

# Maryland ZEV Collaboration Webinars

---

## Central Region Webinar

Thursday, October 8, 2020



# Housekeeping

---

- This meeting is being recorded
- Please mute your microphone
- **Tech difficulties? Add comment in chat or text 206-979-8721**
- Discussion
  - Add questions and comments to the chat
  - Time: one minute per participant
  - Unmute yourself (via phone press \*6)
  - Identify yourself and your county

Mark your calendar:

**Statewide webinar October 28th 2-3:30 PM**

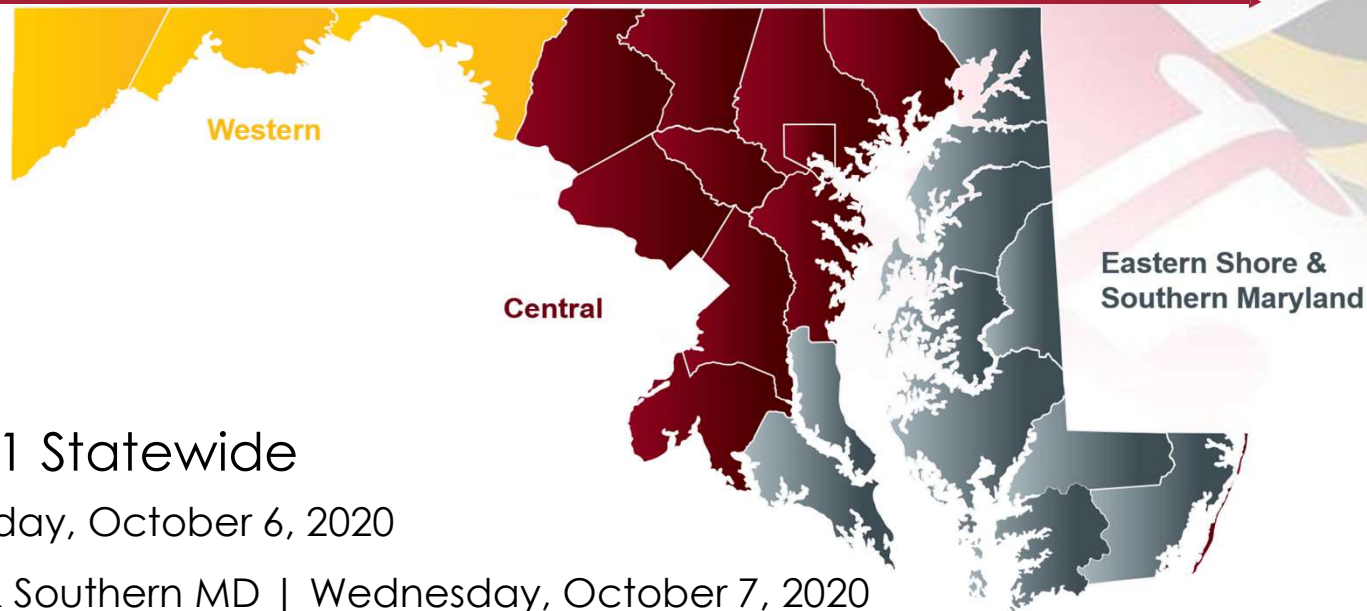
# Agenda

---

- Goals & Overview
- Survey Results
  - Group Feedback / Discussion
- Zero Emission Vehicles (ZEV) in Maryland and Nationally
  - Tim Shepherd, MDE
  - Mike Jones, MEA
  - Colleen Turner, MDOT
  - Group Feedback / Discussion
- Recap & Next Steps

# 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 | 2 – 3:30 PM**

# Goals for Today

---



## Share

Results from MDOT ZEV / Emerging Technologies Surveys.



## Communicate

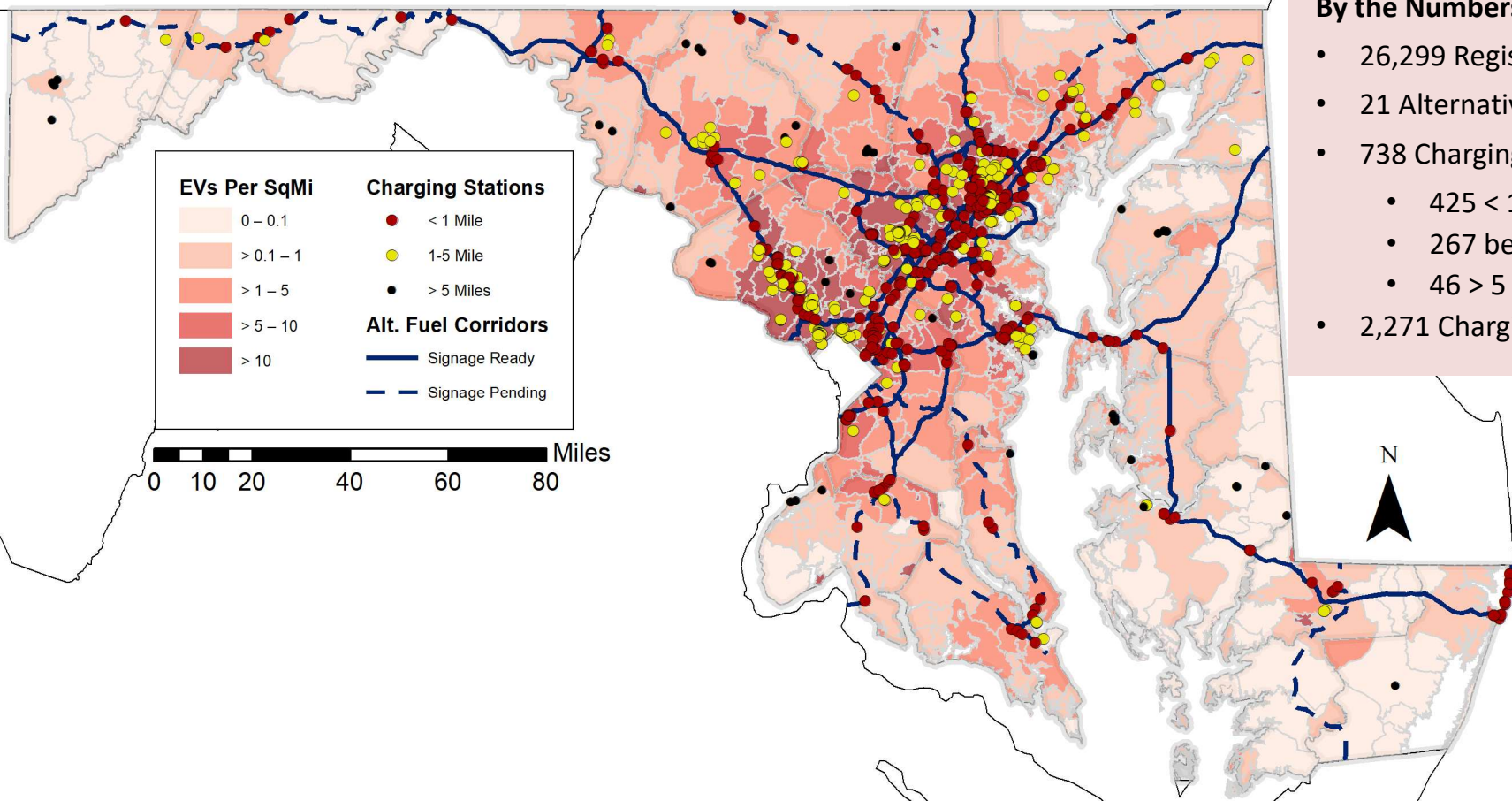
Maryland's progress and share opportunities to align activities and collaborate.



## Learn

About local challenges and prospects in ZEV and related technologies.

# Current Infrastructure Statewide

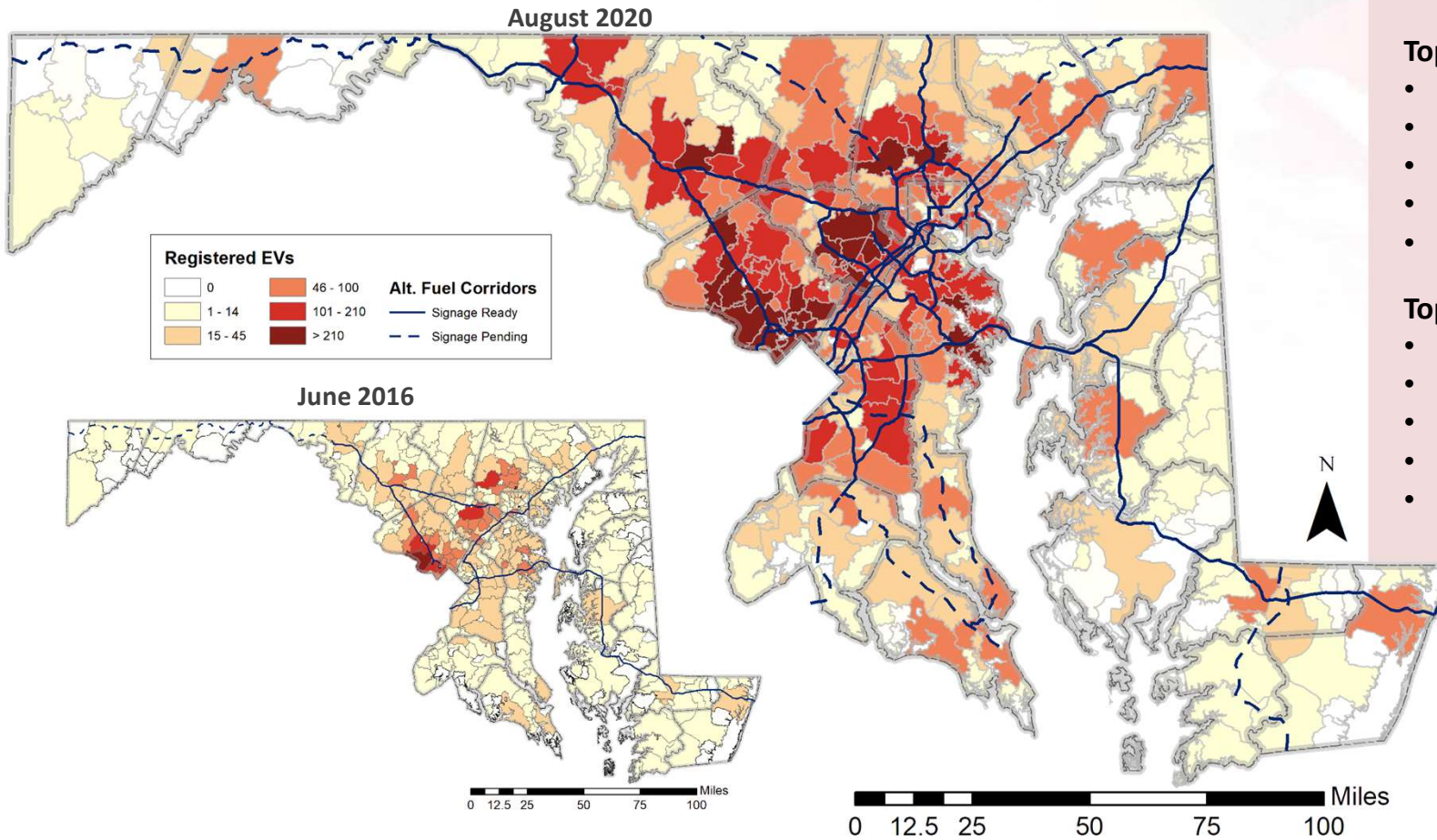


## By the Numbers:

- 26,299 Registered EVs
- 21 Alternative Fuel Corridors
- 738 Charging Stations
  - 425 < 1 Mi from AFC
  - 267 between 1-5 Mi from AFC
  - 46 > 5 Mi from AFC
- 2,271 Charging Outlets



# EV Growth



## Top 5 Zip Codes August 2020:

- 20854 (Potomac) – 1,078
- 20817 (Bethesda) – 809
- 20878 (Gaithersburg) – 734
- 20850 (Rockville) – 641
- 21042 (Ellicott City) - 512

## Top 5 Zip Codes June 2016:

- 20854 (Potomac) – 237
- 20817 (Bethesda) – 205
- 20815 (Chevy Chase) - 147
- 20878 (Gaithersburg) – 147
- 20850 (Rockville) – 132

# Local Government Outreach Survey

Colleen Turner, MDOT TSO

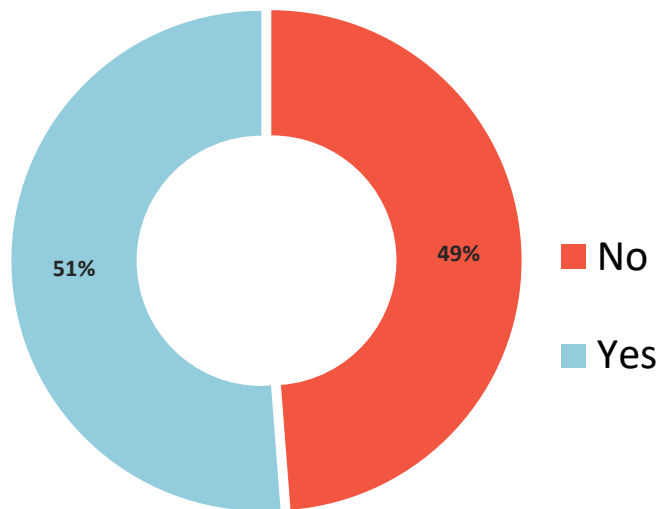




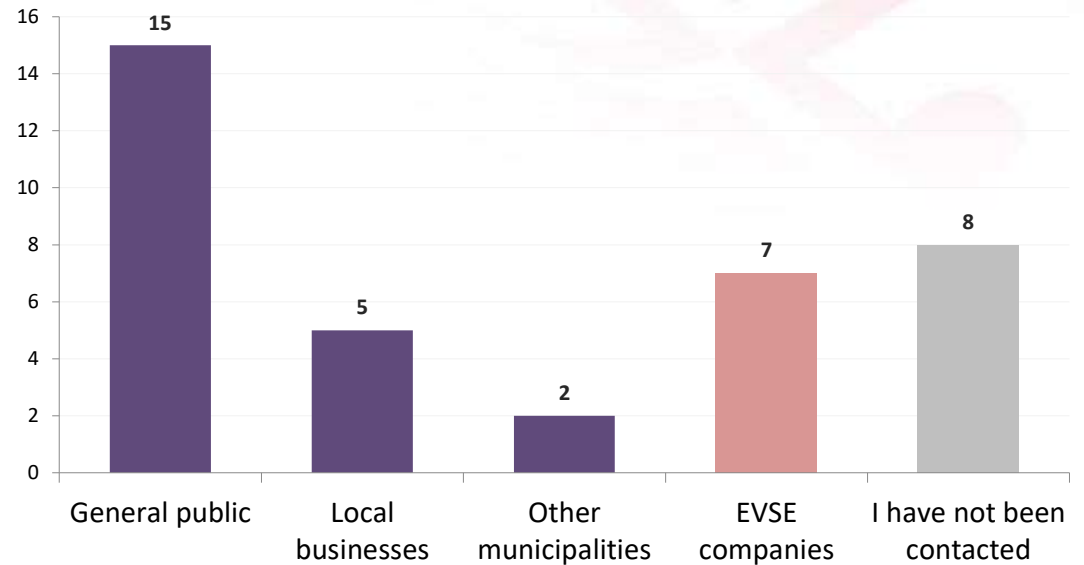
# MetroQuest EV Charging Survey

## 51 Respondents

Have you received calls/emails about the need for more EV charging locations?



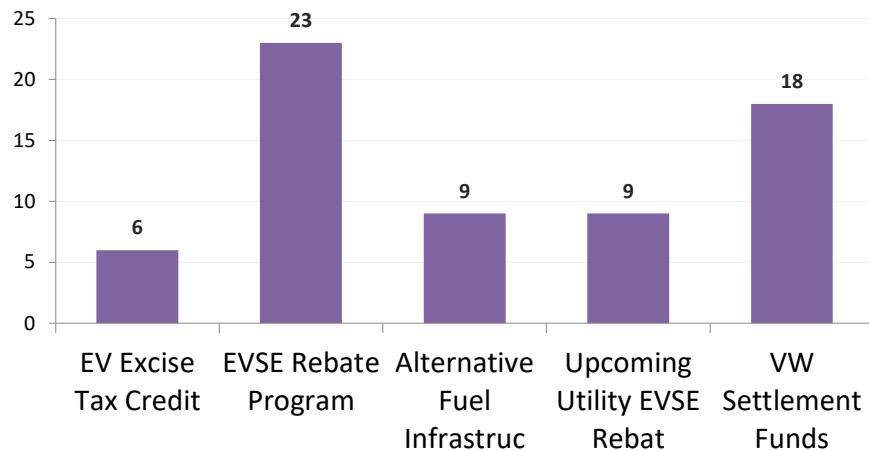
If so, who has contacted you?



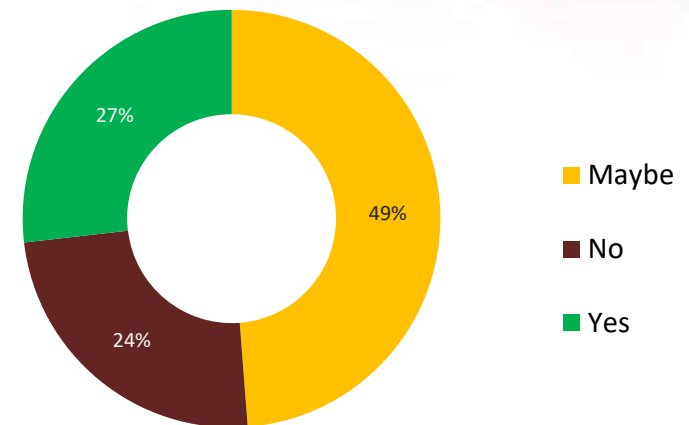
# MetroQuest EV Charging Survey

## Awareness & Planning Efforts

Select all of the Maryland funding programs for EVs or EVSEs that you are aware of and/or have been communicating to your community:



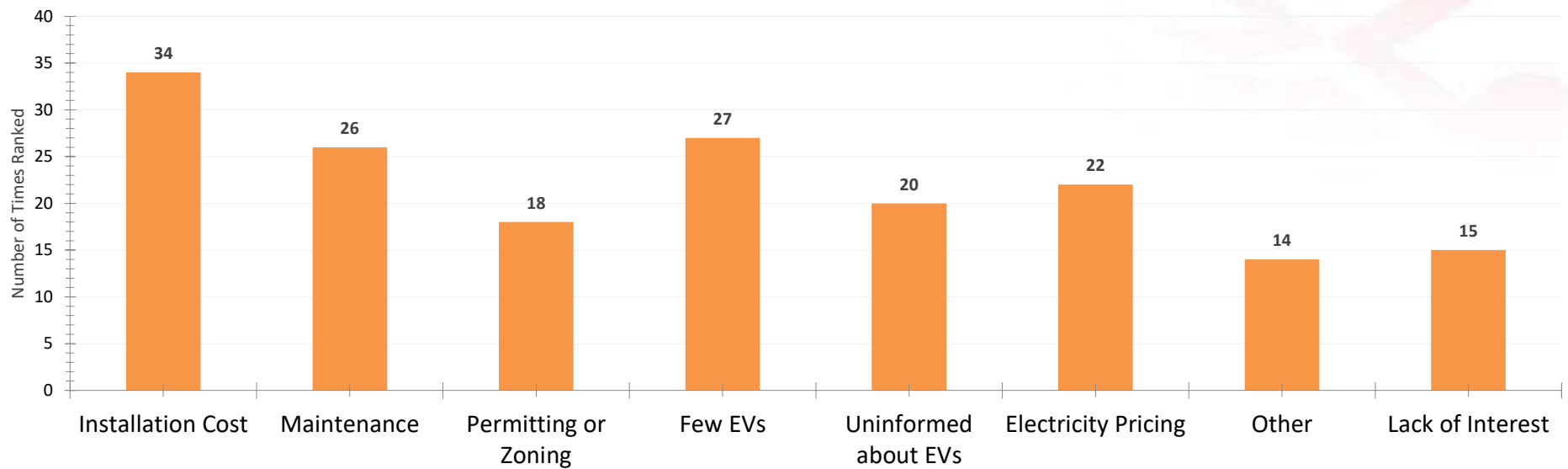
Are you planning on completing an EV infrastructure or EVSE plan in the future?



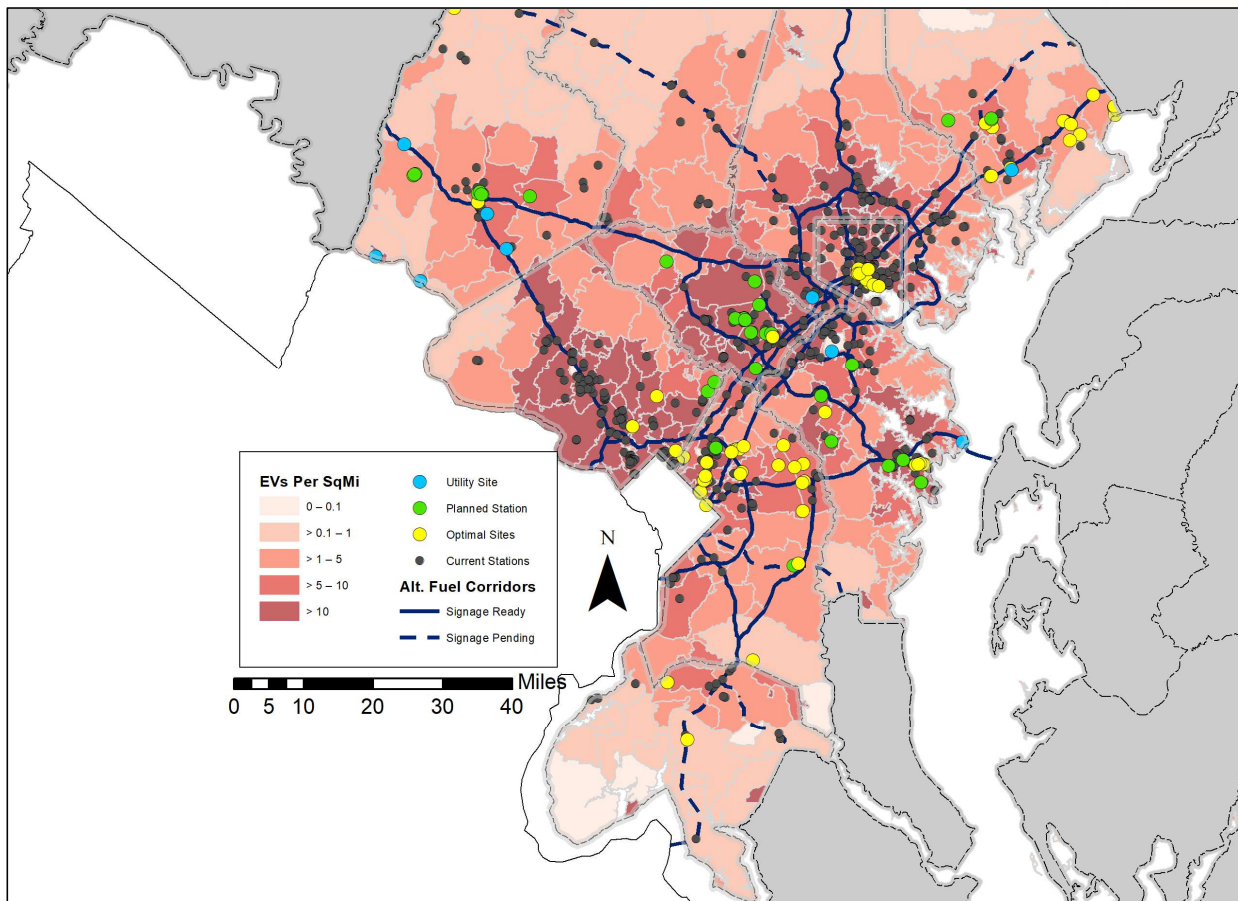
# MetroQuest EV Charging Survey

## Local Government Outreach Survey

Challenges to EV Implementation Ranked



# Current Infrastructure & Opportunities- Central



## Current Infrastructure:

- 640 Charging Stations
  - 368 < 1 Mi from AFC
  - 250 between 1-5 Mi from AFC
  - 22 > 5 Mi from AFC
- 1,983 Charging Outlets

## Infrastructure Opportunities:

- 9 Utility Sites
- 33 Planned Stations (MetroQuest)
  - 1 Corridor
  - 5 Other
  - 7 Workplace
  - 16 Destination
  - 4 No Response
- 64 Optimal Sites (MetroQuest)
  - 1 Other
  - 2 Multi-unit Residential
  - 9 Corridor
  - 9 Workplace
  - 15 Destination
  - 28 No Response

# Maryland ZEV Collaboration Webinars

---

## **Local Government Outreach Survey**

### KEY THEMES

Overall funding and installation costs

Planning for rural areas

Locations for EV charging stations

Codes/regulations

Partnerships with the state and private entities

Coordination among stakeholders





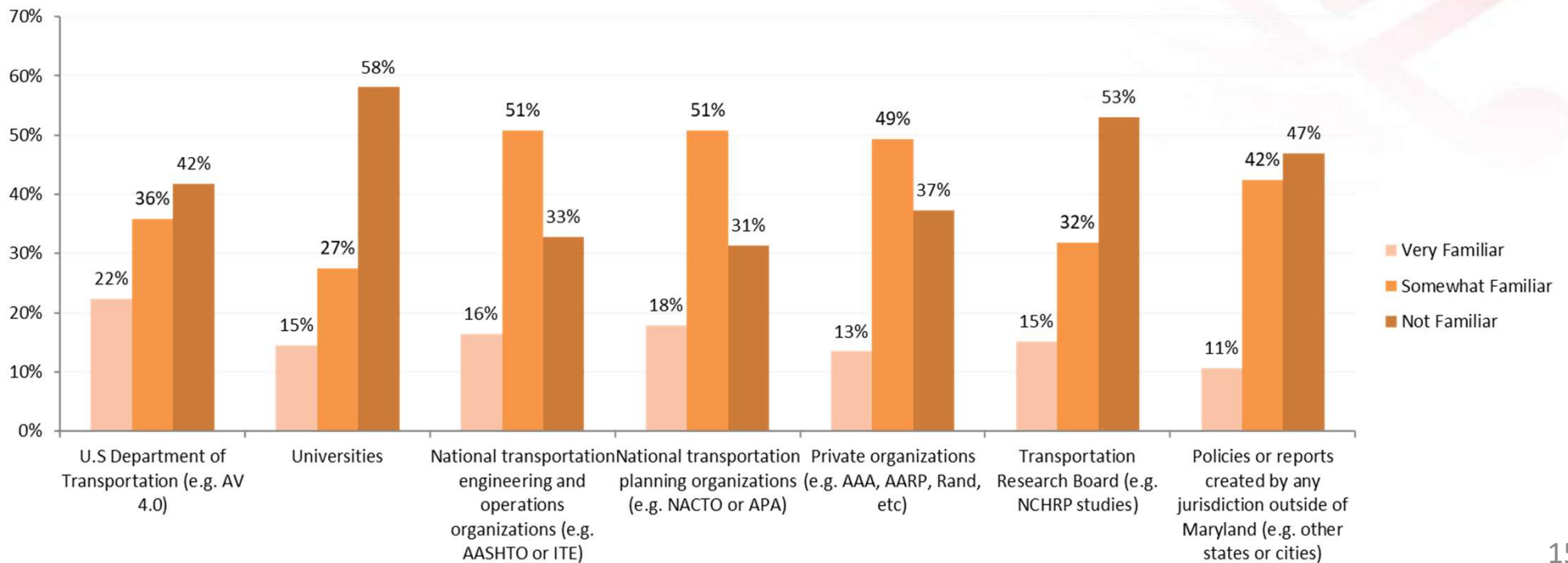
# Emerging Technology Survey

Colleen Turner, MDOT TSO

# Emerging Tech. [Survey Monkey]

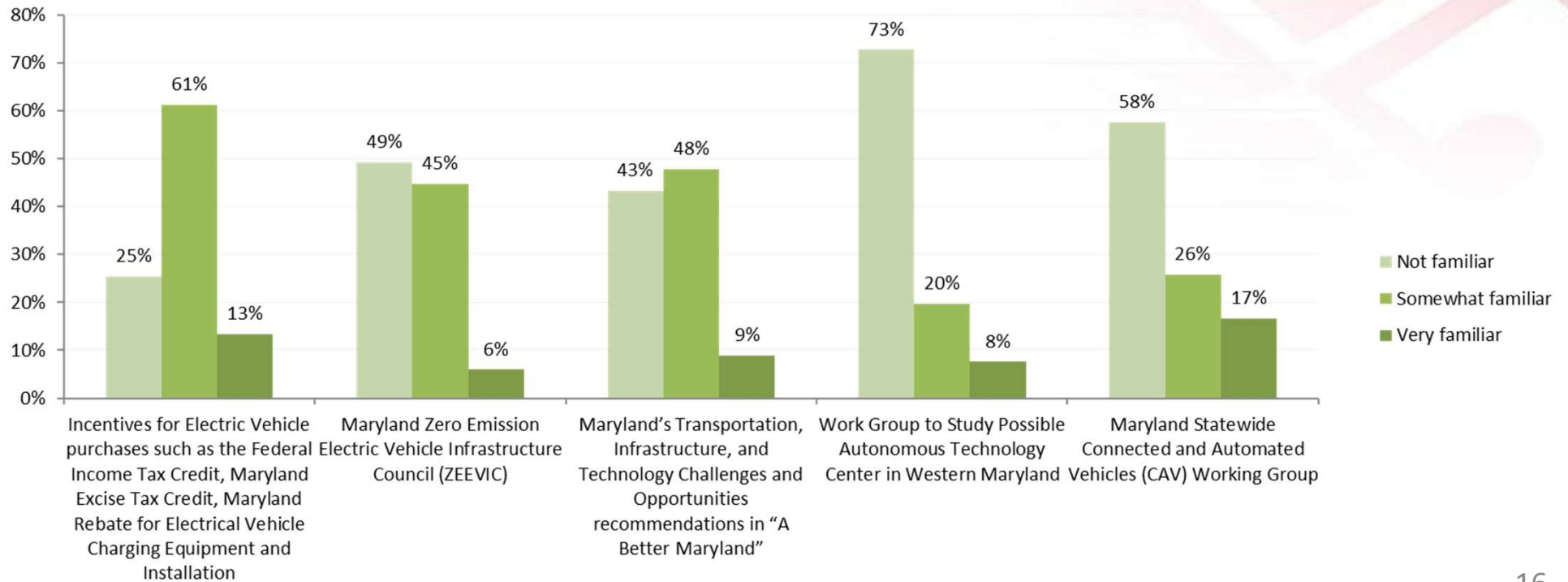
**68** Respondents (~15% response rate)

Is your jurisdiction familiar with any of the following national entities' policy guidance documents and/or technical resources for emerging transportation technology?



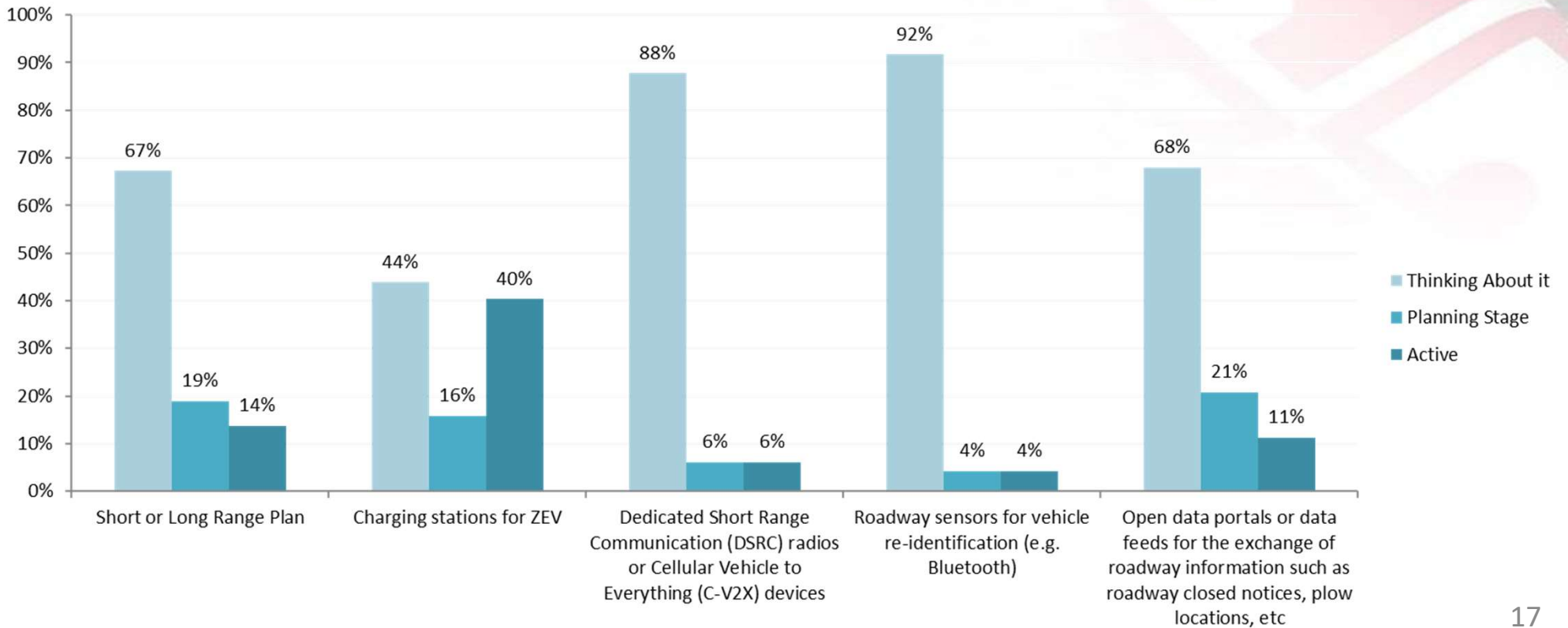
# Familiarity with Existing Resources

Is your jurisdiction familiar with any of the following Maryland Emerging Technology Resources?



# Planned & Deployed Technologies

Has your jurisdiction planned and/or deployed emerging transportation technologies



# Emerging Technology Priorities

---

## Emerging Technology Survey

- **Top priority:** Having a better understanding of how jurisdictions fit within a shared statewide ecosystem (score: 8/10)
- Having established planning tools, strategies, and state policy to help start the planning process (score: 7/10)
- Statewide conversations on the transportation system & the economy (score: 6/10)
- **Lowest priority:** Managing public perception ... such as the fear of automated ride-hailing vehicles (score: 4/10)



# Discussion

---

## Identifying Challenges and Opportunities

- What challenges are specific to this region?
- What successes have local agencies had that can be grown/replicated?

# Maryland State Agencies Overview



MSEC/CFIP/CFTA

EV/EVSE  
(Incentives/Rebates)

Maryland Clean Cities  
Coalition



Install EVSE

Chair/Staff ZEEVIC

Track ZEV Registrations

AFC Corridors



ZEV MOUs

Maryland Clean Cars  
Program

VW Settlement

Chair/Staff MCCC

# Maryland Department of Environment

---

## Environmental Issues

- NAAQS (National Ambient Air Quality Standards)
  - Non-attainment for Ozone
  - NOx greatest contributor to ozone
  - On road Mobile Sources are largest contributor to NOx in Maryland
- Climate Change
  - Due to geographic location, Maryland very vulnerable to effects of Climate Change
  - 2015 Maryland updated to the Maryland GGRA (Greenhouse Gas Reduction Act), requires 40% reduction by 2030
  - On-road mobile sources account for over a third of all GHG emissions

# MDE – Environmental Actions

---

## Maryland Clean Car Program

- Adopted in 2008 and implemented in 2011
- Adopts California's low emission vehicle program
- Includes ZEV mandate requiring manufacturers to make larger share of new vehicles for sale in Maryland ZEVs

## Light Duty ZEV MOU

- Signed in 2013 and updated in 2018, includes 9 states
- Developed an Action Plan to increase the use of light duty ZEVs
- Set a goal of 300,000 plug-in vehicles in Maryland by 2025

## MHD ZEV MOU

- Signed by 15 states and the District of Columbia in July 2020
- Will develop an Action Plan to support the implementation of MHD ZEVs
- Sets a 30% sales goal for MHD ZEVs by 2030

# MDE – VW Settlement

---

## Volkswagen Settlement Funds

### Maryland Volkswagen Settlement Agreement (\$75.7 million)

- Targets NOx reductions, replaces older heavy-duty diesel engines (class 4-8) with new cleaner options and funds light duty charging infrastructure
- Projects must be completed by October 2027

### Heavy –Duty Vehicle Replacement Program (approx. \$64 million)

- Proposals were due to MDE by May 6<sup>th</sup>, 2019; MDE received approx. 44 proposals
- MDE completed its review of proposals and is in process of finalizing funding and contracts

### Light Duty Charging Infrastructure (approx. \$11.3 million)

- [Comments until Oct. 12<sup>th</sup>](#) and will begin to accept proposal late October. Three funding rounds
- Focus on workplace charging, state owned properties and corridor/Hub location



# Maryland Energy Administration

---

## MEA – Mike Jones, Transportation PM

- Maryland Clean Cities Coalition
  - Part of [US DOE Clean Cities program](#) to reduce reliance on foreign petroleum in transportation
  - National network, expertise and resources available
- Maryland Smart Energy Communities [\(MSEC\) Program](#)
  - Local governments can receive project funding in exchange for adopting sustainability policies (EE/RE/TR)
  - Light-duty EVs and fleet charging infrastructure
    - Less than 200 miles of all electric range: 100% of vehicle incremental cost up to \$3,750/vehicle
    - 200 miles +: 100% up to \$7,500/vehicle
    - 60% (charger + install) up to \$6,000/charger
  - Applications due 11/13/2020

# MEA – Clean Fuels Incentive Program

## Clean Fuels Incentive Program (CFIP)

- 2 AOI: public infrastructure (DCFC/hydrogen) and fleet vehicles (PHEV/BEV/FCEV)
- Reporting requirement (vehicles- 3 years, infrastructure- 5 years)
- Applications due 12/15/2020

Alternative Fuel Type	Vehicle Class	AER (for EV's only)	% of Incremental Cost Eligible for Grant Request	Maximum Grant Award (per new vehicle)
Electric (PHEV/BEV)	Class 3-8	0-99 miles	Up to 100%	\$25,000
		100+ miles	Up to 100%	\$50,000
Hydrogen (FCEV)	Class 1-2		Up to 100%	\$7,500
	Class 3-8		Up to 100%	\$50,000

# MEA – Additional Incentive Programs

---

## Electric Vehicle Supply Equipment [\(EVSE\) Rebate Program](#)

- First-come, first-served. Application submitted in arrears, no pre-approval.
- All charger deployments eligible, but geared at non-fleet L2 (workplace and/or publicly available chargers)
- Fall back option for fleet L2 (in case MSEC funding isn't secured)
- 40% up to \$4,000/charger

## Clean Fuels Technical Assistance (CFTA) Program

- Not a grant program- local governments can receive TA to develop fleet electrification strategies
- First-come, first-served pilot/test-of-concept
- Anticipate 4-8 projects
- More details/opening coming by mid-October

# Maryland Department of Transportation

## Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC)

- Created in 2011 Through Legislation
- Meets every other month
- Working Groups meet in off-months
- Annual Report Due in December
- [GIS StoryMap](#) Illustrating Goals & Progress



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.



**MARYLAND**  
**ZERO EMISSION**  
Electric Vehicle Infrastructure Council



Received 2019 Visionary Award Greater Washington Region Clean Cities Coalition (GWRCCC)

# MDOT – ZEV Public Outreach Efforts

Table 4: 2019 Public Outreach

Date	Outreach Event	Individuals/ Touchpoints	Outreach Languages
07/20/2019	World Heritage Festival	141	English
08/05/2019	Festival Latino de Maryland	251	English, Spanish
08/11/2019	Latin Heritage Festival	754	English, Spanish
09/07/2019	Caribbean Food and Wine Festival	351	English
09/15/2019	Hagerstown Hispanic 13 <sup>th</sup> Annual Festival	375	English, Spanish
09/21/2019	42 <sup>nd</sup> Annual Korean Festival	1,027	English, Korean
10/20/2019	Howard County Diwali Festival	201	English



**Statewide**  
25 Events  
7,370  
Touchpoints

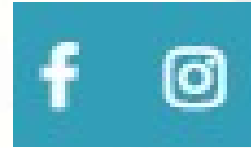
- Baltimore Auto Show, 2020
- Maryland State Fair, 2017
- Darlington Apple Festival, 2018

**Central**  
19 Events  
5,689  
Touchpoints



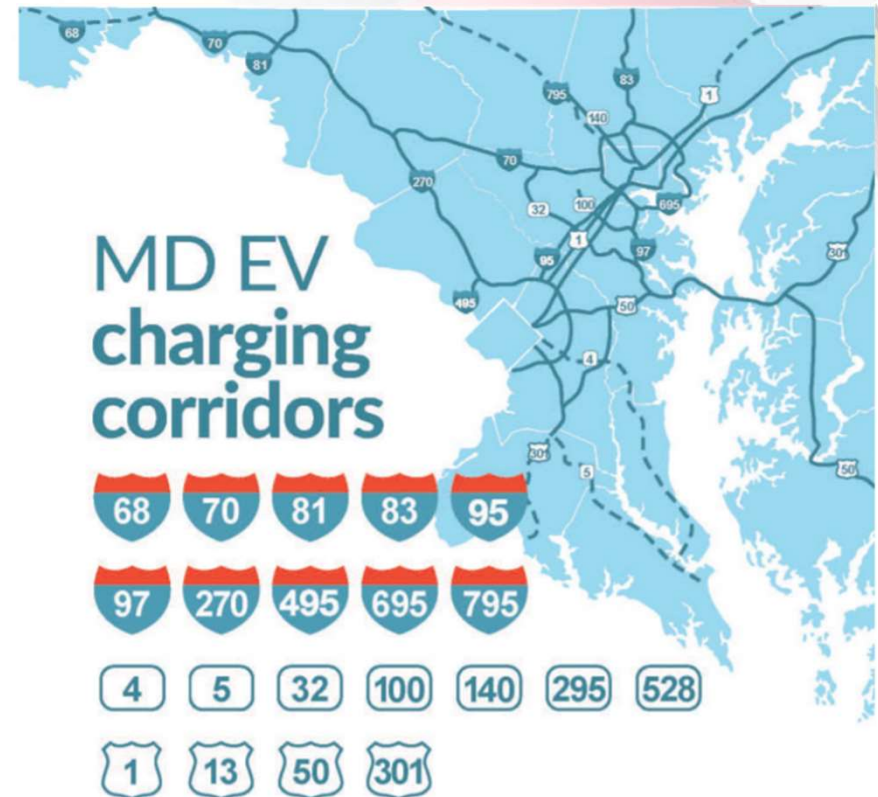


MDOT – #MarylandEV



# MDOT – Alternative Fuel Corridors

- Electric Vehicle Charging Corridors
  - 21 Corridors in MD
  - Maryland featured in [Alternative Fuel Corridor National Report](#)
- I-70 through WV
- I-81 VA-PA
- Interest from PA in US 15
- Signage Plan Pending



# Additional Resources in Your Region

---

- [BGE Evsmart Program](#) - Installing 500 public charging stations
- [Pepco EVsmart Program](#) – Installing 250 public charging stations.
- New Montgomery County [EV Guidelines](#) (March 2020) for permitting.
- Anne Arundel County installed 5 EV Charging stations outside the Annapolis Library in 2020 and plans to [convert its fleet](#) to EVs.
- Bowie Police Department purchased [electric motorcycles](#) for its patrol fleet.



**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

# Discussion

---

## **Moving Forward**

- Where are the opportunities for local agencies to advance ZEV within the region?
- How can state agencies and others support advancement of ZEV?
- What is the best way to reach the public?

# Recap & Next Steps

---

## ➤ Available State Incentives

- MDE / VW
- MEA Incentives
- Utility EV Charging Stations

## ➤ Other Public-Private Partnerships

- 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

## ➤ Attend Statewide Webinar - Wednesday, October 28 | 2 – 3:30 PM

<https://attendee.gotowebinar.com/register/6822216073273313296>

# State Agency Contact Information

---



**Colleen Turner**

Maryland Department of Transportation

Email: [cturner@mdot.maryland.gov](mailto:cturner@mdot.maryland.gov)



**Mike Jones**

Maryland Energy Administration

Email: [michael.jones1@maryland.gov](mailto:michael.jones1@maryland.gov)



**Tim Shepherd**

Maryland Department of the Environment

Email: [tim.shepherd@maryland.gov](mailto:tim.shepherd@maryland.gov)

# Resources

---

- MDE VW Information: [mde.vw@maryland.gov](mailto: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](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](https://mde.maryland.gov/MarylandGreen/Documents/EV_dealershipflyer_online.pdf)
- US DOE Alternative Fuels Data Center: <https://afdc.energy.gov/>