Agenda

• Welcome and Announcements
• Public Comments
• Zero Emission Vehicle Infrastructure Plan Update
• Medium- and Heavy-Duty Action Plan
• 2022 Legislative Session
• 2022 ZEEVIC Member Survey Results
• State Agency Updates
• Social Media and MarylandEV Updates
• Utility Updates
• Closing Remarks
Welcome and Announcements

Deputy Secretary Lewis, MDOT
Announcements

• Port of Baltimore was awarded $1.8 million through the Diesel Emission Reduction Act (DERA) to replace older cargo-handling equipment and dray trucks with electric versions.

• FeBREWary: Time to Kick Gas in Montgomery County
  • 10 events in February and 1 event in early March
Remembering Bob Bruninga
Public Comments
Zero Emission Vehicle Infrastructure Plan Update

Dan Janousek, MDOT
Rebecca Bankard, Michael Baker
MARYLAND

Zero Emission Vehicle Infrastructure Plan (ZEVIP) Overview

ZEEVIC
March 16, 2022
ZEVIP Overview & Schedule
Purpose & Need – First Step, NEVI

1. To Address National Electric Vehicle Infrastructure (NEVI) Program – AFC Focus
   - Rural Charging Toolkit Issued Early February
   - Initial Guidance Issued February 10th
   - Critical Technical Guidance is Expected on May 13th
   - State EV Infrastructure Plan Required by August 1st – Joint MDOT and MEA Lead

2. To Continue Leading in Maryland & Develop Overall Plan – Beyond AFC
   - Position our Members / Communities to Take Advantage of Discretionary $ [Nov.]
   - Look at ZEV – Not Just EV
   - Look at Multi-Modal ZEV Solutions
NEVI Plan Outline – Dictated by Guidance

- Introduction
- State Agency Coordination
- Public Engagement
- Plan Vision & Goals
- Existing & Future Conditions
- EV Charging Infrastructure Deployment
- Implementation
- Civil Rights
- Equity Considerations
- Labor & Workforce Considerations
- Cybersecurity
- Program Evaluation
- Discretionary Exceptions
• Gap Analysis Started
• Environmental Justice Models Evaluated
• Advisory Group Meeting #1 Held (MDOT/MEA/MDP/MDE)
• Website Launched March 1, 2022
• MetroQuest Survey is Drafted (Eblast after ZEEVIC meeting)
• Stakeholders Identified
• Coordination with Joint Office Started (Staff attended State’s Information Webinar & 1 Hour Joint Office Meeting is Scheduled)
## 2022 Key Dates – Subject to Change

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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</thead>
<tbody>
<tr>
<td>March 16</td>
<td>Webinar Invitation Sent Out (after ZEEVIC Council Meeting)</td>
</tr>
<tr>
<td>March 21</td>
<td>MDOT MEA Coordination Internal Meeting (ongoing)</td>
</tr>
<tr>
<td>March 21</td>
<td>MDOT/MEA Advisory Group Meeting #2 (ongoing)</td>
</tr>
<tr>
<td>March 24</td>
<td>MetroQuest Survey Launches</td>
</tr>
<tr>
<td>March 31</td>
<td>Webinar #1 – Intro, Q&amp;A, and Stakeholder Survey</td>
</tr>
<tr>
<td>April 25 (week of)</td>
<td>Webinar #2 – Equity (Community, Outreach, Corridor Analysis, Considerations)</td>
</tr>
<tr>
<td>May 13</td>
<td>AFC Nominations Round 6 Due &amp; 2\textsuperscript{nd} Technical Guidance Released</td>
</tr>
<tr>
<td>May 18</td>
<td>ZEEVIC Council Meeting</td>
</tr>
<tr>
<td>May 23 (week of)</td>
<td>Webinar #3 (Technology Focus, Progress)</td>
</tr>
<tr>
<td>May 31</td>
<td>Draft ZEEVIP Plan for Comment</td>
</tr>
<tr>
<td>TBD</td>
<td>Webinar #4 (If determined to be needed)</td>
</tr>
<tr>
<td>August 1</td>
<td>ZEEVIP Due Date to Joint Office</td>
</tr>
</tbody>
</table>

Note: Several other new Coordination Meetings are being scheduled (ongoing)
ZEVIP Initial AFC / NEVI Analyses
### Guideline Changes – “Corridor-Ready”

#### ROUND 6 CHANGES

<table>
<thead>
<tr>
<th>Public DC Fast Charging:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ≤ 50 miles between one station/site and the next on corridor</td>
</tr>
<tr>
<td>• ≤ 1 mile from Interstate exits or highway intersections along the corridor</td>
</tr>
<tr>
<td>• Include <em>4 Combined Charging System</em> (CCS) connectors - Type 1 ports (Simultaneously charging 4 EVs)</td>
</tr>
<tr>
<td>• Maximum charge power per DC ports should not be below 150 kW.</td>
</tr>
<tr>
<td>• Site power capability should be no less than 600 kW (Support at least 150 kW per port simultaneously across 4 ports)</td>
</tr>
</tbody>
</table>

#### Round 5

<table>
<thead>
<tr>
<th>Public DC Fast Charging:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• ≤ 50 miles between one station/site and the next on corridor</td>
</tr>
<tr>
<td>• ≤ 5 miles off the highway</td>
</tr>
<tr>
<td>• Have both J1772 combo (CCS) and CHAdeMo connectors. <em>Source: FHWA</em></td>
</tr>
</tbody>
</table>
Potential Impact on Maryland - New

- 13 Corridors designated as “corridor-ready” would be redesignated as “corridor-pending”
- I-70 and I-270 each have 1 segment that would remain as “corridor-ready”. Remaining segments would be redesignated as “corridor-pending”.
- 3 Corridors partially designated as “corridor-ready” would be entirely redesignated as “corridor-pending”
- 4 Corridors would remain designated as “corridor-pending”
Data for Gap Analysis

- Data so Far:
  - Charging Stations
    - Stations meeting FHWA Requirements for Corridor Ready
    - Other Stations (Tesla, DC Fast, Level 2)
  - Socioeconomic and Land Use Data
  - AFCs and Interchanges, Exits, Intersections
  - State Facilities/Sites from Energy Cap
  - Existing Local Government MetroQuest Survey Responses [2020]
  - EIA Data

- Possible Data to Include:
  - Retail, Business Districts, Destinations/Attractions, etc.
  - Future Developments
  - Local Government Facilities
  - More Robust Electric Grid Data
## Sample Equity Data for Gap Analysis

<table>
<thead>
<tr>
<th>INDICATORS</th>
<th>MDE SOCIOECONOMIC EJ SCORE (MDE)</th>
<th>EPA - ENVIRONMENTAL JUSTICE (EJ SCREEN)</th>
<th>CDC - SOCIAL VULNERABILITY INDEX</th>
<th>EQUITY &amp; CLIMATE IMPACT TOOLS: U.S. OFFICE OF ENERGY &amp; TRANSPORTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minority Population</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Low Income</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Over 25 years old with less than High School Diploma (Low Education)</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Unemployment</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Linguistic Isolation</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Individuals under age 5</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Individuals over age 64</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Environmental Indicators (Air / Dust / Water / Waste)</td>
<td>N</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Housing Type &amp; Transportation</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Household Composition - Single-Parent Household</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Disability - Older than 5 with a Disability</td>
<td>N</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Rural Areas Consideration</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Fossil Dependence &amp; Energy Burden</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Note: Y: Yes; N: No
ZEVIP Collaboration, Communication, Outreach
Vision and Goals – MetroQuest Survey

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

- Survey will launch next week
- Opportunity for Feedback / Comment
  - Vision and Goals
  - Prioritization
  - Infrastructure Siting
    - Within AFC < 1-mile [priority]
    - Outside of 1-mile boundary
ZEVIP Website – Updated Regularly

• Overview / Schedule / Meetings
• Links to Surveys / Materials
• Links to EV Resources
• Interact – Mailing List & Contact Form
  • A place to direct questions.
• Coming Soon:
  • Data & Analyses
  • Tracking / Progress
ZEVIP Next Steps
Reminder of Important Next Steps & Where to Find Info.

- Continue Gap and Technical/Equity Analyses
- Registration Email for Webinar #1 Sent Today – Please Share
- First MetroQuest Survey Sent Next Week
- Webinar #1: March 31st 1:00-2:30 PM [Register on ZEVIP Site]
- Technical Guidance & Contracting

Maryland ZEVIP Website:

https://evplan.mdot.maryland.gov/
Medium- and Heavy-Duty Action Plan

Tim Shepherd, MDE
MHD ZEV MOU Action Plan

**Background:**
- On July 14, 2020, 14 states and the District sign onto the MHD ZEV MOU.
- Currently, 16 States plus the District and Quebec have signed the MOU.
- MOU establishes a voluntary goal of 30% MHD ZEVs on the market by 2030.
- States committed to working together to develop MHD ZEV Action Plan.
- Modeled after the Light Duty ZEV MOU and Action Plan.
Overview:

- Action Plan designed to help states achieve the 30% ZEV goal.
- Coordinated by NESCAUM.
- NESCAUM worked with government agencies, industry groups, environmental groups, and environment justice groups to develop Draft Action Plan.
- Identifies barriers and opportunities associated with electrifying the MHD sector.
- Includes over 60 recommendations for state policymakers to promote the rapid, equitable, and widespread deployment of MHD ZEVs.
MHD ZEV MOU Action Plan

**Timeline:**
- NESCAUM will have a 45-day public comment period.
- All comments should be submitted through NESCAUM’s “Public Input Portal” by April 25, 2022.
- Comments will then be reviewed with a goal of having Final Action Plan released in June 2022.
2022 Legislative Session
Haley Erickson, ICF
Kevin Miller, ChargePoint
Letter of Support

- Legislative Work Group met February 18th and 25th
- Special ZEEVIC Meeting to approve the letter was held March 3rd
- Letter was submitted March 9, 2022, supporting:
  - **SB0146**: Vehicle Laws - Plug-In Electric Drive Vehicles - Reserved Parking Spaces (*crossed-over*)
  - **HB0157**: Vehicle Laws - Plug-In Electric Drive Vehicles - Reserved Parking Spaces (*crossed-over*)
  - **HB0696/SB0948**: Public Utilities – Electric School Bus Pilot Program
  - **HB0894**: Transportation Electrification and Modernization (TEAM) Act
  - **HB1146**: Residential Construction – EV Charging
  - **HB1391**: Clean Cars Act of 2022
## Other ZEV-Related Bills

<table>
<thead>
<tr>
<th>Bill #</th>
<th>Bill Title</th>
<th>Status/Last Update</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Crossed Over to House, referred to Environment and Transportation and Appropriations</td>
</tr>
<tr>
<td>HB0046/SB0104</td>
<td>Vehicle Emissions Inspection Program – Not Subject to Inspection – Fee</td>
<td>HB: Hearing on 1/20 at 1:00pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB: Hearing on 1/18 at 1:00pm</td>
</tr>
<tr>
<td>HB0060/SB0126</td>
<td>Environment – New Motor Vehicles – Pollution Fee</td>
<td>HB: Hearing on 1/26 at 1:00pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB: Hearing on 2/15 at 1:00pm</td>
</tr>
<tr>
<td>HB0094</td>
<td>State Vehicle Fleet - Conversion to Zero-Emission Passenger Cars and Other Light-Duty Vehicles</td>
<td>Crossed Over to Senate, referred to Budget and Taxation</td>
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<tr>
<td>HB0507/SB0924</td>
<td>Environment - Electric Vehicle Charging Infrastructure - Environmental Justice Considerations</td>
<td>HB: Hearing on 2/16 at 1:00pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB: First reading 2/11</td>
</tr>
<tr>
<td>HB0782</td>
<td>Vehicle Laws - Plug-In Electric Drive Vehicles - Reserved Parking Spaces</td>
<td>Withdrewed (2/21)</td>
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<tr>
<td>HB0831</td>
<td>Reducing Greenhouse Gas Emissions - Commercial and Residential Buildings</td>
<td>Hearing on 2/25 at 1:00pm</td>
</tr>
<tr>
<td>HB0835</td>
<td>Retail Service Stations – New Construction – Setbacks and Electric Charging Stations</td>
<td>Hearing on 2/24 at 1:00pm</td>
</tr>
<tr>
<td>HB1079/SB0922</td>
<td>Vehicle Emissions Inspection Program - Standards, Requirements, and Application</td>
<td>HB: Hearing on 3/3 at 1:00pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SB: First reading 2/11</td>
</tr>
<tr>
<td>HB1314</td>
<td>Vehicle Laws - Pilot Program to Evaluate Alternative Registration Plates and Cards</td>
<td>Hearing on 3/10 at 1:00pm</td>
</tr>
<tr>
<td>SB0627</td>
<td>State Building Code - Electric Vehicles</td>
<td>Hearing on 2/15 at 1:00pm</td>
</tr>
</tbody>
</table>
2022 ZEEVIC Member Survey Results

Haley Erickson, ICF
2022 Priorities Statement

• Install more EVSE and ensure EV readiness through strategic infrastructure planning, particularly focusing on rural communities, equitable EVSE placement in environmental justice communities, corridors, and multi-unit dwellings and apply lessons learned from EVSE deployment to continuously improve EVSE infrastructure.

• Maximize the use of grant and alternative funding opportunities for EV/EVSE in Maryland, particularly funds allocated to Maryland through the Infrastructure Investment and Jobs Act, by collaborating across local and state agencies to strategically target funds for optimal infrastructure expansion.

• Continue ZEV education and outreach coordination, with a focus on diversity and equity, to increase ZEV deployment.
Meeting Topics for 2022

• May
  • Zero Emission Vehicle Infrastructure Plan (ZEVIP) Submission Update
  • Other Federal Funding Opportunities

• July
  • Hydrogen Vehicles and Infrastructure
  • EVSE Infrastructure in High-Density Housing

• September
  • Permitting, Building Codes, Zoning Codes, and Other Best Practices
  • ZEVIP Plan Approval Update

• November
  • State ZEV Project Updates
  • Electrifying Freight Corridors in Maryland
  • ZEVIP Funding Opportunity Announcements
State Agency Updates
Volkswagen Settlement Updates

- Vehicle Replacement Program
  - Phase I
    - Continue to implement vehicle replacements
    - Due to Pandemic, many projects have been delayed
    - Still expect a significant portion of projects to be completed in 2022
  - Phase II
    - Maryland plans to reopen proposal period for two categories in 2022
      - Electric School Bus
      - Electric MHD Vehicles
Volkswagen Settlement Updates

• EVSE Infrastructure Programs
  • Phase I
    • Finalizing contracts on many projects
    • Due to Pandemic, timelines may be pushed back on some projects
    • Several Level 2 workplace projects have been completed
    • First Level 3 project has been completed (Hagerstown)
  • Phase II
    • Phase II program was opened on December 22nd
    • Proposals are due April 15th
    • Similar in scope to Phase I
    • Several “tweaks” have been made based on comments received and meetings with EVSE providers
Federal Updates

• On March 7th, EPA announced proposed new emission standards for MHD Vehicles
  • EPA proposed three different emission standard options
  • Proposal will tighten Phase 2 GHG standards for many vehicles
  • 46-day public comment process

• On March 9th, EPA Reinstated the California waiver provision
  • Reinstates California’s authority to adopt stricter than federal standards for emissions
  • Reinstates other states authority under Section 177 of the CAA to adopt California’s standards instead of federal
• MEA has processed $1,418,440 worth of rebates, totaling 1,661 chargers (78.8% of budget)
  • $882,430 for 1,511 residential chargers
  • $536,010 for 150 commercial chargers
  • Funding status updates being posted to website on weekly basis.

• Clean Fuels Incentive Program (CFIP)
  • FY22 Round 1 program award announcement coming soon
  • Opened Round 2 on 3/10, closes on 4/20
  • Up to $2M available
  • Class 8 FCEV & EV incentive increased to max cap of $150K/vehicle

• Clean Fuels Technical Assistance (CFTA) Program
  • Will soon execute task order to move FY22 round forward
PC44 Work Group Summary Q1 2022 and Other Commission Activities

• Commercial Rate Design
  • Working on finalizing rate type to file as proposal for Commission consideration.

• Directives from Order No. 90036
  • EVSE Metering
    • Determine regulations for EVSE metering by 12/31/2023
  • Charger Reliability Standards/Metrics
    • Determine new reporting requirements by 8/1/2023
  • Fleets
    • File proposals by 6/30/2022
    • Make-ready, carshare, EV charging + Other technologies, Educational efforts

• Q3/Q4 2021 Semi-Annual Reports reviewed during March 16, 2022, Administrative Meeting
Additional State Agencies

- MDOT
- MDP
- Commerce
- DGS
Social Media, MarylandEV, and Outreach Updates

Carrie Giles, ICF
MarylandEV Website Analytics

Page Views: 3,271

Top Referral Traffic:
1. Bge.com: 34.83%
2. Pepco.com: 12.92%
3. Firstenergycorp.com: 10.11%
5. Facebook.com: 5.06%
6. Sharpco.maps.arcgis.com: 5.06%
7. Dlemarva.com: 2.81%
8. http://192.245.157.59/~zevip/: 2.2%
9. Marylandtesla.com: 1.69%

February 1 – February 28, 2022

Top Pages Visited:
1. Incentives: 1,429 (43.69%)
2. Homepage: 900 (27.51%)
3. Charging: 208 (6.36%)
4. The-ev-journey: 136 (4.16%)
5. Charging/home-installation: 122 (3.73%)
6. ev-101: 91 (2.78%)

I'm not pumped, I'M CHARGED!
Make the switch to electric and get charged about driving! Choose an electric vehicle that's right for you and your lifestyle. Save on fuel, maintenance and taxes, all while contributing to a cleaner environment.

New to EVs? Start Here!
Maryland Electric Vehicle
February 7
Last week, the Maryland Auto Show returned to the Baltimore Convention Center and featured several different electric vehicles including the highly anticipated all electric Ford F-150 Lightning, which hasn’t hit roads yet. 🚗 Ford
Learn more about the event here: https://news.yahoo.com/exploring-maryland-auto-show-2228006...
#MarylandEV #EV

Maryland Electric Vehicle
February 10
The Frederick County Council introduced a new bill that would incorporate EV requirements into local building codes to support the County’s efforts to reduce carbon emissions. The bill would require homebuilders to install the wiring necessary in new homes to charge electric vehicles.
Check out the full article: https://www.localvm.com/.../frederick-county-council-propos...
#MarylandEV #EV

Maryland Electric Vehicle
February 28
The Board of County Commissioners held a ribbon-cutting ceremony to celebrate the new SMECO Electric Vehicle Recharge stations in Calvert County!
Now you can charge at the Calvert Library Fairview Branch, Courthouse Annex, Southern Community Center, and Calvert Marine Museum.
Chargers at the College of Southern Maryland, Prince Frederick Campus, and the Calvert Board of Education on Dares Beach Road are coming soon!
Read the full article: https://southernmarylandchronicle.com/.../calvert-bocc-smeco...
#MarylandEV #EV
Maryland EV Social Media Post Examples

February 1 – February 28, 2022

Maryland Electric Vehicle
February 16

Montgomery County is celebrating FebRÆVary through its Montgomery Energy Connection program. A total of 6 “Time to Kick Gas” themed events will be taking place throughout the month to provide information about switching to an electric vehicle.

To learn more about the FebRÆVary events, visit the My Green Montgomery website: https://mygreenmontgomery.org/febuary-2022-time-to-kick-gas/

#MarylandEV #EV

Curious about electric vehicles, buses, lawn mowers, and more?
Visit the Montgomery County Department of Environmental Protection’s “Go Electric!” event on March 19 to learn about electric lawn equipment and take tours of electric cars and a Ride On electric bus.

Learn more: https://mygreenmontgomery.org/2022/goelectric/

#MarylandEV #EV

Maryland Electric Vehicle
February 22

Lower your utility bill - switch to LED bulbs!

This month at select local breweries, trade your old bulbs for LEDS!

Maryland Electric Vehicle
March 19

Lower your utility bill - switch to LED bulbs!

This month at select local breweries, trade your old bulbs for LEDS!

Maryland Electric Vehicle
March 19

Go Electric!
10AM-4PM

NORTH CAMPUS DRIVE MONTGOMERY COLLEGE ROCKVILLE

- electric cars
- solar power
- green financing
- light bulb exchange
- battery yard equipment
- small appliance recycling
- and more!

MyGreenMontgomery.org/GoElectric
Utility Updates
BGE, PHI, SMECO, Potomac Edison
• EVSE Pilot Program Update
  • Residential: 1,664 (all received information on $50 annual incentive)
  • Multifamily: 137 ports
  • Public: 197 live, 279 in progress
  • TOU Rate: 786 participants

• Events & Outreach
  • Baltimore Auto Show
  • New “Joe on the Go” videos
  • Attending Earth Day Event that Maryland DGS is hosting to do a charging demonstration
  • Anne Arundel Library event to promote EVs.
• EVSE Pilot Program Update
  • Residential: 62 (Delmarva), 750 (Pepco)
  • Multifamily: 0 (Delmarva), 6 (Pepco)
  • Public: 51 Level 2, 5 DC Fast (Delmarva); 53 Level 2, 3 DC Fast (Pepco)
  • TOU Rate: 5 participants (Delmarva), 330 participants (Pepco)

• Events & Outreach
  • Pepco EVsmart is participating in Montgomery County’s Go Electric! Event on March 19th. They will have a Mach-E and a tent to visit.
• EVSE Pilot Program Update
  • 22 EVSE Installed (19 Level 2, 3 DC Fast)
  • Launched whole-house TOU rates in February

• Events & Outreach
  • Held ribbon cutting for EVSE in Calvert County on February 1, 2022.
  • EV Meet & Greet on May 14th at LaPlata's Farmer’s Market
Potomac Edison

• EVSE Pilot Program Update
  • Residential Rebates: 193
  • Multifamily: 0
  • Public: 16 Level 2, 8 DC Fast
  • TOU Rate: 279 participants

• Events & Outreach
  • March 14: Frostburg Ribbon Cutting at 1pm
  • Announced the inclusion of Tesla in rebates and off-peak reward program
Closing Remarks – Deputy Secretary Lewis

2022 Meeting Schedule:

• May 18, 2022
• July 20, 2022
• September 21, 2022
• November 16, 2022