



MARYLAND ZERO EMISSION

Electric Vehicle Infrastructure Council

September 22, 2022

Agenda

- Welcome and Announcements
- Public Comments
- Transit Bus Electrification – Maryland Transit Administration (MDOT MTA)
- Maryland NEVI Plan and Program Update
- 2022 ZEEVIC Annual Report
- Utility Updates
- ZEEVIC Member Organization Updates
- MarylandEV and Outreach Updates
- Closing Remarks



Welcome and Announcements

Deputy Secretary Lewis, MDOT

New ZEEVIC Member



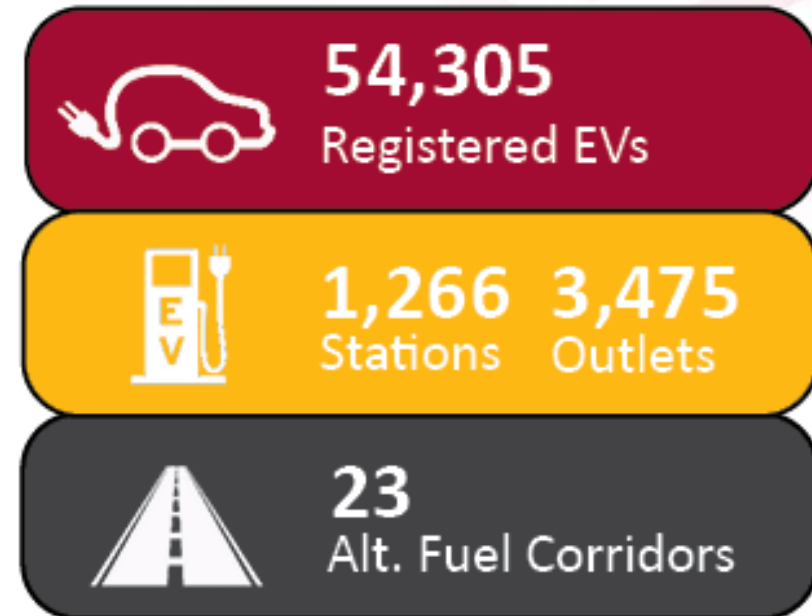
Steven Koerner

Fleet Vehicle Operator Representative
bp pulse fleet, Vice President of Policy

Announcements

- *Maryland's State Plan for National Electric Vehicle Infrastructure (NEVI) Formula Funding Deployment* was approved by the Joint Office of Energy and Transportation on Wednesday, September 14, 2022.

Maryland By the Numbers*:



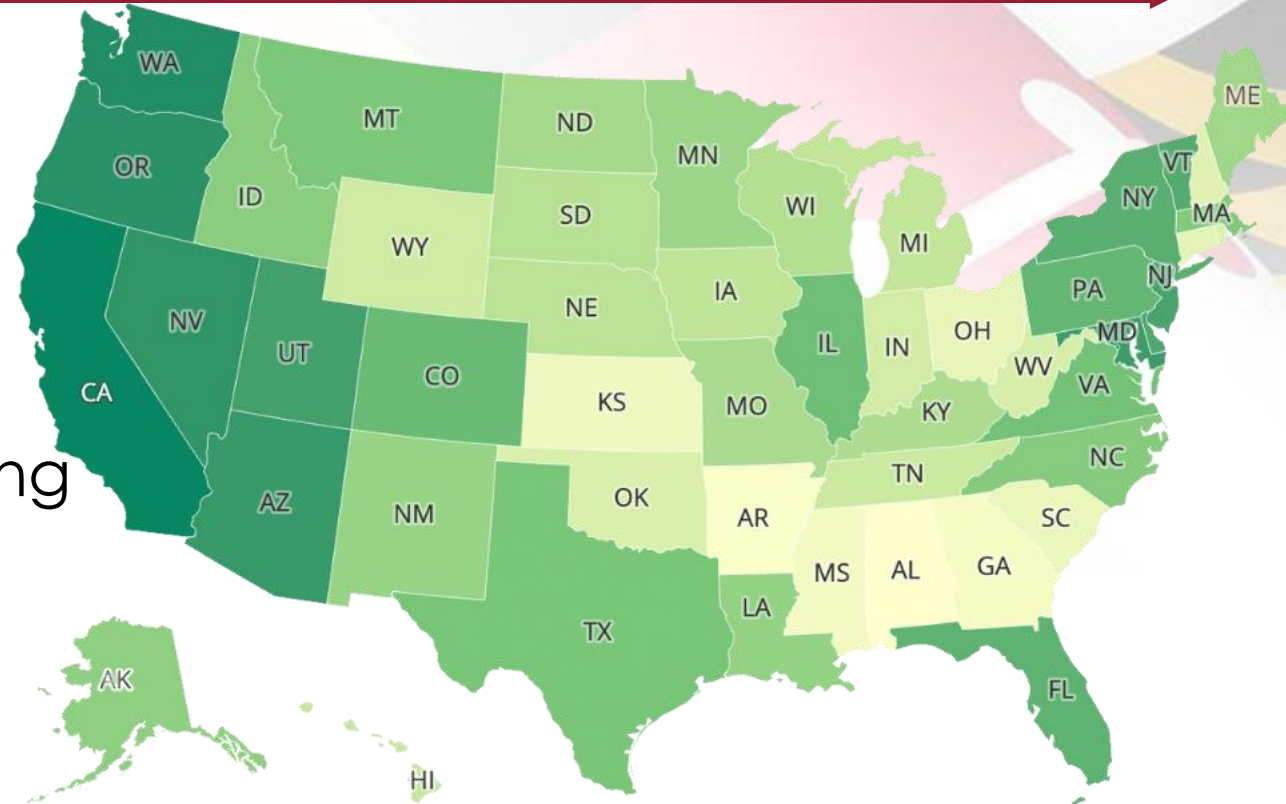
**As of August 31, 2022:*

Announcements

- Commission on Environmental Justice and Sustainable Communities (CEJSC)
 - September 27 at 10am – MDOT presentation on NEVI
<https://mde.maryland.gov/programs/crossmedia/environmentaljustice/pages/details.aspx>
- Maryland jurisdictions received three Federal Transit Administration Low-No awards:
 - Prince George's County received \$25,000,000 for BEV buses and infrastructure
 - Montgomery County received \$14, 875,975 for fuel cell buses
 - MTA on behalf of Anne Arundel County received \$1,890,000 for diesel-electric hybrid buses

Maryland EV in the News

- According to a recent study by SmartAsset, Maryland is one of the top ten states to own an EV! Ranking 7th <https://smartasset.com/data-studies/best-states-to-own-an-electric-vehicle-2022>



Rank
Worst Best

Source: SmartAsset 2022 Study • Embed

Public Comments



Transit Bus Electrification

September 22, 2022

MDOT
MARYLAND DEPARTMENT
OF TRANSPORTATION

MARYLAND TRANSIT
ADMINISTRATION

Agenda

- Program Overview
- Status of MDOT MTA Transition
- Significance of SB137 (2021) and HB10/SB61 (2022)
- Challenges and Opportunities
- Additional Zero Emission Efforts

MDOT MTA ZEB Goals

2030

50% Fleet Conversion
(~380 buses)

GGRA Plan
commitment

2045


95% Fleet Conversion

RTP Target



ZEB Phasing Plan through 2030



Kirk Q1 2021 – Q3 2025 

Pilot & Retrofit | BEBs arrive mid-2025 | Design-build | First facility, lessons learned critical

Northwest Q4 2021 – Q3 2027 

Retrofit | BEBs arrive mid-2027 | In-ground chargers | Design-build, opportunity to combine Kirk effort

Eastern Q2 2022 – Q3 2029 

Reconstruction | BEBs begin arriving 2028 | Purpose-built ZEB depot | Fed funding required

Kirk ZEB Pilot

Overview

- Kirk is the first facility in the 10-yr to receive **complete retrofit** to accommodate BEB fleet

Pilot Duration

- 1.5-2 years (must hit **all four seasons** at a minimum)

Specifications

- Four 40' battery electric buses (NF)
- Three 60' battery electric buses (NF)
- Five overhead 150 kw chargers
- Bus performance software
- OEM-agnostic charge management software



Transition Status

- Kirk Pilot
 - Four 40-foot and three 60-foot buses
 - Finalizing design for charging infrastructure.
 - BGE Construction beginning by end of September.
 - Buses to be delivered in early and mid 2023.
 - Impacted by supply chain issues
 - Training modules in progress.

Transition Status

- Eastern
 - Full replacement
 - 15% design complete
 - 30% design starting
- Kirk and Northwest Retrofits
 - Kirk 100%, Northwest 50%
 - Site concept design kicking off

SB137 (2021) and HB10/SB61 (2022)



- Only can procure zero emission buses starting in FY23
 - RFP for BEB's to be issued soon
- Workforce development and training
- Operations and Maintenance training
- Annual Report on implementation progress
 - Working on current Legislative Report

Challenges & Opportunities

- Supply chain issues
 - Charging infrastructure
 - Buses
- Rapidly changing technology
 - Potentially better technology
 - Training requirements
- Utility Upgrades
 - Needed resiliency
- Service impacts and changes
- How to pay for it all?

Additional Efforts

- Additional Studies
 - Post 2030, Mobility Study, LOTS Study, Alternatives Fuel Study
- ZEV throughout the fleet
 - Light Duty and fleet vehicles
 - Charging infrastructure needs
- Off-setting energy consumption
 - Solar installation where possible
 - Reduce existing consumption

Looking Ahead Recap

- ZEB project team continuing to prepare for 2023 Kirk BEB Pilot.
- BEB pilot will help MTA test zero-emission specific software and refine ZEB training curriculum.
- Planning efforts continue for Kirk and Northwest facility upgrades beginning in 2024, as well as Eastern reconstruction starting in 2025.
- MTA exploring both private and public funding opportunities to support fleet transition.
- Preparing the workforce across the agency for the transition is critical for success.

Thank you!

Contacts

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Dan Janousek, MDOT

Rebecca Bankard, Michael Baker International

NEVI Background

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

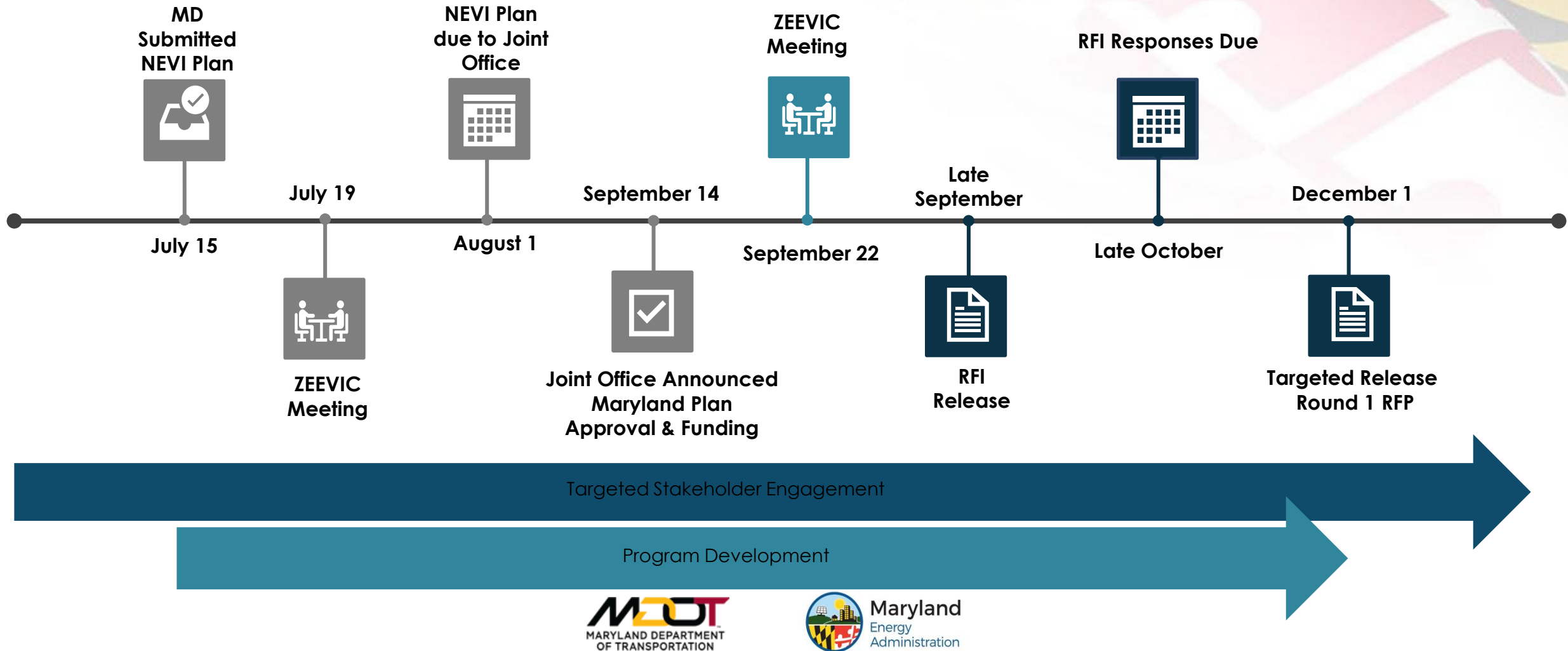


JULY 15, 2022

- All states submitted plans to the Joint Office August 1, 2022 (MD was one of the **first**)
- **\$57,500,000** for investment in Maryland (after set-asides)
- **Maryland Goals:**
 - 1. Certify Corridors
 - 2. Invest in Communities per **ZEEVIC**



NEVI Schedule (Subject to Change)



NEVI Request for Information (RFI)

- Purpose:
 - Gather information from interested parties.
 - Assist MDOT in the development of the Round 1 NEVI Program to build-out and certify AFCs.
- Potential follow-up with survey or additional questions

Key Dates:

RFI Released – September 20th
RFI Responses Due – October 20th

NEVI Program – Round 1 Funding

- Anticipated Release: December 1st
- Funding Amount: \$4.25 million
- Targeted Investment:
 - Build-out specific corridors
 - Primarily focused on Interstates
 - Supports MetroQuest survey results
- Cap on Funding Awarded
 - Limit on # of chargers installed
 - Overall cost per site

Goal of Round 1:

Maximize Funding
Demonstrate Early Wins/Progress

*This is specific to Round 1 Program Funding **ONLY**.*

NASEO/AASHTO/JO

WHO:

- The National Association of State Energy Officials (**NASEO**)
- American Association of State Highway and Transportation Officials (**AASHTO**)
- Joint Office of Energy and Transportation (**JO**)

WHAT

- **Building a National Electric Vehicle Infrastructure Network Initiative:** *“Cross-Agency Collaboration” to support State-Federal-Private Sector EV Infrastructure Development*

NASEO/AASHTO/JO - Building a National Electric Vehicle Infrastructure Network Initiative

- Advance transportation electrification deployment planning and implementation at the state and local level to ensure that EV charging station infrastructure investments are made in a strategic, coordinated, efficient, and equitable manner with public and private sector partners
- Provide direct support for state agencies as they build-out EV infrastructure through the National Electric Vehicle Infrastructure (NEVI) Program
- Regional coordination
- Collaboration with utilities and private-sector partners
- Tools and resources for states on EV policy and program rollout

Contact Information



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2022 ZEEVIC Annual Report

Leo Sawada, Jacobs

2022 ZEEVIC Annual Report Timeline

Date	Task
September 22 nd	ZEEVIC Annual Report Update
October 3 rd	ZEEVIC Members' Text Due
October 31 st	Program Numbers Cutoff
November 7 th	Program Numbers Due
November 17 th	ZEEVIC - Draft Annual Report Presentation
December 1 st	Due to Legislature



Utility Updates

BGE, PHI, SMECO, Potomac Edison

BGE

- EVSE Pilot Program Update
 - Residential: 2,059
 - Multifamily: 170 ports
 - Public: 230 live, 216 in progress
 - TOU Rate: 1,130 participants
 - Fleet program approved 9/14/2022
 - Smart Charge Management – customer recruitment beginning in Oct 2022
- Events & Outreach
 - 25 EVs for Lyft delivered and 390 charging sessions since 7/11/2022
 - Planning a Lyft event in Johnston Square – tentatively Nov 11th
 - Maryland Zoo – ZooBOOO October 29-30th
 - Drive Electric Week – Annapolis event – Oct 1st

PHI

MD EVsmart Incentive and Rebate Programs

Program	Jurisdiction	Program Target	Current Enrollment/Installations
Residential Rebate	Pepco MD	750	750
	DPL MD	250	88
R-PIV TOU Rate	Pepco MD	No Limit	353
	DPL MD	No Limit	6
Residential Plug-in Vehicle TOU (PIV)	Pepco MD	100	26 (44 applicants in review pipeline)
	DPL MD	37	4 (4 applicants in the review pipeline)
Multi-Dwelling (MDU) Incentive	Pepco MD	100	15 (26 ports installed; 16 applicants in review pipeline)
	DPL MD	25	0 (5 applicants in review pipeline)
Off Peak/Off Bill Rebate	Pepco MD	250	250
	DPL MD	75	50

Events & Outreach

- Montgomery County Webinar - EV Charging for Condo's, Co-op's, and Townhouses – Sept. 6th & 11th
- National Drive Electric Week - Poolesville Day Event – Sept 17th

MD EVsmart Public Chargers – In Service

	L2 Charger	DC Fast Charger	Total
Pepco	123	3	126
DPL	70	5	75
Total	193	8	201

MD EVsmart Pipeline Status – Public Chargers

	Sites	Chargers
Pre-Construction / In Construction	4	8
Engineering	39	124
Total	43	132

SMECO

- EVSE Pilot Program Update
 - 28 EVSE Installed (25 Level 2, 3 DC Fast)
 - First installation in Prince George's County
 - Launched whole-house TOU rates in February
- Events & Outreach
 - Working on possible October event

Potomac Edison

- EVSE Pilot Program Update
 - Residential Rebates: 347
 - Multifamily: 6
 - Public: 22 Level 2, 8 DC Fast Chargers
 - TOU Rate: 500 participants
- Events & Outreach
 - Attended the MMHA Industry Development Day & Expo on August 25, 2022
 - EV Charging Webinars with EVA and MMHA on September 28, and November 9, 2022
 - Sponsoring Poolesville Day National Drive Electric Event on September 17, 2022



ZEEVIC Member Organization Updates

State Agencies

PSC

- The Q1/Q2 2022 Utility Semi-Annual Reports and the Fleet Subgroup Summary Report were reviewed during September 14, 2022, Administrative Meeting by the Commission.
- *The Commission approved the fleet proposals for BGE, Pepco, and Delmarva in Appendix B of the report.*
- The Commission noted the utility filings and approved the following:
 - *Potomac Edison's request to extend the end date of the EV Pilot to December 31, 2026, for its Myersville Park & Ride location to align with the end date of the Storage Pilot.*
 - *BGE's request to extend the pilot through December 31, 2025, for its public charging network programs.*
 - *The budget requests from BGE (subject to Staff's modifications), Pepco, and Delmarva.*

MDE Program Updates

Volkswagen Settlement Updates

EVSE Infrastructure Programs

Phase II

MDE received 77 proposals (47 ECGP, 30 CAGP)

Approx. \$12.6 million in total requested funds

Approx. \$3.7 million available in funding

Plan to make Formal announcement late September

Under ECGP: 13 new Level 3 stations, approx. 35 charging ports

Under CAGP: 26 new workplace Level 2 charging sites, approx. 170 charging ports

Observations:

Much better geographic distribution than Round 1 (particularly east and west)

Power levels are higher than Round 1

MDE Program Updates

Regional Medium Heavy-Duty Action Plan

Plan was released July 27th

- Plan divided into following sections:

Introduction

Supporting a Just and Equitable Transition

Why Zero-Emission Trucks and Buses

The Zero-Emission Truck and Bus Market Today

Building Market Momentum and Addressing Barriers

Strategies and Recommendations

MDE Program Updates

Regional Medium Heavy-Duty Action Plan

- Strategies and Recommendations broken up into the following categories:
 - Vehicle Sales and Purchase Requirements
 - Vehicle and Infrastructure Purchase Incentives
 - Actions for Electric Utilities and Utility Regulators
 - Mobilizing Private Capital to Finance Fleet Conversions
 - Outreach and Education
 - Economic Equity for Workers
 - Community Air Monitoring
 - Planning for and Deploying Public Charging and Fueling Infrastructure
 - Ongoing Multi-State Research and Policy Evaluation
- Over 80 Strategies and Recommendations

MEA Program Updates

- EVSE Rebate Program

- 845 chargers totaling \$920,895 (48.84% of budget committed).
- 728 residential, 117 commercial. Almost even \$ split.
- Figures through 8/17, actual burn rate even higher.

- Clean Fuels Incentive Program (CFIP)

- FY23 application period opened 8/22, closes 11/22.
- Largely similar to FY22 Round 2 FOA.

- Clean Fuels Technical Assistance (CFTA) Program

- Application period was extended through 8/31, received 2 applications.
- Determining next steps.

Additional State Agencies

- MDP
- Commerce
- DGS



MarylandEV Outreach Updates

David Proctor, Sharp & Company

National Drive Electric Week (Sept 23 – Oct 2)

NAME OF EVENT	DATE	TIME	LOCATION
Drive Electric Day Poolesville	Saturday, September 17	10:00 am - 4:00 pm	Town of Poolesville 19950 Fischer Ave, Poolesville, MD 20837
Clarksville Commons Electric Vehicle Show	Saturday, September 24	3:00pm - 6:00 pm	Clarksville Commons 12230 Clarksville Pike Clarksville, MD 21029
EV's at Olney Farmers and Artists Market	Sunday, September 25	9:00 am - 1:00 pm	Medstar Montgomery Thrift Shop grounds 2801 Olney Sandy Spring Rd. Olney, MD 20832
Maryland Drives Electric	Thursday, September 29	1:00 pm - 3:00 pm	Maryland Department of Agriculture, Employee Lot 50 Harry S. Truman Parkway Annapolis, MD 21401
Kick Gas! in Annapolis	Saturday, October 1	10:00 am - 2:00 pm	Annapolis Town Center 1906 Towne Centre Blvd Annapolis, MD 21401

Washington County Fair

455 Interactions
Washington County Fair
– Boonsboro



Wicomico County Fair

905 Interactions
Wicomico County Fair
– Salisbury



Cumberland Heritage Days

755 Interactions
Heritage Days
– *Cumberland*



Maryland Wine Festival

520 Interactions
Maryland Wine Festival
– Westminster



July – August Outreach Events



Baltimore Washington One Carnival

✓ July 9, 2022

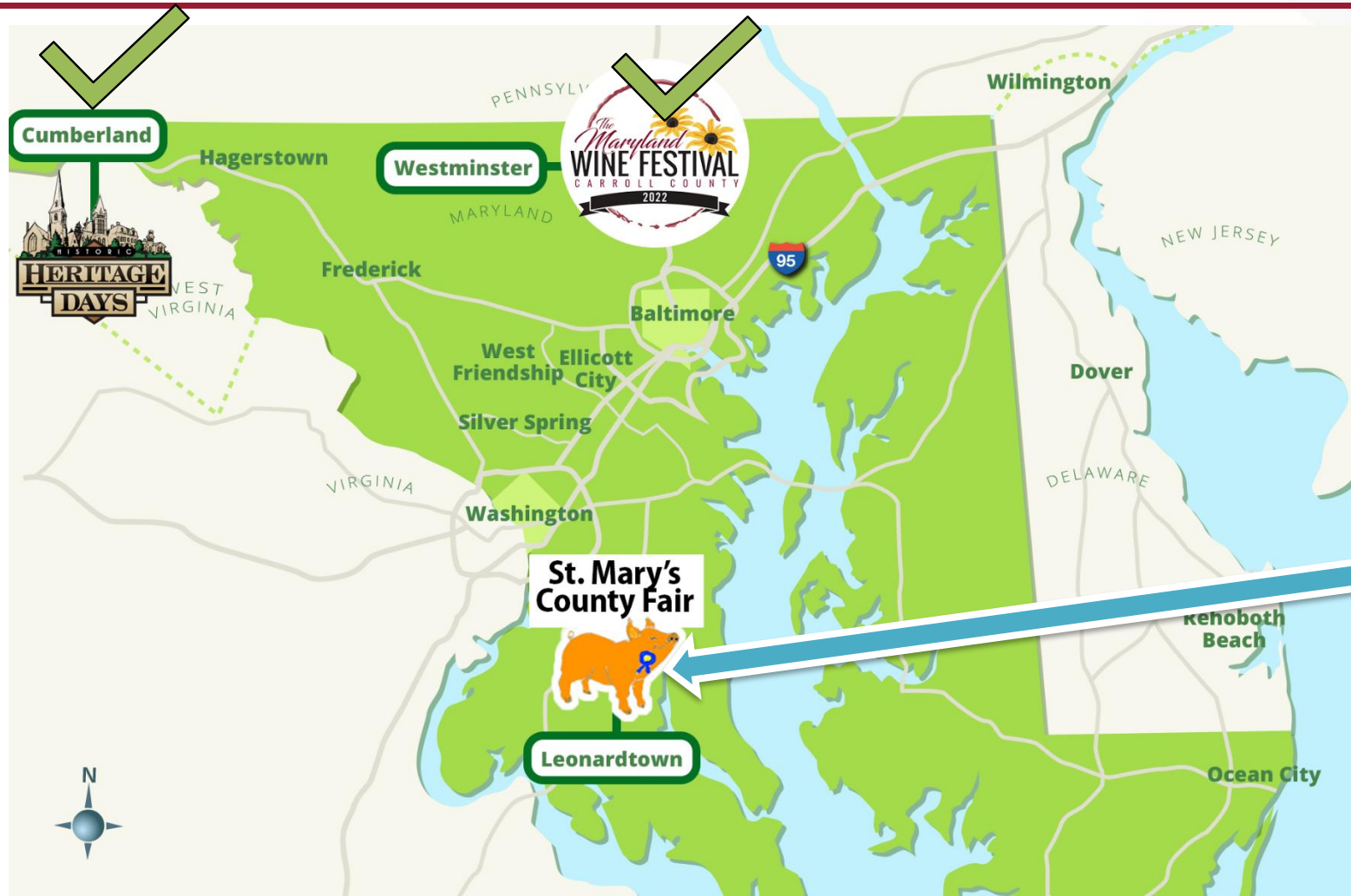
Washington County Fair

✓ July 23, 2022

Wicomico County Fair

✓ August 20, 2022

Outreach Events September



Heritage Days

September 10, 2022

Maryland Wine Festival

September 17 - 18, 2022

St. Mary's County Fair

September 24, 2022


Maryland EV Social Media Post Examples

Aug - Sept 2022

Maryland Electric Vehicle
Published by David A. Proctor · August 1 ·

MyBGE and Lyft have partnered together to help Maryland's rideshare programs go green! They are rolling out a fleet of 25 new Kia America Niro EVs for drivers to rent at a discounted rate through Lyft's Flexdrive program. To learn more about how they're helping achieve our goal of 300,000 EVs on the road by 2025, visit this link: <https://www.bgenow.com/.../bge-launches-an-ev-ride.../>

#MarylandEV #EV



441 People reached 28 Engagements ↑ +1.4x higher Distribution score Boost post

13 4 Comments 1 Share

Maryland Electric Vehicle
Published by Dalia Trostinetzky · August 15 at 5:00 PM ·

Come see us at the Wicomico County Fair with Delmarva Power (Delmarva Connect) this Saturday, August 20! Ask us any questions you have about EVs while enjoying activities for the whole family! Visit the Wicomico Fair website for more information <https://www.wicomicofair.com/>

#marylandev #EV



164 People reached 6 Engagements ↓ -1.8x lower Distribution score Boost post

4

Maryland Electric Vehicle
Published by Nadiya Kutishcheva · September 2 at 10:10 AM ·

EV Charging
for Condos, Co-ops and Townhomes



Learn about installing EV charging in your community
Webinar Series: Sep. 6, 6-8p AND Sep. 11, 10a-12p
Presented by:

DEPARTMENT OF ENVIRONMENTAL PROTECTION MONTGOMERY COUNTY MARYLAND Office of Common Ownership Communities Montgomery County GreenBank
Your partner for clean energy

Montgomery County Green Bank
August 31 at 10:03 AM ·

Want to learn more about installing EV charging in your community? Now is your chance, join our webinars on Sep. 6 at 6-8pm and Sep. 11 at 10am-12pm.
Register ... See more

102 People reached 3 Engagements - Distribution score Boost a post

1

Maryland EV Paid Social Analytics

Ad set name	Impressions	Clicks	Engagements	Page Likes	Complete Video Views
EVs are for Everyone	86,983	97	12,000	-	7,771
EVs vs. Gas	81,857	96	36,099	-	3,349
Page Promotion	61,032	193	31,692	387	-
Totals	229,872	386	79,791	387	11,120

MDEV Maryland Electric Vehicle Sponsored

Marylanders: EVs are available in many more makes and models! Choose from electric SUVs, trucks, sedans, and vans at many price points.

Join the many Marylanders that have already switched to EVs!

marylandev.org
Find the EV best for you!
 There's an EV for everyone [Learn more](#)

Like Comment Share

MDEV Maryland Electric Vehicle Sponsored

Save lots of money on gas—and use just a single charge—when you drive an EV to your favorite Maryland vacation spot this summer!

EVs are cheaper and get you there as fast as gas!

marylandev.org
Get charged about EVs!
 Travel around MD for less. [Learn more](#)

Like Comment Share

Maryland EV Paid Social/Geofence Analytics

Geofencing and Retargeting:

Campaign 1: **Baltimore Washington One Carnival Attendees plus Retargeting**
Baltimore Valve House (5 Mile Radius)

Flight Dates: 07/9/2022 – 07/17/2022

Total Impressions: 50,172

Budget: \$752.58

View-Through-Rate: 65%

Average Completion: 71%

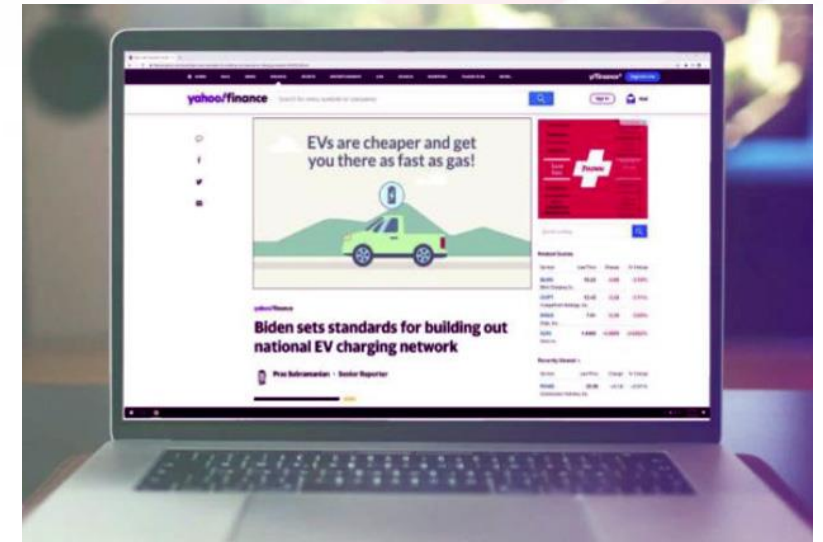
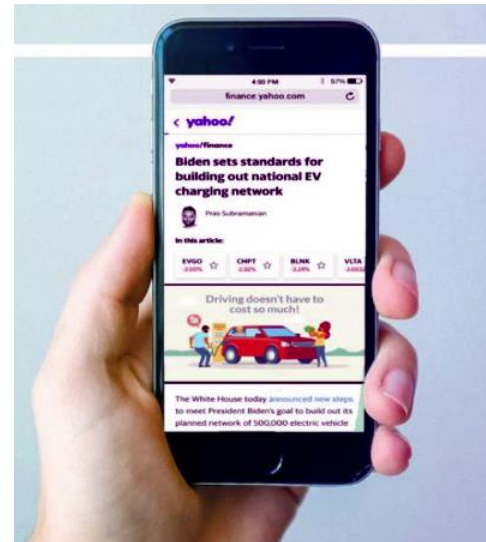
Click-Thru-Rate: 0.05%

Top Performing Zip Codes:

- 21202
- 21206
- 21218

Top Performing Domains:

- Baltimoresun.com
- Carandriver.com
- Washingtonpost.com
- Forbes.com
- Thedrive.com



Maryland EV Web and Social Media Analytics

July

Total Page Views

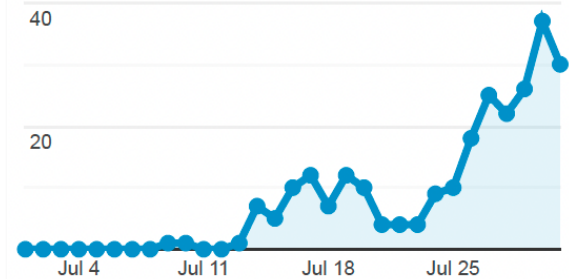
4,732

% of Total: 100.00% (4,732)



Social media unique visitors

● Users



Top viewed pages

Page	Pageviews
/maryland-ev-tax-credit/	2,180
/	910
/the-ev-journey/	290
/charging/	281
/local_ev_resources/	202
/ev-101/	176
/charging/home-installation/	141
/charging/public-charging-networks/	71
/hydrogen-101/	65
/resources/useful-links/	40

August

Total Page Views

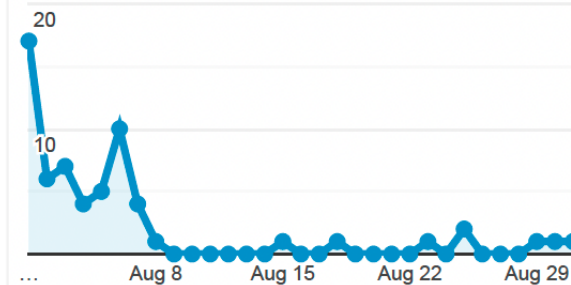
4,827

% of Total: 100.00% (4,827)



Social media unique visitors

● Users



Top viewed pages

Page	Pageviews
/maryland-ev-tax-credit/	2,314
/	1,124
/charging/	329
/charging/home-installation/	209
/the-ev-journey/	203
/local_ev_resources/	182
/ev-101/	142
/hydrogen-101/	62
/charging/public-charging-networks/	44
/resources/ev-calculators/	36

Closing Remarks

Next ZEEVIC Meeting: Thursday, November 17 – 2:00 to 4:00 PM