



MARYLAND ZERO EMISSION

Electric Vehicle Infrastructure Council

October 25, 2023

Agenda

- Welcome and Announcements
- Public Comments
- ZEV Policy Scorecard – 2023 Update
- Trucking and MHDV Infrastructure – Work Group Report
- EV Adoption Scenarios – MDOT CSNA Plan
- NEVI Program Update
- Closing Remarks



Welcome and Announcements

Deron Lovaaas, ZEEVIC Chair & MDOT Chief of Environment and Sustainable Transportation

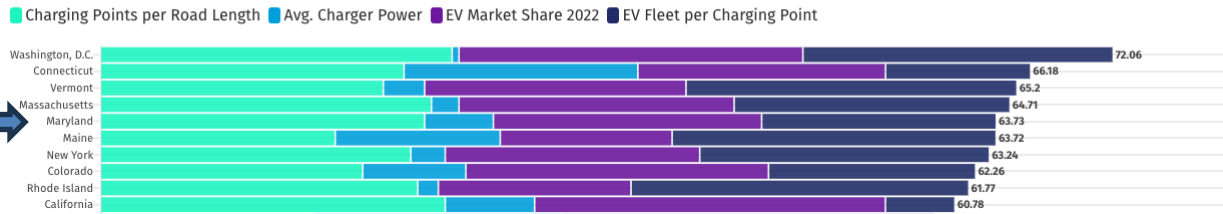
Maryland EV in the News

A study done by [HERE Technologies and SBD Automotive](#), ranks Maryland 5th, among US states, as an EV leader. This ranking is based on “public charge points per road length, average EV charger power, 2022 EV market share, and the size of the EV fleet relative to the number of charge points.”

Based on an article by [Route Fifty](#), Maryland is among the top 10 states that have installed both the highest number of public chargers and public chargers per capita within the last three years.

EV Index Ranking United States

EV market and charging infrastructure maturity on multiple dimensions since 2020 – presented by HERE Technologies and SBD Automotive.



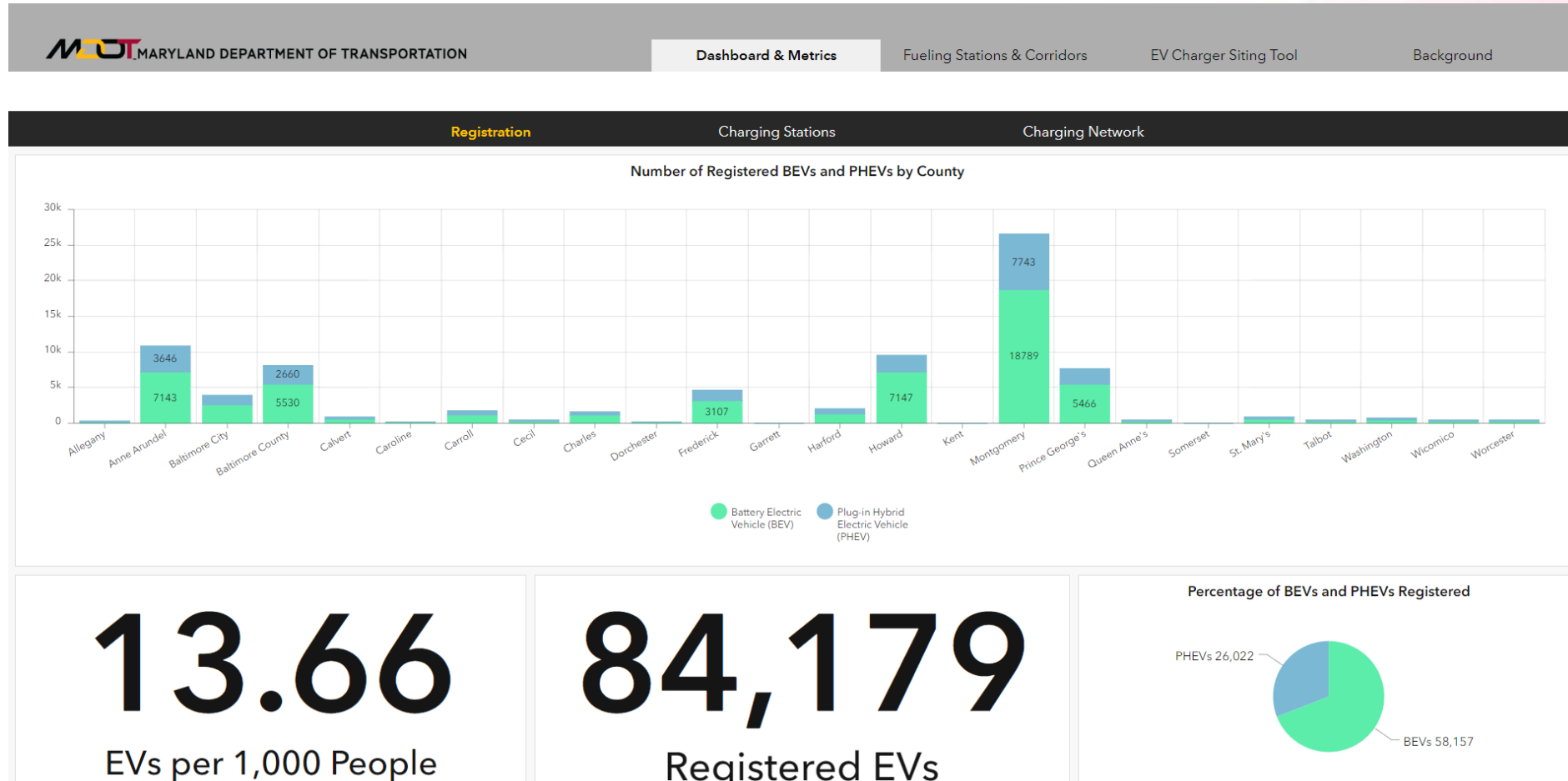
Announcements - MDOT

- MDOT is coordinating response to FHWA Notice of Funding for [EV Charger Reliability and Accessibility Accelerator](#), with applications due by November 13, 2023.
- Starting January 1, 2024, car shoppers can transfer the federal [new clean vehicle credit](#) — up to \$7,500 — or previously owned clean vehicle tax credit — up to \$4,000 — to a car dealer



Announcements - MDOT

- New [MDOT Electric Vehicles Dashboard](#) – over 84,000 EV registrations as of September 30, 2023!



Announcements – MEA

- MEA Request for Information (RFI) : costs, barriers and impacts associated with Electric Vehicle Charging Infrastructure in Multi-family Housing House Bill 830 (HB830)
- Comments due by November 1, 2023
- Link: <https://survey123.arcgis.com/share/0ab1f7f0ad584c0aab917bc28d161d63>



Wes Moore, Governor
Aruna Miller, Lt. Governor
Paul G. Pinsky, Director

Maryland Energy Administration

Request for Information for costs, barriers and impacts associated with Electric Vehicle Charging Infrastructure in Multi-family Housing House Bill 830 (HB830)

To advance Maryland's environmental objectives, the Maryland Energy Administration (MEA) is seeking feedback from the home contractor community, real estate developers, labor groups, and any other interested parties who wish to provide constructive feedback on how House Bill 830 (HB830) could impact stakeholders. This collaboration seeks to enhance the program's effectiveness and ensure it maximizes the benefits for the state in pursuit of its ambitious climate and clean energy goals.

Background:

In 2022, the Climate Solutions Now Act (CSNA) for Maryland established ambitious greenhouse gas (GHG) reduction targets. This legislation aims to reduce GHG emissions by 60% compared to the 2006 baseline by 2031 and achieve net-zero emissions by 2045.¹ To meet these climate goals, Maryland must focus on electrifying its transportation sector, which presently contributes over a third of the state's GHG emissions.²

During the 2023 legislative session, House Bill 830 (HB830) was passed and signed into law. This bill focuses on ensuring the readiness of residential construction for EV charging. It mandates that all newly constructed housing units in the state, equipped with a separate garage, carport, or driveway for each unit, must include Electric Vehicle Supply and Equipment (EVSE) – EVSE-installed or EV-ready parking space. Furthermore, Section 3 of HB830 directs MEA to study the costs, barriers and impacts related to requiring new and existing multifamily residential buildings to incorporate EVSE-installed or EV-ready parking spaces. This study is vital to address the lack of EV charging infrastructure in multifamily residential buildings and support the state's climate goals. Expanding EV charging access to this demographic is crucial for achieving equity in EV adoption and fulfilling Maryland's clean transportation and climate objectives.

Providing feedback to these questions will assist MEA in gaining a deeper understanding of the costs, barriers and impacts associated with mandating the inclusion of EVSE- installed or EV ready parking spaces in both new and pre-existing multifamily residential buildings.

Deadline for Feedback:

MEA is requesting that comments in response to this request for information be submitted via ArcGIS online ([MEA EV Survey \(arcgis.com\)](https://survey123.arcgis.com/share/0ab1f7f0ad584c0aab917bc28d161d63)) by no later than November 1st, 2023. Respondents may respond to one or all questions below.

Here are topics for which MEA is interested in receiving more information, as well as any other information that respondents feel would be beneficial for MEA to consider.

Questions:

Name of your Organization:

Please provide the name of the organization that you represent. If you are submitting as an individual, you can just note "individual" followed by your name in the space below.

About your Organization:

Please provide a brief description of your organization, if applicable. Also, describe your interest in the Multifamily EVSE deployment. If you are the owner or operator of a multi-family property, please tell us about your property including number of units, number of parking spaces, type of spaces, and if you currently offer EV charging to your renters or homeowners.

Markets and Projects:

What does MEA need to know about the current state of the market and projects involving multifamily EVSE installations, particularly in low-income, underserved, and overburdened communities?

Example questions include:

- Are developers currently installing EVSE or make-ready systems in new multifamily construction? If so, what percentage or number of EVSE spaces per total parking spaces are currently being planned for?
- What unique challenges do contractors face with these projects?
- What is the state of the market in low-income, underserved, and overburdened communities?

Barriers and Gaps:

What does MEA need to know about the barriers and gaps related to installing EVSE in multifamily developments, particularly in low-income, underserved, and overburdened communities?

Example questions include:

- What are the current gaps in the market related to EVSE installations on multifamily developments?
- Are there any specific difficulties installing charging infrastructure in open air parking lots, underground parking structure, and parking garages?
- How do these barriers affect cost?
- If you are a multi-family property owner are you taking advantage of utility provided EV charging opportunities, please provide insights into why or why not?
- Have your residents expressed interest in EV charging for their units? If so how many (e.g., < 5, >5, > than 10)

Payment options:

What payment options for EV users to charge, where applicable, are recommended for charging at an EVSE-installed parking space in both new-construction and retrofitted multifamily residential buildings?

Example questions include:

- Are there any specific payment options, particularly in low-income, underserved, and overburdened communities? (Credit card, access code, cash, etc.)
- What considerations are there for including the cost of electricity as part of rent, condominium fees, or homeowner's association fees?
- If utilities offered (or continued to offer) dedicated EV charging rates what barriers, if any, do you face in taking advantage of those rates?

Other:

Are there any other considerations MEA should know about this effort?

How should MEA support the deployment of EVSE installations at multi-family units, particularly in low-income underserved, and overburdened communities?

¹ [Legislation - SB0528 \(maryland.gov\)](https://legislation.maryland.gov/legislation.aspx?article=SB0528)

² [MDOT MCCC State Agency Report MSAR 14367.pdf \(maryland.gov\)](https://www.mdot.maryland.gov/MSAR/14367.pdf)



ZEEVIC Member Welcome



Sari Amiel

ZEEVIC Seat: Environmental Community
Affiliation: Sierra Club

ZEEVIC Member Welcome



John Bowis

ZEEVIC Seat: New Vehicle Dealer Association
Affiliation: Chevy Chase Cars

ZEEVIC Member Welcome



Josh Cohen

ZEEVIC Seat: Electric Vehicle Charging Station Manufacturer

Affiliation: SWITCH Energy

ZEEVIC Member Welcome



Jolene Ivey

ZEEVIC Seat: Maryland Association of Counties – urban or suburban region
Affiliation: Prince George's County Council - District 5

ZEEVIC Member Welcome



Delegate Sara Love

ZEEVIC Seat: House of Delegates

Affiliation: District 16 - Montgomery County

ZEEVIC Member Welcome



Vince Wynne

ZEEVIC Seat: Electric Company

Affiliation: PEPCO

Public Comments




A stylized, semi-transparent graphic in the top right corner depicts a hand holding a pen, with overlapping geometric shapes in shades of yellow, grey, and red. The graphic is positioned behind the main title text.

ZEV Policy Scorecard – 2023 Update

Leo Sawada, Jacobs


2023 ZEV Policy Scorecard



State Policies to Support Electric Vehicle (EV) Deployment ¹	Active in Maryland?	Description
Goals		
State ZEV Adoption Goal ²	Yes	<ul style="list-style-type: none"> 300,000 EVs registered by 2025 600,000 EVs registered by 2030
State Light-Duty Fleet Procurement Goal ³	Yes	<ul style="list-style-type: none"> Climate Solutions Now Act (2022) 100% State Fleet of passenger vehicles must be ZEV by 2031 100% State Fleet of LDVs must be ZEV by 2036
State Infrastructure Deployment Goal ⁴	Yes	<ul style="list-style-type: none"> MD NEVI Plan Build out 23 Alternative Fuel Corridors
Greenhouse Gas (GHG) Emission Reduction Target ⁵	Yes	<ul style="list-style-type: none"> Climate Solutions Now Act (2022) 60% emission reduction by 2031, net-zero by 2045
ZEV Funding for EJ Communities ⁶	Yes	<ul style="list-style-type: none"> MD NEVI Plan Justice40 mandates 40% of federal investments go to disadvantaged communities
Financial Incentives		
Point of Sale Rebates ⁷	No	
Rebates for New EVs ⁸	No	
Rebates for Used EVs ⁹	No	
Rebates or Grants for EV Infrastructure ¹⁰	Yes	<ul style="list-style-type: none"> MEA Electric Vehicle Supply Equipment (EVSE) Rebate Program MDE Electric Corridors Grant Program (ECGP)
Grants for Alternative Fuel Technologies ¹¹	Yes	<ul style="list-style-type: none"> MEA grant & loan program, Clean Fuels Incentive Program (CFIP) MEA Maryland Smart Energy Communities (MSEC) Program
Grants for Workplace Charging ¹²	Yes	<ul style="list-style-type: none"> MDE Charge Ahead Grant Program, BGE and PHI Commercial Customer Charging Rebate
Tax Credit – EV Purchase	Light-duty Vehicles ¹³	Yes
	Medium- and Heavy-Duty Vehicles ¹⁴	Yes
Tax Credit – EV Infrastructure ¹⁵	No	
Tax Exemption for ZEVs and Infrastructure ¹⁶	No	
ZEV Registration Fee Exemption ¹⁷	No	
Off-Peak Charging Credit ¹⁸	Yes	<ul style="list-style-type: none"> Incentive offered in territory of the following utilities: BGE, Delmarva, Pepco, Potomac Edison

¹ Footnotes indicate States where the policy is active. Bolded states border MD and make up part of the southern Mid-Atlantic Region.
² CA, CO, CT, MA, MN, NJ, NY, NC, OR, RI, VT, WA
³ CA, CT, IL, MN, NC, NH, OR, TN
⁴ CA, CO, CT, ME, MA, NJ, NY, OR, RI, VT
⁵ CA, CO, CT, HI, MA, ME, MN, NV, NJ, NY, OR, RI, VT, VA, WA
⁶ All 50 states (including DC, DE, PA, and VA)
⁷ CA, CO, CT, DE, MA, NY, OR, PA
⁸ AK, AZ, CA, CO, CT, FL, IL, IA, MA, ME, MI, MN, MS, NE, NJ, NV, NY, OK, OR, PA, TX, VT, WA
⁹ AK, AZ, CA, CT, FL, IL, IA, MA, ME, MI, MN, MS, NE, NJ, NV, NY, OK, OR, PA, TX, VT, WA
¹⁰ 42 States (including DC, DE, PA, and VA)
¹¹ CA, CT, DE, IL, IN, IA, LA, MA, ME, MI, MN, NC, NM, NV, OH, OR, SD, TX, UT, VA, VT, WI, WY
¹² WA
¹³ CO, DC, LA, MT
¹⁴ CA, CT, MA, UT
¹⁵ DC, GA, LA, NY, OK, UT, WA
¹⁶ AZ, CA, DC, MI, NJ, NC, OK, RI, UT, WA
¹⁷ AZ, CT, OR
¹⁸ AL, AZ, CA, CO, DC, DE, FL, GA, IL, IN, KY, LA, MA, MN, NC, NH, NJ, NY, OH, PA, SC, TX, UT, VA, WA, WI, WY

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State Policies to Support Electric Vehicle (EV) Deployment ¹	Active in Maryland?	Description
Non-Financial Incentives		
Reserved Parking on Public Property ¹⁹	Varies	<ul style="list-style-type: none"> Jurisdictions include Montgomery County, Howard County, Baltimore County, and Emmittsburg.
ZEV Infrastructure Multi-State Collaboration ²⁰	Yes	<ul style="list-style-type: none"> Multi-State Medium- and Heavy-Duty ZEV Action Plan (2022) Light-Duty Vehicle 2018-2021 Multi-State ZEV Action Plan
ZEV Infrastructure Planning and Coordination ²¹	Yes	<ul style="list-style-type: none"> Zero Emission Electric Vehicle Infrastructure Council
ZEV Sale Requirements	Light-duty Vehicles ²²	Yes
	Medium- and Heavy-Duty Vehicles ²³	No
Utility EVSE Programs ²⁴	Yes	<ul style="list-style-type: none"> PC44 EV Pilot Program
Right-To-Charge Requirements ²⁵	Yes	<ul style="list-style-type: none"> House Bill 0110, 2021
Consumer Education on EV Charging ²⁶	Yes	<ul style="list-style-type: none"> PC44 EV Pilot Program MarylandEV
Data Disclosure to Utilities ²⁷	Yes	<ul style="list-style-type: none"> PC44 EV Pilot Program
Charging Signage Standardization ²⁸	Yes	<ul style="list-style-type: none"> Senate Bill 146, 2022
HOV Lane Access ²⁹	Yes	<ul style="list-style-type: none"> House Bill 123, 2023
Annual EV Fee ³⁰	No	
Zero-Emission School Bus Pilot Program ³¹	Yes	<ul style="list-style-type: none"> Climate Solutions Now Act (2022) Baltimore Gas & Electric proposed a pilot to the PSC.
Innovative Policies		
Define EVSE Zoning Requirements ³²	No	
Streamline ZEV Infrastructure Permitting ³³	No	
Right-Of-Way Charging	No	
PSC Mandated EV Plan by Utilities	No	
Alternative to Motor Fuel Tax	No	

¹⁹ AZ, CA, CO, DC, FL, HI, IL, MA, ND, NV, OR, RI, WA
²⁰ AZ, CA, CO, CT, DC, DE, HI, ID, ME, MA, MT, NH, NJ, NM, NC, NV, NY, OK, OR, PA, RI, UT, VA, VT, WA, WY
²¹ CO, DC, NH, RI
²² CA, CO, CT, DC, DE, ME, MA, MN, NJ, NV, NY, OR, PA, RI, VT, VA, WA
²³ CA, CO, CT, ME, MA, NC, NJ, NY, OR, PA, RI, VT, WA
²⁴ AL, AK, AZ, CA, CO, CT, DC, DE, FL, GA, HI, ID, IN, IA, KS, LA, MA, ME, MI, MN, MS, MO, NE, NV, NH, NJ, NM, NY, NC, OH, OK, OR, RI, TN, TX, UT, VT, WA, WI, WY
²⁵ CA, CO, DE, FL, HI, NJ, NY, OR, VA
²⁶ AZ, CA, CO, HI
²⁷ AZ, CA, CO, FL, KT, MO, MS, NC, NM, NV, VT
²⁸ CA, NH, NY, ND, OH, SD, VA, WA
²⁹ AZ, CA, GA, HI, NJ, NY, NC, UT, VA
³⁰ AL, AK, CA, CO, GA, HI, ID, IL, IN, IW, KA, MI, MN, MS, MO, NE, NC, SC, ND, SD, OH, OK, OR, TN, UT, VA, WA, WI, WY
³¹ All 50 states (including DC, DE, PA, and VA)
³² WA
³³ CA

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2023 Scorecard: Goals

Goals		
State ZEV Adoption Goal ²	Yes	<ul style="list-style-type: none">• 300,000 EVs registered by 2025• 600,000 EVs registered by 2030
State Light-Duty Fleet Procurement Goal ³	Yes	<ul style="list-style-type: none">• Climate Solutions Now Act (2022)• 100% State Fleet of passenger vehicles must be ZEV by 2031• 100% State Fleet of LDVs must be ZEV by 2036
State Infrastructure Deployment Goal ⁴	Yes	<ul style="list-style-type: none">• MD NEVI Plan• Build out 23 Alternative Fuel Corridors
Greenhouse Gas (GHG) Emission Reduction Target ⁵	Yes	<ul style="list-style-type: none">• Climate Solutions Now Act (2022)• 60% emission reduction by 2031, net-zero by 2045
ZEV Funding for EJ Communities ⁶	Yes	<ul style="list-style-type: none">• MD NEVI Plan• Justice40 mandates 40% of federal investments go to disadvantaged communities

2023 Scorecard: Financial Incentives

Financial Incentives		
Point of Sale Rebates ⁷	No	
Rebates for New EVs ⁸	No	
Rebates for Used EVs ⁹	No	
Rebates or Grants for EV Infrastructure ¹⁰	Yes	<ul style="list-style-type: none"> • MEA Electric Vehicle Supply Equipment (EVSE) Rebate Program • MDE Electric Corridors Grant Program (ECGP)
Grants for Alternative Fuel Technologies ¹¹	Yes	<ul style="list-style-type: none"> • MEA grant & loan program, Clean Fuels Incentive Program (CFIP) • MEA Maryland Smart Energy Communities (MSEC) Program
Grants for Workplace Charging ¹²	Yes	<ul style="list-style-type: none"> • MDE Charge Ahead Grant Program, • BGE and PHI Commercial Customer Charging Rebate
Tax Credit – EV Purchase	Light-duty Vehicles ¹³	<ul style="list-style-type: none"> • MD Transportation Statute (§13–815)
	Medium- and Heavy-Duty Vehicles ¹⁴	<ul style="list-style-type: none"> • Clean Cars Act of 2022 (HB1391, CH0234)
Tax Credit – EV Infrastructure ¹⁵	No	
Tax Exemption for ZEVs and Infrastructure ¹⁶	No	
ZEV Registration Fee Exemption ¹⁷	No	
Off-Peak Charging Credit ¹⁸	Yes	<ul style="list-style-type: none"> • Incentive offered in territory of the following utilities: BGE, Delmarva, Pepco, Potomac Edison

2023 Scorecard: Non-Financial Incentives

Non-Financial Incentives			
Reserved Parking on Public Property ¹⁹		Varies	<ul style="list-style-type: none"> • Jurisdictions include Montgomery County, Howard County, Baltimore County, and Emmittsburg.
ZEV Infrastructure Multi-State Collaboration ²⁰		Yes	<ul style="list-style-type: none"> • Multi- State Medium- and Heavy-Duty ZEV Action Plan (2022) • Light-Duty Vehicle 2018-2021 Multi-State ZEV Action Plan
ZEV Infrastructure Planning and Coordination ²¹		Yes	<ul style="list-style-type: none"> • Zero Emission Electric Vehicle Infrastructure Council
ZEV Sale Requirements	Light-duty Vehicles ²²	Yes	<ul style="list-style-type: none"> • Advanced Clean Cars II (ACC II)
	Medium- and Heavy-Duty Vehicles ²³	No	<ul style="list-style-type: none"> • Clean Trucks Act of 2023 (HB0230)
Utility EVSE Programs ²⁴		Yes	<ul style="list-style-type: none"> • PC44 EV Pilot Program
Right-To-Charge Requirements ²⁵		Yes	<ul style="list-style-type: none"> • House Bill 0110, 2021
Consumer Education on EV Charging ²⁶		Yes	<ul style="list-style-type: none"> • PC44 EV Pilot Program • MarylandEV
Data Disclosure to Utilities ²⁷		Yes	<ul style="list-style-type: none"> • PC44 EV Pilot Program
Charging Signage Standardization ²⁸		Yes	<ul style="list-style-type: none"> • Senate Bill 146, 2022
HOV Lane Access ²⁹		Yes	<ul style="list-style-type: none"> • House Bill 123, 2023
Zero-Emission School Bus Pilot Program ³⁰		Yes	<ul style="list-style-type: none"> • Climate Solutions Now Act (2022) • Baltimore Gas & Electric proposed a pilot to the PSC.

2023 Scorecard: Innovative Policies

Innovative Policies			
Define EVSE Zoning Requirements ³¹		No	
Streamline ZEV Infrastructure Permitting ³²		No	
Right-Of-Way Charging		No	
PSC Mandated EV Plan by Utilities		No	
Alternative to Motor Fuel Tax	Annual EV Fee ³³	No	
	Other Policy	No	

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Trucking MHDV Infrastructure – Work Group Report

Tim Shepherd, Maryland Department of the Environment

Working Group Overview

- Purpose: How can ZEEVIC and the State of Maryland have an impact to support MHDV electrification?
- Meetings
 - Meeting # 1 - 9/22 – Industry Barriers
 - Meeting # 2 - 9/29 – Infrastructure Deployment
 - Meeting # 3 - 10/13 – Recommendations to ZEEVIC

Working Group Overview

- 27 participants, including chairperson, speakers, and support staff.
- Speakers:
 - Louis Champion – Maryland Motor Truck Association
 - Tim French – Truck and Engine Manufacturers Association
 - Sam duPont – Baltimore Gas and Electric
 - Jim Nemec – Blink

WG Recommendations-ZEEVIC/State

1. Develop a map of depot locations for the State of Maryland. Based on feedback this should target fleets with at least ten MHD vehicles.
2. Develop a website that identifies the steps a business would have to take to electrify its facilities. This site should act as a clearinghouse of information and contacts. Information to be included would be at least a brief description of the action, the appropriate agency (private or public), the specific agency program and a contact person.
3. Depot Electrification Pilot – Work with MEA in developing their MHD Grant Program that would incorporate the feedback and information received in this working group to fund several MHD electric vehicles programs.

WG Recommendations-ZEEVIC/State

4. Incentives- Based on industry feedback and reviewing programs offered in other states, determine the recommended funding levels for a MHD electrification incentive program. Maryland currently has allocated \$10 million per year through 2027.
5. Ensure that feedback received during these workgroups is included, where appropriate, in the Needs Assessment Study that will be conducted as part of Maryland's adoption of the Advanced Clean Truck regulation.
6. Data sharing for utility planning – State, or agency with oversight, to gather forecast data and provide to PSC/ utilities to improve planning.

WG Recommendations- PSC/Utilities

7. Outreach to industry – Provide directed outreach to fleet operators and depot owners on electrification process and emerging technologies, such as Adaptive Load Management
8. Improve Energization Process – Reduce uncertainty by allowing utilities to engage with developers early in the service request to better plan timelines and costs.
9. Commercial Rates – PSC/ Utilities need to ensure reasonable and foreseeable cost rates to reduce uncertainty in capital cost planning.

WG Recommendations-Other

10. Considerations for Incentive Programs (state or utilities)
 - Incentive programs should encourage demand charging.
 - Incentive programs should feature only essential requirements on the customer side of the meter.
 - Utility Make-Ready programs should not hinder the ability of customers to install third-party owned and operated load management equipment.
11. Zoning and Permitting – EVSE projects should receive special attention from a zoning/permitting perspective, with clear guidance and single point of contact for applications.
12. Highway Planning – Transitioning the MHDV EV will increase truck traffic, increasing the need of capacity and truck parking, which are challenges today.
13. Weight Restrictions –MHDV EVs will be heavier than current vehicles. Support policies to lift vehicle weight restriction for MHDV EV. MDOT consideration of adjusting infrastructure planning and maintenance projects to accommodate with heavier trucks.

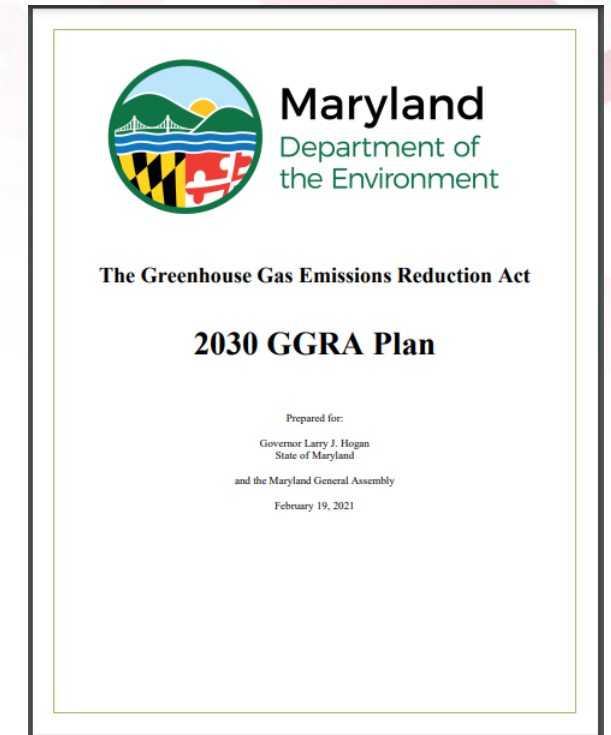


EV Adoption Scenarios – MDOT CSNA Planning

Shawn Kiernan, Office of Climate Change Resilience and Adaptation,
MDOT

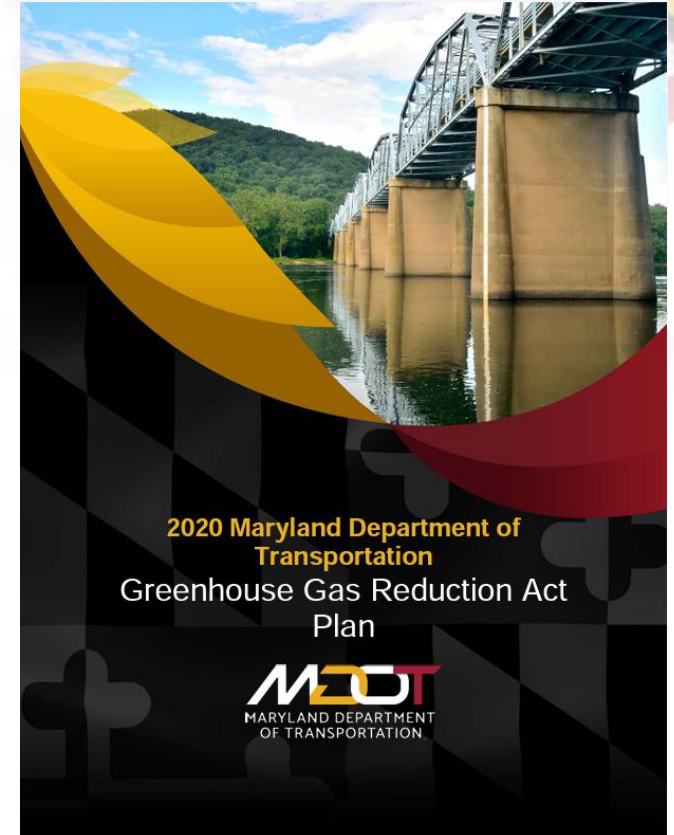
Background

- The Climate Solutions Now Act (CSNA) of 2022 established several new requirements for greenhouse gas emission reduction throughout Maryland
- MDE is required to develop a CSNA plan to meet the statewide goal of 60% reduction in GHG emissions by 2031
- The CSNA Plan will replace the existing MDOT GGRA Plan
- MDOT is supporting MDE in the development of the statewide plan, and is also developing a CSNA plan focused on on-road, transportation GHG emissions



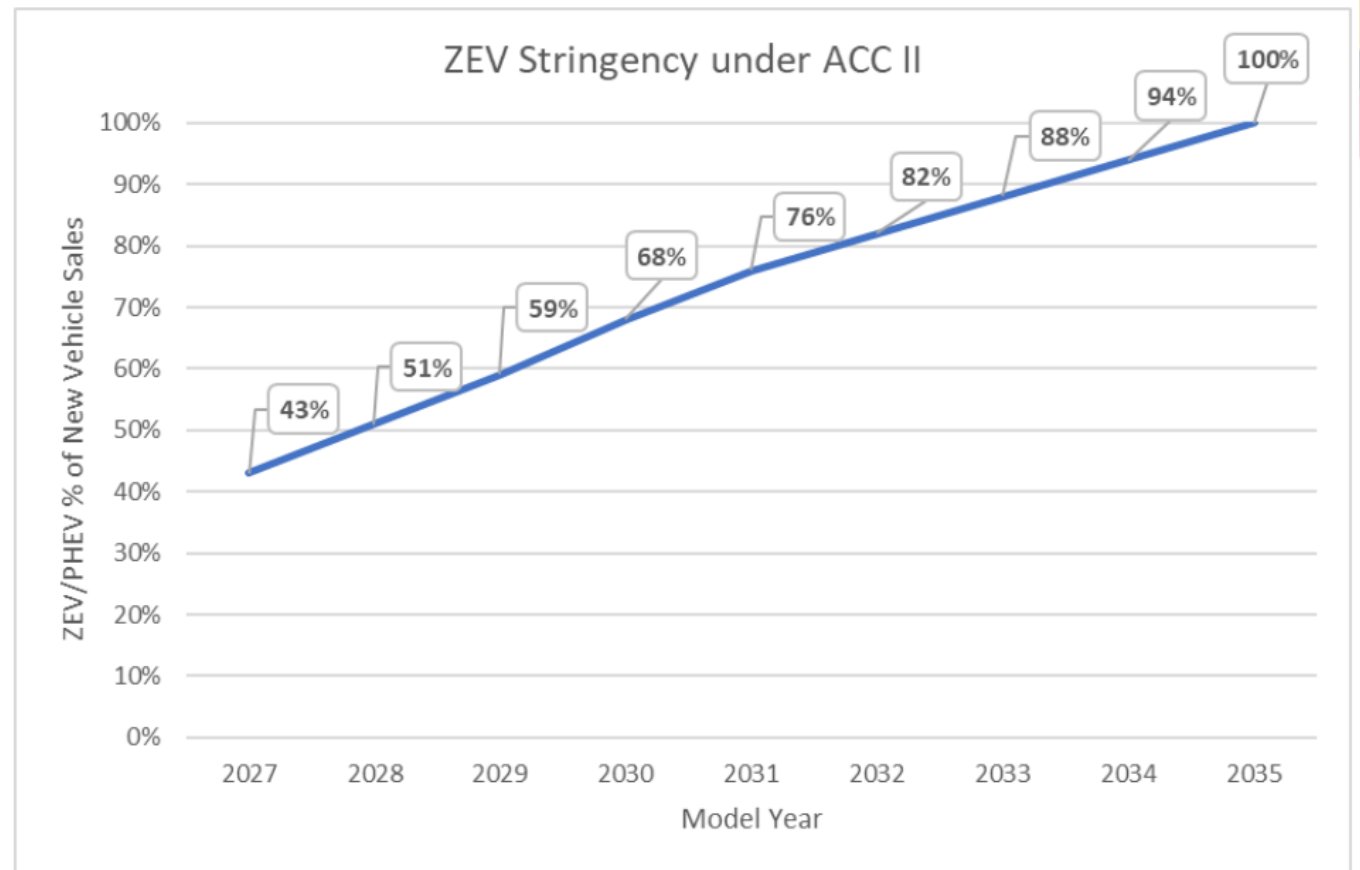
Background (cont.)

- A projection of the estimated number of light-duty electric vehicles (EVs) is critical to assessing on-road GHG emission reductions
- The MDOT team developed a projection of Light-duty EVs to determine the impact of the turnover of the passenger light-duty EV fleet
- This EV projection for light-duty vehicles is being used to inform the carbon reduction estimates of the MDOT plan
- For this projection, EVs include battery electric and plug-in hybrid electric vehicles



Maryland's Adoption of ACC II

- **Advanced Clean Cars II (ACC II)** – California policy that will rapidly scale up the sales of zero-emission light-duty passenger car, pickup truck and SUV vehicles starting with the 2027 model year through 2035
- In September, MDE officially adopted ACC II, so these policy standards form the basis of the EV projections

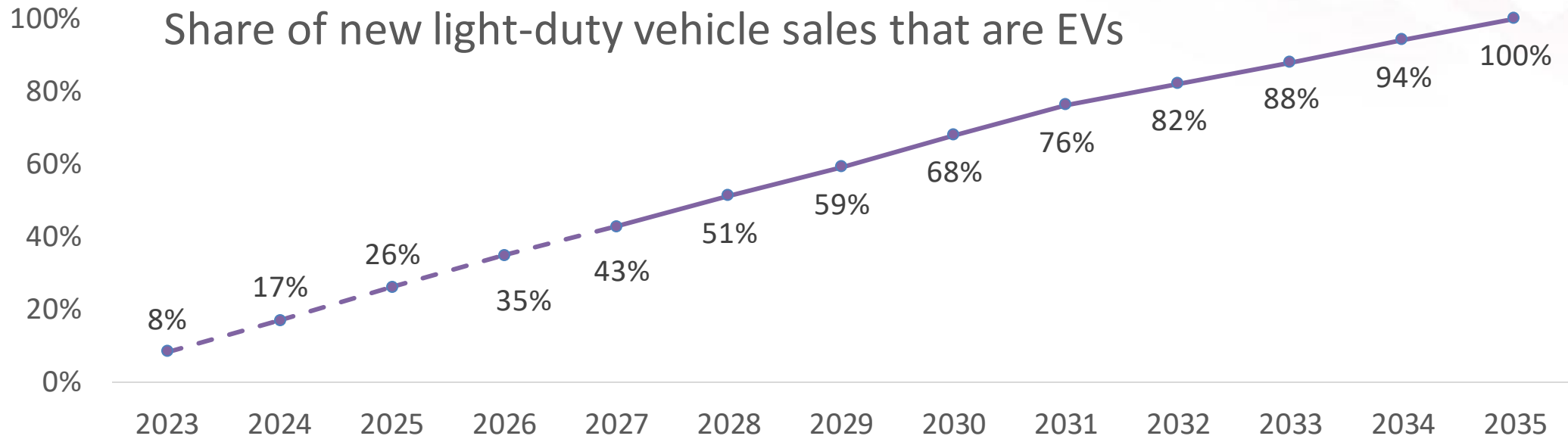


Source: <https://mde.maryland.gov/programs/air/MobileSources/Pages/Clean-Energy-and-Cars.aspx>

ACC II EV Projections

1. Advanced Clean Cars II (ACC II)

- Follows ACC II and includes assumptions about the makeup of EVs of new vehicle sales in the years prior to 2027 since Maryland's adoption of ACC II takes effect in 2027
 - Assumptions in earlier years: 8% in 2023, 17% in 2024, 26% in 2025, 35% in 2026



Other EV Projections

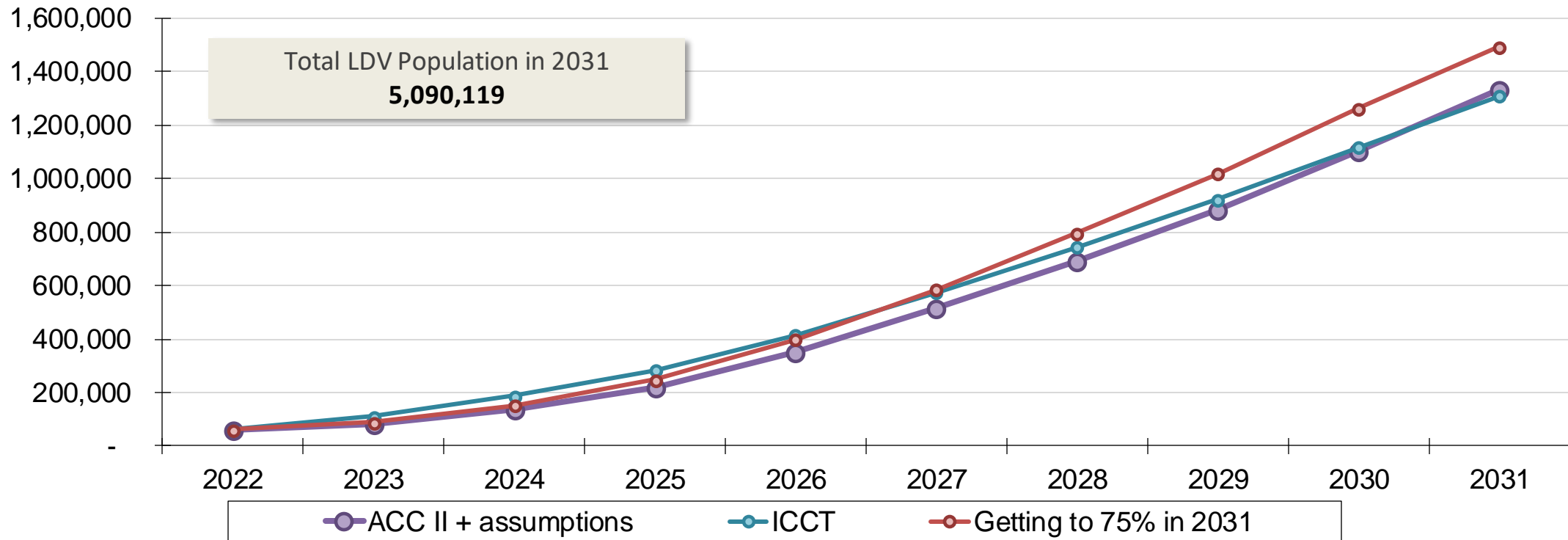
2. Getting to 75% in 2031 (Maryland Commission on Climate Change Goal)

- “The Governor or General Assembly should set an aspirational target for 75% of newly registered light-duty vehicles in the state to be Zero-Emissions Vehicles (ZEV) and plug-in hybrids by 2030” – 2022 Annual Report for the Maryland Climate Change Commission
- Gradual increase to 75% of new vehicle sales in 2030 from 2023

3. International Council on Clean Transportation (ICCT)

- Utilizing their High IRA Uptake with increased state ACC II adoption
 - *(Note: this is a national projection, but the percentages applied to the national U.S. light-duty passenger vehicle fleet were applied to Maryland's projected number of light-duty passenger vehicles)*
- One of the few examples of a post-IRA EV projection (nationally) that includes the impact of the IRA \$4,000 tax credit for used light-duty EVs and \$7,500 tax credit for new light-duty EVs (subject to income limitations and vehicle specifications)

Projected Light-Duty BEV/PHEV Registrations



Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
ACC II + assumptions	62,744	84,246	137,494	221,425	352,010	513,051	691,687	879,693	1,099,904	1,334,415
ICCT	62,744	110,317	186,743	282,942	415,391	573,437	744,717	921,570	1,117,817	1,334,128
Getting to 75% in 2031	62,744	89,621	152,266	249,110	398,349	585,607	795,767	1,018,824	1,261,704	1,493,129

Conclusion

- **1.33 million EVs projected in 2031**, which represent 26% of all vehicles
 - Total light-duty vehicles in 2031: 5.09 million
- The impact of these projected number of EVs yields an emission reduction of **2.46 mmt CO₂e**
- This emission reduction is being included as another factor affecting on-road emissions in 2031 for the MDOT CSNA Plan

Thank you!

Maryland Department of Transportation
Office of Climate Change Resilience and
Adaptation

Shawn Kiernan, Senior Program Manager for
Strategic Climate Initiatives

Email: skiernan@mdot.Maryland.gov

Phone: 410-865-2775

NEVI Program Update

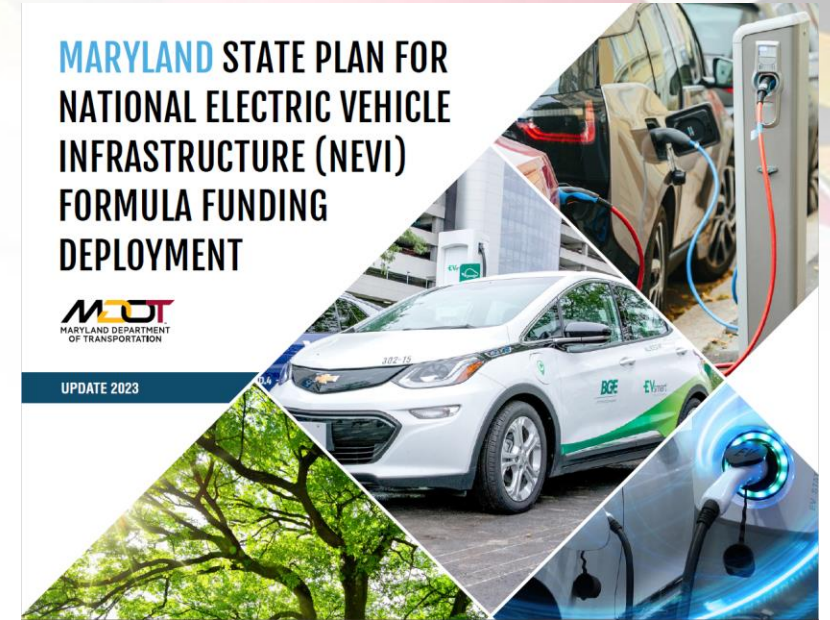
Amanda Hinh, NEVI Program Manager, MDOT



NEVI Plan Update

✓ MD State Plan for NEVI Formula Funding Deployment

- Initial Plan Submission : July 2022
- Updated Plan Submission: August 2023
- Describes the activities that support the successful deployment of charging infrastructure since the previous plan submittal.



2023 NEVI Plan Update Approval

- Plan update approved by FHWA on September 29, 2023

Upcoming

✓ NEVI Round 1 Program

- Target release Winter 2023/2024
- Chargers in ground Winter 2024/2025
- Expect multiple rounds of funding

✓ Outreach

- Goal for next year:
 - Focus on key stakeholders and disadvantaged communities
 - Site hosts, charging network providers, etc.
 - PSC and Utilities
 - Meet-and-Greets

Round 1 Program

- Can award up to \$36 million
- Build out as many AFCs as possible
 - Need 40-48 sites for build-out

Resources & Tools

✓ ZEV Maps & Dashboard

- AFC & Fueling Infrastructure Maps
- EV Metrics

✓ EV Charging Siting Tool

- Part of the ZEV Maps & Dashboard
- Consolidates national and state data
- Resource for potential applications to:
 - NEVI
 - CFI
 - Other grant programs
- Determined if site may be a good candidate for grant program

✓ NEVI Toolkit

- Not yet released
- Will be specific to the NEVI Round 1

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION Dashboard & Metrics Fueling Stations & Corridors **EV Charger Siting Tool** Background

EV Charger Siting Tool

The Electric Vehicle (EV) Charger Siting Tool was developed by MDOT as a resource for potential applications the National Electric Vehicle Infrastructure (NEVI) Formula Funding Program, the Charging & Fueling Infrastructure (CFI) Discretionary Grant Program, and/or other federal, state, or local grant programs. The Tool provides potential applicants with data and resources that may be useful for applicants when determining if a site.

Instructions

- Turn on and off data layers by clicking the eye icon next to each layer below.
- Increase or decrease a layer's transparency by clicking on the 3 dots following the layer name.

Data Layers

- 👁 DC Fast Stations with Less than 4 150 CCS Ports ...
- 👁 DC Fast Stations with at least 4 150kW CCS Ports ...
- 👁 CNG Fuel Stations ...
- 👁 Designated CNG AFC ...
- 👁 Propane Fuel Stations ...

[Click for EV Charger Siting Tool](#)

Contact Information



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Closing Remarks

2023 Annual Report - Members will be invited to review and provide comments by November 9, 2023.



Maryland Zero Emission Vehicle Infrastructure 2023 Annual Report

Closing Remarks

ZEEVIC Meeting Schedule in 2024

- January 24
- April 24
- July 24
- October 23

All meetings 2:00 - 3:30 PM