MARYLAND

Zero Emission Vehicle Infrastructure Plan (ZEVIP)

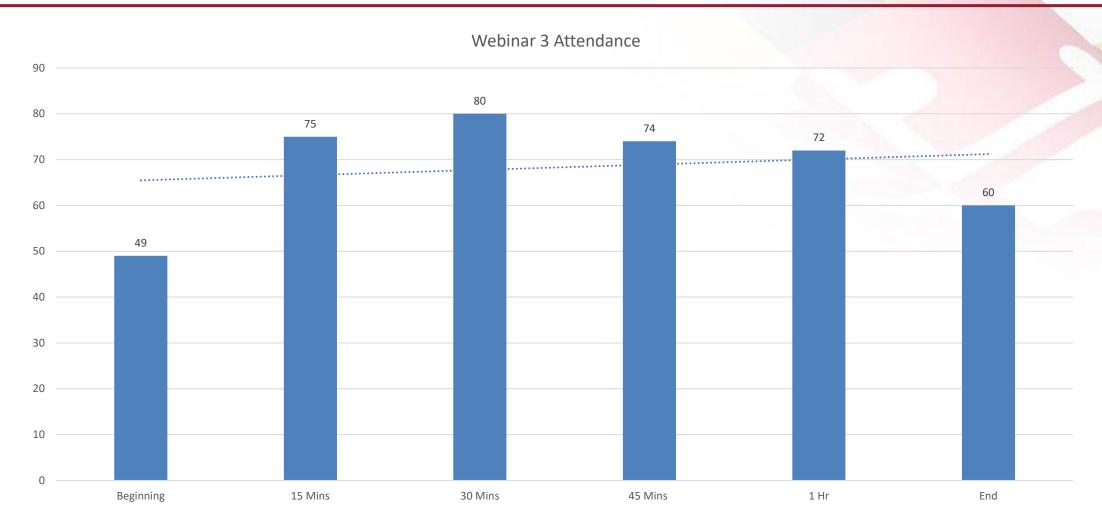
Webinar #3
June 10, 2022

Welcome





Meeting Attendance







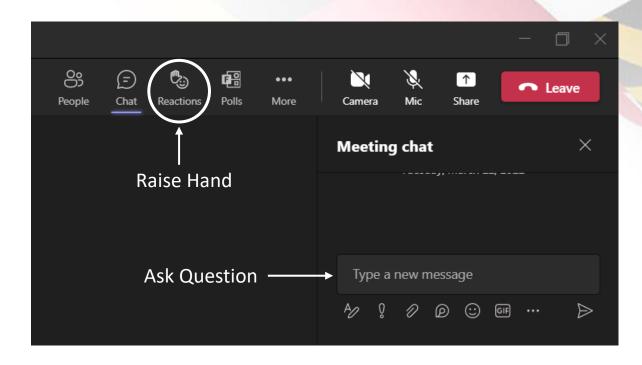
Housekeeping

General:

- This meeting is being recorded
- Slides and polling results will be made available on the ZEVIP website within 1 week

Comments/Questions:

- > Comment or ask questions in the chat box
- Raise Hand during Q&A Session



Tech difficulties:

Contact us via <u>EVPlan@mdot.Maryland.gov</u>





Agenda

- Introductions
- Opening Remarks
- Maryland Policy History
- NEVI Overview
- Public Engagement and Stakeholder Summary to Date
- Maryland ZEVIP Planning Toolkit
- Open Q&A





Introductions

- R. Earl Lewis, Deputy Secretary, Maryland Department of Transportation
- Dan Janousek, Maryland Department of Transportation
- > Rebecca Bankard, Maryland Department of Transportation/Michael Baker International
- Colleen Turner, Michael Baker International





Opening Remarks

> R. Earl Lewis, Deputy Secretary, Maryland Department of Transportation





Maryland Policy History

> R. Earl Lewis, Deputy Secretary, Maryland Department of Transportation





Maryland Policy and ZEV Timeline

Maryland passed the **Greenhouse Gas Reduction Act** (GGRA), setting a statewide emissions reduction target of 25% by 2030.

Maryland joined the **Regional Greenhouse Gas Initiative** (RGGI) to reduce GHG
emissions from the power sector.

Emission Standards were harmonized across the nation under CAFÉ.

Multi-State ZEV Action Plan was developed.

2014

2009

2012











2007

Maryland passed the **Clean Cars Act**, adopting California Emission
Standards and setting ZEV goals.

Maryland established the Maryland Commission on Climate Change (MCCC) to mitigate the cause of, prepare for, and adapt to the consequences of climate change.

2011

The Maryland Electric Vehicle Infrastructure Council (EVIC) was established and charged with promoting and facilitating the successful integration of EVs into Maryland's transportation network.

2013

Maryland signed the Multi-State ZEV MOU, committing to coordinated action with the other States for the successful implementation of ZEV programs.





Maryland Policy and ZEV Timeline

The **GGRA** was re-authorized and established an updated statewide emissions reduction goal of 40% by 2030.

EVIC's membership was expanded to include ZEVs and fuel cell electric vehicles (FCEVs) and was renamed the Maryland Zero Emission Electric Vehicle Infrastructure Council (ZEEVIC).

The Maryland PSC approved the implementation of the **EV Charging Pilot Program** for the installation of public EVSEs by Maryland utilities.

The ZEEVIC Working Group developed the **Maryland ZEV Policy Scorecard** for three main policy categories.

Maryland began collaboration with neighboring states on the Mid-Atlantic Electric Bus Experience Project (MEEP).

2016

2019

2021



2018

Multi-State ZEV Action Plan was updated.

2020

Maryland signed the Medium- and Heavy-Duty (MHD) ZEV MOU, supporting the deployment of MHD ZEVs through involvement in a Multi-State ZEV Task Force.

2022

Maryland passed the **Climate Solutions Now Act**, establishing
a new statewide emissions
reduction target of 60% by 2031 and
a goal of carbon neutral by 2045.





NEVI Overview

> Dan Janousek, Maryland Department of Transportation





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NEVI FORMULA PLAN

- Required by 8/1
- Unlocks ~\$60M in MD
- Must use on AFCs 1st
- Then Communities
- Submitted Annually

PROGRAM

- High-Level in Plan
- Details Developing on Administration and Application

DISCRETIONARY \$ for ZEV

- \$2.5B of the \$7.5B under BIL
- \$1.25B for Corridor ZEV infrastructure along AFCs (EV, hydrogen, propane, natural gas)
- \$1.25B for Community ZEV infrastructure
- Guidance Est. Late 2022

OTHER STATE PROGRAMS

- VW Settlement
- Clean Fuels
 Technical Assistance
 Program.
- MD Smart Energy Communities
- Solar Canopy Grant Program

OTHER FUNDING

Other Federal

- DOT
- DOE
- EPA

Private Investment

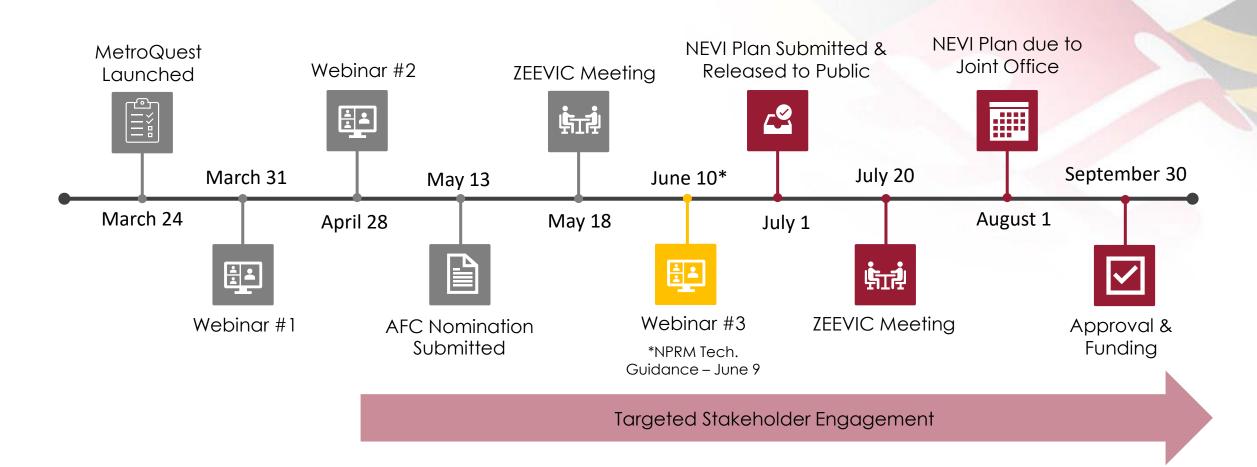
- Site Hosts
- Network Companies

PSC Pilot Program / Utility Investment





NEVI Schedule (Subject to Change)







NEVI Plan Components



Introduction



State Agency Coordination



Public Engagement



Plan Vision & Goals



Contracting



Existing & Future Conditions



EVSE Deployment



Implementation



Civil Rights



Equity Considerations



Labor &
Workplace
Considerations



Cybersecurity



Program Evaluation



Discretionary Exceptions





Plan Vision and Goals

To continue leading the nation and strengthening our communities by providing equitable, reliable, and safe transportation electrification solutions.



Meet demands in various locations - Urban, suburban, rural, employment centers, MUDs, etc.





Risks & Challenges

Supply Chain

Other Alternative Fuels

Public Education

Emergency Management

Innovations

Funding

Workforce Development

ADA Accessibility





Public Engagement and Stakeholder Summary to Date

> Rebecca Bankard, Maryland Department of Transportation / Michael Baker





Engagement & Outreach

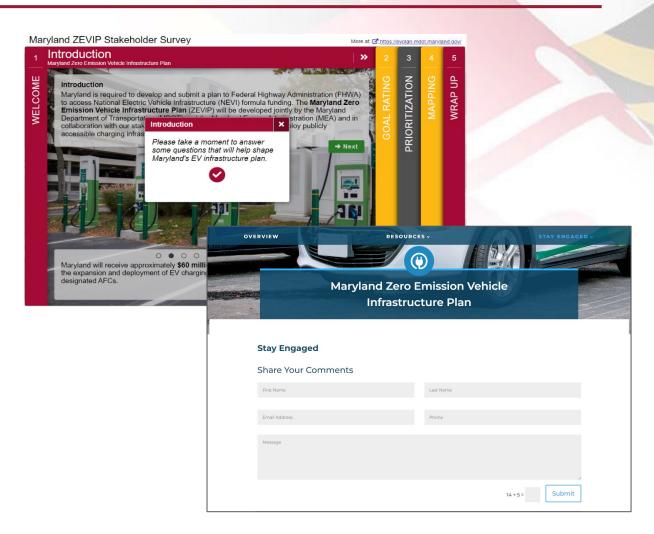






Outreach To Date

- Website
 - •1,228 Page Views | 648 Unique Visitors
 - Maryland EV | ZEEVIC StoryMap | Maryland EV Journey
- MetroQuest Survey
 - 293 Participants
- Webinars
 - 3 Webinars
 - ~ 300 Participants
 - All Webinar Polling Summarized on ZEVIP Website
- Presentations
 - ZEEVIC | Commuter Choice Maryland







Continuing Outreach

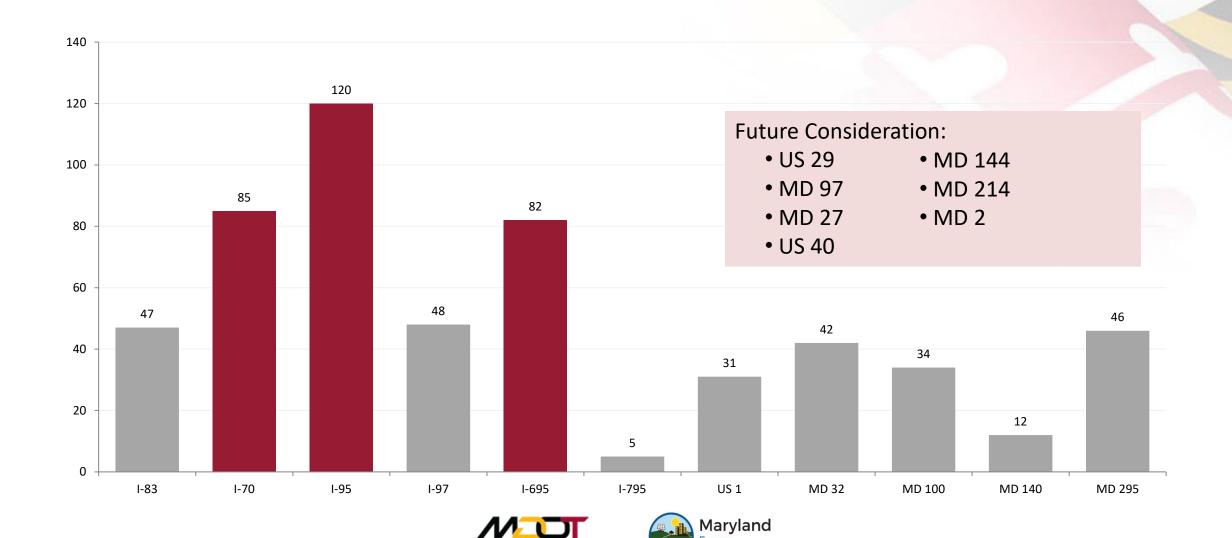
- Public Feedback
 - ZEEVIP Website | ZEVIP Toolkit | NEVI Plan | Program
- Maryland ZEVIP Planning Toolkit
 - Maryland Location-Based Overview
 - Maryland Site Information Tool
 - Corridor & Community Charging
- Targeted Stakeholder Outreach
- ZEEVIC Outreach Activities
 - 3 Planned Events
 - Baltimore Washington One Carnival | Washington County Fair
 Wicomico County Fair
 - 25 Past Events
 - 7,370 Touchpoints | 2 Languages





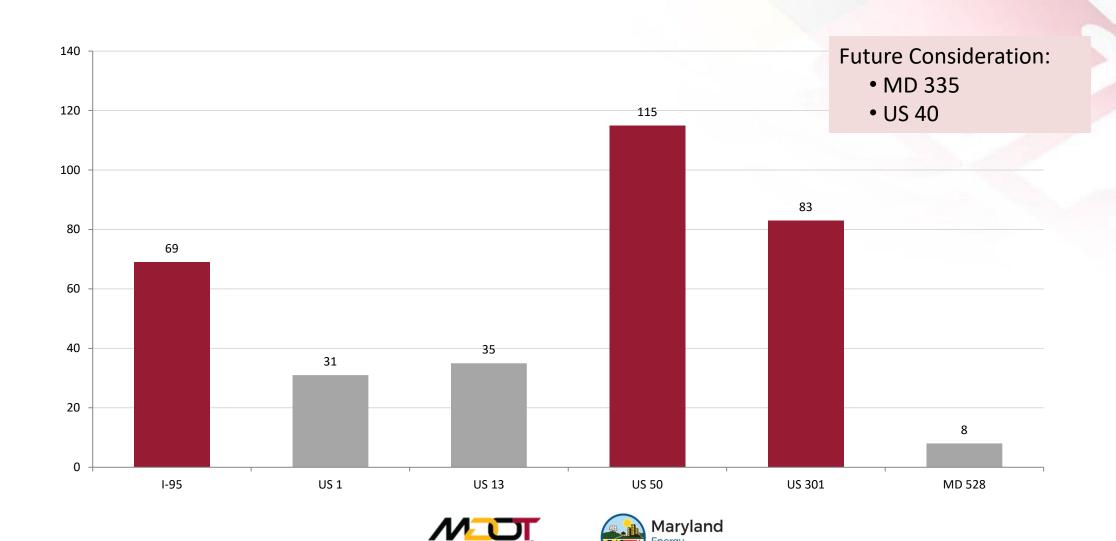


AFC Prioritization – Baltimore Region

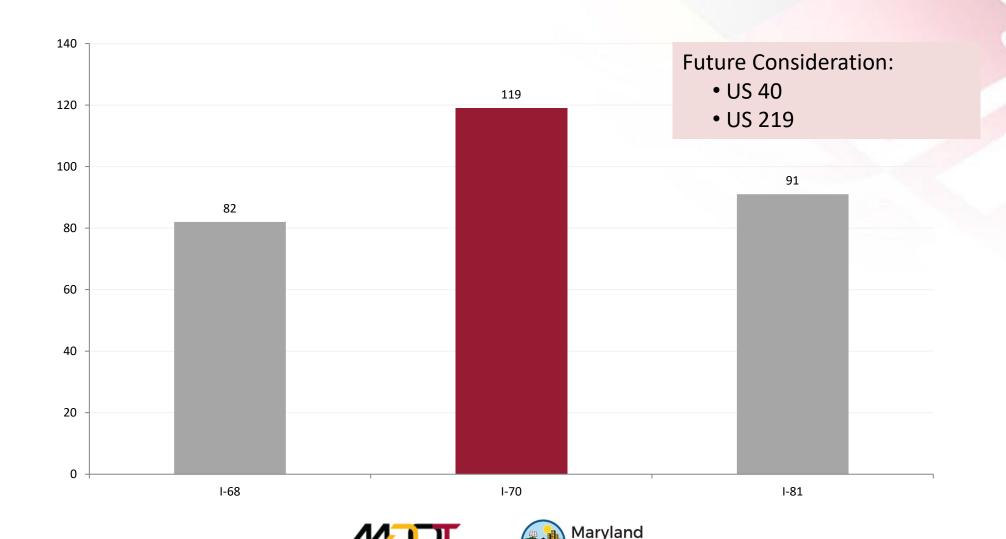


Administration

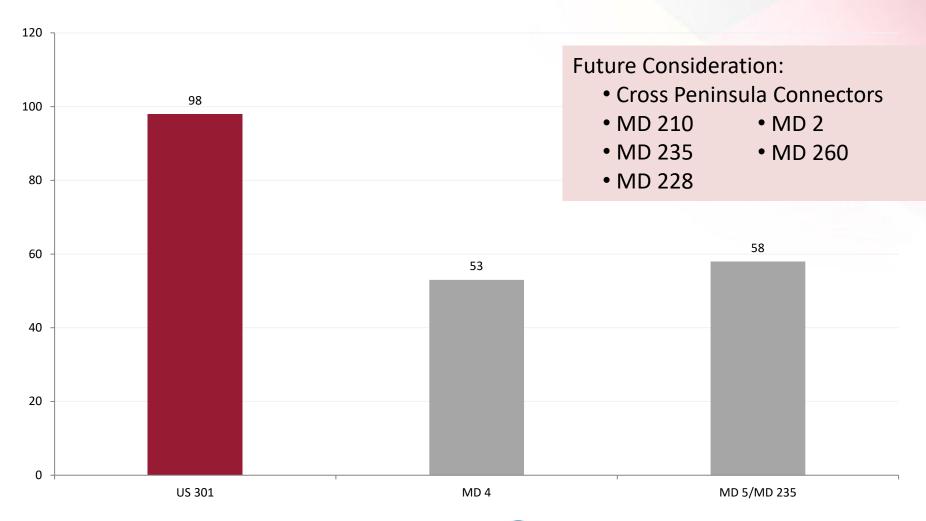
AFC Prioritization – Eastern Shore



AFC Prioritization – Western Maryland



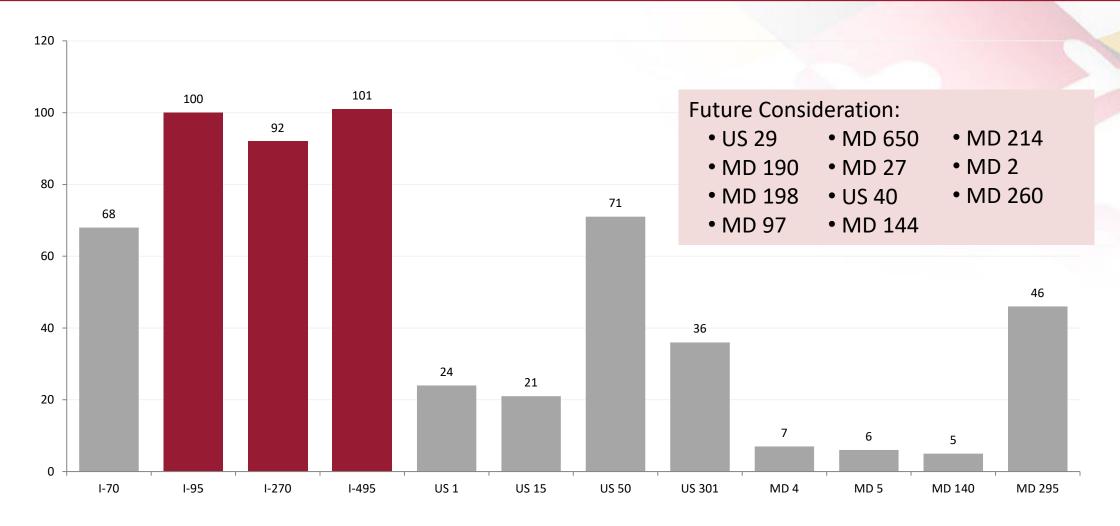
AFC Prioritization – Southern Maryland







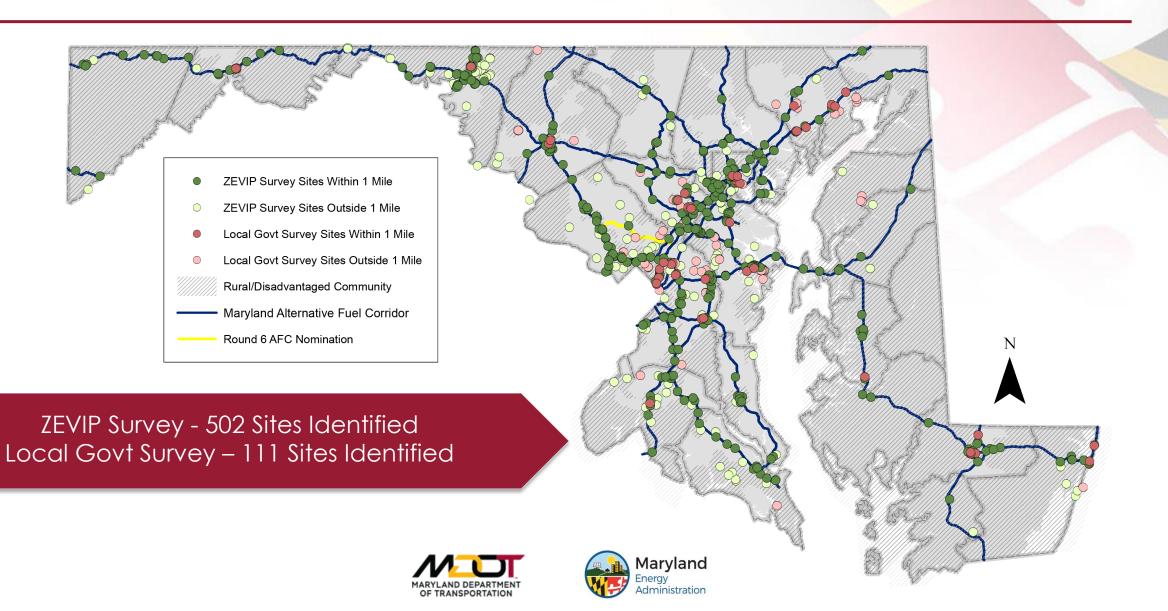
AFC Prioritization – Washington DC Region







Identified Potential Sites



Maryland ZEVIP Planning Toolkit

> Colleen Turner, Michael Baker International





Objective Driven Scoring Criteria

Environmental Justice		
Layer Name	Score	
Overall Score (UM	D/MDE -EJSCREEN)	
Top 90th Percentile	4	
76th-89th Percentile	3	
51th-75th Percentile	2	
>50th Percentile	0	
Designated Rural Area		
Yes	3	
No	0	
Justice 40		
Yes	1	
No	0	
Historical Distadvantage Communitites		
Yes	1	
No	0	
Overall Score (CDC SVI)		
> 0.75	1	
< 0.75	0	
Overall EJ Score		
Multiplier	x2	

Summary Information	
1. Is the tract within an EV AFC	
2. Total EV Stations within Tract	

Land Use/Overlays		
Layer Name	Score	
Transit Oriented Developments		
Yes	2	
No	0	
Priority Funding Area		
Yes	1	
No	0	
Critical Area		
Not within Critical Area	1	
Within Critical Area	0	
Maryland Sustainable Communities		
Yes	1	
No	0	
Maryland Targeted Areas		
Yes	1	
No	0	
Land Uses - 2010		
High Density Residential	4	
Medium Density Residential	2	
Low/Very Low Density Residential	1	
Commercial	4	
Institutional	3	
Industrial	2	

Electric Vehicles/Existing Infrastructure			
Layer Name	Score		
DC Fast w/150kW			
Yes	2		
No	0		
DC Fast			
Yes	1		
No	0		
Density of EV Owners			
>150	2		
<150	0		
Optimal Stations (Gov. Survey)			
Yes	1		
No	0		
ZEVIP MetroQuest Survey (within Census Tract)			
5-8 Selected Locations	2		
1-4 Selected Locations	1		
0 Selected Locations	0		
EV Stations within Census Tract			
12-41 EV Stations	2		
1-11 EV Stations	1		
0 EV Stations	0		

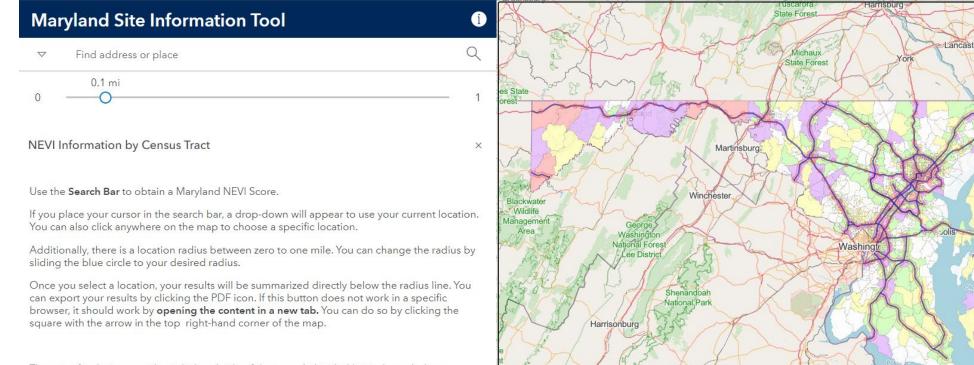
Transportation			
Layer Name	Score		
Distance to Highway			
Within 1 Mile Buffer	10		
>1 Mile Buffer	0		
Interstate			
Yes	3		
No	0		
US Route			
Yes	2		
No	0		
State Route			
Yes	1		
No	0		
VMT/AADT			
Rank 1	2		
Rank 2-4	1		
Rank 5	0		





^{*}Scoring breakdowns may be abbreviated*

Maryland Site Information Tool



There are five buttons on the right-hand side of the map. A detailed list is shown below.

The Home Button will clear any current searches and the map ι any searches occurred.

The Plus and Minus allow you to zoom in and out of the map.

The **Legend** summarizes map colors and pins as they relate to details.

Find My Location will automatically select and highlight your co

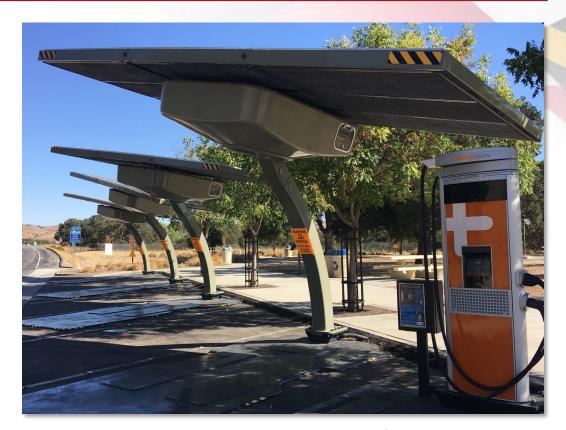
DISCLAIMER: This tool serves as a guide to help pinpoint potential charging locations. Your score does not guarantee funding for a charging location. In addition, lower scores do not mean that funding is not possible.





Critical Considerations – Outside Current GIS

- Resiliency
 - Floodplain
- Amenities
 - Restrooms | Food/Dining/Retail | Lighting | Other Services
- Utility Providers / Grid Capacity
- Innovations
 - Solar | Storage | Mobile Charging
- Cost
 - Competitive Pricing
 - Matching Considerations
- Supports greater deployment efforts
 - Corridor AND Community Charging



Fully solar-powered EV charging station deployed for CALtrans.





- > Dan Janousek, Maryland Department of Transportation
- > Type question in chat box
- > Raise hand





- Q1: Does your site data set also include state sites within that 1 Mile of a corridor? (Courthouses, parks, etc.)
- A1: A Maryland Land Use (2010) layer was included in the toolkit. That layer contains information on institutional land uses, e.g., courthouses, parks, and state sites as part of the data set.
- Q2: Do any of your layers use the ANL EV Charging Justice 40 Mapping Tool? If not, is that something that can be added?
- A2: Yes. The Justice 40 mapping tool is included as a layer within the data for the Environmental Justice Category along with the following layers: UMD/MDE-EJSCREEN, CDC Social Vulnerability Index, US DOT Historically Disadvantaged Communities, and Maryland Rural Areas.





- Q3: Can a link be provided for the tool?
- A3: The tool is still in Beta (draft) and will be released around the same time as the ZEVIP Draft. A Web Blast will also be released to notify respondents of the release.
- Q4: Do you anticipate updates to the draft scoring rubric for project selection now that the 2nd round of NEVI guidance has been released by FHWA?
- A4: The document will be reviewed, and the scoring will reflect the updates to the NEVI guidance.
- Q5: Can you share the presentation from today?
- A5: The presentation will be shared on the <u>EV Plan Website</u>.





- Q6: Could you please talk about what MDOT means about mobile charging? Is that having chargers on a truck platform? If so, how does that play into ADA?
- A6: Mobile charging refers to systems that can charge vehicles away from static or installed charging locations and is useful for emergency management and preparedness. ADA is an important component of the NEVI plan and will be addressed.
- Q7: Can you talk a little about what the process looks like for local jurisdictions to work with the state to identify specific sites and plan projects?
- A7: The details are still under development. Generally, MDOT plans to advertise the program and will make resources such as contacts, tools, and applications available on the Maryland ZEVIP website. Local approvals, zoning, and grid capacity will have to be addressed.





- Q8: Can you also share a little more on the process for disbursing NEVI Funds?
- A8: The program has not been finalized yet. Public and Private entities should both be able to apply and propose site locations within the state and these applications will be compared to other applications that are within the state.
- Q9: Has any consideration been given to the necessary network cyber security specification for the charging stations?
- A9: This is currently being considered and there will be a more in-depth explanation within the NEVI Plan.





- Q10: This is higher weight for areas with more EVs currently? Doesn't that conflict with disadvantaged communities?
- A10: There is a layer of the toolkit that includes some consideration of existing EV registration and charging infrastructure. This layer also includes consideration of desired charging locations obtained through our surveys. This information does not carry as much weight as the rural and disadvantaged communities layer and does not adversely impact the outcomes for rural and disadvantaged communities.
- Q11: Is the survey (Metro Quest Survey) still open?
- A11: Yes. The survey can be found here.





Contact Information



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Additional Resources

- ZEVIP Website:
 - Evplan.mdot.Maryland.gov
- Questions or Comments:
 - Email: Evplan@mdot.Maryland.gov





Thank you!



