



MARYLAND ZERO EMISSION

Electric Vehicle Infrastructure Council

January 19, 2022

Agenda

- Welcome and Announcements
- Public Comments
- 2022 Maryland Legislative Session
- Infrastructure Investment and Jobs Act
- 2022 ZEEVIC Priorities
- Streetlight and Right-Of-Way Charging
- Modifications to Statewide EV Charging Pilot Program
- Utility Updates
- Social Media, MarylandEV, and Outreach Updates
- State Agency Updates
- Closing Remarks



Welcome and Announcements

Deputy Secretary Lewis, MDOT

Public Comments





2022 Maryland Legislative Session

Virginia Burke, MDOT

Dan Janousek, MDOT

Pending ZEV Legislation

Bill # Sponsor(s)	Bill Title	Synopsis
<u>HB0157 (SB0146)</u> Del. Barve Sen. Young	Vehicle Laws - Plug-In Electric Drive Vehicles - Reserved Parking Spaces <i>Environment and Transportation</i> 1/25/2022 - 1:00 PM	<ul style="list-style-type: none"> • Protection parking spaces designated for the use of plug-in electric drive vehicles. • \$100 Fine (enabled)
<u>HB0010 (SB0061)</u> Del. Korman Sen. Zucker	MTA- Conversion to Zero-Emission Buses <i>Environment and Transportation</i> 1/25 at 1:00 p.m.	<ul style="list-style-type: none"> • MDOT MTA safety and workforce development training • Annual report on conversion of the transit bus fleet to zero-emission buses
<u>HB0060 (SB0126)</u> Del. Fraser-Hidalgo Sen. Kramer	Environment – New Motor Vehicles – Pollution Fee <i>Environment and Transportation</i> 1/26/2022 - 1:00 PM	<ul style="list-style-type: none"> • Pollution fee on new motor vehicles • Charged by the Department of the Environment (MDE) based on certain pollution ratings • Maryland Strategic Energy Investment Fund (SEIF) • Provide rebates on the sale of electric vehicles; Purchase electric transit and school buses; Expand electric vehicle infrastructure.
<u>HB0046 (SB0104)</u> Del. Fraser-Hidalgo Sen. Kramer	Vehicle Emissions Inspection Program – Not Subject to Inspection – Fee <i>Environment and Transportation</i> 1/25 at 1:00 p.m.	<ul style="list-style-type: none"> • \$14 fee once every 2 years on each motor vehicle registered in the State that is waived, exempted or not subject to the VEIP • SEIF • Provide rebates on the sale of electric vehicles; Purchase electric transit and school buses; Expand electric vehicle infrastructure.
<u>HB0094</u> Del. Fraser-Hidalgo	State Vehicle Fleet - Conversion to Zero-Emission Passenger and Light-Duty Vehicles <i>Environment and Transportation</i> 1/25 at 1:00 p.m.	<ul style="list-style-type: none"> • 100% of passenger cars in the state vehicle fleet be zero-emission by 2031 (other light-duty vehicles in the state vehicle fleet by 2036)

A stylized, semi-transparent graphic in the top right corner depicts a hand holding a pencil, with yellow and grey geometric shapes suggesting motion or a design process.

Infrastructure Investment and Jobs Act

Deputy Secretary Lewis, MDOT

IIJA Key Dates

Date	Action Items
Jan. 2022	Outline Maryland ZEV Infrastructure Plan Approach
Jan. 28, 2022	Comments due on FHWA Development of Guidance for Electric Vehicle Charging Infrastructure Deployment
Jan. – Feb. 2022	Stakeholder Engagement Plan Development
Feb. 11, 2022*	Joint USDOT and DOE Guidance Expected
Mar. – Summer 2022	Stakeholder Outreach
Jan. – Summer 2022	Maryland ZEV Infrastructure Plan Development

** The timeline and development of the draft and final plan are pending details in federal guidance.*

IJA Funding Division J – Formula & Discretionary

Purpose	Strategically deploy electric vehicle (EV) charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability
Funding	\$5 B in advance appropriations from the General Fund (GF)
Eligible Entities	State DOTs – program does allow for partnership with contractors and allows them to cover the 20%, non-federal match.
Eligible Project Types	<ul style="list-style-type: none"> ✓ Funded projects must be located along designated corridors. ✓ If fuel corridor is built-out, can be used on any public road or publicly accessible parking facilities. ✓ Publicly accessible charging stations only.
Requirements	<ul style="list-style-type: none"> ✓ State DOT must submit a plan and receive approval. ✓ Funded projects must be located along designated corridors. ✓ If fuel corridor is built-out, can be used on any public road or publicly accessible parking facilities.
Match	Federal share cannot exceed 80% of total cost; The matching share can be paid by a private entity.
Set-Aside	10% for discretionary grants to state and local governments that require additional assistance to strategically deploy EV charging infrastructure.
Estimated Funding for MD	\$63M over 5 years. The distribution formula is the same as Federal-aid highway apportionments. FY [22-26]
Key Takeaways for MD	<ul style="list-style-type: none"> ✓ Since MD is so close to having corridors built-out, funding can be strategically focused elsewhere. ✓ These dollars can be used along corridors AND in communities. ✓ Contractors can provide a match.

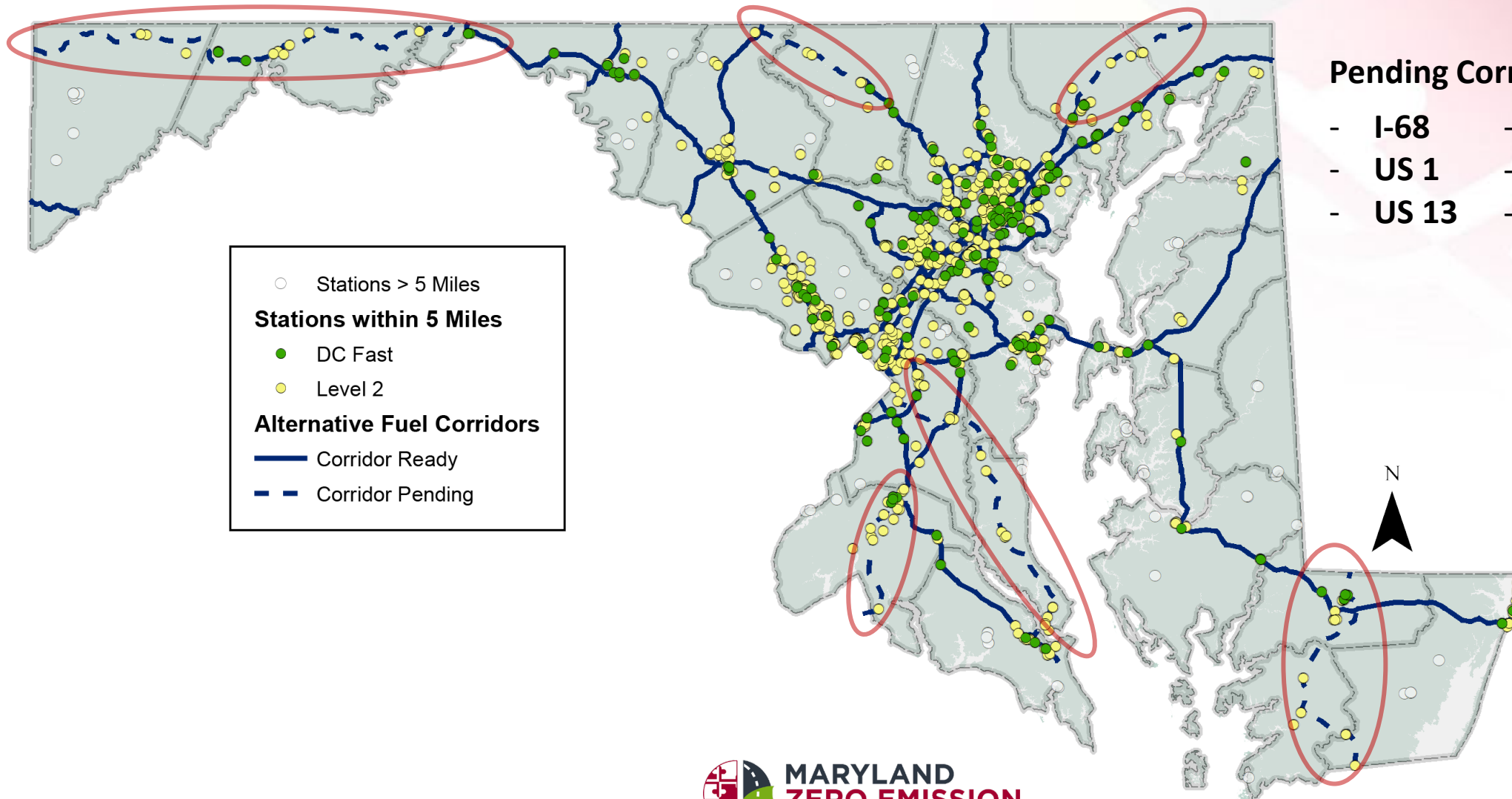
Maryland ZEV Infrastructure Plan

Stakeholder Coordination

Planning Outline

- Develop Goals and Objectives
- Gap Analysis
- Key Strategies and Considerations
- Related Considerations [Important for MD Planning, but likely outside of FHWA Guidance]
- Prioritization Process
- Funding Plan
 - Formula (\$63M over 5 years and discretionary)
 - Discretionary
 - §11401 \$2.5B for ZEV along corridors and in communities
 - §11402 \$400M for Truck Emissions at Port Facilities
 - Short / Med. / Long Term

IIJA Existing EV Charging / AFCs



Pending Corridors:

- I-68
- US 1
- US 13
- US 301
- MD 140
- MD 4

IIJA ZEV Sample Planning Considerations

Planning Considerations

- ZEV Route Planning
- Interstate Coordination
- Equity
- ADA, Safety, Signage
- Rest Areas / PnRs
- Residential Charging
- Rural Charging
- Innovations
- Destinations

- Make-Ready
- Charging \$ for Power Use
- LDV, MDV, HDV, multi-modal
- Public & Private Fleets

Related Considerations

- Power Supply / Grid
- Emergency Management
- Workforce Readiness
- System Preservation



2022 ZEEVIC Priorities

Virginia Burke, MDOT

Haley Erickson, ICF

2022 Priorities

- 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.
- 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.



Streetlight and Right-Of-Way Charging

Carrie Giles, ICF

Examples

Los Angeles, CA



- +280 EVSE installed to streetlights
- Free Parking
- Charging Fee: \$1-\$2 per hour
- EVSE from ChargePoint, EVGo, Flo, and Greenlots
- +150 EVSE per year
- Paid for with CARB and California Energy Commission grants
- Partnerships with EV charging networks
- Collaboration between City of Los Angeles, Bureau of Street Lighting, Department of Transportation, and Department of Water and Power

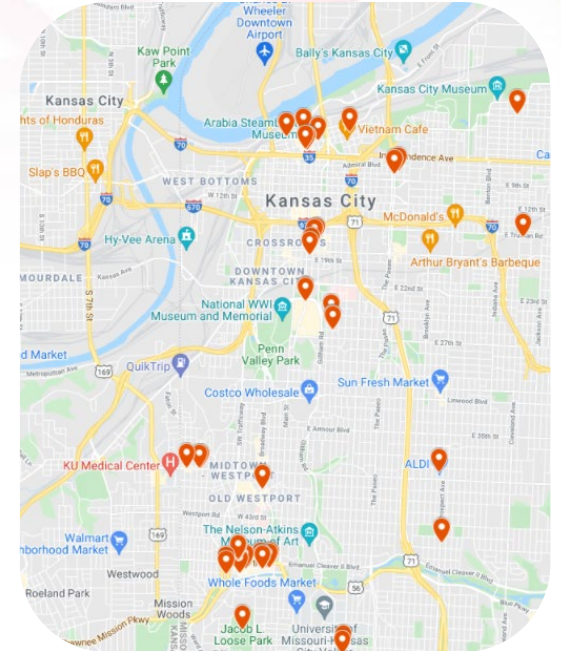
Examples

Kansas City, MO

EVSE Installation Complete: 2021
Data Collection and Analysis: 2022

Largely still in testing phase. No conclusions reached yet.

- Level 2 EVSE, a maximum of 60 total
- Charging Cost: \$0.22/kWh
- Metropolitan Energy Center is leading the project, U.S. DOE is providing funding, and EVSE owners are handling operation and maintenance.



Examples

London, England

- Goal: 1,150 EVSE installed by the end of 2020
- EVSE have been installed by Char.gy, Siemens, and Ubitricity.
- Streetlight EV charging is being piloted through the Go-Ultra Low City Scheme (GULCS), a joint program between London Councils, the boroughs, Transport for London, and the Greater London Authority.



Challenges & Opportunities

- Ownership Model
 - Utility ownership, government ownership, or quasi-government ownership.
 - Establish cost share expectations and type of EVSE to install.
 - Who will operate and maintain? What are the limits of the ownership? What contracts are needed? What is the length of the arrangement?
- Utility Collaboration
 - Metering and billing arrangements need to be agreed up and established.
 - Utilities need to confirm they have the capacity to serve new EVSE.
 - What is the appropriate electricity rate? Should the PSC pursue other rate options? Are there any distribution constraints?

Challenges & Opportunities

- Right-Of-Way (ROW) Siting Issues
 - Other entities may have existing rights or plans to use ROWs for EVSE. A full review of agreements and plans for EV streetlighting is needed.
 - Who owns the ROW? Are there any restrictions in the ROW or planned changes? Are there parking restrictions? Are there any ADA considerations or requirements for the ROW?
- Operation & Maintenance Responsibilities
 - Understand pole and luminaire ownership model. Integrating EVSE onto poles may require additional fees or permissions.
 - Determine who is responsible for routine maintenance of the EVSE.
 - Who owns the streetlight infrastructure? Are there any hidden fees or permissions required by the infrastructure owner? Is there an opportunity for smart city technology integration?



Modifications to Statewide EV Charging Pilot Program

Kevin Mosier, PSC

Summary of Order No. 90036

- Residential
 - Denied additional residential rebates for BGE
 - Approved annual credit for continued EV participation for BGE/PHI
 - Denied increased limited-income rebate for BGE/PHI
 - Approved use of embedded EV metrology for PHI
 - Approved budget for EV-only TOU rate for PE
- Multifamily
 - Approved 60 additional multifamily L2 chargers for BGE instead of the 100 requested
 - Approved increase in multifamily make-ready incentives for PHI
 - Denied rebates for non-utility public DCFC stations for BGE/PHI
 - Denied multifamily discount rate for public DCFC stations for BGE/PHI
 - Denied EV car-share program for BGE
 - Approved 7 utility-owned multifamily L2 chargers for PE



Summary of Order No. 90036

- Public
 - Denied enhanced maintenance/repair contract for BGE
 - Approved BGE to convert 20 L2 charger installations to 10 DCFC charger installations within the current budget; modified from request to shift L2 to DCFC ratio to 60:40 with additional budget
 - Approved ability to install 150kW chargers within existing budgets for BGE/SMECO
 - Approved the installation of chargers in gated government parks on a case-by-case basis for
- PE/SMECO
 - Approved the alignment of the EV pilot and Energy Storage pilot end dates for one PE project
 - Fleet and Workplace
 - Approved fleet calculator tool for BGE/PHI
 - Denied fleet electrification assessments for BGE/PHI
 - Limited workplace rebate request to 25 rebates for Maryland-based companies that are small businesses or non-profits
- Other
 - Denied education and outreach budget requests
 - Approved additional COMAR waivers
 - Directed PC44 EV Work Group to explore several issues including creating a new subgroup on fleets





Utility Updates

BGE, Potomac Edison, PHI, SMECO

SMECO

- EVSE Pilot Program Update:
 - Installed and commissioned 20 EVSE
 - 17 Level 2; 3 DC Fast
 - Collectively we have provided over 375 charging sessions.
 - We have 2 additional Level 2 EVSE installed but not yet commissioned and 15 in various stages of planning/construction.
- Events & Outreach:
 - SMECO spoke at the CFC Financial Series webinar on January 12, 2022.
 - We plan to hold another SMECO EV Meet & Greet in April. (Location TBD)
 - Ribbon Cutting for our newest EVSE in Calvert County on February 1st.
Location: Calvert Courthouse Annex in Prince Frederick.
 - SMECO is speaking at NRECA's Tech Advantage Conference on March 8, 2022.

BGE

- EVSE Pilot Program Update
 - Residential rebates: 1,522 applications received
 - Multifamily rebates: 126 ports rebated
 - 40 BGE-owned in progress. First location completed at Broadmead.
 - Public rebates: 176 EVSE live, 429 in progress
 - TOU rate program participants: 642 enrolled
- Events & Outreach
 - BGE has a booth at the Maryland Auto Show from January 28th-30th.
 - BGE is expecting to hold a launch event with Lyft in March when EVs are delivered.

PHI

- EVSE Pilot Program Update
 - Residential rebates: 665 applications received
 - Multifamily rebates: 8 EVSE (10 ports) rebated
 - Public rebates: 53 Level 2 and 3 DC Fast EVSE in service
 - TOU rate program participants: 330 enrolled
- Events & Outreach
 - PHI has a booth at the Maryland Auto Show from January 28th-30th.

Potomac Edison

- EVSE Pilot Program Update
 - Residential rebates: 176 applications paid out
 - Multifamily rebates: 0
 - Public rebates: 18 Level 2 and 6 DC Fast EVSE
 - TOU rate program participants: 204 enrolled
- Events & Outreach
 - None due to COVID-19.

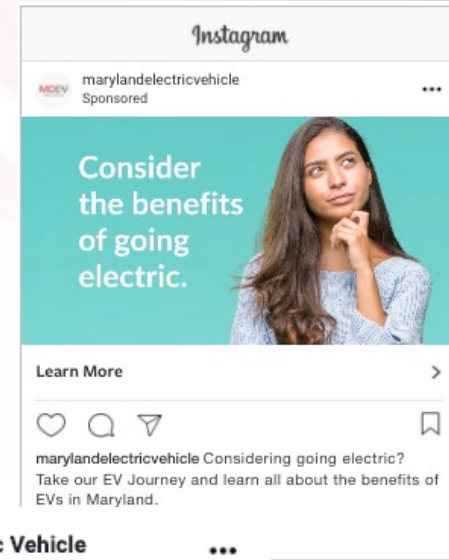
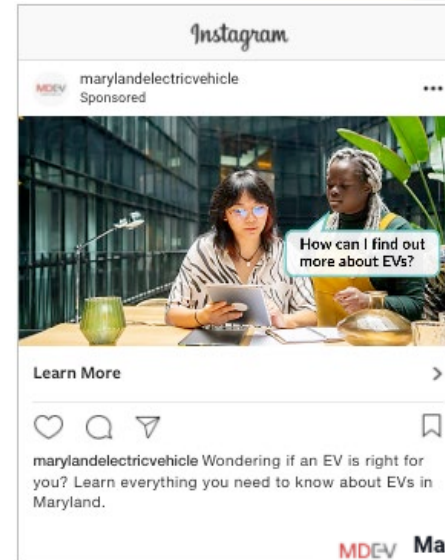


Social Media, MarylandEV, and Outreach Updates

David Proctor, Sharp & Co.

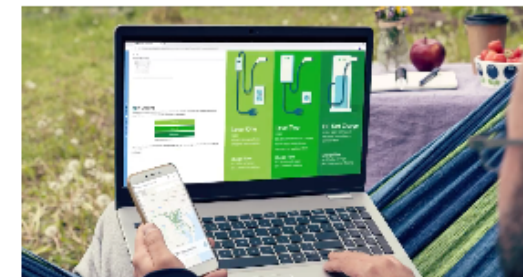
Social Media Ad Campaign

- Total Ads: 6
 - 25 placements each (Facebook, Instagram, Audience Network)
- Total Impressions: 164,430
- Total People Reached: 60,501
- Facebook referrals accounted for 74% of December 2021 session traffic.



MDEV Maryland Electric Vehicle Sponsored

Thinking about purchasing an EV? Learn about the many benefits of an EV in Maryland.



MARYLANDEV.ORG
Get energized
Flip the switch to EVs

LEARN MORE

MarylandEV Website Analytics

January 1 – December 31, 2021

Page Views: 37,913 (10,000 more than 2020)

Top Referral Traffic:

1. Facebook.com: 33.08%
2. Bge.com: 18.17%
3. Pepco.com: 15.96%
4. Firstenergycorp.com: 7.61%
5. Mdot.Maryland.gov: 4.35%
6. Sharpco.maps.arcgis.com: 3.67%
7. Delmarva.com: 3.60%
8. Smeco.coop: 3.30%

Top Pages Visited:

1. Incentives: 15,210 (40.12%)
2. Homepage: 10,347 (27.29%)
3. Charging: 3,624 (9.56%)
4. EV-101: 1,680 (4.43%)
5. The-EV-Journey: 1,068 (2.28%)
6. Hydrogen-101: 931 (2.46%)

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 EV Social Media Post Examples

December 1 – December 31, 2021



Maryland Electric Vehicle

Dec 16, 2021 · 🌐

Montgomery County received a lot of attention for its Climate Action Plan, but did you know that Prince George's County is developing one too?

An exciting proposal in the plan includes increasing EV registrations to 15% of vehicles in the County by 2030. If adopted by the County Council, this initiative would begin next year.

<https://www.washingtoninformer.com/vehicles-emissions-energy-policy-part-of-prince-georges-climate-plan/>

#MarylandEV #EV



Maryland Electric Vehicle

Dec 2, 2021 · 🌐

Electric vehicles are the future and the past, according to a growing group of EV enthusiasts. ⌚ ⚡

In an emerging trend, classic car owners are modifying their vintage vehicles to be eco-friendlier and more reliable by going electric.

Check out the article to learn more:

<https://www.cnn.com/2021/11/03/world/classic-car-electric-ev-c2e-climate-spc-intl-hnk/index.html>

#MarylandEV #EV



Maryland Electric Vehicle

Dec 9, 2021 · 🌐

What do Maryland, Rhode Island, and Massachusetts have in common? They're all standout states when it comes to EV savings!

According to an article from [Electrek.co](https://electrek.co), these three states saw the most improvement in savings from electric energy efficiency programs from 2011 to 2019.

<https://electrek.co/2021/11/09/the-number-of-us-electric-vehicles-grows-from-16k-to-2-million-in-10-years/>

#MarylandEV #EV



Maryland EV Social Media Post Examples

December 1 – December 31, 2021



Maryland Electric Vehicle

Posted by Crowdfire
Dec 30, 2021 · 🌐

According to an article from The Delmarva Daily, Maryland ranks seventh in adapting to electric vehicles among the 50 states and DC. 🏆

Read the full article here: <https://www.delmarvanow.com/story/news/local/maryland/2021/12/10/maryland-ahead-most-us-states-push-electric-cars/6451024001/>

#MarylandEV #EV



Maryland Electric Vehicle

Posted by Crowdfire
Dec 27, 2021 · 🌐

As the temperature drops and snow begins to fall, drivers, in general, need to pay extra attention to their vehicles. ❄️

Check out this article from [MyEV.com](https://www.myev.com/research/ev-101/how-winter-weather-affects-an-electric-car) to learn how to maximize your car's cold-weather range and drive safely in wintry conditions.

<https://www.myev.com/research/ev-101/how-winter-weather-affects-an-electric-car>

#MarylandEV #EV

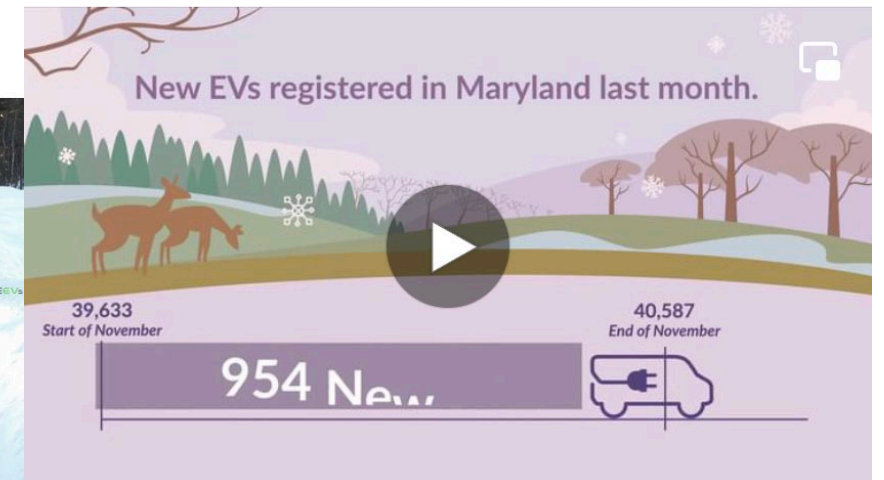


Maryland Electric Vehicle

Dec 21, 2021 · 🌐

This holiday season, join over 40,000 Marylanders who have given themselves the gift of savings on fuel, maintenance, and taxes—and contributed to a cleaner environment—by purchasing an electric vehicle. Learn more at <https://marylandev.org/the-ev-journey/>.

#MarylandEV #EV





State Agency Updates

MEA Program Updates

- MEA has processed \$1,086,632.84 worth of rebates, totaling 1,194 chargers (60.37% of budget)
 - \$620,762.38 for 1,064 residential chargers
 - \$465,870.46 for 130 commercial chargers
 - Will begin posting weekly funding status updates as depletion continues
- Clean Fuels Incentive Program (CFIP)
 - FY22 program closed 12/31, evaluations on-going
 - In total, received 11 applications, representing a total of 107 vehicles and a total funding request of \$2,060,000.00
 - Electric: 8 applications, 27 vehicles, total grant request of \$790K
 - Make awards Q1
- Clean Fuels Technical Assistance (CFTA) Program
 - Determining next steps/timing

Additional State Agencies

- MDP
- Commerce
- DGS
- PSC

Closing Remarks – Deputy Secretary Lewis

2022 Meeting Schedule:

- March 16, 2022
- May 18, 2022
- July 20, 2022
- September 21, 2022
- November 16, 2022