

Maryland ZEV Collaboration Webinars

Statewide Webinar

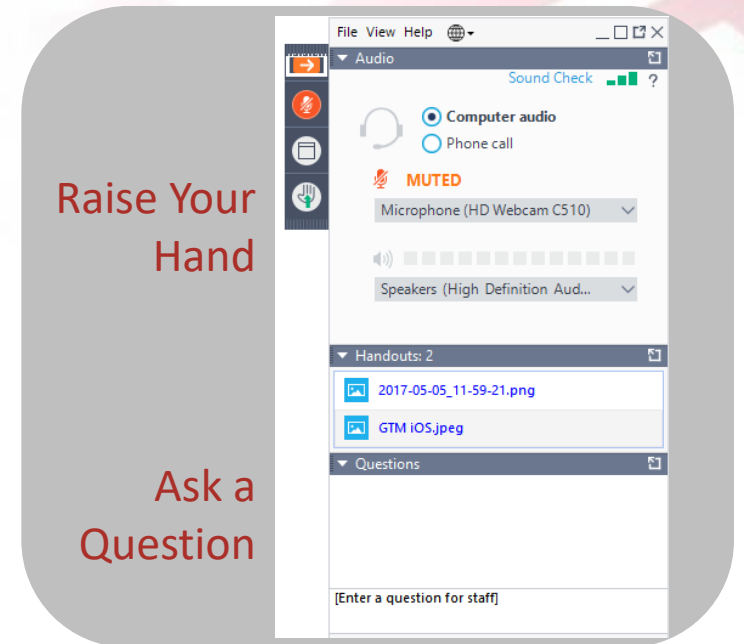
Wednesday, October 28, 2020

2 p.m. to 3:30 p.m.



Housekeeping

- This meeting is being recorded
- Please mute your microphone
- **Tech difficulties? Contact us via the Questions panel or text **206-979-8721****
- Discussion
 - Comment or ask questions through the question panel or raise your hand
 - Unmute yourself
 - Please identify yourself and your county
 - One minute per participant
- Polling
 - This webinar will have several polling activities
 - Recommendation: open another browser window or access with a cell phone PollEV.com/Cambridgesys310



Agenda

- Welcome/Introductions
 - Poll (Using [PollEV.com/Cambridgesys310](https://www.pollEV.com/Cambridgesys310))
- Summary of Regional Webinars
- Local Project Opportunities
 - State agency successes
 - Local agency successes
 - Poll/Discussion
- Opportunities to Advance Statewide ZEV
 - Poll
- Wrap-Up



Welcome

R. Earl Lewis, Deputy Secretary for Policy, Planning, & Enterprise Services



Introduction

Colleen Turner, MDOT Assistant Director, Office of Planning & Capital Programming

First Poll

To get us started...

PollEv.com/cambridgesys310

Which option best describes the ZEV market and associated opportunities over the next few years?

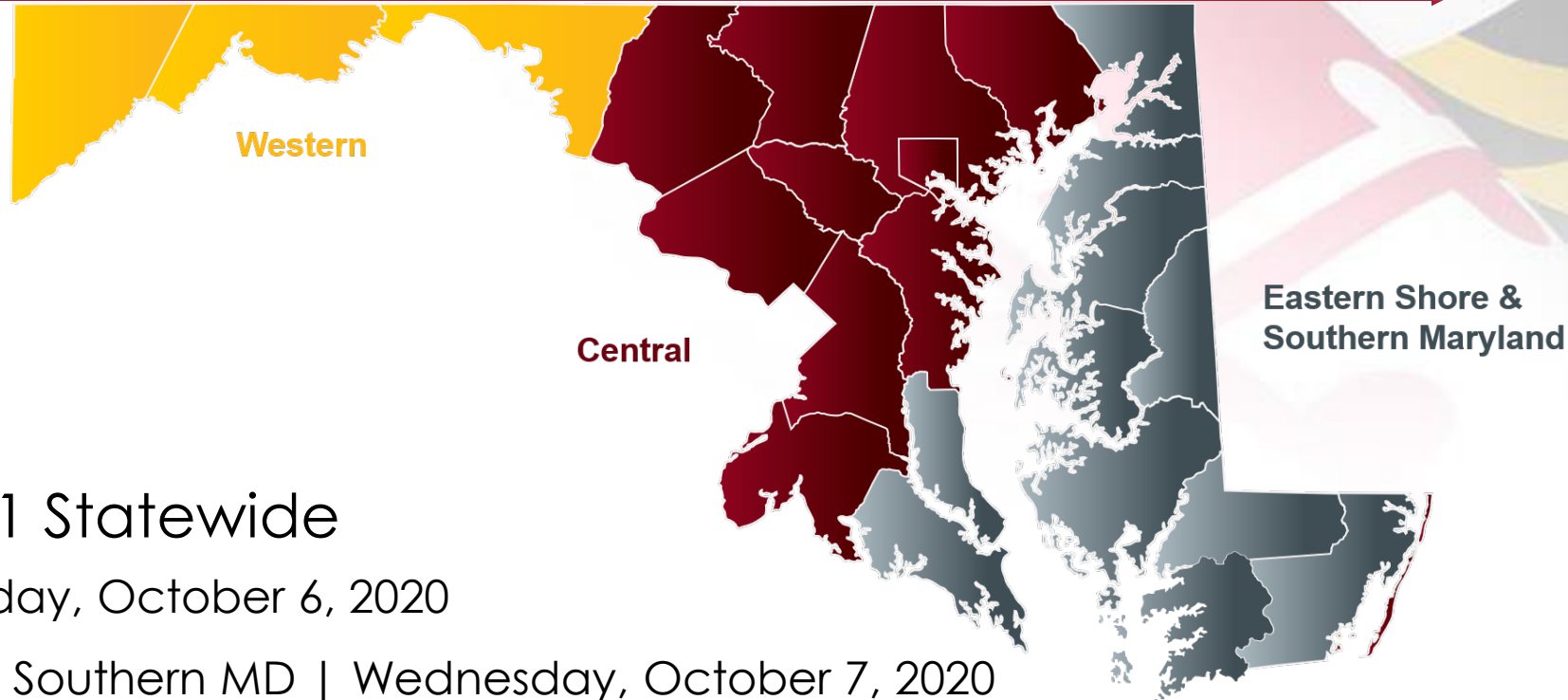
- A. It is HOT! Entering a period of huge opportunity.
- B. Heating up, but still see obstacles on the horizon.
- C. Lukewarm to cool. There's momentum, but challenges outweigh opportunities.
- D. Cold as the coming winter.

A stylized graphic in the top right corner showing two hands, one in red and one in white, cupping a globe. The globe is composed of yellow, grey, and red segments. The hands are rendered in a simple, modern style with white outlines and flat colors.

Summary of Regional Webinars

Colleen Turner, MDOT Assistant Director, Office of Planning & Capital Programming

Maryland ZEV Collaboration Webinars



Forum

Webinars: 3 Regional + 1 Statewide

- » Regional: Western | Tuesday, October 6, 2020
- » Regional: Eastern Shore & Southern MD | Wednesday, October 7, 2020
- » Regional: Central | Thursday, October 8, 2020
- » **Statewide | Wednesday, October 28, 2020**

Local Government Outreach Results

THEMES OF KEY CONCERNS

- Overall funding and installation costs (*also maintenance*)
- Planning for rural areas
- Locations for EV charging stations
 - Regulations/codes
- Partnerships with the state and private entities
 - Coordination among stakeholders

Emerging Technology Survey Results

TOP PRIORITIES FOR LOCAL JURISDICTIONS

- 1.) Better understanding of how jurisdictions fit within a shared statewide ecosystem
- 2.) Planning tools, strategies, and state policy to help start the planning process
- 3.) Statewide conversations on the transportation system & the economy

What We Heard

- Importance of coordination on land use
- Desire for resources to understand state legislation, zoning ordinances
- Examples of local innovation
- Benefits of collaboration with neighboring states
- Discussion on challenge of electric truck market
- Challenges and opportunities with curbside parking

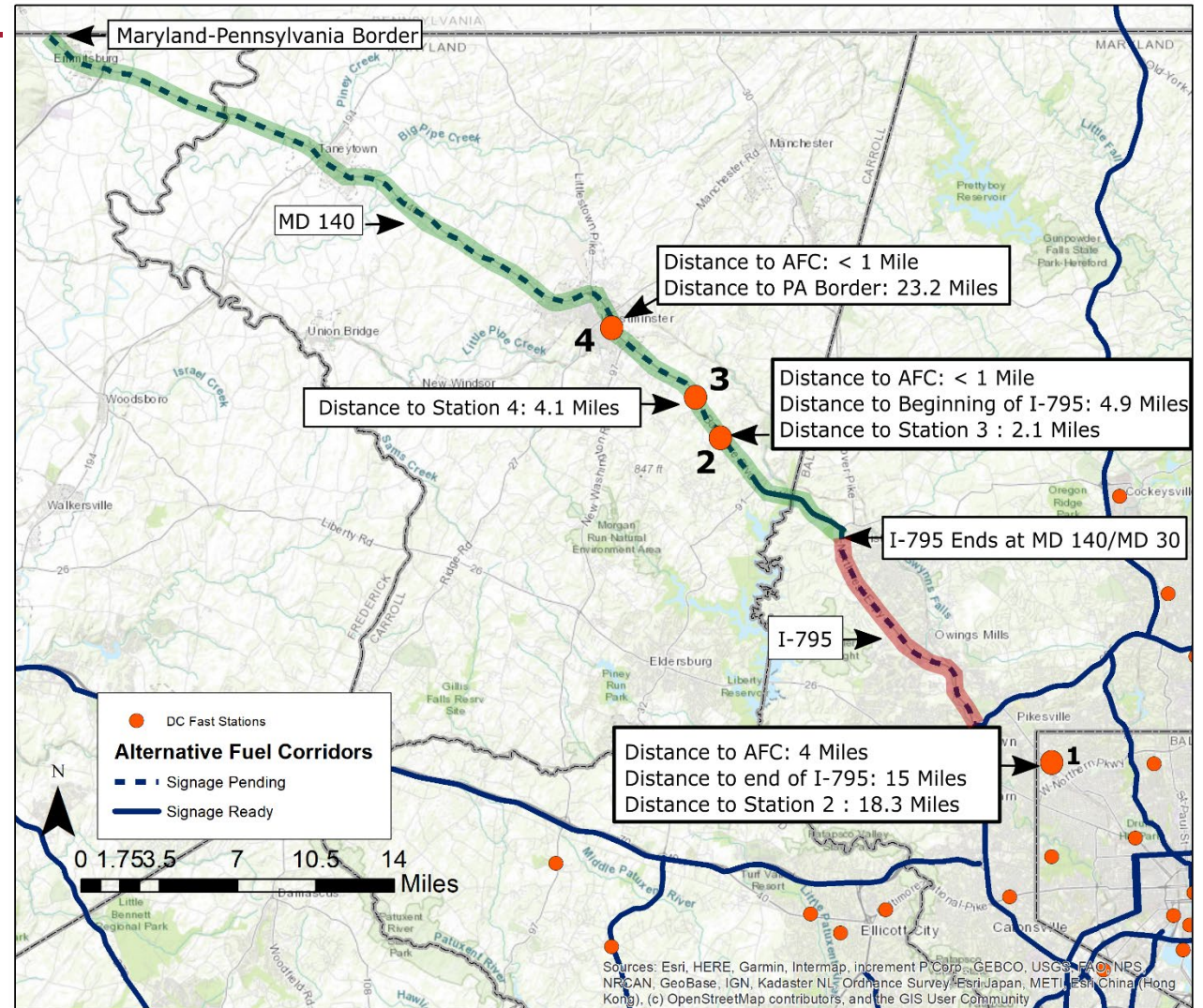
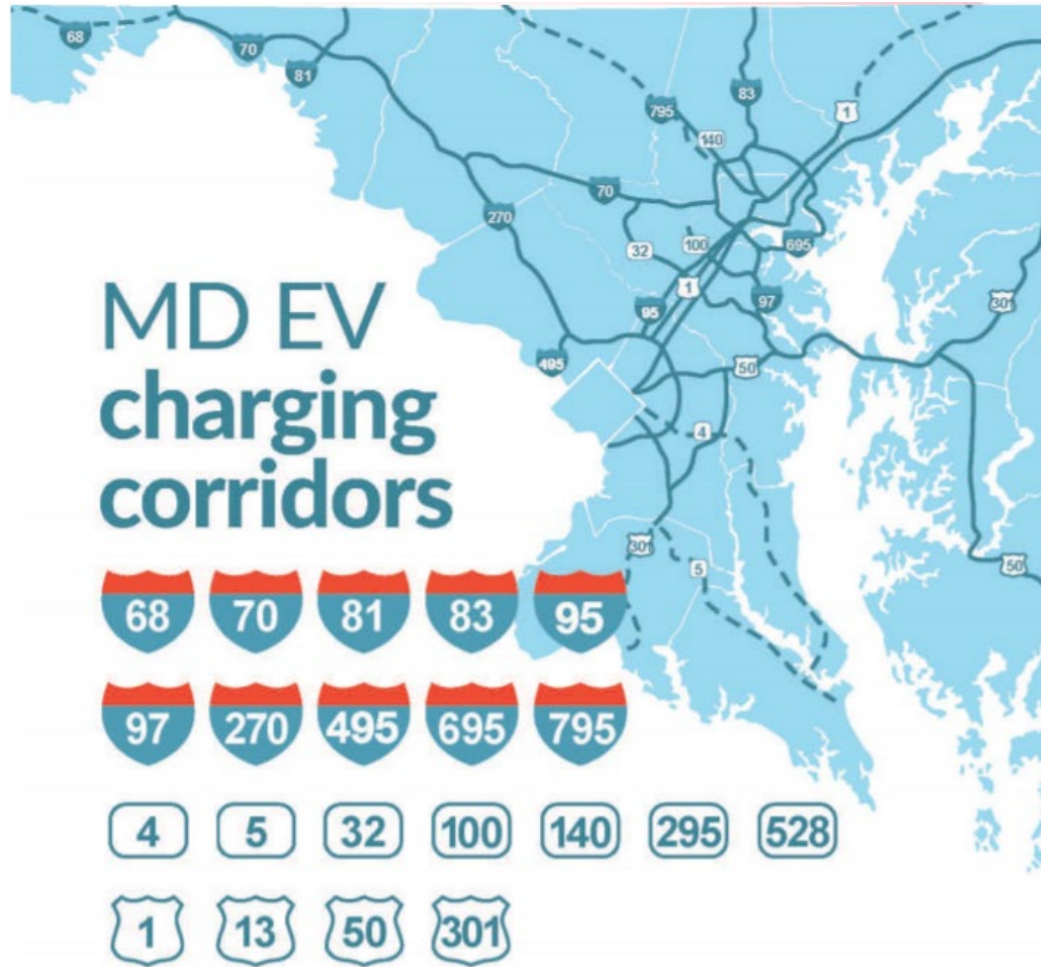


Maryland Successes & Opportunities

Colleen Turner, MDOT Assistant Director, Office of Planning & Capital Programming

Maryland Success Stories (MDOT)

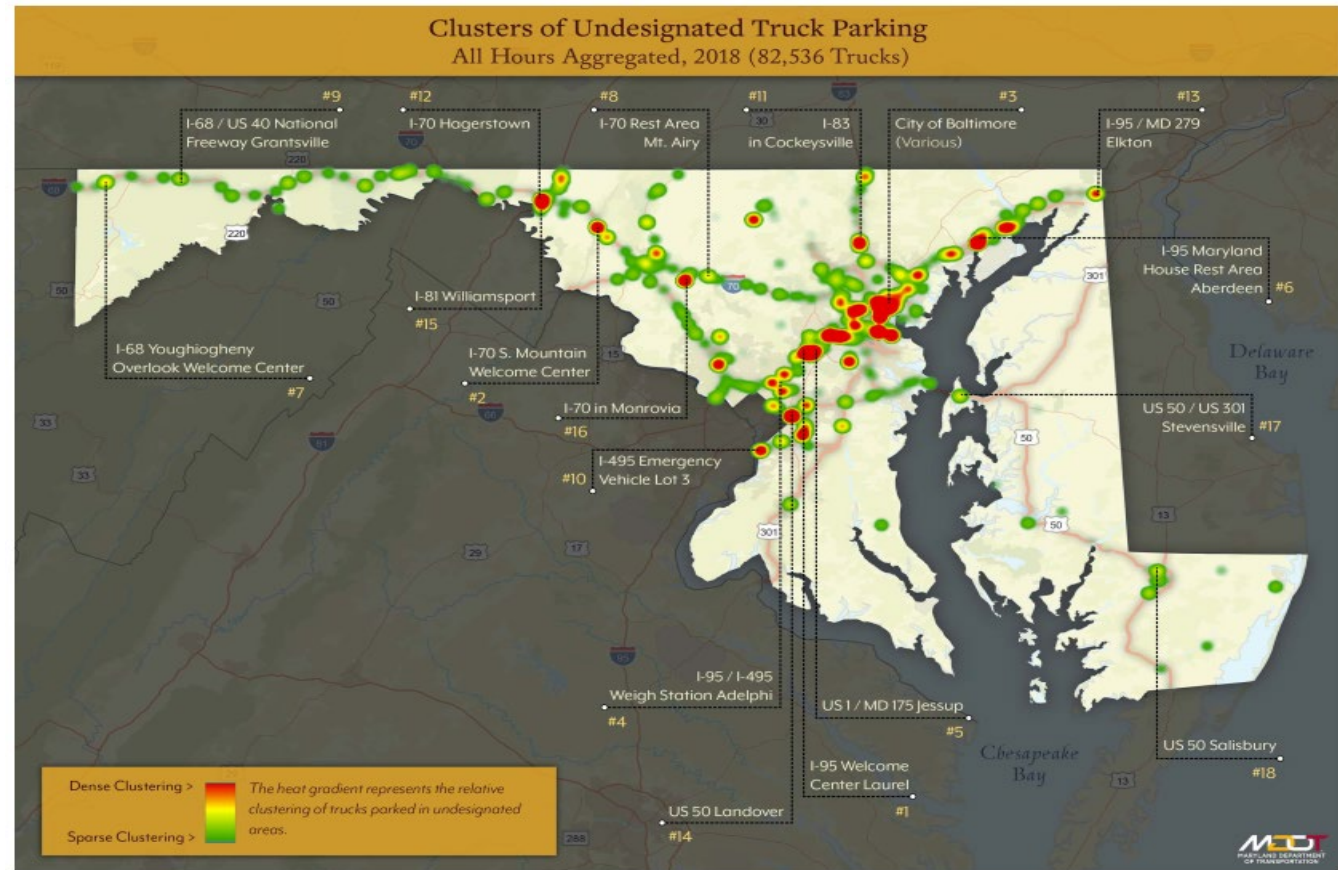
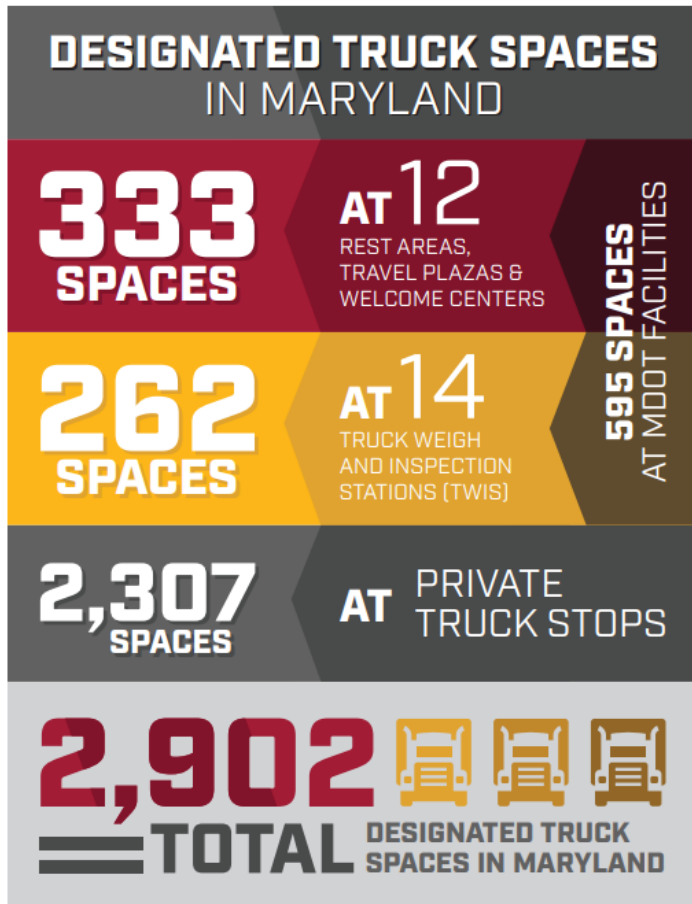
Alternative Fuel Corridors



Maryland Success Stories (MDOT)

Incorporating ZEV in Infrastructure Analyses

Infrastructure Analyses | Light-Duty | Medium- and Heavy-Duty

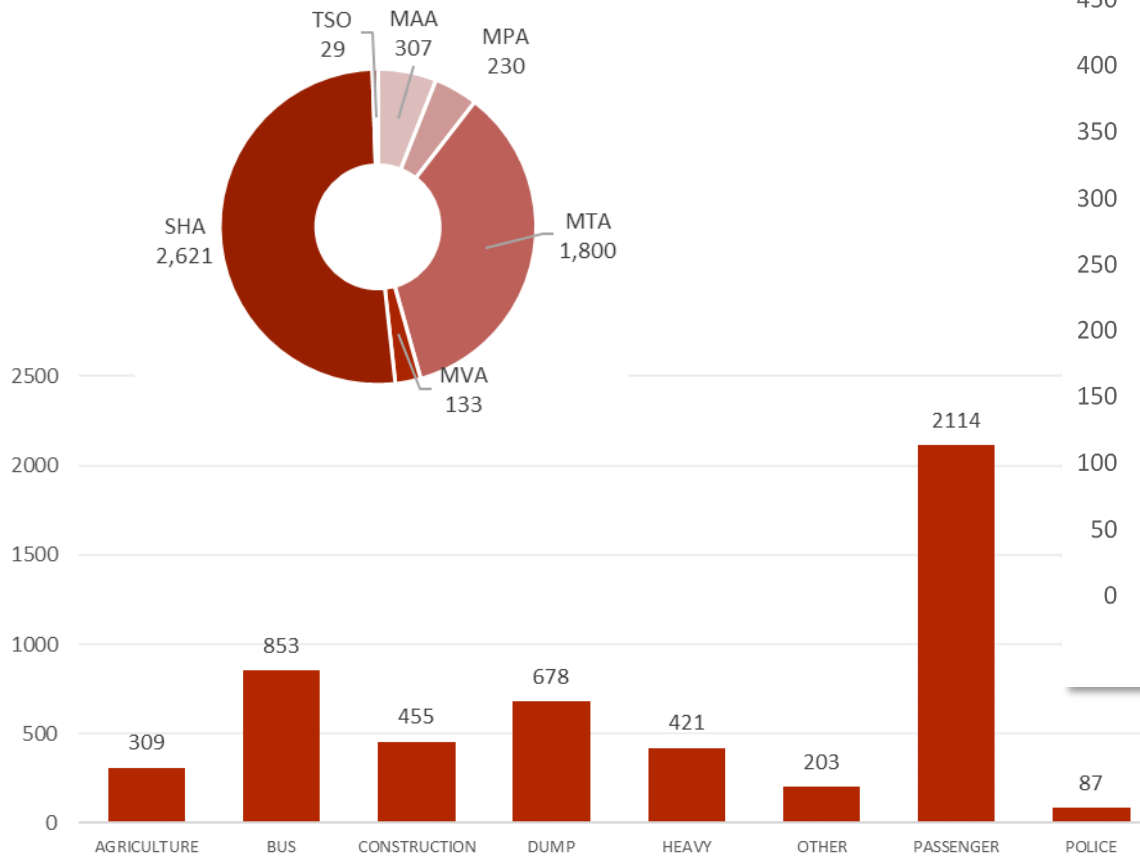


* Priority Clusters were selected from the top 15 locations in Central Maryland with the highest prioritization score and also three additional clusters were added to include locations in both Western Maryland and along the Eastern Shore.

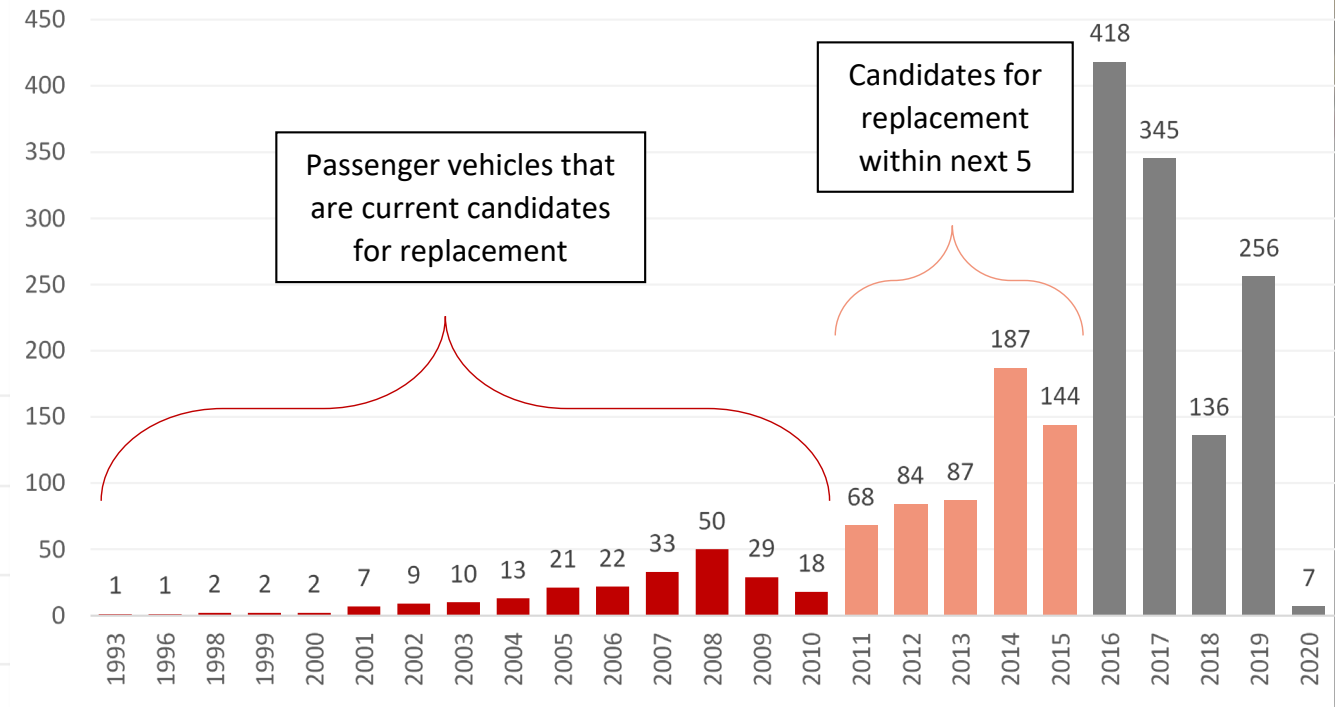
Maryland Success Stories (MDOT)

MDOT Fleet Innovation

Vehicles by TBU & Use



Passenger Vehicle Candidates for Replacement Based on Age

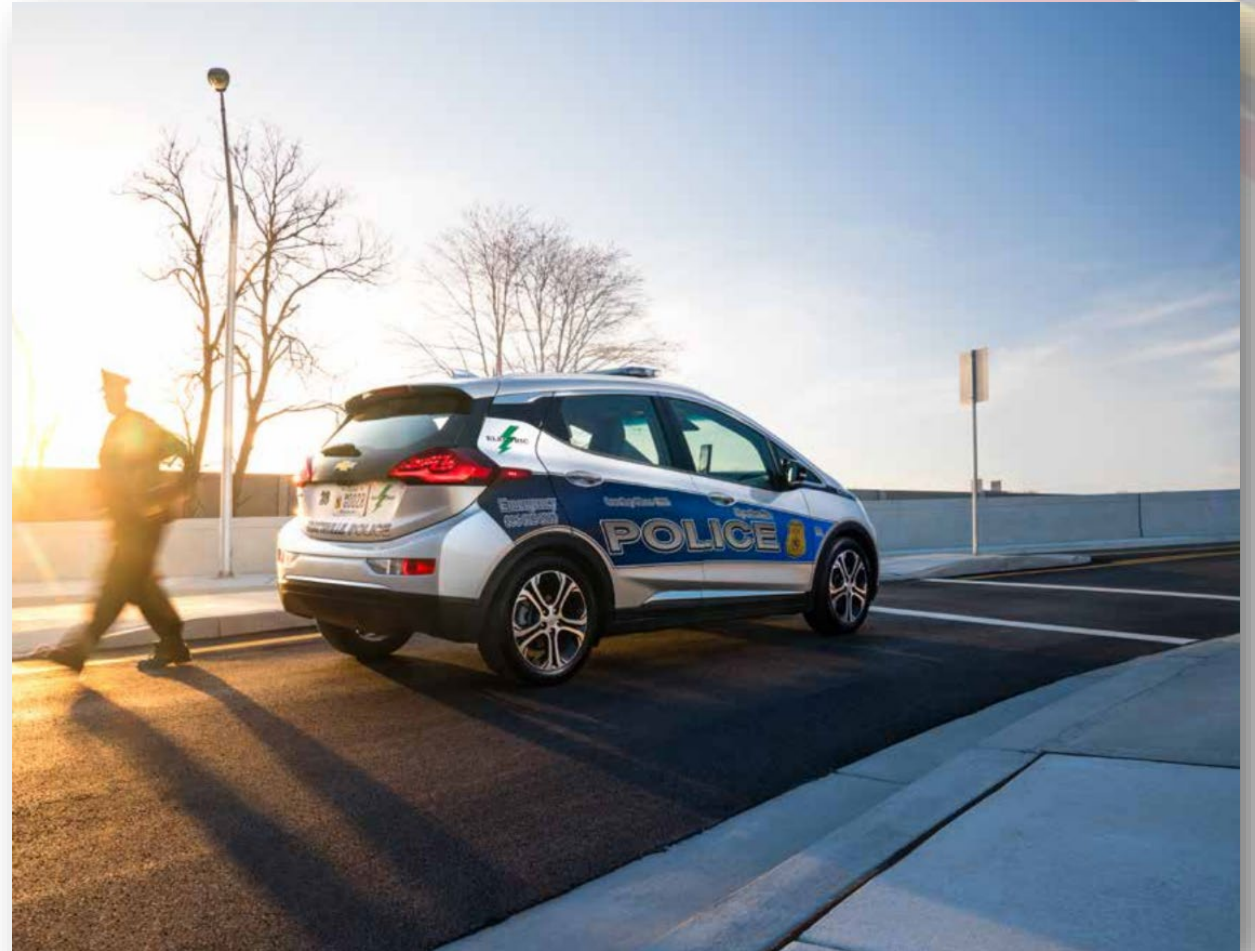


Maryland Success Stories (MEA)

- Awarded rebates for over 4,100 charging stations totaling \$5.2M since 2014
 - ~60% of dollars to non-residential projects, including many local government chargers
- Awarded over \$4M for 81 DCFC at 52 locations throughout the State since 2015
- Awarded \$652,349 for 44 EVs (of various type) and 4 charging stations to 15 different communities through MSEC

Maryland Success Stories (MEA)

- First all-electric pursuit rated police vehicle in the country (Hyattsville-MSEC)



Maryland Success Stories (MEA)



- First full gas station to electric charging station conversion in the country at RS Automotive in Takoma Park (AFIP)

Maryland Success Stories (MEA)

- Frederick County electric buses, first model of its type in a transit fleet in the State (MSEC)



Maryland Success Stories (MDE)

NOx reductions from Maryland VW Plan

- Goal: 575 to 1,730 tons lifetime
- Achieved: At least 3,018 tons lifetime

Developed three MHD ZEV Pilot Programs in State

- School Buses
- Transit Buses
- Commercial Vehicles

Secured full 15% for light-duty charging infrastructure (about \$11.3 million)

Maryland Success Stories **Local Partners**

- **Nina Forsythe** Commissioner of Water, Parks and Recreation, City of Frostburg, ZEEVIC, MML – Rural Region
- **Paul Verchinski** ZEEVIC Public Representative Appointed by Gov. Larry Hogan
- **Atiq Panjshiri** Manager Right of Way Plan Review, Division of Land Development, Montgomery County
- **Sandra Brecher** Chief, Commuter Services Section, Office of Transportation Policy, Montgomery County Department of Transportation
- **Leah Boggs** Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

Maryland Success Stories

Local Partners



Nina Forsythe Commissioner of Water, Parks and Recreation, City of Frostburg



Maryland Success Stories Local Partners

Paul Verchinski ZEEVIC Public Representative

County Council of Howard County, Maryland

2018 Legislative Session

Legislative Day No. 13

Bill No. 76-2018

Introduced by: Jennifer Terrasa

AN ACT to require infrastructure for and charging stations for electric vehicles in certain new residential structures; and to require specified compliance with this Act as part of the subdivision and site development plan approval process.

Introduced and read first time October 1, 2018. Ordered posted and hearing scheduled.

By order


Jessica Feldmark, Administrator

Maryland Success Stories Local Partners

Paul Verchinski ZEEVIC Public Representative

WHAT ARE THE VARIABLES: Multi-Unit Dwellings (MUDS)/HOAs for EVSEs?

1. Common area parking lots – no assigned or owned spaces
2. Common area parking lots – owned parking spaces
3. Common area liability insurance (\$1M?)
4. Existing electric service - at unit
5. Existing electric service - at central panel
6. UL approved EVSE
7. Electrical inspection by county/municipality
8. RAC: different EVSE types
9. Cost for EVSE? Shared?
10. Payment for electrical use
11. What happens to the EVSE when owner moves?
12. Who pays for upgrade to building electrical services at 4th – 10th EVSE?
13. Some EVSEs use Wi-Fi
14. Who pays for maintenance of EVSE?
15. Limited power available in older MUDs
16. Sharing EVSEs – time slots – who coordinates?
17. Bringing in more power?
18. Cost prohibitive utility upgrades for older MUDs

More Resources: https://marylandev.org/local_ev_resources/

Maryland Success Stories Local Partners

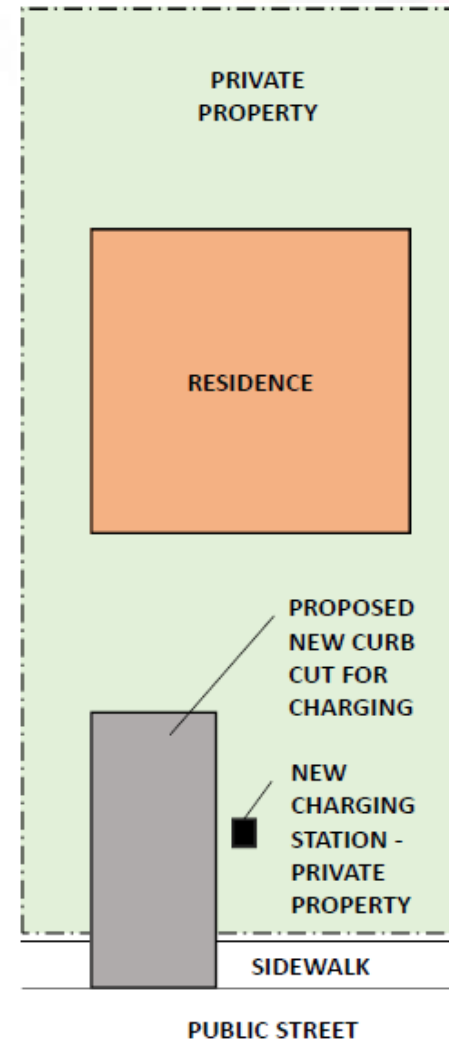
Atiq Panjshiri Manager Right of Way Plan Review, Division of Land Development, Montgomery County

HOW TO APPLY FOR PERMIT

Once DPS evaluates application and determines an EV charging station can be safely installed in the applicant's property, 1 of 3 options will apply:

Option A: ▶

Install EV charging station in existing driveway, garage or parking pad



◀ **Option B:** Install EV charging station in new curb cut (driveway or parking pad) within private property

Option C: Install EV charging station within public Right-of-Way while parking electric car in public street

Maryland Success Stories **Local Partners**

Sandra Brecher Chief, Commuter Services Section, Office of Transportation Policy, Montgomery County Department of Transportation

EV Charging Stations

- Development Approval Process
 - Traffic Mitigation Agreements (TMAGs)
 - Transportation Demand Management (TDM) Plans
- Zoning Ordinance Provisions
 - Requires EV-ready spaces for all parking facilities with 100+ spaces
- EV Charging in County Parking Facilities
 - 20 dual ports & growing
- EV Permitting Process for Residential Installation
 - EV Charging in Public ROW – Dept. of Permitting Services & MCDOT / Atiq Panjshiri
- Utility Company EV Charging Stations on public property

Maryland Success Stories **Local Partners**

Sandra Brecher Chief, Commuter Services Section, Office of Transportation Policy, Montgomery County Department of Transportation

EV Buying Coop/Group Buy

- Context: County adoption of Emergency Climate Mobilization Resolution:
 - 80% reduction in GHG emissions by 2027
 - 100% elimination of GHG emissions by 2035
 - County developing Climate Plan based on recommendations of Technical Work Groups, including one on Transportation, source of 41% of GHG emissions
 - Acting while we plan: To promote adoption of EVs
- Request for Information (RFI) for EV Group Buy Program (*pending issuance*)
 - Appropriate scope, duration, program parameters
 - Options for administering – working with lead organization outside County government
 - Identify key stakeholders & their roles; how address equity
 - Best marketing/promo strategies
- EV Group Buy Forum – Virtual discussion to be scheduled w/ RFI respondents

Maryland Success Stories Local Partners

Sandra Brecher Chief, Commuter Services Section, Office of Transportation Policy, Montgomery County Department of Transportation

Additional Actions

- Fleet purchases for motor pool vehicles
- EV Charging Stations for County vehicles
- Ride On Electric Buses – 1st 4 are operational
- Additional EV Buses on order – planning to transition to all EV
- Ride On Brookville Bus Depot EV Bus Charging Installation
- Capital Bikeshare E-bike program
- Multi-vendor E-scooter and E-bike pilot program



Montgomery County Electric Ride On Bus

Maryland Success Stories Local Partners

Liam Davis Baltimore City Department of Transportation

Baltimore City / BGE franchise legislation:

Franchise - Electric Vehicle Charging Stations For the purpose of granting a franchise to the Baltimore Gas and Electric Company to install, operate, and maintain electric vehicle charging stations on City right-of-way and Park Properties, subject to certain terms, conditions, and reservations; and providing for a special effective date.

Link

<https://baltimore.legistar.com/LegislationDetail.aspx?ID=4617845&GUID=D532A5EC-ED44-437B-BF35-B203D0A1743B&Options=ID|Text|&Search=bge>

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

2030 Climate and Energy Action Plan

US Metro-Scale Climate Leaders Global Covenant of Mayors For Climate & Energy (GCoM) Designation

- 9,200 cities/counties worldwide; 162 in US
- Four Metro-Scale Climate Leaders in US

Why GCoM?

- Common reporting framework
- Revised Business as Usual projections
- GHG emissions inventory independent review
- Mitigation targets and low-carbon scenarios
- Climate Risk and Vulnerability Assessment
- Mitigation and adaptation actions
- Technical assistance
- 2030 interim greenhouse gas emission (GHG) reduction goal

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

2030 CEAP COG Board Action

October 14 COB Board briefing

- U.S. and international regional climate goals and plans
- Metropolitan Washington 2030 Climate and Energy Action Plan (CEAP) development
- Recommendation from Climate Energy and Environment Policy Committee (CEEPC) to adopt the proposed 2030 Plan goals
- COG Board adopted goals of:
 - 50% by 2030 below 2005 levels
 - Becoming a Climate Ready Region and making significant progress to be a Climate Resilient Region by 2030

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

2030 CEAP ZEV Strategies

- ZEV-1: expand light-duty electric vehicle deployment
- ZEV-2: accelerate electrification of medium- and heavy-duty vehicles
- ZEV-3: build out regional electric vehicle charging network

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

COG Cooperative Procurement

Fleets for the Future

- US Department of Energy two-year grant (2016-2018)
- Objectives: aggregate demand for AFVs (including ZEVs), reduce cost, catalog lessons learned
- Partners: National Association of Regional Councils (NARC) + 5 regional councils, including COG

National Procurement

- Partnered with Sourcewell
- 5 new EVSE contracts

COG Regional Procurement

- Aggregate vehicle award: 3 vendors, 3 different EV types

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

COG Cooperative Procurement

Lessons Learned

- Local government budget schedules may not align with the upfront planning and administration to coordinate a successful purchase.
- At the time of purchase, more competitive pricing discounts available through other offerings and programs.
- Using larger fleets as anchors for the procurement may ensure that vendors are interested in bidding and that economies of scale can be achieved.
- Dealerships' ability to offer deep discounts may be limited and confined to certain periods in their sales cycles.

Maryland Success Stories **Local Partners**

Leah Boggs Senior Environmental Planner, Metropolitan Washington Council of Governments (COG) Department of Environmental Programs

Other Local ZEV Projects

Prince George's County EV Infrastructure Action Plan

Local Climate Action Plans with EV Strategies

- Frederick County Government Operations Plan
- Fairfax County Community-wide Energy and Climate Action Plan

Poll and Discussion

[PollEv.com/cambridgesys310](https://www.pollEv.com/cambridgesys310)

Please rank the following ZEV opportunities in order of importance.

Financial incentives for vehicle purchase

Revised building codes to remove barriers to charging installation

Targets for ZEV procurement in local government fleets

Purchase ZEV buses for public transportation

Conduct public awareness campaigns

A stylized graphic in the top right corner shows two hands, one in red and one in white, cupping a globe. The globe is composed of yellow, grey, and red segments. The hands are rendered in a simple, modern style with white outlines and flat colors.

Opportunities for Local Project Support

Colleen Turner, MDOT Assistant Director, Office of Planning & Capital Programming

Maryland State Agencies Overview



Maryland
Energy
Administration

MSEC/CFIP/CFTA

EV/EVSE
(Incentives/Rebates)

Maryland Clean Cities
Coalition



Install EVSE

Chair/Staff ZEEVIC

Track ZEV Registrations

AFC Corridors



Maryland
Department of
the Environment

ZEV MOUs

Maryland Clean Cars
Program

VW Settlement

Chair/Staff MCCC

MEA Incentive Programs

Program	Type	Application Deadline	Project	Incentive Level
CFTA	First-come, first-served	11/11/2020	Develop fleet electrification strategies	Not a grant program- receive technical assistance
MSEC	Competitive	11/13/2020	LD EVs (Class 1-2)	Less than 200 miles AER: 100% of IC up to \$3,750/vehicle 200+ miles AER: 100% of IC up to \$7,500/vehicle
			Fleet EVSE (L1/L2)	60% of TC up to \$6,000/charger
CFIP	Competitive	12/15/2020	MD EVs (Class 3-8)	Less than 100 miles AER : 100% of IC up to \$25,000/vehicle 100+ miles AER: 100% of IC up to \$50,000/vehicle
			Hydrogen	Class 1-2: 100% of IC up to \$7,500/vehicle Class 3-8: 100% of IC up to \$50,000/vehicle
EVSE Rebate	First-come, first-served	Rolling	L2 EVSE	40% of TC up to \$4,000/charger
Utility EVSE Networks		Rolling	Publicly accessible L2/DCFC on government owned property in BGE/PEPCO/DPL/PE service territory.	Owned by utility, no cost to muni (host)

MDE Incentive Programs

- **VW Settlement EVSE Program (\$11.3 million)**
 - Three rounds of funding
 - Targets workplace, state properties, and corridor/HUB locations
 - First proposal period November thru December 31st
 - Next two rounds of funding will be Spring and Fall 2021
- **VW Vehicle Replacement Program (\$64 million)**
 - Proposals were due May 6, 2019
 - Received approximately 44 proposals
 - May reopen some funding categories in spring of 2021

ZEEVIC

Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC)

- Next Meeting November 19, 2020 2pm
- Annual Report Due in December
- [GIS StoryMap](#) Illustrating Goals & Progress



Weston Young, Rural Representative
Assistant Chief Administrative Officers, Worcester County

Liam Davis, Urban Representative
Baltimore City Department of Transportation



David Edmondson, Urban Representative
Planner, City of Frederick

Nina Forsythe, Rural Representative
Commissioner, City of Frostburg



**MARYLAND
ZERO EMISSION**
Electric Vehicle Infrastructure Council



Maximize the use of grant and alternative funding opportunities for EV / EVSE in MD.



Develop an approach to address the Right to Charge and EV Parking / Anti-Icing.



Ensure EV readiness through strategic infrastructure planning that focuses on corridors, workplaces, and communities.



Continue education and outreach coordination with a focus on diversity and equity.

Poll and Discussion

[PollEv.com/cambridgesys310](https://www.pollEv.com/cambridgesys310)



Please rank the following in order of importance of what you need from your state and federal partners.

More decision support tools (like interactive maps, gap analysis, etc.)

Guidance on accommodating ZEV through zoning and code revisions

Access to best practices and case studies from peer local agencies

Detailed project cost information and infrastructure guidance

Other Opportunities & Next Steps

Available State Incentives

- Utility EV Charging Stations

Keeping the Dialogue Open & Moving Forward

- Strategic Planning
- Attend ZEEVIC / Work with Local Representatives / Clean Cities Coalitions
- Social Media and Websites
- Opportunities for Continuing this Conversation and / or Facilitating Local Discussions

One last question: [PollEv.com/cambridgesys310](https://www.pollEv.com/cambridgesys310)

I am interested in future opportunities to continue this conversation.

Strongly Agree. More gatherings like this, please.

Somewhat Agree. Yes, but maybe in a different way.

Agree, but need to know more to be fully invested.

Somewhat Disagree. Good to get together, but other needs are a priority.

Disagree. Other needs are a priority.

State Agency Contact Information



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Metropolitan Washington Council of Governments

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Liam Davis

Baltimore City Department of Transportation

Email: LiamF.Davis@baltimorecity.gov

Resources

- MDE VW Information: mde.vw@maryland.gov
- Maryland EV: <https://marylandev.org/>
- ZERO Emission Electric Vehicle Council (ZEEVIC):
http://www.mdot.maryland.gov/newMDOT/Planning/Electric_Vehicle/About_the_Council.html
- MDE EV Incentives:
https://mde.maryland.gov/MarylandGreen/Documents/EV_dealershipflyer_online.pdf
- US DOE Alternative Fuels Data Center: <https://afdc.energy.gov/>
- MDOT, MDE, MEA joint webinars on multistate MOU for Clean Truck Planning.
November 13, 2020 from 2:30 p.m. – 4:00 p.m.
 - <https://register.gotowebinar.com/register/4924323764179748111>November 17, 2020 from 10:30 a.m. – 12:00 p.m.
 - <https://register.gotowebinar.com/register/5609079814753382155>

Maryland ZEV Collaboration Webinars

Thank you!

Questions?

