



MARYLAND ZERO EMISSION

Electric Vehicle Infrastructure Council

July 12, 2023

Agenda

- Welcome and Announcements
- Public Comments
- ZEEVIC Organizational Update
- Maryland EV Tax Credit Explained
- Advanced Clean Cars II and Clean Trucks Act
- Medium and Heavy Duty ZEV Grant Program
- NEVI Planning & Programming Update
- PSC PC44 EV Working Group Update
- "What we heard at the MarylandEV Booth"; Outreach Season Highlights
- Closing Remarks



Welcome and Announcements

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

Virginia Burke, MDOT Transportation Air Quality Program

Maryland Surpassed 75,000 Registered EVs!

Maryland By the Numbers*:



75,861
Registered EVs



12.31
EVs per 1,000 people



1,368
Charging
Stations

3,755
Outlets



23
Alt. Fuel Corridors

52,319 EVs
as of June 30, 2022

45% Growth in
Registered EVs
since last June

**As of June 30, 2023:*

Announcements



Federal Transit Administration

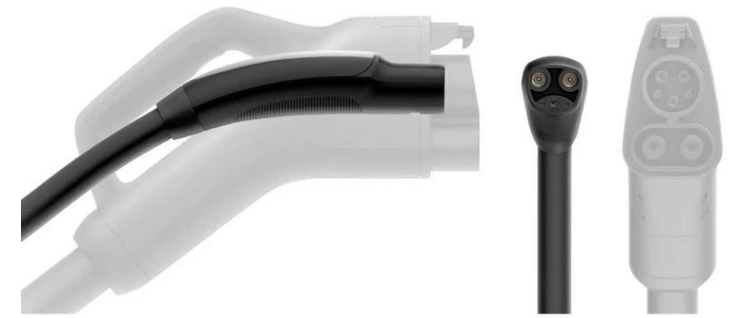
FY23 FTA Low-and No-Emission Grant Awards were announced with MD and DC awarded funding this round:

- UMD College Park awarded just under \$40 million to buy battery-electric buses and associated charging equipment to replace older vehicles for their public transportation fleet.
- WMATA awarded \$104 million to convert its Cinder Bed Road Bus Garage in Lorton VA to a fully battery-electric bus facility. The award also includes workforce development training for bus operators, mechanics, and first responders to ensure safe and efficient operations of its electric bus fleet.

<https://www.transit.dot.gov/funding/grants/fy23-fta-bus-and-low-and-no-emission-grant-awards>

Announcements

- New [HOV Permit Process](#) for Plug-in Electric Vehicles is active
- The [Society of Automotive Engineers \(SAE\)](#) and several large EV and EVSE manufacturers announce adoption of North American Charging Standard (NACS)
 - Vehicle manufacturers- Ford, GM, Rivian, Volvo, and more
 - EV charging Networks- ChargePoint, Electrify America, and more
 - Charging Equipment Manufacturers- Blink, ChargePoint, Evgo, Wallbox, and more



Maryland EV in the News

- In 2023, ACEEE ranked Maryland 10th on the State Transportation Electrification Scoreboard. This scorecard ranks states based on their policies to scale up ZEV deployment and their progress in building charging infrastructure.
- Maryland named as one of six states with the best electric vehicle incentives by GoBankingRates.com
- Solar Hydrogen: Largest self-sustaining bus depot in the US coming to Montgomery County, MD in 2025



Public Comments





ZEEVIC Organizational Update

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

ZEEVIC Organizational Update

- Quarterly ZEEVIC Meeting Schedule
 - Transition from bi-monthly to quarterly
 - 2023: ~~September 13~~; New Date: October 25; ~~November 8~~
 - 2024: January; April; July; October
- Working Group (WG) Proposal
 - Council delegates work, as defined by Members, to WGs
 - WG meetings held between quarterly Council meetings
 - WG reports back to full Council, prepares recommendations if applicable
- "Strawman" WG topics
 - Updated ZEEVIC Priorities
 - Legislative Communications: ZEV Policy Scorecard Update
 - Barriers and Solutions
 - Trucking and Medium/Heavy Duty Veh Infrastructure Needs



Maryland EV Tax Credit Explained

David Proctor, Sharp & Company

MD Excise Credit for Plug-in Electric Vehicles

Effective July 1, 2023 through June 30, 2027

The criteria for a qualifying zero-emission plug-in electric or fuel cell electric vehicle are as follows:

- Must be made by a manufacturer primarily for use on public streets, roads, and highways.
- Cannot be modified from the manufacturer's specifications.
- Must be a new vehicle and purchased and titled for the first time on or after July 1, 2023, but before July 1, 2027.
- Must be acquired for use or lease by the taxpayer, and not for resale.
- Has a battery capacity of at least 5 kilowatt-hours, or if a motorcycle or auto cycle, has a battery capacity of at least 4.0 kilowatt-hours (applies only to plug-in electric)
- Has a base purchase price not exceeding \$50,000.

MD Excise Credit for Plug-in Electric Vehicles

The credit may not exceed the amounts below and applies to the following types of EVs:

- \$1,000 for a 2-wheeled, zero emission plug in electric drive or fuel cell electric motorcycle.
- \$2,000 for a 3-wheeled, zero emission plug in electric drive or fuel cell electric motorcycle.
- \$3,000 for a zero-emission plug in electric drive or fuel cell electric vehicle.



MD Excise Credit for Plug-in Electric Vehicles

Vehicle Base Price Explained

- The Base Purchase Price for a vehicle is displayed on the window sticker and determines if it qualifies for the tax credit by not exceeding \$50,000.
- This price does not include optional upgrades, shipping charges, taxes, fees, or calculation of a trade-in allowance.

Steps to apply for the tax credit

- VR-334: Complete and certify an VR-334 Application (Excise Tax Credit Request for Plug-In Electric or Fuel Cell Vehicle)
- Scan the vehicle's original Monroney sticker
- Submit completed form & Monroney sticker image/photo to MVAElectricRefunds@mdot.maryland.gov or mail to: Maryland Motor Vehicle Administration, Excise Tax Refund Unit, 6601 Ritchie Highway NE Room 202 Glen Burnie, MD 21062
- Upon approval, you should receive the credit within 8-10 weeks

MD Excise Credit for Plug-in Electric Vehicles

Example 1.

Susan purchased an electric vehicle with a Monroney sticker base price of \$47,240 but added custom options that added \$8,000. Including the \$1,390 destination fee and \$250 order fee, the total vehicle price is \$56,880. Since the base price of \$47,240 does not exceed \$50,000, Susan would qualify for the credit.

✓ Qualifying Vehicle Example

XYZ

Vehicle Identification Number
Date of Manufacture: xx/xx/xxxx

Transportation Method: Vehicle Type
Delivered To: Company Address

EXTERIOR touchscreen d maps and navigation d Mobile network connectivity l Internet streaming radio oth hands free talking ctivated controls efinition backup camera uch power windwos ne climate control	EXTERIOR D lighting	Model XYZ → \$47,240 Battery \$1,000 Premium Upgrades \$3,000 Color \$2,000 Wheels INCLUDED Package Enhancement \$2,000	Destination Fee \$1,390 Order Fee \$250 Total Vehicle Price → \$56,880
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Susan purchased a vehicle with a Monroney sticker base price of \$47,240 but added custom options that added \$8,000. Including the \$1,390 destination fee and \$250 order fee, the total vehicle price is \$56,880. Since the base price of \$47,240 does not exceed \$50,000, Susan would qualify for the credit.

MD Excise Credit for Plug-in Electric Vehicles

Example 2.

Bob purchased an electric vehicle with a Monroney sticker base price of \$56,995 but the sale included a manufacturer rebate that brought the total vehicle price under \$50,000. Even though Bob's vehicle sale was under \$50,000, Bob would not qualify for the credit since the base purchase price exceeds \$50,000.

X NON Qualifying Vehicle Example

Model XYZ

Vehicle Identification Number
Date of Manufacture: xx/xx/xxxx

Transportation Method: Vehicle Type
Delivered To: Company Address

Model XYZ	
INTERIOR	Model XYZ → \$56,995
15 inch touchscreen	Battery \$5,640
Onboard maps and navigation	Premium Upgrades \$1,000
WiFi and Mobile network connectivity	Color INCLUDED
FM and Internet streaming radio	Wheels \$100
Bluetooth hands free talking	
Voice activated controls	
High definition backup camera	
One touch power windows	
Dual zone climate control	
EXTERIOR	
Full LED lighting	
	Manufacturer Rebate -\$14,000
	Total Vehicle Price → \$49,735

Bob purchased a vehicle with a Monroney sticker base price of \$56,995 but the sale included a manufacturer rebate that brought the total vehicle price under \$50,000. Even though Bob's vehicle sale was under \$50,000, Bob **would not qualify** for the credit since the base purchase price exceeds \$50,000.

MD Excise Credit for Plug-in Electric Vehicles

Real World Sample

- This vehicle's base price is \$48,995
- This EV qualifies to receive the tax credit despite a total MSRP of \$51,590

CUA-004485 MD 0 30/04/1 6 23/1/152 P6152 8365

UTC U P R MD

012612 65/405 3FMTK1SSX PMA17676 NB

Ford **MUSTANG MACH-E** **PM A17676**

2023 SELECT EAWD 5-PASSENGER 70KWH USABLE STD BATTERY SINGLE-SPEED TRANSMISSION

EXTERIOR STAR WHITE MET TRI-COAT
INTERIOR BLK ONYX ACTIVEEX SEAT MTRL

STANDARD EQUIPMENT INCLUDED AT NO EXTRA CHARGE

EXTERIOR	INTERIOR	FUNCTIONAL	SAFETY/SECURITY
<ul style="list-style-type: none"> ACTIVE GRILLE SHUTTERS E-LATCH - PUSH BUTTON OPEN FRUNK - DRAINABLE HEADLAMPS - WIPER ACTIVATED HEADLAMPS - AUTO LED REFLECTOR TAILLAMPS - LED W/SEQUENTIAL TURN SIGNAL MIRRORS - PWR/H/D/MAN-FLD/LED SIG/POY PROJECT LAMP REAR SPOILER WIPERS - RAIN-SENSING 	<ul style="list-style-type: none"> 10.2" DIGITAL INSTR CLSTR 15.8" TOUCHSCREEN TOUCH LIFT/DOWN FRT/RR WIN AUTO-DIM REARVIEW MIRROR ILLUM VANITY MIRRORS DUAL-ZONE AUTO CLIMATE CTL POWER DR - 8-WAY POWERPOINTS - 12V ROTARY GEAR SHIFT DIAL SCUFF PLATE W/ONYX GRAPHIC SOFT VINYL WRAP-STEERING WHEEL W/MOUNTED CONTROLS SPLIT FOLD REAR SEAT TILT/TELESCOPE STR COLUMN 	<ul style="list-style-type: none"> 10.5KW AC ONBOARD CHARGER UP TO 115KW DC CHRG CAPABL 11772 COS COMBO CONNECTOR REGENERATIVE BRAKING SYS DRIVE MODES/ONE PEDAL DRV FORDPASS™ CONNECT 4GWI-FI HOTSPOT TELEMATICS MODEM BLUECRUISE/360CAMERA TRIAL SYNC4A INTEL ACCESS W/PUSH START PHONE AS A KEY REAR CROSS TRAFFIC ALERT WIRELESS CHARGING PAD 	<ul style="list-style-type: none"> ADVANCED SECURITY PACK ADVANCED TRAC™ ELECTR STABILITY/TRACTN CTL AIRBAG - DRIVER KNEE AIRBAG - DUAL STAGE FRONT AIRBAG - FRT/REAR SIDE IMPACT & SIDE AIR CURTAIN SOS POST-CRASH ALERT SYS™ INOV TIRE PRESS MONIT SYS LATCH CHILD SAFETY SYSTEM

INCLUDED ON THIS VEHICLE EQUIPMENT GROUP 160A

[MSRP]	(MSRP)
2023 MODEL YEAR	795.00
STAR WHITE MET TRI-COAT	785.00
18" GRAY PNTD ALUM WHEELS	1,800.00
225/60R18 A/S BSW TIRES	
FRONT LICENSE PLATE BRACKET	NO CHARGE

OPTIONAL EQUIPMENT/OTHER

(MSRP)	(MSRP)
2023 MODEL YEAR	795.00
STAR WHITE MET TRI-COAT	785.00
18" GRAY PNTD ALUM WHEELS	1,800.00
225/60R18 A/S BSW TIRES	
FRONT LICENSE PLATE BRACKET	NO CHARGE

PRICE INFORMATION

BASE PRICE	\$48,995.00
TOTAL OPTIONS/OTHER	795.00
TOTAL VEHICLE & OPTIONS/OTHER DESTINATION & DELIVERY	49,790.00
TOTAL MSRP	\$51,590.00

RAIL

ITEM V: 27-2170 O/T 1

SPECIAL ORDER

PC132 N R9 2X 325 004485 03 13 23

Whether you decide to lease or finance your vehicle, you'll find the Choices that are right for you. See your dealer for details or visit www.ford.com/finance.

Ford Credit

GOVERNMENT 5-STAR SAFETY RATINGS

Overall Vehicle Score Not Rated

Based on the combined ratings of front-, side and rollover. Should ONLY be compared to other vehicles of similar size and weight.

Frontal Crash	Driver Passenger	Not Rated
★★★★★	★★★★★	Not Rated

Based on the risk of injury in a frontal impact. Should ONLY be compared to other vehicles of similar size and weight.

Side Crash	Front seat	Rear seat
★★★★★	★★★★★	★★★★★

Based on the risk of injury in a side impact.

Rollover ★★★★★

Based on the risk of rollover in a single-vehicle crash.

Star ratings range from 1 to 5 stars (★★★★★), with 5 being the highest. Source: National Highway Traffic Safety Administration (NHTSA). www.safercar.gov or 1-888-327-4236

Fuel Economy and Environment Electric Vehicle

Fuel Economy

93 MPG_e (combined city/hwy)

99 city 86 highway 36 city

224 kWh per 100 miles

You save \$4,250 in fuel costs over 5 years compared to the average new vehicle.

Annual fuel COST \$750

Fuel Economy & Greenhouse Gas Rating

10 (10/10)

Smog Rating 10/10

fueleconomy.gov

Calculate personalized estimates and compare vehicles.

FORD PROTECT Cont used Service Plan

Insist on Ford Protect! The only extended service plan fully backed by Ford and Homed at every Ford dealer shop in the U.S., Canada and Mexico. See your Ford dealer or visit www.FordOwner.com.

WARNING: Operating, servicing and maintaining a passenger vehicle, pickup truck, van, or off-road vehicle can expose you to chemicals including phthalates and lead, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, wear gloves or wash your hands frequently when servicing your vehicle. For more information go to www.P65Warnings.ca.gov/passenger-vehicle.

06/28/2023

A stylized, semi-transparent graphic in the top right corner of the slide. It features a red truck and a white car, both rendered in a simplified, geometric style. The truck is positioned behind the car, and they appear to be moving towards the right. The background behind the vehicles consists of overlapping, semi-transparent shapes in shades of yellow, grey, and red, creating a layered, abstract effect.

Advanced Clean Cars II and Clean Trucks Act

Timothy Shepherd, MDE

Justin Mabrey, MDE



Maryland
Department of
the Environment

The Clean Car Program Update



Justin Mabrey, MDE



The Maryland Clean Car Program

- Adopted in 2007 as required by passage of The Clean Cars Act of 2007.
- Adopts the California Advanced Clean Car Program (formerly known as the Low Emission Vehicle Program) in Maryland through Incorporation by Reference of the California Regulations.
- Applies to new light-duty motor vehicles registered in Maryland.



Regulatory Changes

- California has adopted new and more stringent light-duty vehicle emission standards.
- The new standards build on the previously adopted Advanced Clean Car (ACC I) Standards (Model Year (MY) 2015 through 2025) that Maryland and several other states adopted in 2012.
 - Currently, 17 states have adopted all or part of California's Low Emission Vehicle (LEV) regulations.
- California's Advanced Clean Cars II (ACC II) standards focus on increasing the requirement for Zero Emission Vehicles (ZEVs) while providing flexibility for manufacturers to meet the program.



Regulatory Changes

- ACC II, like ACC I, includes emission standards for criteria pollutants from internal combustion engines (ICE).
 - Criteria pollutant standards prevent the potential backsliding that could occur in ICE vehicles as a result of more ZEVs in the fleet.
- ACC II will cover MY27-35 light-duty vehicles in Maryland.
- The regulatory standards were approved by the California Air Resources Board (CARB) on August 25, 2022.



ZEV Program Overview

- CARB streamlined the compliance approach to make it easier for manufacturers to comply with the more stringent requirements.
- ZEVs (Battery Electrics and Fuel Cells) and Plug-in Hybrid Electrics, with at least 50 miles of range, will earn ZEV credits.
- Manufacturers can take advantage of early action and historical credits, as well as a pooling mechanism to allow credits from one state to meet requirements in another.
- Banking and trading of credits is still allowed to provide more flexibility.
- No manufacturer has been fined for failing to meet the ZEV program credit requirement in any ZEV state. Many manufactures currently have a surplus of credits available in the ZEV Credit Accounts.

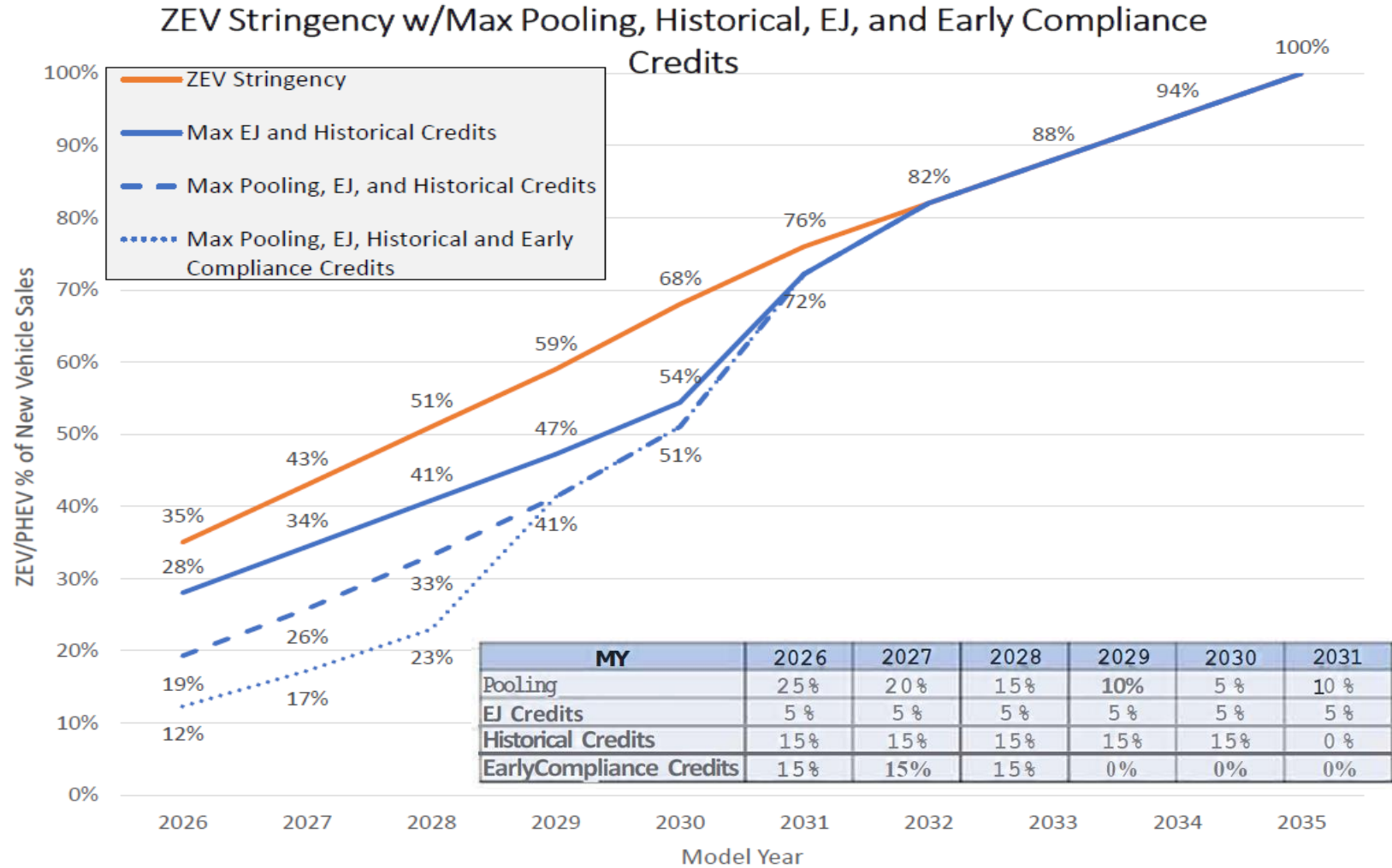


Program Flexibilities

FLEXIBILITY	DESCRIPTION	SHORTFALL REQUIRED	CAP	SUNSET	IMPACT ON TOTAL REQUIREMENT
Historical Credits	OEM may use converted ACC I ZEV and PHEV credit balances	Yes	15%	After MY 2030	Results in fewer vehicles due to large existing credit balances (cannot be pooled)
Pooling	OEM may transfer excess ZEV and PHEV credits earned in one ZEV state to another ZEV state	Yes	MY 2026 – 25% MY 2027 – 20% MY 2028 – 15% MY 2029 – 10% MY 2030 – 5%	After MY 2030	Same volume of vehicles but allows some variation in where vehicles are delivered
Early Compliance Credits	OEM may meet portion of requirement with qualifying ZEVs and PHEVs delivered in MY 2024 and 2025 in §177 ZEV states	No	15%	After MY 2028	Same volume of vehicles but increases time period for delivery to §177 ZEV states by two years
EJ Credits	OEM receives <u>extra</u> credit for new vehicles <u>placed</u> in community-based programs, etc.	No	5%	After MY 2031	Slightly reduces volume of vehicles in state where EJ credits are accrued (cannot be pooled)
PHEV Credits	OEM may meet portion of requirement with qualifying PHEVs	No	20%	None	Allows portion of ZEVs required to be replaced with PHEVs
Banked 2026+ Credits	OEM may bank 2026+ credits for future use, for 4 additional MYs	Yes	None	None	Same volume of vehicles but allows for some variation from year to year
Trading	OEM may trade or acquire excess ZEV or PHEV credits	Yes	None	None	Same volume of vehicles but allows for variation among OEMs



ZEV Requirement





Next Steps

- Regulation scheduled to be effective in September.
- ACC II becomes enforceable for 2027MY.
- Questions?



Maryland
Department of
the Environment

Advanced Clean Trucks



Tim Shepherd, MDE



New Vehicle Emission Regulations

- The Clean Trucks Act of 2023 requires the Department to adopt California's Advanced Clean Trucks (ACT) Program by the end of the year.
- ACT is one of California's vehicle emission regulations.
 - California is the only state authorized to set vehicle emission standards
 - Section 177 of the Clean Air Act allows other states to adopt California's standards if they are identical
- The regulation would take effect for the 2027 Model Year. The Clean Air Act requires two MY lead time for vehicle manufacturers.

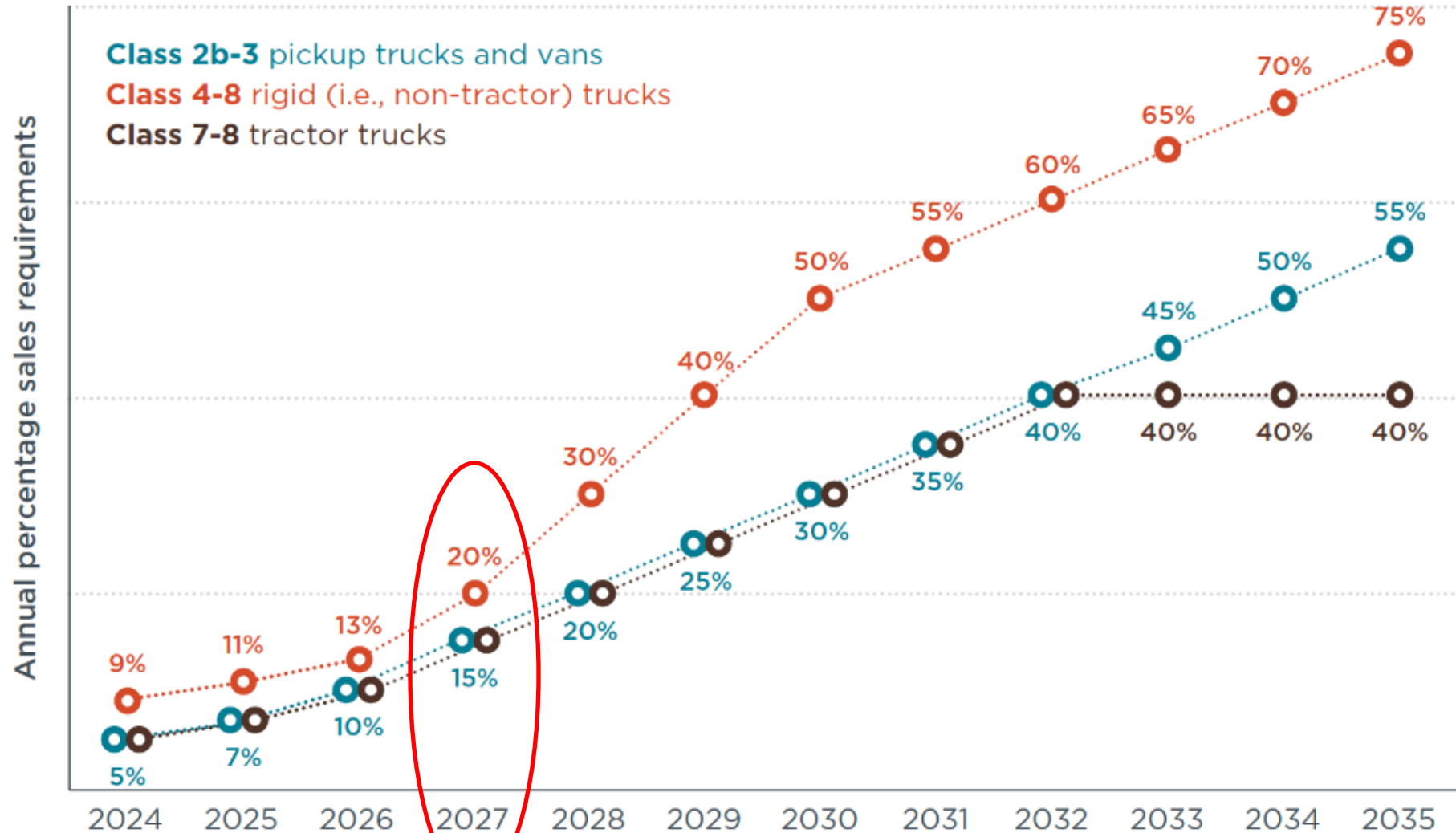


California ACT

- The Advanced Clean Truck (ACT) Regulation requires a growing percentage of medium- and heavy-duty vehicle sold to be zero emission.
 - Vehicles with a GVWR over 8,500 lbs.
 - Class 2b – Class 8 vehicles.
- ZEV sales are phased-in beginning in MY 2024 (2027 for MD) and increase through MY 2035, remaining constant thereafter.
- *Needs Assessment and Deployment Plan Study*
 - Required by *Clean Trucks Act of 2023*
 - MDE, MDOT, DGS, MEA, and PSC will assess: fueling/charging demands & infrastructure; necessary fueling/charging stations; purchase incentives; state fleet transition.
 - Study due December 2024
 - Based on conclusions of Study, program implementation may be delayed
- Similar credit, banking, and trading program as light-duty manufacturers have under the Advanced Clean Car.










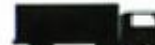






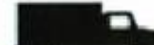
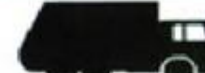

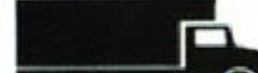







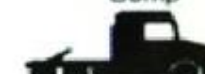



Advanced Clean Truck (ACT) Program





Medium/Heavy-Duty Trucks

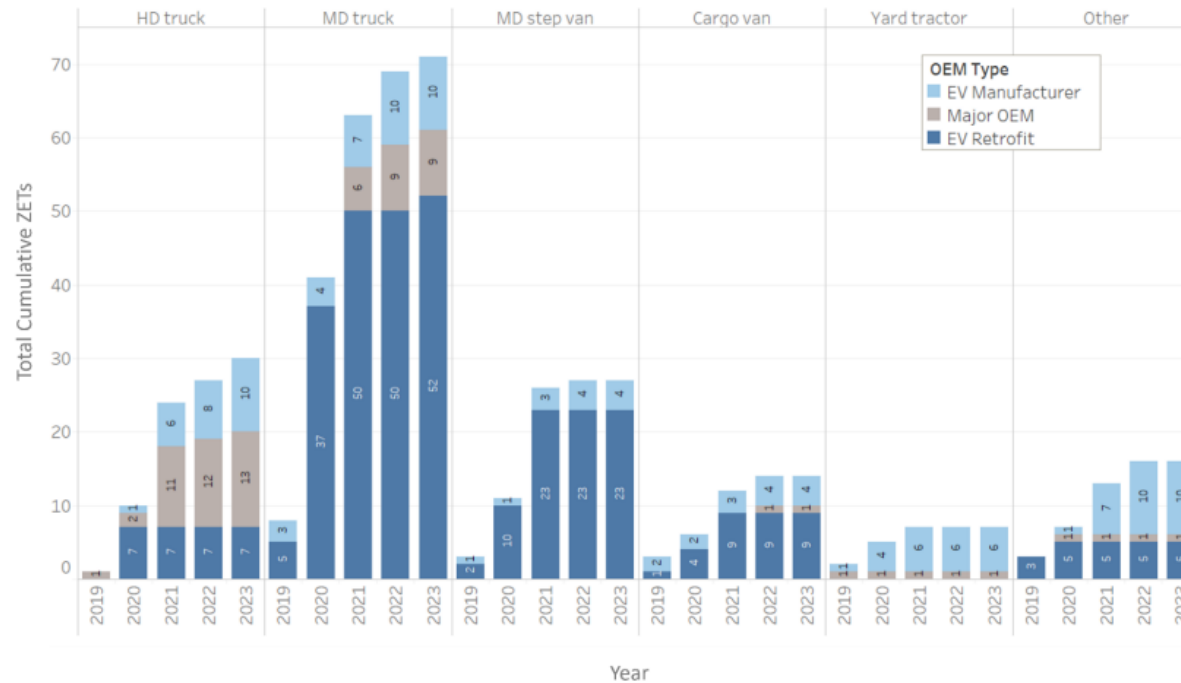
 Minivan	 Utility van	CLASS 1 6,000 lb & less	 Bucket	CLASS 5 16,001 to 19,500 lb		
 Multi-purpose	 Full-size pickup		 City delivery		 Large walk-in	
 Minivan	 Utility van		 Beverage		 Single-axle van	
 Full-size pickup	 Step van		 School bus		 Rack	
 Walk-in	 Conventional van	CLASS 3 10,001 to 14,000 lb	 Refuse	CLASS 7 26,001 to 33,000		
 City delivery			 Furniture		 City transit bus	 Medium conventional
 Conventional van	 City delivery		 Dump		 Cement	
 Large walk-in		CLASS 4 14,001 to 16,000 lb	 Heavy conventional	CLASS 8 33,001 lb & over		
			 COE sleeper			



ZEV Truck Availability

- According to a CALSTART report there were 20 models of Class 2b-8 ZETs available in 2019.
 - By 2021 that number rose to 145 models and is expected to rise to 165 by the end of 2023.

Figure 3: ZETI Model Availability in the United States (2019-2023)

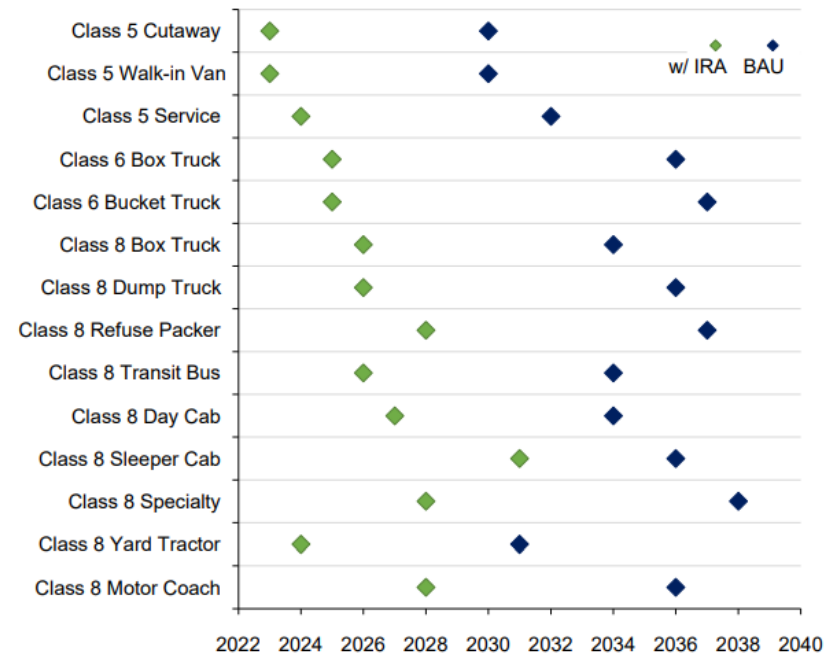




Purchase Incentives

- Federal IRA Tax Credit for Qualified Commercial Clean Vehicles is smaller of:
 - 30% of vehicle price;
 - Incremental cost vs. diesel; or
 - \$40,000.
 - Additional credits for charging
- Maryland: grants for 75% of incremental cost (\$10M avail per year)

Figure 1. Year purchase price parity is achieved for a range of types of ZEVs compared to internal combustion vehicles for business-as-usual and with the IRA



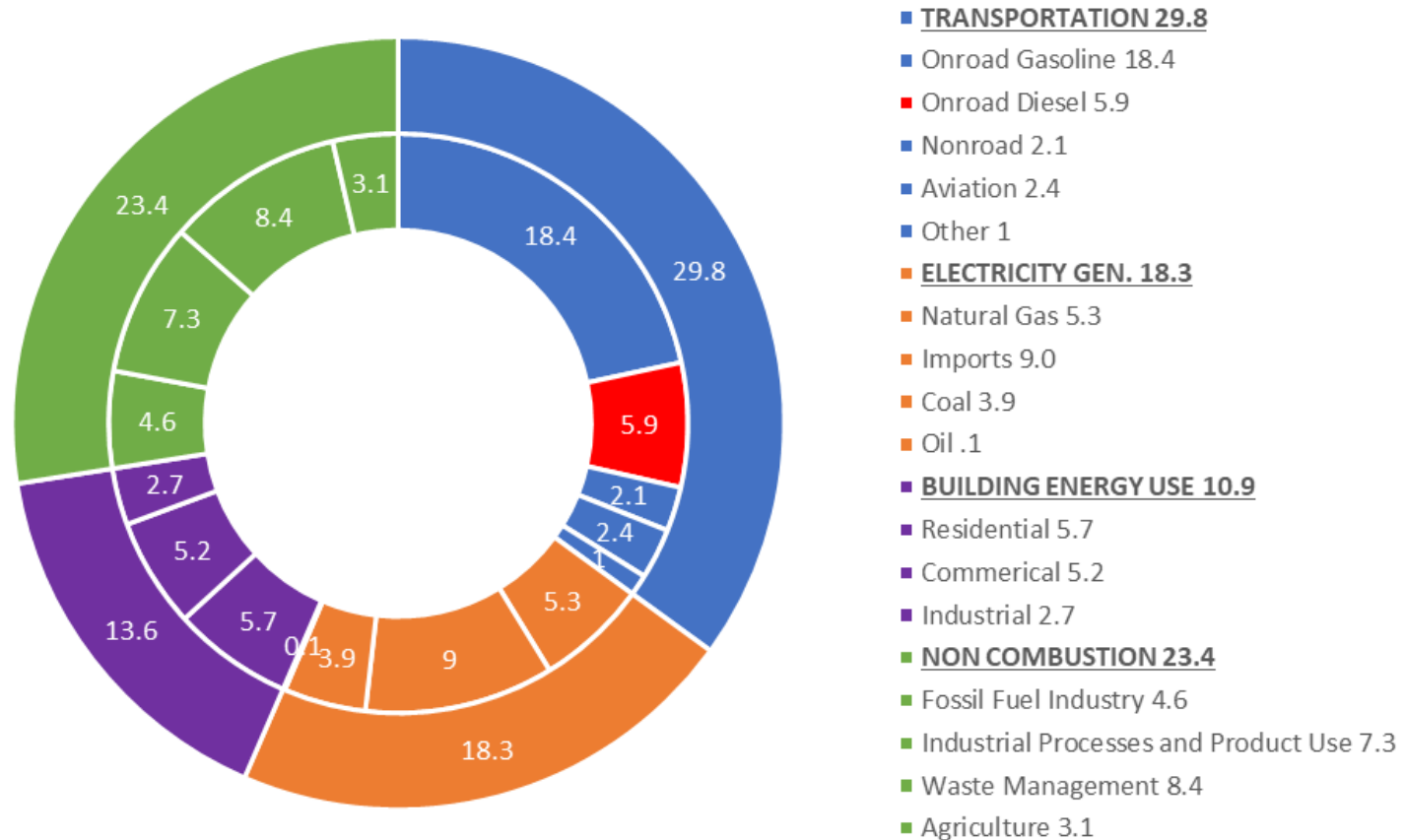
ERM, 2023, *Inflation Reduction Act Supplemental Assessment: Analysis of Alternative Medium- and Heavy-Duty Zero-Emissions Vehicle Business-as-usual scenarios.*

www.erm.com/contentassets/154d08e0d0674752925cd82c66b3e2b1/edf-zev-baseline-technical-memo-addendum.pdf



Greenhouse Gas Emission in Maryland

2020 GHG Emissions in Maryland
(85.06 Million Metric Tons of CO2 equivalent)

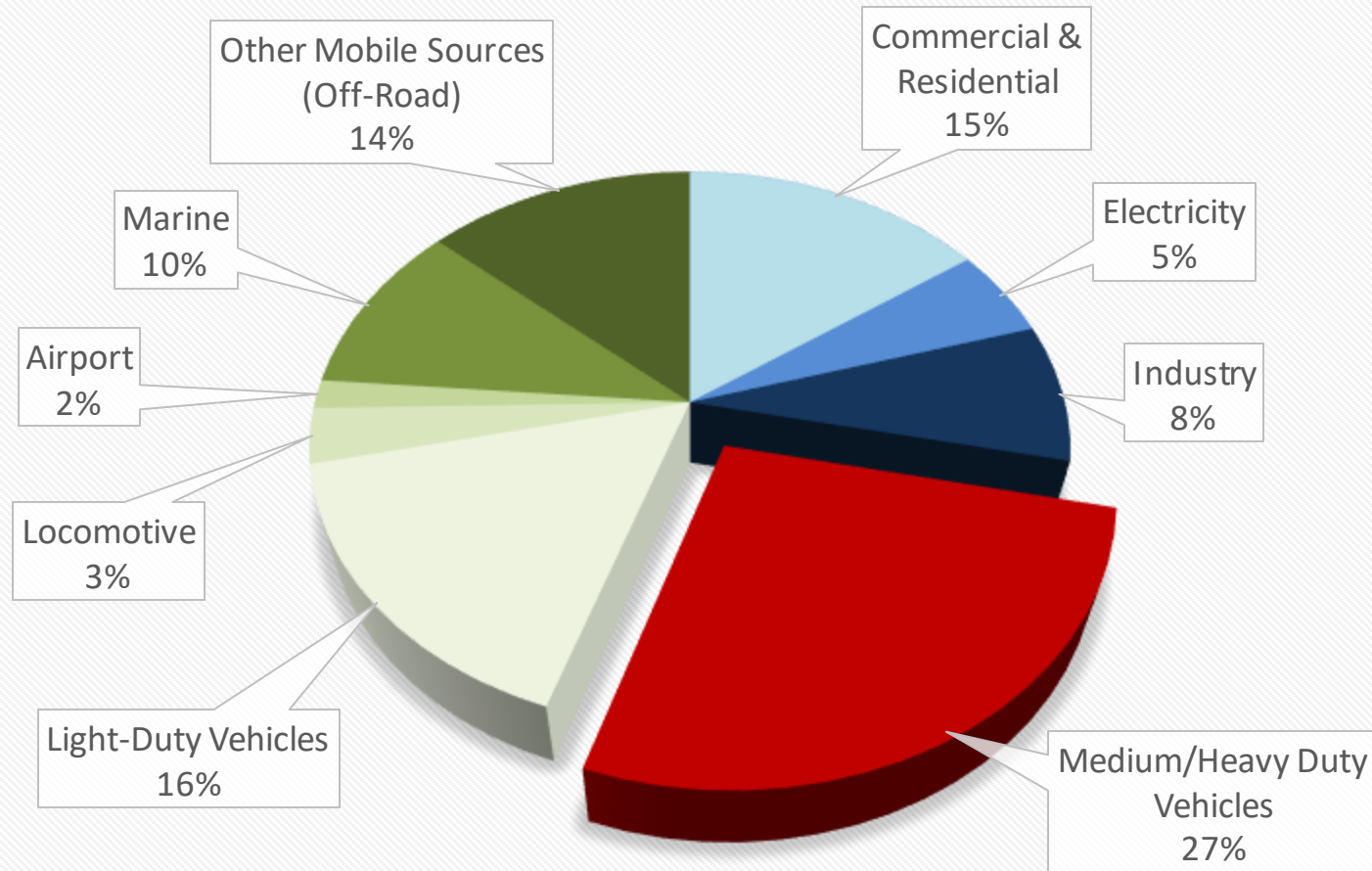


Source: Maryland 2020 Greenhouse Gas Inventory



Air Quality Impacts

NOx Emission by Sector in 2022





Next Steps

This Fall: Adopt implementing regulations by end of year to meet Clean Trucks Act of 2023 requirement and Clean Air Act 2yr lead-time requirement.

Next Year: *Needs Assessment and Deployment Plan Study*

Model Year 2027 (*calendar year 2026*): Regs effective



QUESTIONS?

FY24 Medium- and Heavy-Duty Zero-Emission Grant Program Overview

Amanda Hinh

Acting Transportation Program Manager
Maryland Energy Administration

Clean Fuels Incentive Program → MHD ZEV Grant Program

FY21-23 CFIP previously provided grants for up to 100% of incremental costs for new alternative fuel fleet vehicles or retrofits.

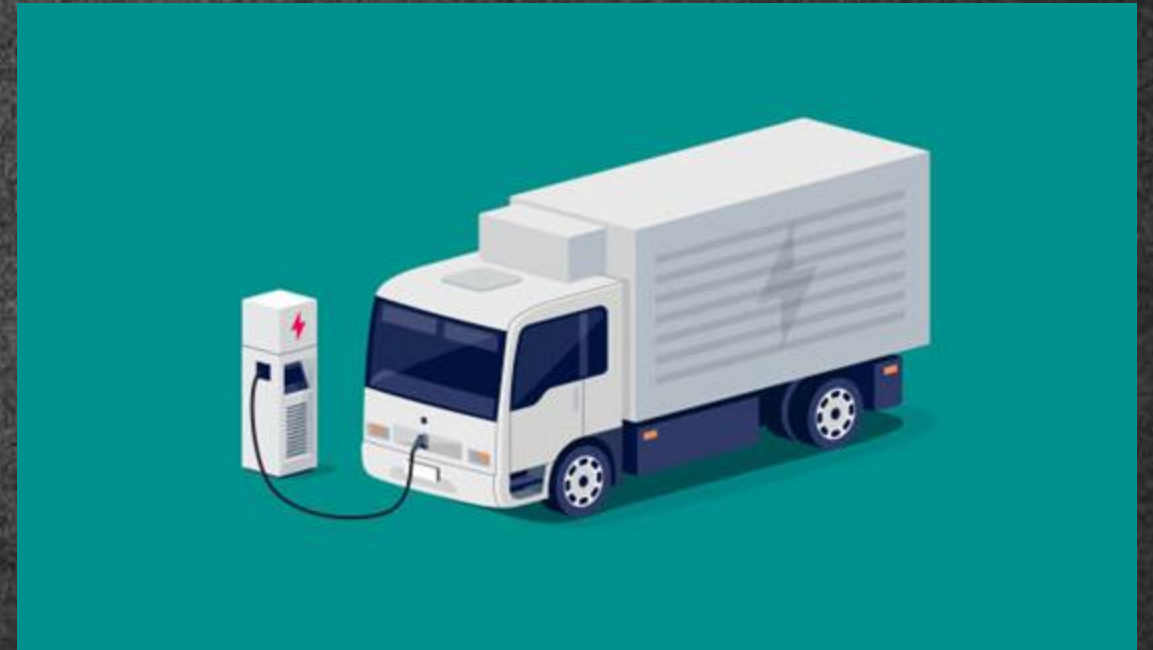
Medium- and Heavy-Duty Zero-Emission Vehicle Grant Program

- HB550: For FY24-27, grants for up to 75% of incremental costs of new MHD ZEVs and supply equipment
- Class 3-8 ZEVs powered by batteries or hydrogen fuel cells
- Complements Clean Trucks Act of 2023
- Estimated to launch in late summer



Solicitation for Feedback and Questions

- Should there be a dollar incentive cap per vehicle? How to determine?
- How do we define incremental cost for some level of standardization?
- Do we consider requiring or allowing the inclusion of safety features in the incremental cost?
- Is there an avenue for incorporating labor standards?
- Other questions and considerations?



Contact Info



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Email: amanda.hinh@maryland.gov



Planning and Programming for National Electric Vehicle Infrastructure (NEVI)

ZEEVIC July 12, 2023



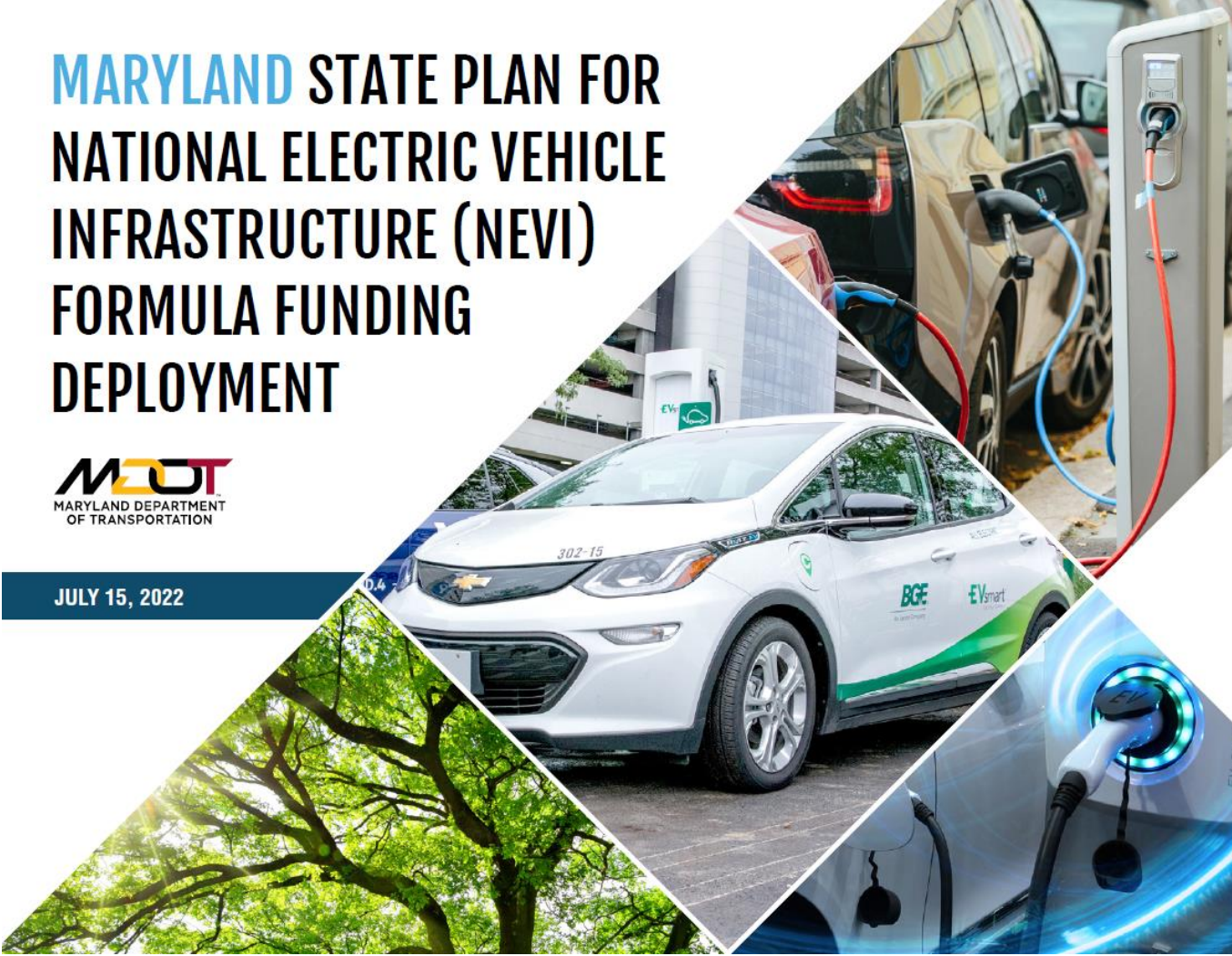
evplan.mdot.maryland.gov

NEVI Plan

MARYLAND STATE PLAN FOR NATIONAL ELECTRIC VEHICLE INFRASTRUCTURE (NEVI) FORMULA FUNDING DEPLOYMENT



JULY 15, 2022



- Maryland's State NEVI Plan 2023 Update
- \$57,500,000 for EV Charger investments in Maryland
- Certify Corridors and Invest in Communities

Maryland's NEVI Plan Components



Introduction



State Agency Coordination



Public Engagement



Plan Vision & Goals



Contracting



Existing & Future Conditions



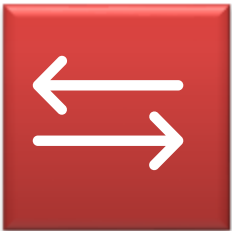
EVSE Deployment



Implementation



Civil Rights



Equity Considerations



Labor & Workforce Considerations



Physical Security (new) and Cybersecurity



Program Evaluation




Discretionary Exceptions

Maryland's NEVI Plan Goals


Alternative Fuel Corridors
Certify existing (23) corridors within five years and identify future roadways



Build & Strengthen Public-Private Partnerships
Facilitate contracting and implementation



Equitable Charging Infrastructure
Prioritize disadvantaged and rural communities



Collaboration
Work with state, local, regional, non-government organizations (NGOs), and public organizations and plans



Workforce/Job Impacts
Providing training
Enhance experience-level, and diversity



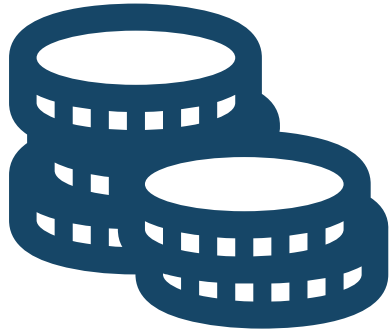
Resiliency and Reliability
Understand and address grid impacts, renewables, emergency preparedness, weather, operations/maintenance



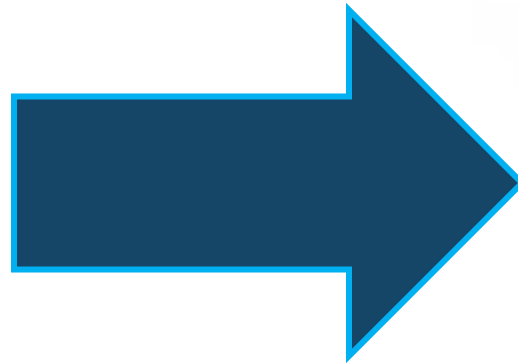
Geographic and Location Diversity
Meet demands in various locations - Urban, suburban, rural, employment centers, multi-unit dwellings, etc.



Equity - Justice40



**At least 40% of the
overall benefits of
federal investments**

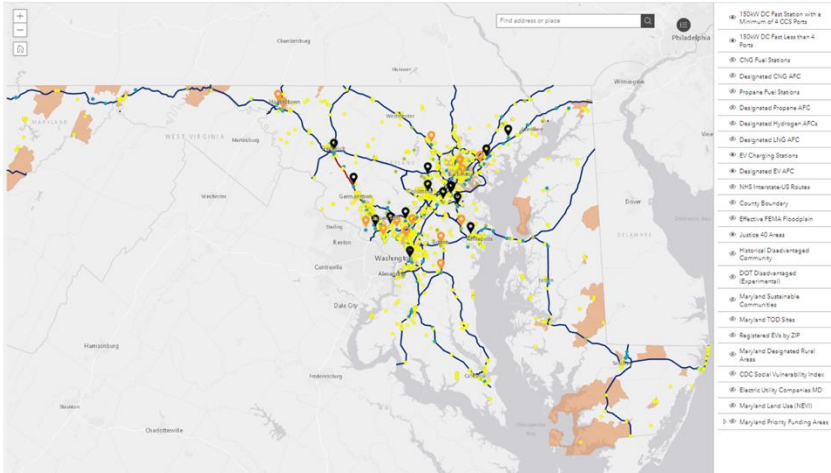
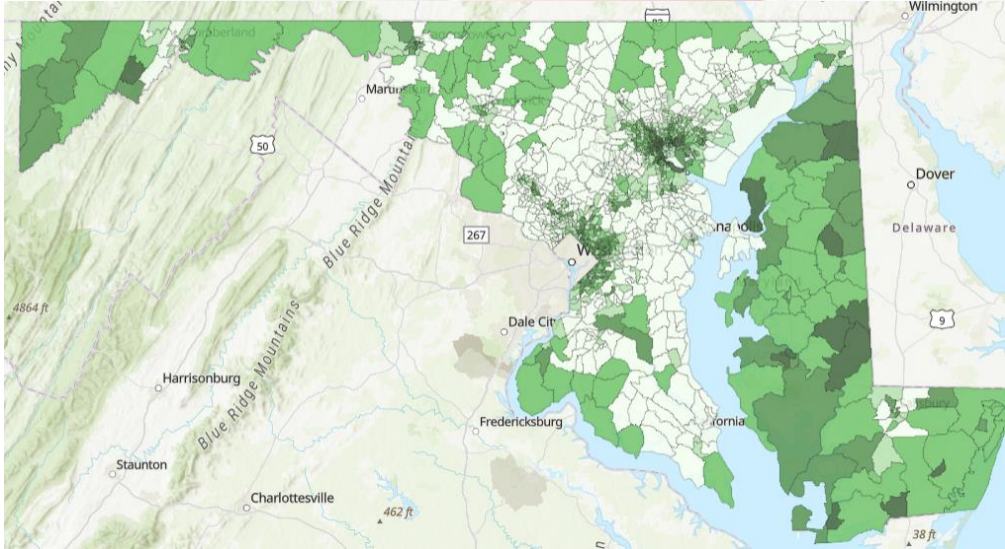
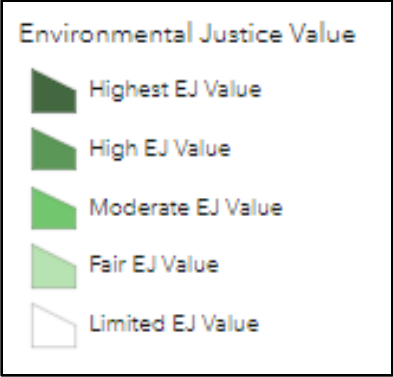


**Disadvantaged
Communities**

Electric Vehicle Charging Siting Tool (Equity)

Environmental Justice Scoring

- National Datasets
 - Justice40
 - CDC Social Vulnerability Index
 - USDOT Historically Disadvantage Communities
- State Datasets
 - UMD/MDE EJSCREEN
 - DHCD Rural Areas



Next Steps

- ✓ **Update and Submit** Maryland NEVI Plan to the Joint Office by Aug. 1, 2023
 - ✓ New Plan Template and NEVI Program Guidance 2.0
 - Workforce Strategies and Programs – (MDOT and Dept. of Labor)
- ✓ **Release** MDOT NEVI Program Competitive Grant Process linked to Maryland's NEVI goals and objectives, the equitable distribution of funds and site Locations, and with an initial focus on designated AFCs.
- ✓ **Begin 2nd Round of Community Engagement**
 - ✓ Proactive stakeholder engagement and public participation process to ensure input and feedback from both the public and stakeholders
 - ✓ Key Stakeholders
 - Historically Underrepresented Groups
 - Local Governments
 - Network Companies
 - Neighboring States – Coordination on AFCs/NEVI/CFI

Maryland NEVI Contact Information



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PSC PC44 EV Working Group - Update

Benjamin Baker, Senior Commission Advisor, Maryland PSC



What We Heard At The MarylandEV Booth

Outreach Season Highlights

David Proctor, Sharp & Company

Central Maryland

Observations

- Higher impression rates
- Demographically diverse crowds
- Quick visits and short information exchanges

Notable Comments

"What is the difference in savings between gas and electric vehicles?"

"Is the tax credit a one-time write off?"

"How long does it take to charge the electric vehicle?"

"I wish they had more charging stations available."

"Would I be able to travel cross country with an EV?"

"I never knew there were incentives in purchasing an EV."

"I don't think I'm totally convinced on an EV yet."



Western Maryland

Observations

- Longer interactions with individuals
- Curious to see and sit in the vehicle
- PHEVS appeal due to range concerns

Notable Comments

"I would never get an EV, my electric bill will go up.

I would have to pay for an install fee for the charger. It's too much."

"Can I charge at my trailer park?"

"Where is the nearest service center?"

"Do you (outreach staff) personally own an EV?"

Many commented that they planned on purchasing an EV

Lots of "Thank you" statements for making the effort to come to the area.



Eastern Shore

Observations

- Hesitant to adopt due to misconceptions
- Willing to talk about EVs

Notable Comments

"I'm waiting for interest rates to go down before I buy an EV."

"I'm concerned about going on a cross-country trip and not having a mechanic..."

"...Are there any incentives for used EVs?"

"It's good to see a lot of EV trucks that are now available"

"We drive a lot over here, where are we going to charge? I don't see many around."

"How do they recycle the batteries?"

"Will driving an EV become a mandatory thing?"

"They pollute more than gas cars."

"When will prices start to drop on EVs?"

"What happens when the technology becomes obsolete?"



Southern Maryland

Observations

- Hesitant to adopt EVs due to misconceptions
- Longer discussions both for and against EVs

Notable Comments

"This is diesel truck town, we don't believe in electric or hybrid vehicles."

"...We only have a right to one parking spot and we can't really charge an electric vehicle there"

"Will there be some type of law where the HOA must approve building a community charging station...?"

"...I heard they (batteries) can be very expensive once they stop working.

I refuse to switch to EV."

"I'm 68 years old, I've been driving with (gas) motors my whole life and I just don't trust EVs."

"How much does it cost to replace the battery?"

"The grid can't handle EVs! Look what is happening in California"



Closing Remarks

Next ZEEVIC Meeting: October 25, 2023