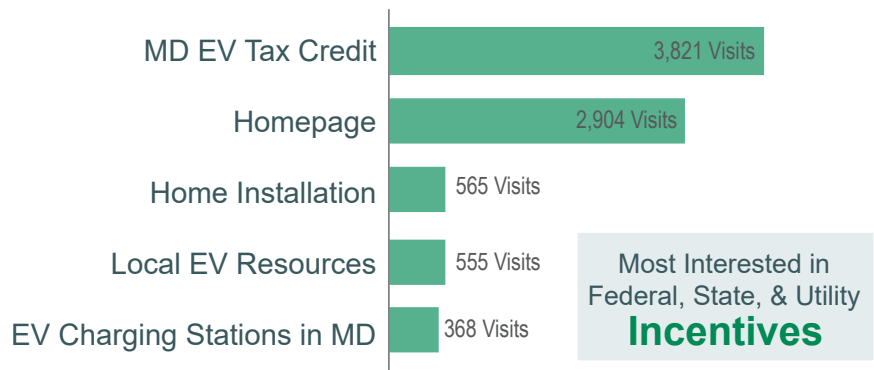
Outreach & Education*

50 Events
 Attended or hosted by
 ZEEVIC Member Organizations

10,126 
 MarylandEV Website
 Views per month

1,418 
 NEVI Survey Responses
 April 17 - May 15, 2024

Top 5 Visited MarylandEV Pages



290+ Participants in NEVI Outreach Webinars (June 2024)

* Data for August 2024

Resources

Table 3 below includes links to learn more about the data, programs, and organizations identified in the above sections.

Table 3: Resources

Organization and Programs with Links
Electric Vehicles
Electric Vehicle Registration Dashboard
Maryland Open Data Portal - EV Registration
Charging Infrastructure
Charging Infrastructure Dashboard
Maryland EV Storymap
EV Corridor Build-Out with NEVI and CFI
Maryland NEVI Program
CFI Grant Program
State Investment & Incentives
EV Charger Siting Tool
Maryland Excise Tax Credit for Plug-in EVs
EVSE Rebate Program
MHD ZEV Grant Program
OPEN Energy Innovation Grant Program (MEA)
Maryland Smart Energy Communities (MEA)
Governor Moore's Climate Programs Announced February 2024
Electric Corridor and Charge Ahead Grant Programs (MDE)
Maryland Electric School Bus Grant Program (MDE)
EVSE Equity Program (MEA)
Maryland Electric School Bus Grant Program (MEA)
State Fleet Charging Infrastructure
DGS EV Infrastructure Program
Public Service Commission & Utilities
PSC EV Pilot Program, Utility Semi Annual Reports, CN 9478
Outreach & Education
ZEEVIC Website
NEVI Outreach Webinars
NEVI Survey Response
MarylandEV Website
Electric Vehicle Association of Greater Washington DC

4. Highlights

Throughout 2024 there were many accomplishments and pieces of good news surrounding EVs in Maryland, including successful grant awards and various programs that support EV adoption in the State. Many of these items were announced and discussed at ZEEVIC meetings throughout the year and a select list is highlighted in this section.

- The Clean Corridor Coalition (NJ, CT, DE, MD) was awarded \$249 million through a Climate Pollution Reduction Grant (CPRG). This award is for the deployment of EV charging infrastructure for commercial MHD ZEVs traveling along the I-95 corridor. Maryland's portion of this award is \$80 million to fund eight charging sites.
- MDOT was awarded \$4.36 million through the EV Charger Reliability and Accessibility Accelerator Grant (EVC-RAA). This award will fund the repair or replacement of existing non-operational EV chargers at sites across the State.
- The Maryland Clean Energy Center (MCEC) was awarded \$15 million and the Metropolitan Washington Council of Governments (MWCOG) was awarded \$3.9 million for CFI Grant Program Community awards. The MCEC award provides funding for the installation of EV charging at 58 community sites and workforce development activities. The MWCOG award supports the installation of EV charging in the Metropolitan Washington region, with a focus on sites in historically disadvantaged communities.
- DGS was awarded the Electric Vehicle Adoption Leadership (EVAL) Gold certification by Forth Mobility. EVAL is a national workplace charging certification program that provides recognition and technical assistance to organizations supporting the adoption of clean transportation. DGS was awarded certifications for a total of 15 DGS-owned locations across the State including courthouses and office buildings.
- DGS facilitated the issuance of 13 new master contracts through the National Association of State Procurement Officials (NASPO). This nation-wide procurement was led by DGS, to offer public entities across the nation options for EV charging infrastructure to meet the rising demand of green vehicle/environmental initiatives. These contracts can be utilized by local governments, universities, community colleges, and eligible non-profits.



- The Baltimore Metropolitan Council (BMC) launched a new project: Electric Vehicle Community Charging Hubs for Multi-Unit Dwellings in the Baltimore Region. This effort includes key stakeholders participating in a Steering Committee to determine locations and EV charging needs for high-density residential areas within the Baltimore Region.
- The PSC Electric Vehicle Work Group (EV WG) established as part of Public Conference 44 (PC44) continued work responding to several PSC Orders. These included EV Charging Station reliability and reporting standards (Order 90971) and EV Demand Charge Relief (Order 90984). The PSC issued Order 91339 in October 2024 addressing demand charges for Level 2 EV charging at MUDs which have impeded EVSE placements. The Order directed Utilities to file tariffs addressing this issue and the EV WG to continue work on expanding managed charging to MUD EV customers. The Interconnection WG, also established under PC44, issued a Vehicle to Grid (V2G) Regulation proposal in October 2024. This proposal addressed the 2024 DRIVE Act (HB1256/SB0959).
- An Electric Vehicle Supply Equipment Work Group (EVSE WG) was established by legislation passed in the 2024 MGA session. The WG issued its Final Report to the Senate Education, Energy, and the Environment Committee and the House Economic Matters Committee in November 2024. The Final Report presents a recommended framework for reliability and reporting standards for EV charging stations in Maryland. Additionally, it addresses recommendations regarding which government entities have responsibility for ensuring accountability regarding EV charging stations and recommendations regarding adopting and implementing regulations that cover the topics listed within the enabling legislation (SB951/HB1028). Various ZEEVIC members were appointed to participate in this WG, including Paul Verchinski and Scott Wilson who were designated by the PSC as representatives of the public interest sector.
- Governor Wes Moore announced in February that \$90 million from the Strategic Energy Investment Fund (SEIF) would be allocated to electrification initiatives. This one-time funding allocation designated \$17 million for electric school buses and \$23 million for EV charging infrastructure in low- and moderate-income communities. These funding programs will be implemented by the MEA. To inform the design and implementation of an Electric School Bus Grant Program and an EVSE Equity Program, the MEA issued requests for public comment in October 2024.
- MDOT solicited proposals for its first round of National EV Infrastructure (NEVI) funding in January 2024 and conditionally awarded its first round of funding in July 2024 to install 130 DCFC ports along EV Corridors. By the end of 2024, the Request for Proposals for the second round of NEVI will be released.
- Governor Wes Moore issued an Executive Order (EO 01.01.2024.19) regarding implementation of Maryland's Climate Pollution Reduction Plan (CPRP). The EO called for the creation of the State's Zero Emission Vehicle Infrastructure Plan (ZEVIP). Development of the ZEVIP began in late 2024.

- The PSC conducted an evaluation of its EV Pilot Program Phase 1, also termed the Statewide EV Portfolio, which had been initiated in 2018. The PSC extended certain Phase 1 programs and directed Utilities to prepare proposals for Phase 2. The PSC also directed Utilities to consult with ZEEVIC on development of several program components, including fleet and workplace programs, multifamily charging, and public charging.
- MDOT submitted a multi-state application for Round 2 of the Charging and Fueling Infrastructure (CFI) Grant Program. If awarded, this grant would fund \$19.5 million to the MD-NJ-PA-WV Charging Ahead Partnership to support deployment of EV charging and alternative fueling infrastructure along the EV Corridors I-81 and I-78.
- MDE conducted the procurement process for the Trucking Needs Assessment and Deployment Plan called for by the Advanced Clean Trucks (ACT) regulation. The Study is expected to kick off in early January 2025 and be completed in the Fall 2025.
- MEA released a Multifamily Residential EV Study in January 2024, as mandated by HB830 in 2023. The Study summarized the costs, barriers, and impacts related to requiring both new and existing multifamily residential buildings to include EVSE-installed or EV-ready parking spaces.
- An annual registration surcharge for EVs was established in the 2024 MGA session by SB0362. The annual fee is \$125 per ZEV and \$100 per PHEV.
- The Carbon Reduction Program (CRP), established by the Bipartisan Infrastructure Law and administered by the Federal Highway Administration, provides funding to MDOT over five years. MDOT awarded the first round of CRP funds in 2024 for State and local government projects that will reduce transportation carbon dioxide emissions, including projects that will add EVs and EV charging.
- The US EPA Clean School Bus Program awarded \$4.6 million to Montgomery County Public Schools to purchase electric school buses. Baltimore City Public Schools unveiled 25 new electric school buses for the 2024-25 school year, which received \$9.4 million from the US EPA Clean School Bus Program in 2022. These awards align with Maryland legislation that requires the transition to zero emission school buses. In addition, MDE is administering two funding programs and MEA is administering a funding program to support school bus electrification as described in the By the Numbers section of this report.



5. 2024 Legislation Recap

ZEEVIC’s Legislative WG reviewed legislative bills affecting ZEVs and ZEV infrastructure introduced in the 2024 Session of the MGA. ZEEVIC legislative positions were submitted to the MGA on March 15, 2024, and can be found in Appendix C.

ZEEVIC took no position on various bills that proposed fees or surcharges on ZEVs because the Maryland Commission on Transportation Revenue and Infrastructure Needs (the TRAIN Commission) was active during this time. The TRAIN Commission was engaged in reviewing, evaluating, and making recommendations concerning the funding sources and structure of the Transportation Trust Fund and will issue its Final Report prior to the 2025 legislative session.

2024 Passed ZEV Legislation

Table 4 summarizes the ZEV-related legislative proposals that passed in 2024.

Table 4: ZEV-Related Legislative Bills Passed in 2024

Bill Number	Bill Title and Synopsis	Impact on ZEV Infrastructure	ZEEVIC Position
HB0159 SB0465	<p>Common Ownership Communities - Electric Vehicle Recharging Equipment (Electric Vehicle Recharging Equipment Act of 2024)</p> <p>Altering certain requirements for procedures relating to electric vehicle recharging equipment; establishing requirements and procedures relating to an application to the governing body of a cooperative housing corporation to install or use electric vehicle recharging equipment; and requiring the Department of Housing and Community Development to publish information on its common ownership community website regarding requirements, contractor information, certain points of contact, and resources on dispute resolutions.</p>	Expanded Maryland’s “right to charge” protection, which currently applies to condominiums and homeowner associations (HOAs), to include common ownership communities (COCs).	Support
HB0437	<p>Maryland Zero Emission Electric Vehicle Infrastructure Council – Membership</p> <p>Codifying provisions relating to the Maryland Zero Emission Electric Vehicle Infrastructure Council; altering and clarifying the composition of the Council to include certain public and private sector members; requiring the Council to submit interim reports of its work to the Governor and the General Assembly on or before December 1, 2024, and December 1, 2025; and requiring the Council to submit a final report of its work and recommendations by June 30, 2026.</p>	Expanded ZEEVIC’s membership to include new members.	Support

Bill Number	Bill Title and Synopsis	Impact on ZEV Infrastructure	ZEEVIC Position
HB1028 SB0951	<p>Electric Vehicle Supply Equipment Workgroup</p> <p>Establishing the Electric Vehicle Supply Equipment Workgroup; and requiring the Workgroup to report its framework and recommendations to the Senate Education, Energy, and the Environment Committee and the House Economic Matters Committee on or before November 1, 2024</p>	<p>Established an Electric Vehicle Supply Equipment Workgroup that will develop a reliability and reporting framework for EV charging stations.</p>	<p>Did not comment</p>
HB1256 SB0959	<p>Electricity – Tariffs, Distributed Energy Resources, and Electric Distribution System Support Services (Distributed Renewable Integration and Vehicle Electrification (DRIVE) Act)</p> <p>Requiring a certain electric company to file certain time-of-use tariffs with the Public Service Commission by July 1, 2025; requiring a certain electric company to attempt to achieve a certain enrollment target for certain tariffs by January 1, 2028; authorizing the Commission to require the automatic enrollment of certain customers in a time-of-use tariff on an opt-out basis; requiring the Commission to certain adopt regulations on or before May 1, 2025; etc.</p>	<p>Requires electric companies to file time-of-use tariffs with the Maryland Public Service Commission (PSC) to incentivize off-peak electricity consumption including EV charging, and requiring electric companies to establish expedited processes for customers to interconnect bidirectional EV charging systems.</p>	<p>Did not comment</p>
SB0362	<p>Budget Reconciliation and Financing Act of 2024</p> <p>Altering or repealing certain required appropriations; authorizing the use of certain funds for certain purposes; altering, from December 1, 2024, to January 15, 2027, the date by which the Accountability and Implementation Board has to conduct and submit a certain independent evaluation; altering the sales and use tax rate on certain electronic smoking devices; repealing a certain small business relief tax credit; requiring interest earnings for certain special funds to accrue to the General Fund of the State during certain fiscal years; etc.</p>	<p>Established an annual registration fee for ZEV owners in Maryland, \$125 per ZEV and \$100 per PHEV.</p>	<p>Did not comment</p>

2024 Failed ZEV Legislation

Table 5 summarizes the ZEV-related legislative proposals that were introduced in the 2024 session but were withdrawn or did not pass.

Table 5: Failed or Withdrawn ZEV-Related Legislative Proposals

Bill Number	Bill Title	ZEEVIC Position
HB0064	Motor Vehicle Excise Tax - Tax Credit for Electric Vehicles - Eligibility	Support
HB0156	Transportation - Electric Bicycle Rebate and Voucher Program - Establishment	Support
HB0652 SB0870	Vehicle Laws - Electric Vehicles - Weight Limits	Support
HB0689	Electric Vehicles - Repeal of Excise Tax Credit and Establishment of Rebate Program	Support
HB0889 SB0695	Building Code - Construction and Significant Renovation of Housing Units - Electric Vehicle Parking Spaces	Support
HB1279 SB1023	Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2024)	Support
HB1247 SB1063	Environment - Advanced Clean Cars II Program – Application and Enforcement	Oppose
HB0774	Motor Vehicles - Certificate of Title Fees - Zero-Emission Plug-In Electric Drive Vehicles	No Position
HB0913	Motor Vehicles - Registration - Annual Surcharge	No Position
SB1065	Motor Vehicles - Registration - Annual Surcharge	No Position
HB1280 SB1076	Sales and Use Tax - Electricity to Charge Electric Vehicles - Transportation Trust Fund	No Position
HB1428	Public Safety - Electric Vehicle Charging Station Safety Commission	Did not comment
HB0150	Vehicle Emissions Inspection Program and Diesel Vehicle Emissions Control Program - Fees and Fines	Did not comment
HB1010	Condominiums and Homeowners Associations - Governing Documents - Electric Vehicle Recharging Equipment	Did not comment

Appendix A: ZEEVIC Enabling Legislation and Directives

ZEEVIC Legislative Basis

The 2011 session of the Maryland General Assembly adopted, and Governor Martin O’Malley signed into law, Senate Bill 176, Chapter 400 Acts of 2011, which established the Electric Vehicle Infrastructure Council (EVIC or ‘Council’).

In 2013, Maryland House Bill 836 extended the authorization of the Council through 2017 and required additional reports.

In 2015, Maryland Senate Bill 714 extended the tenure of the Council until 2020 and set out annual reporting requirements.

In 2019, Maryland House Bill 1246 expanded the membership and responsibilities of the Council to include zero emission vehicles (ZEVs) and fuel cell electric vehicles. To reflect the expanded responsibilities of the Council, it was renamed the Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC or ‘Council’).

In 2020, Maryland House Bill 232 altered the membership of the Council and reporting requirements. This bill also extended authorization of the Council through June 30, 2026.

In 2021, Maryland House Bill 30 altered the membership of the Council.

In 2024, Maryland House Bill 437 altered the membership of the Council.

Membership

The membership of ZEEVIC, as outlined in its originating legislation and subsequently amended, serves to represent a diverse set of interests, perspectives, and responsibilities, including utilities, State agencies, private enterprise, and non-profit EV advocates. ZEEVIC Membership is comprised of the following 32 representatives:

1. One member of the Senate of Maryland, appointed by the President of the Senate
2. Two members of the House of Delegates, appointed by the Speaker of the House
3. The Secretary of Transportation, or the Secretary’s designee
4. The Secretary of Planning, or the Secretary’s designee
5. The Secretary of the Environment, or the Secretary’s designee
6. The Secretary of Commerce, or the Secretary’s designee
7. The Secretary of General Services, or the Secretary’s designee
8. The Executive Director of the Technical Staff of the Maryland Public Service Commission, or the Executive Director’s designee
9. The Director of the Maryland Energy Administration, or the Director’s designee
10. The People’s Counsel, or the People’s Counsel’s designee

The following members are appointed by the Governor:

11. One representative of an institution of higher education in the State with expertise in energy, transportation, or the environment
12. Two representatives of the Maryland Association of Counties, including:
 - a. A representative who resides in a rural region of the State
 - b. A representative who resides in an urban or suburban region of the State
13. Two representatives of the Maryland Municipal League, including:
 - a. A representative who resides in a rural region of the State
 - b. A representative who resides in an urban or suburban region of the State
14. One representative of an electric vehicle driver advocacy organization
15. Two representatives of electric companies in the State
16. One representative of a light-duty plug-in electric drive vehicle manufacturer
17. One representative of a heavy-duty plug-in electric drive vehicle manufacturer
18. One representative of a manufacturer of plug-in electric drive vehicle charging stations
19. One representative of manufacturers of fuel cell electric vehicles
20. One representative of manufacturers of fuel cell electric vehicle infrastructure equipment
21. One representative of fleet vehicle operators
22. One representative of electrical workers
23. Two representatives of the environmental community
24. One public member with expertise in energy or transportation policy
25. One representative of a new vehicle dealer association in the State
26. One representative of the retail electric supplier community
27. One representative of an automotive dismantler and recycler that dismantles, destroys, or recycles zero emission electric vehicles and that, if applicable, recycles lithium-ion batteries

Directives

2011 directives established by Senate Bill 176, Chapter 400 Acts of 2011, and amended in subsequent bills, required the Council to:

1. Develop an action plan to facilitate the successful integration of zero emission electric vehicles into the State's transportation network.
2. Assist in developing and coordinating Statewide standards for streamlined permitting and installation of residential and commercial electric vehicle charging and hydrogen refueling stations and supply equipment.
3. Develop a recommendation for a Statewide electric vehicle charging and hydrogen refueling infrastructure plan, including placement opportunities for public charging and hydrogen refueling stations.
4. Increase consumer awareness and demand for zero emission electric vehicles through public outreach.

5. Make recommendations regarding monetary and nonmonetary incentives to support zero emission electric vehicle ownership and maximize private sector investment in zero emission electric vehicles.
6. Develop targeted policies to support fleet purchases of zero emission electric vehicles.
7. Develop charging solutions for existing and future multi-dwelling units.
8. Develop model procurement practices for light-duty vehicles that include an evaluation of the vehicle lifecycle costs inclusive of estimated fuel cost over the anticipated life of the vehicle.
9. Encourage local and regional efforts to promote the use of electric vehicles and attract federal funding for State and local zero emission electric vehicle programs.
10. Recommend policies that support zero emission electric vehicle charging and hydrogen refueling from clean energy sources.
11. Recommend a method of displaying pricing information at public charging and hydrogen refueling stations.
12. Establish performance measures for meeting zero emission electric vehicle–related employment, infrastructure, and regulatory goals.
13. Pursue other goals and objectives that promote the utilization of zero emission electric vehicles in the State.
14. Submit reports by certain dates regarding the progress on the above items.

Appendix B: Status of ZEEVIC Directives

In 2011, Senate Bill 176, Chapter 400 Acts of 2011, assigned an initial list of directives to the Council. These directives were affirmed in subsequent legislation (subsequent legislative bills are listed in Appendix A). The following table lists each directive and its status in 2024.

Directive	Status
Develop an action plan to facilitate the successful integration of zero emission electric vehicles into the State's transportation network.	The original Electric Vehicle Infrastructure Action Plan was completed in 2012. Maryland's first plan for NEVI Formula Funding Deployment was created in 2022, and was updated in 2023 and 2024. The Maryland Zero Emission Vehicle Infrastructure Plan (ZEVIP), including a multi-agency strategy, is under development in 2024.
Assist in developing and coordinating Statewide standards for streamlined permitting and installation of residential and commercial electric vehicle charging and hydrogen refueling stations and supply equipment.	Certain ZEEVIC member organizations were participants in the EVSE WG established via 2024 Legislation (SB951/HB1028). The WG addressed three topics: a framework for reliability and reporting standards for EV charging stations; a recommendation of which governmental entity should have responsibility for ensuring accountability; and a recommendation regarding regulations to consider adopting. The WG Report to the MGA was completed in November 2024.
Develop a recommendation for a Statewide electric vehicle charging and hydrogen refueling infrastructure plan, including placement opportunities for public charging and hydrogen refueling stations.	The original Electric Vehicle Infrastructure Action Plan was completed in 2012. The Maryland ZEVIP, including a multi-agency strategy, is under development in 2024.
Increase consumer awareness and demand for zero emission electric vehicles through public outreach.	Consumer-facing education and outreach material is maintained on the MarylandEV.org website and distributed through social media. MarylandEV.org provides links and referrals to a variety of online outreach material provided by ZEEVIC member organizations and other outlets.
Make recommendations regarding monetary and nonmonetary incentives to support ZEV ownership and maximize private sector investment in zero emission electric vehicles.	This directive is addressed annually through Council correspondence to the MGA during the Legislative Session, as developed by the Council's Legislative WG.
Develop targeted policies to support fleet purchases of zero emission electric vehicles.	Requirements to convert fleets to zero emission vehicles were enacted via the passage of Advanced Clean Cars II, Advanced Clean Trucks, the Climate Solutions Now Act, and other State and federal policy and legislative initiatives.
Develop charging solutions for existing and future multi-dwelling units.	This directive is addressed through Council correspondence to the MGA during the Legislative Session, as developed by the Council's Legislative WG. This effort is coordinated with the EV WG established under Public Conference 44 of the Public Service Commission.

Directive	Status
Develop model procurement practices for light-duty vehicles that include an evaluation of the vehicle lifecycle costs inclusive of estimated fuel cost over the anticipated life of the vehicle.	This directive was addressed through State Agency coordination in 2019 and 2020.
Encourage local and regional efforts to promote the use of electric vehicles and attract federal funding for State and local ZEV programs.	This directive is addressed through various outreach efforts by ZEEVIC member organizations.
Recommend policies that support zero emission electric vehicle charging and hydrogen refueling from clean energy sources.	This directive is addressed through State Agency coordination and various programs by ZEEVIC member organizations.
Recommend a method of displaying pricing information at public charging and hydrogen refueling stations.	Federal minimum standards and requirements enacted in 2023 address payment methods, customer service, communication of price, and other aspects of EV charging. The EVSE WG (established by SB951/ HB1028 in 2024) issued a final report providing recommendations to the MGA for subsequent legislation regulating EVSE, both public and private, that will be used by consumers.
Establish performance measures for meeting ZEV-related employment, infrastructure, and regulatory goals.	The Maryland Electric Vehicles Dashboard maintains up-to-date performance measurement data for vehicles and infrastructure. The Dashboard is linked to the ZEEVIC web page and other web pages maintained by MDOT and ZEEVIC member organizations.
Pursue other goals and objectives that promote the utilization of ZEVs in the State.	At quarterly Council meetings, and through its WGs, ZEEVIC addresses various topics related to the advancement of ZEV Infrastructure in Maryland.
Submit reports by certain dates regarding the progress on the above items.	The ZEEVIC Annual Report is submitted to the Department of Legislative Services (DLS) annually in compliance with the reporting requirement.

**Appendix C:
Legislative Positions Letter**



March 15, 2024

House Environment and Transportation Committee
 Senate Education, Energy, and the Environment Committee
 Senate Judicial Proceedings Committee
 House Economic Matters Committee
 House Ways and Means Committee
 Senate Budget and Taxation Committee

Re: Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) Legislative Positions

Dear Chair Korman, Chair Feldman, Chair Smith, Chair Wilson, Chair Atterbeary, Chair Guzzone and Committee Members:

Maryland's Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) has reviewed the 2024 legislation below and respectfully offers the following statements of position.

About ZEEVIC

The Maryland General Assembly established ZEEVIC (originally the Electric Vehicle Infrastructure Council, or EVIC) via legislation in 2011 and expanded it in 2019. ZEEVIC's mission is 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 and support its transition to a clean transportation economy.

ZEEVIC **supports** the following bills:

- [HB 0064](#): **Motor Vehicle Excise Tax – Tax Credit for Electric Vehicles – Eligibility.** This bill expands eligibility for Maryland's \$3,000 electric vehicle (EV) excise tax credit – which currently applies only to new vehicles – to also include used vehicles.

Comment: The aftermarket for used EVs represents a growing segment of EV sales and is key to expanding EV adoption among low- and moderate-income (LMI) households. This bill will support Maryland's EV adoption goals by helping make the purchase of a used EV more affordable, thereby supporting EV adoption both overall and in a more equitable manner among LMI households.

- [HB 0156](#): **Transportation – Electric Bicycle Rebate and Voucher Program – Establishment.** This bill establishes a rebate and voucher program for income-qualifying

individuals in the amount of \$2,000 for electric bicycles (e-bikes) and lesser amounts for associated e-bike components and infrastructure.

Comment: E-bikes are an affordable and effective means of transportation and have become a primary mode of transportation for many households. This bill will make e-bike ownership and usage more affordable for LMI households, thereby enabling more zero emission mobility options for more Marylanders.

- [HB 0159](#) / [SB 0465](#): **Common Ownership Communities – Electric Vehicle Recharging Equipment (Electric Vehicle Recharging Equipment Act of 2024)**. This bill expands Maryland’s “right to charge” protection, which currently applies to condominiums and homeowner associations (HOAs), to include common ownership communities (COCs), and expands the definition of charging equipment to include chargers for e-bikes, among other provisions.

Comment: By ensuring the right of COC residents to purchase and install at-home charging, and also by including e-bike chargers under the “right-to-charge” protection, this bill will allow more Marylanders to benefit from driving and riding electric and will help support Maryland’s ZEV adoption and emissions reduction goals.

- [HB 0437](#) / [SB 0553](#): **Maryland Zero Emission Electric Vehicle Infrastructure Council – Membership**. This bill expands ZEEVIC’s membership to include additional stakeholders such as the Department of General Services.

Comment: The ZEV transition affects multiple aspects of Maryland’s economy. By adding additional voices to ZEEVIC, this bill will facilitate consideration of more perspectives and enable greater collaboration among stakeholders.

- [HB 0652](#): **Vehicle Laws - Electric Vehicles - Weight Limits**. This bill allows trucks and other vehicles to exceed weight limits by up to 2,000 lbs if they are primarily powered by electric drive motors.

Comment: Battery electric vehicles generally weigh more than comparable combustion engine vehicles. To offset this additional battery weight, operators of electric semis and other trucks must often reduce the weight of their payloads. This in turn can reduce revenue and be a disincentive to electrifying the trucking sector. This bill will help mitigate this disincentive and support electrification of medium- and heavy-duty trucks in Maryland. More than ten other states have enacted similar 2,000-lb weight exemption bills, including neighboring Pennsylvania and Virginia.

- [HB 0689](#): **Electric Vehicles – Repeal of Excise Tax Credit and Establishment of Rebate Program**. This bill effectively converts Maryland’s ZEV excise tax credit program into a rebate program for the dealer to administer at the point of sale, for vehicles purchased and titled between July 1, 2025 and June 30, 2027.

Comment: By converting Maryland’s ZEV tax credit into a rebate, this bill will enable ZEV buyers to immediately benefit from the incentive at the time of purchase, rather than paying or financing the full purchase price up front and waiting until filing taxes the following year to receive the incentive.

- [HB 0889](#) / [SB 0695](#): **Building Code – Construction and Significant Renovation of Housing Units – Electric Vehicle Parking Spaces.** This bill establishes EV-ready minimum requirements that increase over time for new construction or significant renovation of multifamily buildings.
– AND –
- [HB 1279](#) / [SB 1023](#): **Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2024).** This bill establishes standards for certain types of new construction that include minimum EV-ready electrical requirements which vary depending on the type of building. The bill also defers to the International Energy Conservation Code (IECC) standards if the IECC standards are more stringent.

Comment: ZEEVIC supports the goals of these two sets of companion bills to establish EV-ready requirements for new construction. It is far less expensive to plan, design, engineer, and install charging infrastructure at the time a building is being built than to retrofit existing construction. By establishing EV-ready requirements for certain types of buildings such as multifamily, these bills also will help enable more equitable charging access, because multifamily households are an underserved segment when it comes to EV charging.

ZEEVIC **opposes** the following bill:

- [HB 1247](#) / [SB 1063](#): **Environment - Advanced Clean Cars II Program - Application and Enforcement.** The Advanced Clean Cars II (ACC II) Program, which Maryland adopted in 2023, requires automakers to deliver an increasing percentage of light-duty zero-emission or hybrid vehicles with each subsequent model year beginning with Model Year (MY) 2027. This bill prohibits the State from implementing the ACC II Program prior to MY 2030, and further prevents the State from enforcing the Program.

Comment: By delaying ACC II implementation and preventing enforcement of it, this bill would hinder ZEV adoption in Maryland and serve as a barrier to realizing the associated benefits. The ACC II Program is a pivotal linchpin for accelerating adoption of ZEVs in Maryland and reducing transportation-related greenhouse gas emissions and air pollutants.

ZEEVIC takes **no position** on the following bills:

- [HB 0774](#): **Motor Vehicles - Certificate of Title Fees - Zero-Emission Plug-In Electric Drive Vehicles.** This bill establishes a \$200 certificate of title fee for EVs.

- **[HB 0913](#): Motor Vehicles – Registration – Annual Surcharge.** This bill establishes an additional motor vehicle registration surcharge of \$100 for EVs and fuel cell vehicles, and \$75 for other vehicles, to be paid into the Transportation Trust Fund. The revenues from the EV surcharge are to fund the purchase of ZEV or alternative-fuel buses, and/or ZEV or hybrid vehicles for the state fleet.
- **[HB 1280](#) / [SB 1076](#): Sales and Use Tax – Electricity to Charge Electric Vehicles – Transportation Trust Fund.** This bill requires the Comptroller to distribute the sales and use tax received from the sale of electricity used in commercial and other non-residential charging of EVs to the Transportation Trust Fund.
- **[SB 1065](#): Motor Vehicles - Registration - Annual Surcharge.** This bill requires a ZEV owner to pay an additional annual \$100 surcharge, adjusted annually for inflation, to be allocated to the Transportation Trust Fund. The State is to use those proceeds to fund the purchase of ZEV or alternative-fuel buses, and/or ZEV or hybrid vehicles for the state fleet.

Comment: These four bills would each establish different mechanisms and amounts for ZEVs to contribute to State revenues. ZEEVIC believes ZEVs should contribute their fair share to the Transportation Trust Fund (TTF). However, ZEEVIC considers it premature to take a position on these bills until the Maryland Commission on Transportation Revenue and Infrastructure Needs (the TRAIN Commission) issues its Final Report. The TRAIN Commission is required to review, evaluate, and make recommendations concerning the funding sources and structure of the TTF, and to issue its Final Report prior to the 2025 legislative session.

Each statement of position above represents a consensus viewpoint of ZEEVIC’s diverse stakeholder membership. Individual ZEEVIC members may reach out separately to share additional perspective on bills.

Additional information about ZEEVIC’s membership, mission, and goals are available in the attached handout. Also attached please find ZEEVIC’s 2023 Maryland ZEV Policy Scorecard.

Thank you for your consideration of ZEEVIC’s statements of position. If you have questions or if I can provide further information, please feel free to email zeevic@mdot.maryland.gov.

Respectfully,



Josh Cohen
Chair, Legislative Working Group
ZEEVIC

Attachments

Appendix D: January Meeting Notes

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) January Meeting

Meeting Date: January 25, 2024

Meeting Location: Hybrid – Teams Meeting and MDOT HQ

ZEEVIC Members/Appointed Representatives in Attendance:

- Lovaas, Deron (MDOT), ZEEVIC Chair
- Alfred, Joe (Ally Power)
- Amiel, Sari (Sierra Club)
- Bowis, John (Chevy Chase Automotive)
- Cohen, Joshua (SWTCH Energy)
- Edmondson, David (City of Frederick/MML)
- Forsythe, Nina (City of Frostburg/MML)
- Delegate Fraser-Hidalgo, David (MGA)
- Ivey, Jolene (Prince George’s County Council/MACO)
- Kaltenbaugh, Ron (EVADC)
- Mosier, Kevin (PSC)
- Shaw, Jeff (SMECO)
- Shepherd, Tim (MDE)
- Verchinski, Paul (Public)
- Wall, Michael (Clinton Electric)
- Wilson, Scott (EVADC)
- Wynne, Vincent (PHI)
- Young, Weston (Worcester County/MACO)

ZEEVIC Member Alternates:

- Buscemi, Natalie (MEA)
- Janaskie, Amanda (BGE)
- Woods, Mollie (OPC)

Other Presenters:

- Baker, Ben (PSC)
- Bankard, Rebecca (MDOT/MBI)
- Coffman, Eric (MEA)
- Duff, Bryan (Sensis)
- Hinh, Amanda (MDOT)

Staff:

- Burke, Virginia (MDOT)
- Cortazzo, Sophia (MDOT)
- Kamara, Hallimah (SensisConnect)
- Sawada, Leo (Jacobs)

Welcome and Announcements

- A new member appointed to ZEEVIC was introduced. Ron Kaltenbaugh, affiliated with Electric Vehicle Association of Grater Washington DC (EVADC), was appointed to one of two seats designated for the environmental community.
- [Maryland By the Numbers](#): 92,722 Registered EVs in Maryland at the end of 2023.
- NEVI Request for Proposals (RFP) was released for the [Round 1 Program](#) on January 16. Proposals are due by April 10. For more information, visit evplan.mdot.maryland.gov.
- [EV Charger Reliability and Accessibility Accelerator Grant](#) MDOT was awarded \$4.36 million in NEVI set-aside funding. Funds are for repair/replacement of 25 EV charging sites.
- [Charging and Fueling Infrastructure Program Grant \(CFI\) Awards](#) The Maryland Clean Energy Center (MCEC) was awarded \$15 million for community EV charging sites and workforce development activities.
- [Electric and Low-Emission School Buses for Montgomery County](#) Montgomery County Public Schools was awarded \$4.7 million by the US EPA Clean School Bus Program, to purchase 50 new



buses. MDE conducted a [webinar](#) in December 2023 for agencies seeking funding to electrify School Bus fleets.

- Baltimore Metropolitan Council (BMC) is launching a new project: EV Community Charging Hubs for Multi-Unit Dwellings in the Baltimore Region. BMC is looking for key stakeholders to join the Steering Committee for this project. Please contact Anna Marshall, Environmental Planner, BMC, at amarshall@baltometro.org with questions or input.

Public Service Commission (PSC) Orders Related to Electric Vehicles

Ben Baker, PSC

- Ben gave an update on recent PSC orders affecting matters related to EVs or EV infrastructure. He will be convening the PSC EV Work Group for ongoing work directed by these orders:
- Recent Orders:
 - Order 90971 – EV Charging Station Reliability and Reporting Standards
 - Order 90984 – EV Demand Charge Relief Program
 - Letter Order – BGE EV Program Phase II
 - Order No.90948 – BGE MYP II
 - Letter Order – School Bus Pilot

Public Comments

- **Robert Borkowski** – Expressed concerns regarding lack of financial support for EV charging installations once they are operational. His condominium board of directors is trying to remove an EV charging installation that has been in operation for multiple years. (<https://ClarksburgCondo2.com>).
- **Emanuel Wagner** – Highlighted advancements in hydrogen fueling infrastructure across the country and in this region. Out of the \$623 million awarded through the CFI program, about \$90 million went to hydrogen fueling infrastructure developments. Federal funds were awarded for Hydrogen Hubs in DE/NJ/PA and in WV/OH/PA/KY.
- **Joyce Breiner** - Highlighted lessons learned from recent news coverage of EV drivers in Chicago facing cold and icy weather, including public education about EVs and cold weather.
- **James Wagner** – Asked about EV charging in snow or rainy weather, is there an electrical hazard or safety risk. Mike Wall and Scott Wilson responded ports are safe during inclement weather due to GFIC protection. Safety mechanisms are in place that will not allow electricity to flow through the charger unless there is a secure connection between the charger and the car, so even in the rain the charger does not pose an electrical hazard to the user.

2024 Legislative Session

Delegate David Fraser-Hidalgo

- Delegate Fraser-Hidalgo summarized several bills being considered in this Legislative Session, including converting the EV excise tax credit to a point of sale rebate; a change to VEIP exemptions and fees; and addressing ‘fair share’ contributions to road maintenance by EVs in lieu of EVs paying gas tax collected at gas stations.

Josh Cohen, Chair, ZEEVIC Legislative Working Group

- Brief recap of bills the Working Group has discussed so far:
 - **HB 0064** Motor Vehicle Excise Tax – Tax Credit for Electric Vehicles – Eligibility



- **HB 0159** Common Ownership Communities – Electric Vehicle Recharging Equipment (Electric Vehicle Recharging Equipment Act of 2024)
- **HB 0150** Vehicle Emissions Inspection Program and Diesel Vehicle Emissions Control Program – Fees and Fines
- **HB 0130 / SB 0258** Department of General Services – State Buildings and Facilities – Energy Conservation and Greenhouse Gas Emissions Reductions
- **HB 0156** Transportation – Electric Bicycle Rebate and Voucher Program – Establishment

Market Research Report: Understanding Marylanders’ Perceptions Towards Electric Vehicles

Bryan Duff, Sensis

- Bryan Duff presented market research about Marylanders’ perceptions toward EVs. The report included syndicated research from the MRI-Simmons database, as well as a review of the existing literature on EVs in Maryland. Bryan offered recommendations and takeaways, as well as a preview of forthcoming qualitative research through in-depth interviews.
- He requested that anyone interested in participating in interviews contact him via email (bduff@sensisagency.com).

Maryland Energy Administration (MEA) FY 2024 Grant Programs and Rebates

Eric Coffman and Natalie Buscemi, MEA

- Eric Coffman and Natalie Buscemi presented an update on MEA’s Transportation Programs, including the following FY 2024 grant programs and rebates supporting clean vehicle technologies and ZEV infrastructure:
 - EVSE Rebate Program
 - MHD ZEV Grant Program
 - Maryland Smart Energy Communities (MSEC)
 - OPEN Energy Program
 - Resilient Maryland
 - Solar Canopy and Dual Use Program

Closing Remarks – Deron Lovaas, Chair

- New material posted to Mdot.Maryland.Gov/ZEEVIC:
 1. [2023 Annual Report](#)
 2. [2023 ZEV Policy Scorecard](#)
 3. Medium-and Heavy-Duty ZEV Infrastructure [Recommendations](#) (Workgroup Report)

Next ZEEVIC Meeting

April 24, 2024



Appendix E: March Meeting Notes

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) March Meeting

Meeting Date: 03/14/2024

Meeting Location: Hybrid – Teams Meeting and MDOT HQ

ZEEVIC Members/Appointed Representatives in Attendance:

- Lovaas, Deron (MDOT), ZEEVIC Chair
- Alfred, Joe (Ally Power)
- Amiel, Sari (Sierra Club)
- Bowis, John (Chevy Chase Automotive)
- Cohen, Joshua (SWTCH Energy)
- Edmondson, David (City of Frederick/MML)
- Forsythe, Nina (City of Frostburg/MML)
- Shin, Hyeon-Shic (Morgan State)
- Kaltenbaugh, Ron (EVADC)
- Verchinski, Paul (Public)
- Wilson, Scott (EVADC)
- Wynne, Vincent (Pepco)
- Young, Weston (Worcester County/MACO)

ZEEVIC Member Alternates:

- Baker, Ben (PSC)
- duPont, Samuel (BGE)
- Law, Natasha (SMECO)
- Lopez, Diego (MEA)
- Woods, Mollie (OPC)

Staff:

- Burke, Virginia (MDOT)
- Cortazzo, Sophia (MDOT)
- Kamara, Hallimah (SensisConnect)
- Sawada, Leo (Jacobs)

Welcome and Announcements

This additional meeting was convened to review a draft legislative positions letter prepared by the ZEEVIC Legislative Working Group (LWG). The letter will be submitted on Friday, March 15th to relevant MGA Committees.

Draft Legislative Positions Letter Review

Josh Cohen, Chair of the LWG, presented the letter by talking through the LWG's proposed position on each bill. Throughout his presentation of the letter members had the opportunity to make comments and ask questions.

The LWG recommended support of the following bills:

[HB 0064](#) – Vehicle Excise Tax – Tax Credit for Electric Vehicles - Eligibility

- No comments from the council/working group members.

[HB 0156](#) – Transportation – Electric Bicycle Rebate and Voucher Program

- No comments from the council/working group members.

[HB 0159](#) / [SB 0465](#) - Common Ownership Communities – Electric Vehicle Recharging Equipment (Electric Vehicle Recharging Equipment Act of 2024).

- No comments from the council/working group members.



[HB 0437](#) / [SB 0553](#) – **Maryland Zero Emission Electric Vehicle Infrastructure Council – Membership**

- Brief discussion regarding the specific changes to ZEEVIC membership proposed in this bill.

[HB 0652](#) - **Vehicle Laws - Electric Vehicles - Weight Limits**

- There was discussion about the [Fiscal and Policy note](#) developed by SHA regarding this bill.

[HB 0689](#) - **Electric Vehicles – Repeal of Excise Tax Credit and Establishment of Rebate Program**

- No comments from the council/working group members.

[HB 0889](#) / [SB 0695](#) - **Building Code – Construction and Significant Renovation of Housing Units – Electric Vehicle Parking Spaces.**

- There was discussion about whether the bill would establish a statewide parking minimum. It was clarified that this bill is not expected to impose a statewide parking minimum.

[HB 1279](#) / [SB 1023](#) - **Maryland Building Performance Standards – Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2024).**

- No comments from the council/working group members.

The LWG recommended opposition of the following bill:

[HB 1247](#) / [SB 1063](#) - **Environment - Advanced Clean Cars II Program - Application and Enforcement.**

- No comments from the council/working group members.

The LWG recommended taking no position on the following bills:

- [HB 0774](#) - **Motor Vehicles - Certificate of Title Fees - Zero-Emission Plug-In Electric Drive Vehicles.**
- [HB 0913](#) - **Motor Vehicles – Registration – Annual Surcharge.**
- [HB 1280](#) / [SB 1076](#)- **Sales and Use Tax – Electricity to Charge Electric Vehicles – Transportation Trust Fund.**
- [SB 1065](#)- **Motor Vehicles - Registration - Annual Surcharge.**

No comments on these bills from the council/working group members.

Additional Remarks

- Members made suggestions for process improvements for the LWG for future years.
- A suggestion was made to ensure future bills use technology-neutral language.

Council Vote

The Council voted to approve the submission of the letter to MGA Committees on behalf of ZEEVIC.

- Oppose - None
- Abstain – Ben Baker (PSC)
- Approve – all other members present



Closing Remarks – Deron Lovaas, Chair

- Provided closing remarks appreciating everyone’s input on the draft legislative positions letter.
- Remaining 2024 meeting dates: April 24, July 24, October 23

Next ZEEVIC Meeting**April 24, 2024**

Appendix F: April Meeting Notes

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) April Meeting

Meeting Date: 04/24/2024

Meeting Location: Hybrid – Teams Meeting and MDOT HQ

ZEEVIC Members/Appointed Representatives in Attendance:

- Lovaas, Deron (MDOT), ZEEVIC Chair
- Amiel, Sari (Sierra Club)
- Bowis, John (Chevy Chase Automotive)
- Cohen, Joshua (SWTCH Energy)
- Forsythe, Nina (City of Frostburg/MML)
- Del. Fraser-Hidalgo, David (District 15 Montgomery County, House of Delegates)
- Ivey, Jolene (Prince George’s Co/MACo)
- Kaltenbaugh, Ron (EVADC)
- Lopez, Diego (MEA)
- Mosier, Kevin (PSC)
- Powell, Ryan (Commerce)
- Shaw, Jeff (SMECO)
- Shepherd, Tim (MDE)
- Verchinski, Paul (Public)
- Wall, Michael (Clinton Electric Company)
- Wilson, Scott (EVADC)
- Wimmer, Robert (Toyota)
- Young, Weston (Worcester Co/MACo)

ZEEVIC Member Alternates:

- duPont, Samuel (BGE)

Other Presenters:

- Bankard, Rebecca (MDOT/MBI)
- Bobek, Kelly (Volvo)
- Halerz, Scott (Jacobs)
- Hinh, Amanda (MDOT)
- Kailas, Aravind (Volvo)

Staff:

- Burke, Virginia (MDOT)
- Cortazzo, Sophia (MDOT)
- Kamara, Hallimah (SensisConnect)
- Sawada, Leo (Jacobs)

Welcome and Announcements

Chair Lovaas welcomed attendees and opened with a statement regarding purpose of today discussion is to discuss zero emission commercial and freight transportation corridors.

- Two new member appointees to ZEEVIC were introduced. Diego Lopez, affiliated with Maryland Energy Administration (MEA) as the Director’s Designee. Also, Ryan Powell affiliated with Maryland Department of Commerce as the Commerce Secretary’s Designee.
- [Maryland By the Numbers](#): 99,745 Registered EVs in Maryland at the end of March.
- Maryland Department of General Services was awarded Forth’s Electric Vehicle Adoption Leadership (EVAL) Gold Certification.
- Join the Department of General Services for a free upcoming Lunch & Learn, Tuesday, April 30, 2024, from 12 PM - 1:30 PM at the Treasury Building (State employees are welcome).
- NEVI Request for Proposals closed April 10. Reviews are now underway, conditional awards are expected in early July and Round 2 is expected in late 2024/early 2025. The [EV and Infrastructure Planning Survey](#) is available until May 15th for the community to provide feedback on electrifying the transportation sector and developing our statewide electric vehicle infrastructure plans.



Public Comments

- **Joel Hurewitz** – Is concerned that Howard, Baltimore and Montgomery Counties have an 8,500 lb. weight limit on roads, and urges them to change it.
- **Jim Wagner** – Concerned about recent [articles](#) that reference the projected tremendous increase in demand that data centers are going to cause in electricity and wanted to ensure it was on the Council’s radar.

2024 MGA Legislative Session Recap

Josh Cohen, ZEEVIC Legislative WG -Chair

Brief recap of bills addressed in ZEEVIC’s Legislative Positions letter.

- Passed ZEV Legislation:
 - [HB0159](#) / [SB0465](#) Common Ownership Communities - Electric Vehicle Recharging Equipment (Electric Vehicle Recharging Equipment Act of 2024)
 - [HB0437](#) Maryland Zero Emission Electric Vehicle Infrastructure Council – Membership
 - [HB1028](#) / [SB0951](#) Electric Vehicle Supply Equipment Workgroup
 - [HB1256](#) / [SB0959](#) Electricity – Tariffs, Distributed Energy Resources, and Electric Distribution System Support Services (Distributed Renewable Integration and Vehicle Electrification (DRIVE) Act)
 - [SB0362](#) Budget Reconciliation and Financing Act of 2024
- Failed ZEV Legislative Proposals:
 - [HB0064](#) Motor Vehicle Excise Tax - Tax Credit for Electric Vehicles - Eligibility
 - [HB0156](#) Transportation - Electric Bicycle Rebate and Voucher Program - Establishment
 - [HB0652](#) / [SB0870](#) Vehicle Laws - Electric Vehicles - Weight Limits
 - [HB0689](#) Electric Vehicles – Repeal of Excise Tax Credit and Establishment of Rebate Program
 - [HB0889](#) / [SB0695](#) Building Code - Construction and Significant Renovation of Housing Units - Electric Vehicle Parking Spaces
 - [HB1279](#) / [SB1023](#) Maryland Building Performance Standards - Fossil Fuel Use, Energy Conservation, and Electric- and Solar-Ready Standards (Better Buildings Act of 2024)
 - [HB1247](#) / [SB1063](#) Environment – Advanced Clean Cars II Program – Application and Enforcement
 - [HB0774](#) Motor Vehicles - Certificate of Title Fees - Zero-Emission Plug-In Electric Drive Vehicles
 - [HB0913](#) Motor Vehicles – Registration – Annual Surcharge
 - [SB1065](#) Motor Vehicles - Registration - Annual Surcharge
 - [HB1280](#) / [SB1076](#) Sales and Use Tax – Electricity to Charge Electric Vehicles – Transportation Trust Fund
 - [HB1428](#) Public Safety - Electric Vehicle Charging Station Safety Commission
 - [HB0150](#) Vehicle Emissions Inspection Program and Diesel Vehicle Emissions Control Program - Fees and Fines
 - [HB1010](#) Condominiums and Homeowners Associations - Governing Documents - Electric Vehicle Recharging Equipment

Zero Emission Commercial and Freight Transportation Corridors

Scott Halerz, Jacobs

Provided an overview of the National ZEV Freight Corridor Strategy released by the Joint Office in March 2024, and the East Coast Commercial ZEV Corridor Project underway since October 2023.



- National Zero Emission Freight Corridor Strategy - Focuses on advancing the deployment of commercial and zero emission, medium and heavy-duty vehicles with generating a national blueprint on how to approach decarbonization of this sector of transportation.
- East Coast Commercial ZEV Corridor - Focuses on the I-95 corridor to promote alternative fueling stations of EV and hydrogen and promoting equity and innovation in a cleaner environment between states.

Powering America's Commercial Transportation (PACT)

Aravind Kailas and Kelly Bobek, Volvo Group North America

Volvo Group North America, Daimler Truck North America, Navistar, and others launched the Powering America's Commercial Transportation (PACT) coalition.

- PACT is an advocacy coalition focused on accelerating the adoption of medium- and heavy-duty (MHD) zero-emission vehicles (ZEVs) by overcoming barriers to the deployment of ZEV infrastructure.
- To expedite the delivery of nationwide infrastructure for MHD zero-emissions vehicles by establishing a unified voice for stakeholders, equipped with resources, knowledge, and experience.

Needs Assessment Study – Clean Trucks Act of 2023

Tim Shepherd, Maryland Department of the Environment

Brief update about Maryland's Trucking Needs Assessment and Deployment Plan.

The focus of the assessment will be:

- Additional electrical capacity, transmission distribution demands etc., and how it affects the grid.
- Number of ZEV MHDV charging stations located in the state. As well as the regulations cost and permitting process to get stations installed in a timely manner.
- Purchasing incentives and other mechanisms that will be recommended to help speed up the transition and support the transition to electric vehicles.
- Timeline economic feasibility to accomplish a transition into the ZEV MHDV sector, looking at vehicle availability, timeframes, etc.

Clean Corridor Coalition (C3) CPRG Proposal

Amanda Hinh, MDOT

Amanda Hinh gave a brief update about the Clean Corridor Coalition (C3) Proposal Climate Pollution Reduction Grant application (CPRG). This is a multi-state proposal for zero emission medium - and heavy-duty vehicle charging hubs along the I-95 corridor (Phase 1 Priority in National ZEV Corridor Strategy). A total of \$227 million was requested for this initiative and Maryland's apportionment is 34% of that amount.

Closing Remarks – Deron Lovaas, Chair

- To receive ZEEVIC Meeting Notices, email: ZEEVIC@mdot.maryland.gov

Next ZEEVIC Meetings

July 24, 2024

October 23, 2024



Appendix G: July Meeting Notes

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) July Meeting

Meeting Date: 07/24/2024

Meeting Location: Hybrid – Teams Meeting and MDOT HQ

ZEEVIC Members/Appointed Representatives in Attendance:

- | | | |
|---|--|---|
| <ul style="list-style-type: none"> • Lovaas, Deron (MDOT), ZEEVIC Chair • Alfred, Joe (Ally Power) • Amiel, Sari (Sierra Club) • Bowis, John (Chevy Chase Automotive) • Cohen, Joshua (SWTCH Energy) • Edmondson, David (City of Frederick) | <ul style="list-style-type: none"> • Forsythe, Nina (City of Frostburg/MML) • Ivy, Jolene (Prince George’s County Council/MACO) • Kaltenbaugh, Ron (EVADC) • Lopez, Diego (MEA) • Mosier, Kevin (PSC) | <ul style="list-style-type: none"> • Powell, Ryan (Commerce) • Shaw, Jeff (SMECO) • Verchinski, Paul (Public) • Wall, Michael (Clinton Electric) • Wilson, Scott (EVADC) • Wynne, Vincent (PEPCO) • Xu, Bihui (MDP) • Young, Weston (Worcester County/MACO) |
|---|--|---|

ZEEVIC Member Alternates:

- Sharp, Korin (DGS)

Other Presenters:

- Bankard, Rebecca (MDOT/MBI)
- Conklin, Meghan (Maryland’s Chief Sustainability Officer)
- Gaines, Linda (Argonne National Laboratory)
- Hinh, Amanda (MDOT)
- Rinaldo, Angelina (Potomac Edison/First Energy)
- Tankou, Alexander (ICCT)

Staff:

- Burke, Virginia (MDOT)
- Cortazzo, Sophia (MDOT)
- Kamara, Hallimah (SensisConnect)
- Sawada, Leo (Jacobs)

Welcome and Announcements

Chair Lovaas welcomed attendees and opened with a statement regarding purpose of today discussion is to discuss electric vehicle batteries and recycling.

- New ZEEVIC Member was introduced. Emily Soontornsaratool, affiliated with Maryland Department of General Services (DGS) as the Secretary’s Designee.
- [Maryland By the Numbers](#): 108,584 Registered EVs in Maryland at the end of June.
- Maryland Department of General Services held a ribbon cutting for their 200th EV charging port at the Ellicott City District Courthouse and Multi-Service Center.



- Maryland Department of General Services was awarded 15 Electric Vehicle Adoption Leadership (EVAL) Gold Certification.
- MEA will be announcing awardees for the Medium and Heavy Duty (MHD) ZEV grant program, supporting purchase of qualifying zero-emission vehicles (ZEVs) and heavy equipment for commercial or industrial use.
- Join the Maryland Energy Administration (MEA) for a free upcoming Webinar series, Thursday, August 1st, 2024, from 2 PM – 3:30 PM, Tuesday, August 13th, from 10 AM – 11AM, and Thursday, August 29th, 9 AM – 10 AM.
- EVADC is holding multiple upcoming public events. Full schedule available [here](#).
- Climate Pollution Reduction Grant (CPRG) Award to the Clean Corridor Coalition, a multi-state coalition of NJ, CT, DE, and MD. The Award will allocate \$78 Million for 8 charging sites in Maryland for medium-and heavy-duty (MHD) zero emission vehicles (ZEVs) traveling along the I-95 freight corridor.
- NEVI Round 1 Conditional Awards issued on July 10th. 23 sites were selected spanning 15 counties, 130 new DCFC ports expected. Various sites are included such as travel centers, shopping malls, gas stations, and convenience stores. Project operations to begin in Fall 2025. Read Governor Moore’s press release about conditional awards [here](#).
- Three upcoming webinars about vehicle electrification in Maryland and the NEVI program were hosted in June. View the presentations and comprehensive Q&A [here](#).

Public Comments

- **Lanny Hartmann** – Asked if there were any updates on the Electric Corridors Grant Program Awards. Rachel Lamb responded by stating that MDE has been awarded two rounds. Some of the charging stations are already installed but most are still under construction. MDE plans to open a third round of funding later this year or early next year.
- **Diego Lopez**– provided a Maryland Clean Cities and Communities information link - <https://cleancities.energy.gov/coalitions/maryland> .

Executive Order on Implementing Maryland’s Climate Pollution Reduction Plan

Meghan Conklin, Maryland’s Chief Sustainability Officer

- Meghan Conklin addressed Governor Moore’s [Executive Order \(EO\)](#), issued June 4, 2024. The EO directs a whole-of-government approach to address climate change, including development of a Zero Emission Vehicle Infrastructure Plan and a new multi-agency strategy to build out Maryland’s vehicle charging infrastructure.

EV Batteries and Recycling

Linda Gaines, Argonne National Laboratory

- Argonne provides technical support to the Clean Cities program, through the US Department of Energy. Argonne also provides technical analysis and public information that can be accessed to help coalitions and other people to understand the implications of their decisions regarding EV’s.
- Linda Gaines presented challenges and opportunities associated with increasing use of lithium-ion batteries in EVs.



Is U.S. Battery Recycling Ready for Millions of EV's?

Alexander Tankou, International Council on Clean Transportation (ICCT)

- Alexander Tankou addressed the status of EV battery recycling in the U.S., to ask “Is U.S. Battery Recycling Ready for Millions of EV's?”
- ICCT prepared a report on the technical and economic feasibility of battery reuse and recycling. The report builds on ICCT modeling, literature review, and policy evaluation to provide insights on EV battery recycling in the US. The US federal government and a few US states have started introducing key policies to scale up battery recycling. EV Battery Recycling in the US is taking shape, but more needs to be done.
- Examples of policies States should consider include:
 - Extended Producer Responsibility (EPR) legislation to ensure end-of-life batteries get collected and eventually recycled
 - Requirements for Battery removability and dismantling
 - Traceability battery mechanisms and labeling/data sharing
 - Refining black mass into cathode materials

Utility Highlights

Southern Maryland Electric Cooperative (SMECO)

Jeff Shaw

- Jeff gave a brief overview and highlighted the updated number of SMECO recharge public chargers, multi-family dwelling chargers and residential charging programs.

Potomac Edison/First Energy

Angelina Rinaldo

- Angelina gave a brief update on the EVSE pilot program including an updated count of the public EV chargers, residential rebates, utility owned multifamily chargers and EV-only TOU program.

PHI/PEPCO

Vincent Wynne

- Vincent gave a brief update about the public charging network installations running through 2025, along with the Smart Charge Management Program continuing through the end of 2024 and the Fleet Assessment Program running through September 2025. Vincent also gave an update on the updated count for installed chargers.
- Vincent spoke on behalf of BGE and mentioned that BGE presented a request for an expansion and extension for the smart charge management program.

Closing Remarks – Deron Lovaas, Chair

- To receive ZEEVIC Meeting Notices, email: ZEEVIC@mdot.maryland.gov

Next ZEEVIC Meeting

October 23, 2024



Appendix H: October Meeting Notes

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC) October Meeting

Meeting Date: 10/23/2024

Meeting Location: Hybrid – Teams Meeting and MDOT HQ

ZEEVIC Members/Appointed Representatives in Attendance:

- Lovaas, Deron (MDOT), ZEEVIC Chair
- Alfred, Joe (Ally Power)
- Amiel, Sari (Sierra Club)
- Forsythe, Nina (City of Frostburg/MML)
- Fraser-Hidalgo, Delegate David (District 15 Montgomery County)
- Heuver, Marcel (LKQ Corporation)
- Kaltenbaugh, Ron (EVADC)
- Lopez, Diego (MEA)
- Shepherd, Tim (MDE)
- Verchinski, Paul (Public)
- Wall, Michael (Clinton Electric Company)
- Wilson, Scott (EVADC)
- Young, Weston (Worcester County)

ZEEVIC Member Alternates:

- Baker, Ben (PSC)
- Coyle, Catherine (PHI)
- Janaskie, Amanda (BGE)
- Law, Natasha (SMECO)
- Lindenbaum, Isaak (OPC)

Other Presenters:

- Bankard, Rebecca (MDOT/MBI)
- duPont, Sam (BGE)
- Leach, Stephanie (BGE)
- Martinez-Hart, Alena (BGE)
- Moberg, Eric (PHI)
- Smouse, Brittani (Potomac Edison)

Staff:

- Burke, Virginia (MDOT)
- Cortazzo, Sophia (MDOT)

Welcome and Announcements

Chair Lovaas welcomed attendees and opened with a statement regarding recent advancements in vehicle electrification and decarbonization and state collaboration on the topic.

- A new ZEEVIC member was introduced. Marcel Heuver, affiliated with LKQ Corporation, was appointed to the seat designated for a Zero Emission Vehicle (ZEV) Automotive Dismantler and Recycler.
- A new ZEEVIC working group (WG) will be forming. The upcoming ZEEVIC Communications WG will facilitate the requirement that ZEEVIC increase consumer awareness and demand for ZEVs through public outreach.
- Maryland Department of Transportation (MDOT): The [MD-NJ-PA-WV Charging Ahead Partnership: I-81 and I-78 Freight Corridor](#) project was submitted in response to Round 2 of the Charging and Fueling Infrastructure (CFI) Program.



- Public Service Commission (PSC): An update was given about the electric vehicle supply equipment (EVSE) WG that was established by [SB951/HB1028](#). The multi-agency WG has been meeting since July and its report will be filed on November 1, 2024.
- Maryland Department of the Environment (MDE)
 - [Electric School Bus Grant](#) is open. \$3 million in legislative funds. Proposals are due on February 7, 2025, and awards will be made in Spring 2025.
 - ACT Needs Assessment Report: MDE is currently working through the procurement process. The study is expected to be completed in Fall 2025.
 - Three funding opportunities were also highlighted. They will be funded by the Volkswagen Settlement.
 - Electric School Buses: Approximately \$4-\$5 million.
 - Electric MHD trucks: \$4 – \$5 million. Can be used for the purchase of trucks.
 - 3rd round of Light-Duty EVSE grants (Charge Ahead grant program (CAGP) and Electric Corridors grant program (ECGP)): Around \$3.7 million.
- [RFI on MHD Electric Charging Technologies and Infrastructure Needs](#): Administered by FHWA and the Joint Office. Seeks input in four areas related to MHD EV charging. Due on November 12, 2024.

Public Comments

- **Kelly Bobek (Volvo)** asked if funding for MHD trucks would be subject to a scrappage requirement, and if the funding is separate from the ACT Program. Tim Shepherd confirmed a scrappage requirement will apply, and the funding is separate.
- **Paul Verchinski** announced that the Department of Energy's (DOE) EV WG will begin meeting virtually in November. There will be three meetings and interested persons can sign up to participate. Will focus on MHD adoption, grid integration, and charging networks. For more information, please visit the [link](#) provided.
- **Hunter Young (Charge Ahead)** requested updates related to Utility EV Programs being proposed under Phase 2 of the Pilot Program. Chair Lovaas explained that today's ZEEVIC meeting responds to that question.
- **Emmanuel Wagner (US Hydrogen Alliance)** stated that Hydrogen Fuel Cell Day was on October 8th. Announced that the Appalachian Region Hydrogen Hub (ARCH 2), located in West Virginia, Ohio, and Pennsylvania; and the Mid-Atlantic Clean Hydrogen Hub (MACH2), located in Pennsylvania, Delaware, and New Jersey are proceeding towards implementation. Requested that ZEEVIC consider developing a hydrogen roadmap. Also offered to organize a tour of a hydrogen fueling station in Washington, D.C.
- **Joyce Breiner** asked for clarification regarding Maryland's EV adoption goal.

Update – Governor's Executive Order Implementing Maryland's CPRP

Deron Lovaas, MDOT Chief of Environment and Sustainable Transportation

- Chair Lovaas provided updates on the implementation of Governor Moore's [Executive Order](#) (EO), issued on June 4, 2024. Explained that the EO directs Maryland's government agencies to submit climate implementation plans. Provided an update about the Zero-Emission Vehicle Infrastructure Plan (ZEVIP). Stated that it is currently being developed. Further explained that the National Electric Vehicle Infrastructure (NEVI) program will be prominently featured. ZEEVIC will provide advice throughout plan development. ZEVIP is slated for release in mid-2025.



2024 By the Numbers – 2024 ZEEVIC Annual Report

Rebecca Bankard (MDOT/MBI)

- Rebecca Bankard explained that the 2024 ZEEVIC Annual report has been streamlined and will include a ‘By the Numbers’ section, which summarizes data on important initiatives that have happened in Maryland over the last year. These include EV growth and progress toward the State EV adoption goal, State fleet infrastructure, ZEV infrastructure build-out, State investment and funding, EV education and outreach, and data from the PSC and utility programs.
- Answered the question previously asked by Joyce Breiner by explaining that the previous EV adoption target was set as a part of the ZEV MOU in 2012. The current, more stringent target was established by the Climate Solutions Now Act (CSNA)- 1.3 million EVs on the road by 2031.
- The draft 2024 ZEEVIC Annual report will be shared with ZEEVIC members for feedback. The review process will be from November 1st - 8th.
- Emmanuel Wagner asked if the numbers include MHD EVs. Rebecca Bankard explained that the data received from MVA does not go into that level of detail but that may be possible in the future.
- Scott Wilson (EVADC) stated that a 40% annual growth rate will be required to achieve the 1.3 million EV goal. Sophia Cortazzo and Rebecca Bankard explained the State has historically seen annual growth rates between 30 and 40%. Chair Lovaas stated that there are approximately 20 times more EVs on the road and 4 times more chargers than in 2015.
- Nina Forsythe asked if there is a breakdown by county. Rebecca Bankard confirmed that there is a breakdown by county and EV type posted on the [EV Dashboard](#).
- Joyce Breiner stated that, by their estimations, every two years the number of EVs doubles. Explained that their extrapolation shows there will be 1.2 million EVs on the road in 2031. Further stated that there has been an increase in the 2024 rate of adoption, in comparison to 2023.

Utility Proposals – EV Pilot Phase 2

Public Service Commission Order 91297

Ben Baker, PSC

- Ben Baker discussed Order 91297 ‘Electric Vehicle Pilot Phase 1 Evaluation and Next Steps,’ issued August 23, 2024. Order 91297 made findings about utility Phase 1 EV pilots and directed utilities to provide Phase 2 proposals addressing a variety of program components.
- Order 91297 also gave additional requirements to the PSC’s EV WG and asked the Utilities to coordinate with ZEEVIC on certain program components, including Fleet and Workplace programs, multi-family charging, and public charging.
- Elissa Reineck asked if Baltimore Gas and Electric (BGE) projects that were in the queue for the first round of the pilot were still approved to proceed, and commented on the Office of People’s Counsel’s (OPC’s) summary of comments. Emmanuel Wagner asked if the PSC has allowed utilities to invest in hydrogen fueling infrastructure. Ben Baker responded that that discussion had not been had.



- Antoine Thompson commented that they appreciate that PEPCO and BGE have deployed chargers in some underserved areas, and hopes deployments will continue, especially at transit stations.

Utility EV Pilot Phase 2 Proposals

Baltimore Gas and Electric (BGE)

- Stephanie Leach, Sam duPont, and Alena Martinez-Hart gave an overview of BGE Phase 2 proposals, and reviewed programs that are existing, planned, discontinued, and in development under three portfolios (Managed Charging, Community Charging, and Commercial Charging).

Pepco and Delmarva Power (PHI)

- Catherine Coyle and Eric Moberg discussed progress related to Phase 1 programs, decisions made about their continuation, and how PHI intends to address Phase 2 programs. Highlighted PHI's commitment to advancing Maryland's existing transportation decarbonization goals. Stated that most Phase 1 programs have been concluded and provided details about Phase 2 programs.

Potomac Edison

- Brittani Smouse provided updates about the Maryland EV DRIVEN Phase 2 proposal. Outlined updates to existing Phase 1 programs and discussed new program elements that will be added as part of Phase 2.

Southern Maryland Electric Cooperative (SMECO)

- Natasha Law highlighted SMECO's commitment to advancing Maryland's decarbonization and the beneficial adoption of EV adoption goals. Explained that SMECO was ordered by the PSC to end residential rebates and its data share program. Also stated that the installation of chargers has been completed. Discussed strategies to improve Phase 1 programs and plans to implement Phase 2 programs.

Closing Remarks

- Chair Lovaas closed the meeting with an invitation for comments and questions about the Utility Phase 2 Proposals to be submitted to the ZEEVIC email account. Comments will be most useful if received by October 31st.
- Dates for ZEEVIC quarterly meetings in 2025 are expected to be January 22, April 23, July 23, and October 22. The 2025 meeting series will be sent out to the ZEEVIC distribution list in December 2024.
- To receive ZEEVIC Meeting Notices, email: ZEEVIC@mdot.maryland.gov.

Next ZEEVIC Meeting
January 22, 2025

