



MARYLAND
ZERO EMISSION
Electric Vehicle Infrastructure Council

January 22, 2025

Agenda

- Welcome and Public Comments
- Vehicle to Grid (V2G) Integration - Perspectives
- Legislative Working Group Update
- Announcements and Updates
- Closing Remarks

Currently underway

ZEEVIC Chair Deron Lovaas attending MGA Legislative Briefing

Date: January 22 at 2:00 PM

Event: Joint Hearing of the Senate Education, Energy, and the Environment Committee & House Environment and Transportation Committee

Topic: Updates on the **Maryland Zero Emission Vehicle Infrastructure Plan** and **Maryland Clean Cars Program**

Briefings: by MDE, MDOT, MEA



Welcome and Public Comments

Scott Wilson, Acting ZEEVIC Chair

ZEEVIC New Member Welcome



Kelly Bobek

ZEEVIC Seat: Heavy-Duty Electric Vehicle Manufacturer

Affiliation: Volvo Group North America

ZEEVIC New Member Welcome



Korin Sharp

ZEEVIC Seat: DGS Secretary's Designee

Affiliation: Maryland Department of General Services

ZEEVIC New Member Welcome




Amanda Janaskie

ZEEVIC Seat: Electric Company

Affiliation: Baltimore Gas and Electric Company (BGE)

Public Comments





Vehicle to Grid (V2G) Integration – Perspectives

A stylized graphic in the top right corner shows a hand holding a leaf. The hand is rendered in shades of red and white, with fingers curled around a stem. The leaf is large and triangular, with a yellow and grey checkered pattern. The background is white with faint, light-colored grid lines.

Best Practices for Vehicle-to-Grid Charging

Zach Woogen, Vehicle-Grid Integration Council



VEHICLE-GRID INTEGRATION COUNCIL

Vehicle-Grid Integration Landscape and Recommendations

Zach Woogen, Interim Executive Director, VGIC

January 22, 2024



EVs represent **untapped potential** as flexible, distributed energy resources to support an affordable and just energy transition

Vehicle-Grid Integration Council is focused on unlocking the value of flexible charging and discharging

VGIC:

- Prioritizes integrity and credibility
- Supports collaborative engagement with all VGI champions

VGIC MEMBERS / 2025

LEADERSHIP CIRCLE

BORGWARNER

 Fermata Energy



HONDA

NISSAN
GROUP OF NORTH AMERICA

GENERAL MEMBERS



ASSOCIATE MEMBERS



Upcoming Publication: *Best Practices for Vehicle-Grid Integration Program and Pilot Development*

Developed with VGIC members and...

- BC Hydro
- Consolidated Edison
- National Grid
- Pacific Gas & Electric
- Puget Sound
- San Diego Gas & Electric
- Southern California Edison



Utility Collaboration Forum

Connecting Utilities and Industry Leaders to Integrate Electric Vehicles Onto the Grid

UCF offers utilities a collaborative environment to engage with leaders implementing real-world vehicle-grid integration efforts and co-develop the emergent best practices for program and rate design, utility operational enhancements, and planning practices.

What is Vehicle-Grid Integration (VGI)?

VGI encompasses all the ways EVs can provide services to the grid and increase the value proposition of EVs:

- **V1G:** unidirectional managed charging or “smart charging,” increasingly common for residential EV customers
- **Flexible Service Connection:** static or dynamic load limits used to accelerate EV service connection timeline in grid-constrained areas, increasingly common for multi-charger sites and fleet depots
- **Grid-Isolated Bidirectional Charging:** bidirectional charging system powers an electrically-isolated building or home; often called vehicle-to-home (V2H) or vehicle-to-building (V2B) backup power
- **Grid-Parallel Bidirectional Charging:** bidirectional charging system interconnected to utility distribution system to reduce customer’s bills and/or provide grid services; often called vehicle-to-grid (V2G)
- **DER-Paired EV Charging:** co-located or integrated EV charging with solar, stationary storage, and/or customer generators

Why VGI now?



Accelerate Transportation Electrification



Support the Decarbonizing Power Sector



Increase Affordability of Electricity



Improve Grid Resiliency



Foster Economic Activity

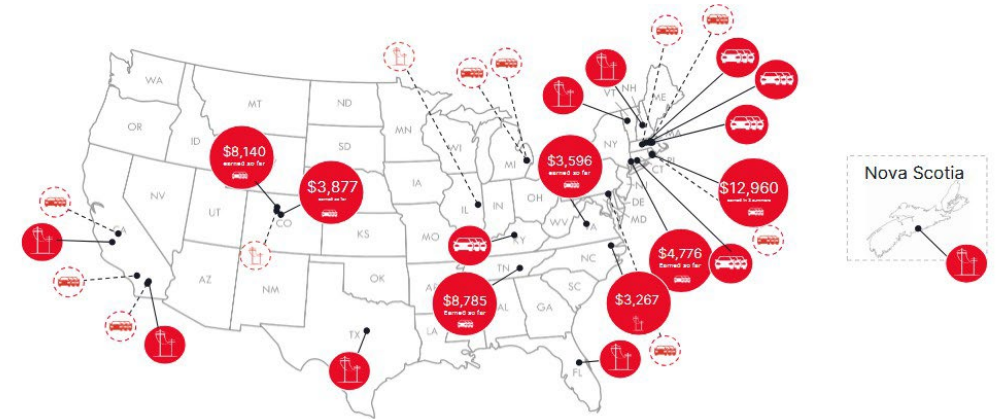


Decarbonization Imperative to Advance VGI

- **Accelerate Transportation Electrification through Lowered Cost of Ownership:**
 - E.g., school districts across the country saving on annual energy costs with charge management, for example in this disadvantaged community:
 - E.g., bidirectional charging customers across the country are earn *real* cash for *real* vehicle-to-grid (V2G) exports:

Table 1: Summary of Charging Analysis Results by Scenario

Scenario	AC Only	DC Only	AC + DC	AC + PV
Annual Energy Cost Without CEM	\$405K	\$399K	\$406K	\$287K
Annual Energy Cost With CEM	\$244K	\$237K	\$298K	\$134K
Energy Cost Savings With CEM	39.7%	40.6%	26.6%	53%

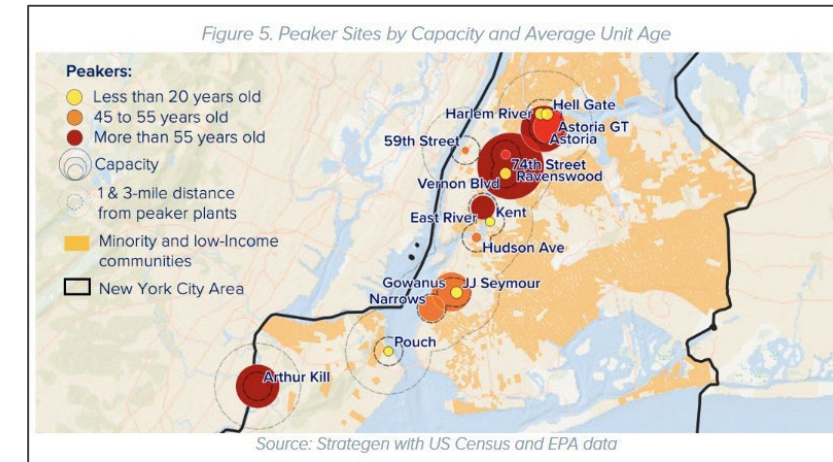
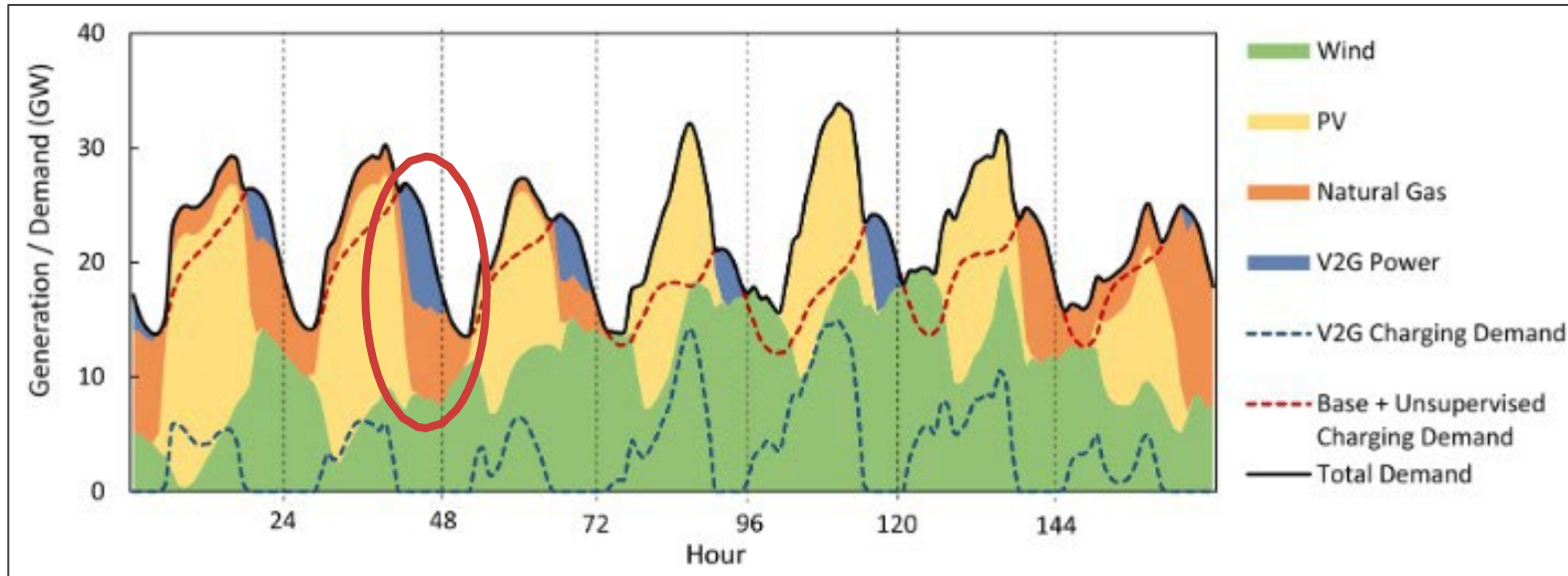


Fleet site operating
 Fleet site in development
 Utility site operating
 Utility site in development

V2G earning for customers

Decarbonization Imperative to Advance VGI

- **Support the Decarbonizing Power Sector:** Managed charging and discharging help integrate intermittent renewable energy resources and offset the use of old, polluting, and environmentally unjust “peakers”



Community Resilience Imperative to Advance VGI

- **Improve Community Resilience:**

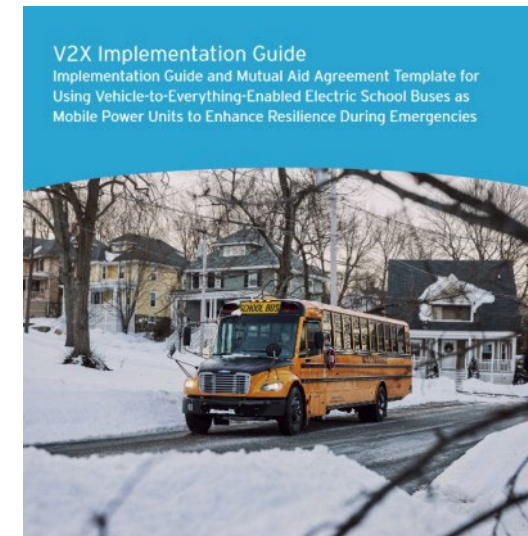
- PG&E’s evPulse program manages EV charging ensures customers and fleets in high wildfire threat districts are not stranded
- Alameda-Contra Costa Transit District is using bidirectional charging technology to provide emergency backup power to community centers in Oakland
- EC/SAFE Mutual Aid Agreement Template for school-bus based emergency backup power



First-of-its-kind vehicle-to-building resilience hub powered by transit buses

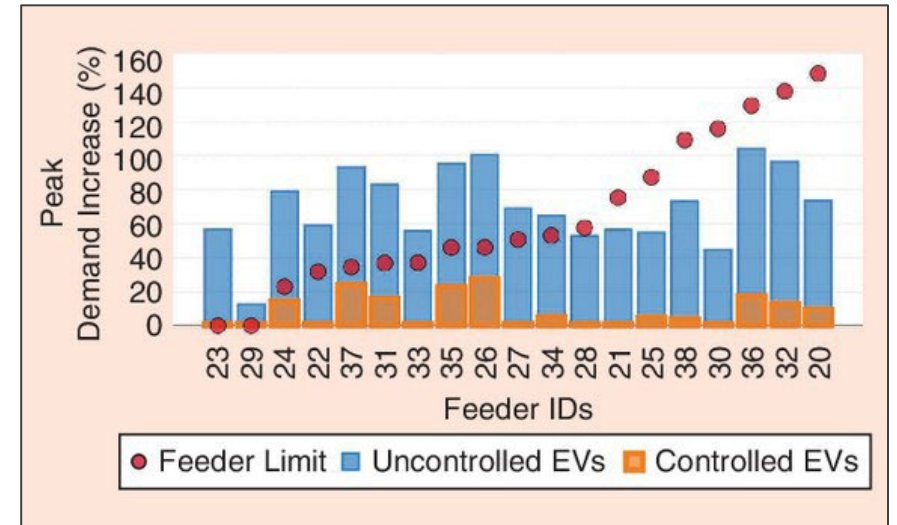
October 11, 2022 | Oakland, CA

- The Mobility House, CTE, AC Transit, New Flyer, Schneider Electric to deploy electric transit buses as mobile emergency backup power for community centers.



Increase Affordability of Electricity for All

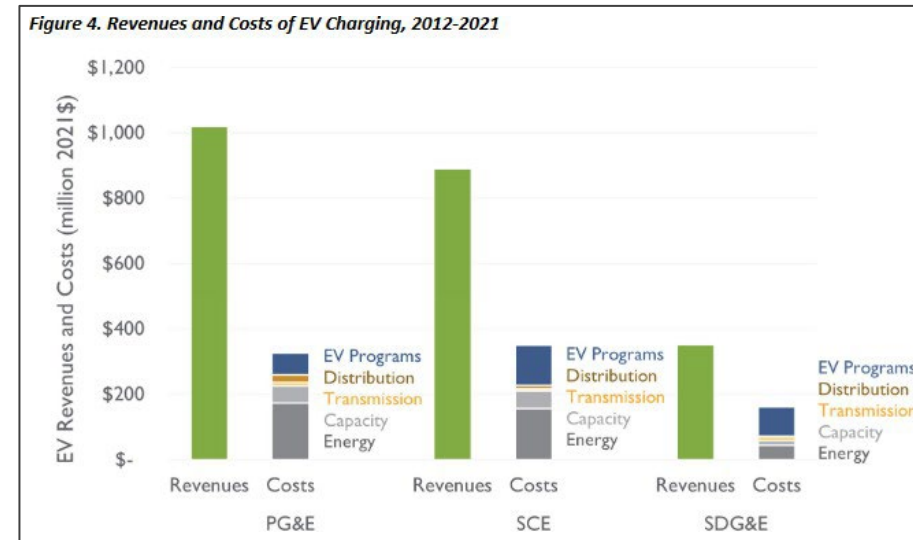
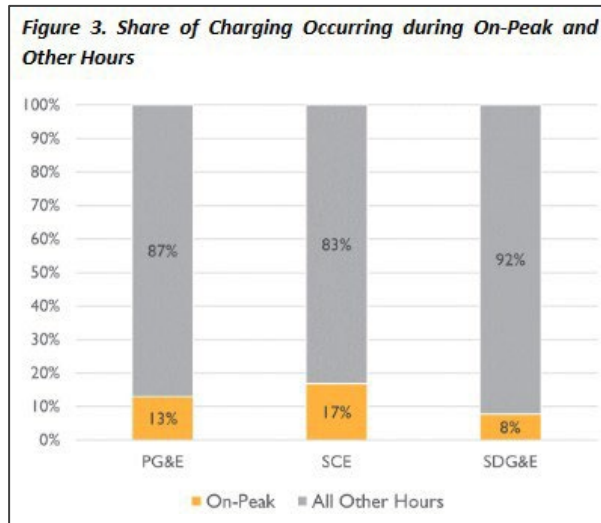
Uncontrolled EV charging can lead to significant infrastructure investments



$$\boxed{\text{Revenue Requirement}} \div \boxed{\begin{array}{c} \text{kWh} \\ \text{(total electric demand)} \end{array}} = \boxed{\text{Rates}}$$

Increase Affordability of Electricity for All (continued)

Smart charging rates/programs can shift charging away from On-Peak hours and accelerate EV adoption, increasing kWh consumption



$$\boxed{\text{Revenue Requirement}} \div \boxed{\text{kWh (total electric demand)}} = \boxed{\text{Rates}}$$

Opportunities to Advance VGI



Charging infrastructure

- Consider and promote VGI alongside charger deployment, not after
- Consider adders and other incremental cost support for necessary equipment



Rates

- Offer dynamic rates and V2G export compensation via utility rate design



VGI forecasting

- Recognize value of VGI in planning efforts, including:
 - Integrated Resource Planning (IRP)
 - Distribution System Planning (DSP)
 - TE infrastructure needs assessments



Grid modernization

- Establish standard flexible service connection offering to customers to defer and avoid distribution system upgrades
- Consider ADMS/DERMS and other utility platforms for integrating and coordinating DERs at scale



Programs

- Modify demand-side management programs and/or establish new demand-side management programs to unlock V1G and V2G participation
- Develop robust customer marketing, education, and outreach practices for VGI



Submetering and Telematics

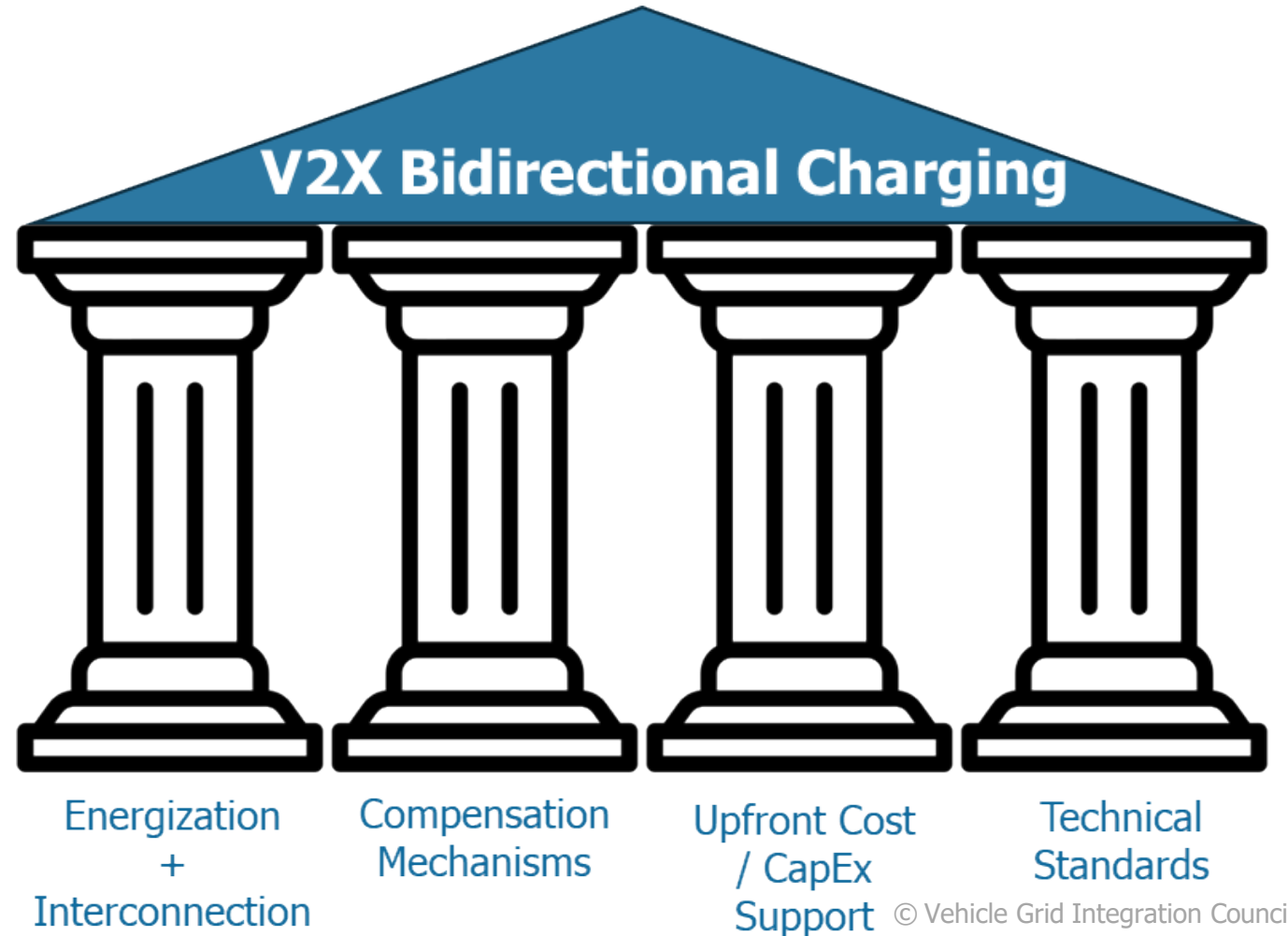
- Develop pathways to submeter using vehicle or charger to increase participation in EV rates and bidirectional charging



Bidirectional charger interconnection

- Streamline interconnection to lower soft costs and accelerate deployment

Four Pillars to V2G Market Development



© Vehicle Grid Integration Council

VGI Compensation Case Studies

New England utilities' Connected
Solution – Daily Dispatch
V2G Commercial Only

CA Demand Side Grid Support
Program
V1G + V2G
Resi + Commercial

CA Emergency Load Reduction
Program – EV/VGI Aggregation Pilot
V1G + V2G
Resi + Commercial

PG&E VGI Dynamic Rate Pilots
V1G + V2G
Resi + Commercial

BGE Smart Charge Management
V1G Resi Only

Customer bill optimization (whole-
premise TOU optimization, solar
self-consumption, demand charge
management)
V1G + V2H/V2B
Resi + Commercial

VGI Upfront Cost Support Case Studies

Section 30C Tax Credit (no incremental incentive for V2G) <i>V2X Resi + Commercial</i>	CA ZESBI V2G Adder <i>V2G Commercial Only</i>	PG&E V2X Pilots – V2X Equipment Rebate <i>V2X Resi + Commercial</i>	CEC REDWDS (funded both uni- and bidi- chargers) <i>V1G + V2G</i> <i>Resi + Commercial</i>
MassCEC V2X Program <i>V2X Resi + Commercial</i>	US DOE GRIP: SVIN <i>V2G Commercial Only</i>	US DOE Conditional Loan: Marigold <i>V2G Commercial Only</i>	Make-Ready Availability (no incremental incentive for V2G) <i>Resi + Commercial</i>

Streamlining V2G Interconnection Case Studies

MD – V2G Regulation <i>V2G DC Pathway</i> <i>V2G AC Pathway</i>	CA Rule 21 – V2G DC <i>UL 1741 SB Exemption</i>	CA – V2G AC Pilot Pathway	NY – V2G DC <i>UL 1741 SB Exemption</i>
MA – V2G DC <i>UL 1741 SB Exemption</i>	CO – V2G DC Pathway	MI – V2G DC Pathway <i>Proposed</i>	Systems in Bidirectional Mode Only When Islanded <i>Utility Notification, Not Interconnection</i>

1/22/25 Bidirectional Charging Product Availability

Product	Amount Deployed in US	Notes
Nissan LEAF	Estimated 156,182 total registered from 2013 through Q3 2024.	- MY 2013 or later are V2G-capable. - Bidirectional charging enabled with Fermata FE-20.
Ford F-150 Lightning Electric	57,674 total delivered through Q4 2024.	- Bidirectional charging enabled with Ford Charge Station Pro.
Chevrolet Silverado EV	7,889 total delivered through Q4 2024.	- Bidirectional charging enabled with GM Energy PowerShift.
Chevrolet Equinox EV	28,873 total delivered through Q4 2024.	- Bidirectional charging enabled with GM Energy PowerShift.
Chevrolet Blazer EV	23,596 total delivered through Q4 2024.	- Bidirectional charging enabled with GM Energy PowerShift.
Cadillac Lyriq	37,556 total delivered through Q4 2024.	- Bidirectional charging enabled with GM Energy PowerShift.
Tesla Cybertruck	Estimated 17,552 total registered through Q3 2024.	- Bidirectional charging enabled with Tesla Universal Wall Connector.
Kia EV9*	23,135 total sold through Q4 2024.	- Bidirectional charging to be enabled soon with Wallbox Quasar 2.
Volvo EX90*	858 total sold through Q4 2024.	- Bidirectional charging to be enabled soon with dcbel Ara.
Lucid Motors Air	16,242 total delivered through Q4 2024.	- Bidirectional charging enabled with RangeXchange charging adapter.
GMC Sierra EV*	1,787 total delivered through Q4 2024.	- Bidirectional charging to be enabled soon with GM Energy PowerShift.
Cadillac Escalade IQ EV*	669 total delivered through Q4 2024.	- Bidirectional charging to be enabled soon with GM Energy PowerShift.
Cadillac Optiq*	Recently launched. Sales data not yet available.	- Bidirectional charging to be enabled soon with GM Energy PowerShift.
-	-	- Emporia V2X bidirectional charger coming soon.

1/22/25 Bidirectional Charging Product Availability

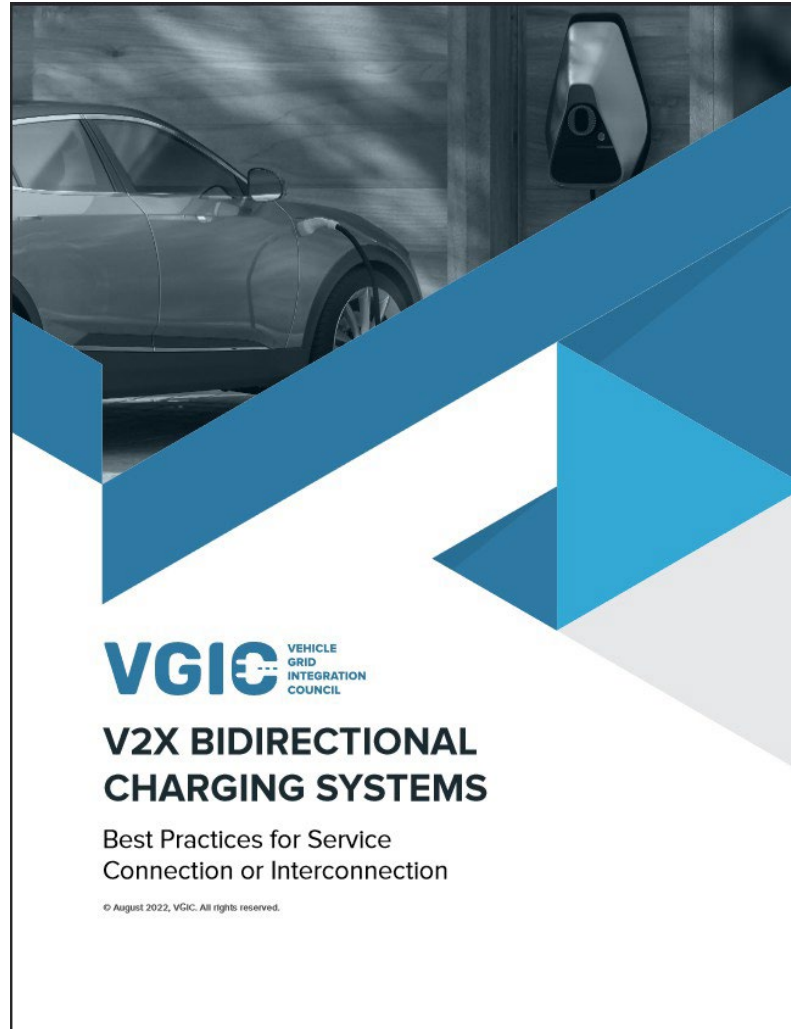
Product	Estimated Amount Deployed in US	Notes
BlueBird	Estimated 1,268 buses through Q4 2023.	- 155 kWh or 196 kWh school buses
Lion Electric	Estimated 394 buses through Q4 2023.	- 126 kWh, 140 kWh, 168 kWh, or 210 kWh school buses
BYD / RIDE	Estimated 268 buses through Q4 2024.	- 156 kWh, 230 kWh, or 288 kWh school buses
Thomas Built	Unknown	- 246 kWh school buses
IC Bus	Estimated 249 buses through Q4 2023.	- 210 kWh or 315 kWh school buses
Green Power Motors	Unknown	- 118 kWh or 193 kWh school buses
Phoenix Motorcars	Unknown	- 100 kWh or 150 kWh school buses
BorgWarner	Unknown	- 60 or 125 kW V2G DC EVSE
Tellus Power Green	Unknown	- 20, 30, 40, or 60 kW V2G DC EVSE
InCharge	Unknown	- 22, 44, or 66 kW V2G DC EVSE
Heliox	Unknown	- 60 kW V2G DC EVSE

Thank you!

Vehicle Grid Integration Council (VGIC) is a national 501(c)(6) membership-based trade association committed to advancing the role of electric vehicles and vehicle-grid integration through policy development, education, outreach, and research.



V2X Bidirectional Charging Systems: Best Practices for Service Connection or Interconnection



<https://www.vgicouncil.org/s/VGIC-Special-Initiative-2022.pdf>

Common V2X bidirectional charging system configurations

ENERGIZATION:

A. LOAD-ONLY MODE



No generator interconnection and little-to-no review required

B. ISLANDED (FOR BACKUP)



No generator interconnection and little-to-no review required (e.g., notification-only, similar to fossil-fuel backup generator)

INTERCONNECTION:

C. PARALLEL, NON-EXPORT (discharge < site load)



Can fit within existing non-exporting small generator interconnection frameworks

D. PARALLEL, EXPORT (discharge > site load)



Can fit within existing exporting small generator interconnection frameworks



PC44 Interconnection Working Group-V2G Regulation Proposal

John Borkoski, Public Service Commission (PSC)

Maryland Public Service Commission

John Borkoski, Senior Commission Advisor

Vehicle-to Grid (V2G) Regulation Status

Presentation to Maryland Zero Emission Electric
Vehicle Infrastructure Council (ZEEVIC)

January 22, 2025

Commissioners



Kumar P. Barve
(Montgomery County)

Vacancy



Chair
Frederick H. Hoover
(Anne Arundel County)



Michael T. Richard
(Baltimore City)

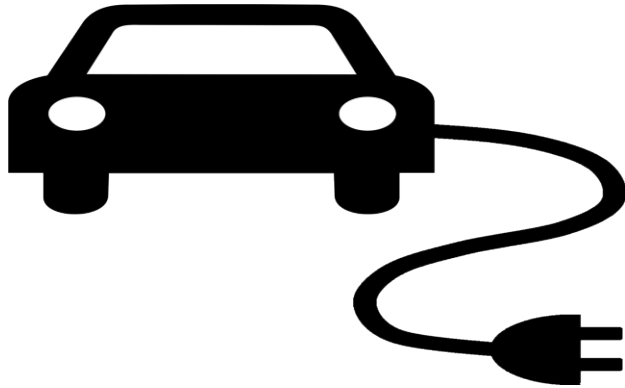


Bonnie A. Suchman
(Montgomery County)

V2G Regulation Background

- The mission of the Public Service Commission (PSC) is to ensure safe, reliable, and economic public utility and transportation service to the citizens of Maryland.
- The Commission follows the requirements directed by the legislature through the Public Utilities Article (PUA), Annotated Code of Maryland.
- In 2024, the Maryland General Assembly enacted Senate Bill 959, the Distributed Renewable Integration and Vehicle Electrification (DRIVE) Act, concerning vehicle-to-grid (V2G) regulations, among other things.
 - The DRIVE Act requires the Commission to adopt regulations by **May 1, 2025**, establishing expedited processes to interconnect bidirectional electric vehicle systems and ensure that electric companies have adequate time to ensure electric system reliability in advance of these interconnections.
- This presentation includes a high-level overview of the PSC PC44 Interconnection Workgroup's V2G regulation proposal that was approved by the Commission on December 11, 2024, in the [RM87](#) rulemaking proceeding.

V2G Definitions



Per PUA § 7-1001(c)
 “Bidirectional electric vehicle”
 means an electric vehicle that is
 capable of both receiving and
 discharging electricity.

“V2G, or vehicle-to-grid” means the ability for an EVSE connected to a bidirectional electric vehicle to operate in parallel to the grid and both receive and feed power to the point of interconnection between the EVSE and the grid.

- “Electric vehicle supply equipment” or “EVSE” means a device or system designed and used specifically to transfer electrical energy between an electric vehicle and the electric grid.
- “AC EVSE” means supply equipment that passes alternating current to the EV, with conversion between AC and DC accomplished onboard the EV.
- “DC EVSE” means supply equipment that passes direct current to or from the EV, with the EVSE accomplishing conversion between AC and DC.

Note: “VIG, or managed charging” means a range of approaches from utility programs and rate design to incentivize ratepayers for varying the time or rate at which an electric vehicle is charged.

Vehicle to Grid Interconnection

- A V2G System shall meet the following interconnection requirements:
 - The interconnection customer for a V2G system shall submit an **interconnection request**
 - A V2G system interconnection shall be valid only at a **single point of interconnection**.
 - An electric company shall consider a V2G system to be an **energy storage device** for the purpose of evaluating the electrical performance requirements applicable to an interconnection request, except for characteristics of energy storage systems that do not and cannot apply to the use of EVs as connected energy storage units.
 - An electric company may delay interconnection of a V2G system to provide **adequate time to ensure electric distribution system safety and reliability** in advance of V2G interconnections.
 - A V2G system shall not be authorized in bidirectional mode while in parallel operation with the local electric power system unless an **interconnection agreement** is in place between the interconnection customer and the relevant electric utility.
 - The interconnection customer has received a **permission to operate** from the electric company.

V2G System Certifications

- **DC EVSE V2G Systems** require:
 - UL 1741 [Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources]
- **AC EVSE V2G Systems** have two acceptable certification pathways
 - **Pathway No. 1**
 - UL 1741 [*See above*]
 - UL 2594 [Electric Vehicle Supply Equipment]
 - SAE J3072 [Interconnection Requirements for Onboard, Grid Support Inverter Systems]
 - **Pathway No. 2**
 - UL9741 [Electric Vehicle Power Export Equipment]
 - UL 1741 SB under the QIKP Grid Interconnection Performance Certification.
Note: The UL 1741 standard is being updated to UL 1741-SC for V2G-AC systems. Allowing for the QIKP pathway (See the ULProduct iQ database @ UL.com/PiQ) creates a hedge against further delays to UL 1741 SC.
- If applicable certifications are not available, the utility may require reasonable alternative methods in an interconnection agreement.
- A V2G System that operates in V1G mode requires a utility notification form and shall not operate in V2G mode without meeting certain requirements.

Questions?



www.psc.state.md.us





BGE-Ford V2H Pilot Program

Kristy Fleischmann Groncki, Baltimore Gas and Electric Company (BGE)



January 2025

BGE's Vehicle-2-Home F150 Lightning Demonstration

Residential F150 Lightning V2H Demonstration

Pilot Goals

- Assess the capabilities of the F-150 Lightning in terms of its vehicle-to-home (V2H) functionality facilitated through the Sunrun Home Integration System
- Gather valuable insights pertaining to customer education, recruitment processes, enrollment procedures, system dispatch management, and performance evaluation
- Pilot will target BGE system peak hours and will discharge F150 EV batteries to reduce peak energy use, reduce air pollution, and lower electricity costs
- EV batteries will be programmed remotely to discharge over summer 2024:
 - June 1, 2024 - September 30, 2024
 - 5:00pm - 9:00pm
 - Monday through Friday excluding federal holidays

SUNRUN



Residential F150 Lightning V2H Demonstration



Participant Eligibility

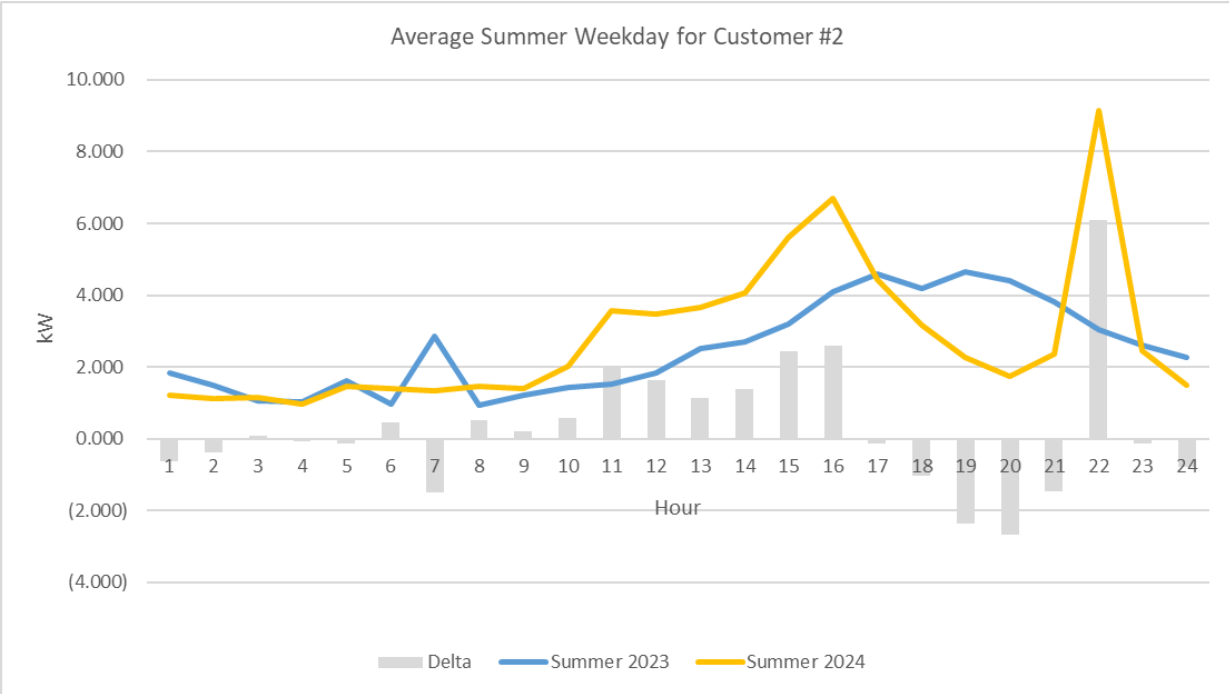
- Prospective participants must meet the following eligibility criteria:
 - Reside within the BGE service territory and be an active BGE residential customer
 - Not be a net metering customer
 - Own a Ford F-150 Lightning vehicle and have the Home Integration System installed with an expected Permission to Operate (PTO) date earlier than the date of dispatching beginning date.
 - Agree to the Sunrun terms and conditions outlined for the pilot program

Payment Structure & Performance Calculation

- Sunrun will average the Daily Aggregate Event Power kW from each event day in the calendar month to determine the Monthly Average Event Power kW Reduction for each month and then multiply that by \$200 per KW per month

Demonstration Results

- BGE enrolled 3 customers with existing F-150 Lightnings and Sunrun's Home Integration system in this demonstration
- BGE evaluated participation during the demonstration
 - Customer participation varied based on customer schedules and the primary use of their F-150 (i.e. main commuter vehicle)
 - Customer #1 – 88%
 - Customer #2 – 46%
 - Customer #3 – 41%
- BGE compared the customers' meter data from the summer 2023 to the summer 2024 to evaluate the change in demand
- BGE and Sunrun were mentioned in over 150 news articles and clips
- BGE will use learnings from this demonstration to inform our DRIVE Act proposal



Sample of News Articles

1. **Our Community Now** - [Maryland Power Company Paying Ford F-150 Lightning Owners To Give Power Back To The Grid](#)
2. **CleanTechnica** - [Ford F-150 Lightning Is A Rolling Energy Storage Beast, & Sunrun Is Here For It](#)
3. **SolarWakeup** - [SolarWakeup: Corporates Anchoring Solar Revenues](#)
4. **Solar Power World** - [Sunrun is testing three F-150 Lightning trucks in bidirectional power plant program in Maryland](#)
5. **The EV Report** - [Sunrun's First Vehicle-to-Home Program Launched](#)
6. **Power Grid International** - [Sunrun debuts the nation's first vehicle-to-home power plant](#)
7. **Utility Dive** - [Sunrun, BGE launch first US electric vehicle-to-home virtual power plant](#)
8. **CNET** - [A New Battery to Power Your Home: Ford's Electric Pickup Truck](#)
9. **CBS**: [Howard County resident is first to test BGE program allowing him to power house with vehicle - CBS Baltimore \(cbsnews.com\)](#)
10. **Renewable Energy World** - [Sunrun debuts the nation's first vehicle-to-home power plant \(renewableenergyworld.com\)](#)
11. **WBAL**: [Howard County couple first in nation to use electric Ford truck to power home](#)
12. **Eco Watch** - [EV-to-Home Power Grid Pilot Program Launches in Maryland](#)
13. **Electrek** - [Sunrun launches the US's first vehicle-to-home power plant using customer-owned Ford F-150 Lightnings](#)
14. **Yahoo Finance**: [Sunrun Launches Nation's First Vehicle-To-Home Grid Support In Maryland Using Ford F-150 Lightning Trucks \(yahoo.com\)](#)
15. **The Driven** - <https://thedriven.io/2024/07/30/sunrun-launches-first-us-vehicle-to-home-power-plant-using-ford-f-150-lightning-trucks/>
16. **Smart-Energy**: <https://www.smart-energy.com/industry-sectors/electric-vehicles/sunrun-debuts-the-nations-first-vehicle-to-home-power-plant/amp/>
17. **Environment Energy Leader**: <https://www.environmentenergyleader.com/2024/07/sunrun-and-bge-partner-on-first-u-s-vehicle-to-home-power-plant/>
18. **Transportation Today News**: <https://transportationtodaynews.com/featured/33486-ford-sunrun-and-marylands-bge-launch-vehicle-to-home-charging-program/>
19. **Autoweek**: <https://www.autoweek.com/news/a61727959/bidirectional-charging-ford-f-150-lightning/>
20. **MSN**: <https://www.msn.com/en-us/autos/news/a-new-battery-to-power-your-home-ford-s-electric-pickup-truck/ar-BB1qzoFA?ocid=sampleapp>
21. **Canary Media**: <https://www.canarymedia.com/articles/ev-charging/in-a-first-electric-ford-f-150-trucks-are-powering-homes-in-baltimore>
22. **Solar Power World**: <https://www.solarpowerworldonline.com/2024/07/sunrun-is-testing-three-f-150-lightning-trucks-in-bidirectional-power-plant-program-in-maryland/>
23. **Daily Energy Insider**: <https://dailyenergyinsider.com/news/44649-bge-sunrun-launch-bidirectional-charging-program/>
24. **Charged EVs**: [Charged EVs | Sunrun launches V2H pilot in Maryland using Ford F-150 Lightning electric trucks - Charged EVs](#)
25. **Automotive News Podcast**: <https://www.autonews.com/shift-podcast-about-mobility/heres-how-leading-utility-company-has-prepared-ev-transition-episode>



Legislative Working Group Update

Josh Cohen, ZEEVIC Legislative WG – Chair

ZEEVIC Legislative Working Group Update

- **HB 0216** Electric Vehicles - Repeal of Excise Tax Credit and Establishment of Rebate Program
- **Lead Sponsor:** Delegate David Fraser-Hidalgo
- **Hearing Date:** Thursday 2/6
- **Synopsis:** Repealing the electric vehicle excise tax credit; establishing the Electric Vehicle Rebate Program; requiring the Motor Vehicle Administration to establish a website to administer the program; requiring a participating dealer to provide a rebate in the form of a reduction of the vehicle's purchase price equal to the full amount of the rebate for which the vehicle purchased is eligible at the time the eligible vehicle is purchased; requiring the Administration to reimburse a dealer for rebates provided by the dealer; etc.

ZEEVIC Legislative Working Group Update

- **HB 0128 / SB 0149** Responding to Emergency Needs From Extreme Weather (RENEW) Act of 2025
- **Lead Sponsors:** Delegate David Fraser-Hidalgo / Senator Katie Fry Hester
- **Hearing Dates:** Thursday 1/23 (SB0149 not yet scheduled)
- **Synopsis:** Establishing the Climate Change Adaptation and Mitigation Payment Program in the Department of the Environment to secure payments from certain businesses that extract fossil fuels or refine petroleum products in order to provide a source of revenue for State efforts to adapt to and mitigate the effects of climate change and to address the health impacts of climate change on vulnerable populations; establishing the Climate Change Adaptation and Mitigation Fund to support efforts to mitigate the effects of climate change; etc.

ZEEVIC Legislative Working Group Update

- Tentative date for additional ZEEVIC meeting:
 - Wednesday, **February 12**
 - For the purpose of reviewing and approving draft legislative positions letter for submission to legislature



Updates and Announcements

Announcement – Prince George’s County

- Legislation Requiring EV Chargers in New Construction
- CB-105-2024 and CB-67-2024 enacted 11/19/2024

2022 – New construction of:

- townhouses
- single-family detached
- duplexes

with driveways are to have at least one Level 2 EV-Ready, or one EVSE-Installed.

2024 – New construction of:

- multi-family residential
- mixed-use residential
- certain commercial

will be required by January 1, 2027, to have at least:

- 10% of parking spaces EV-Ready
- 5% of parking spaces EVSE-Installed

MDOT - Announcement

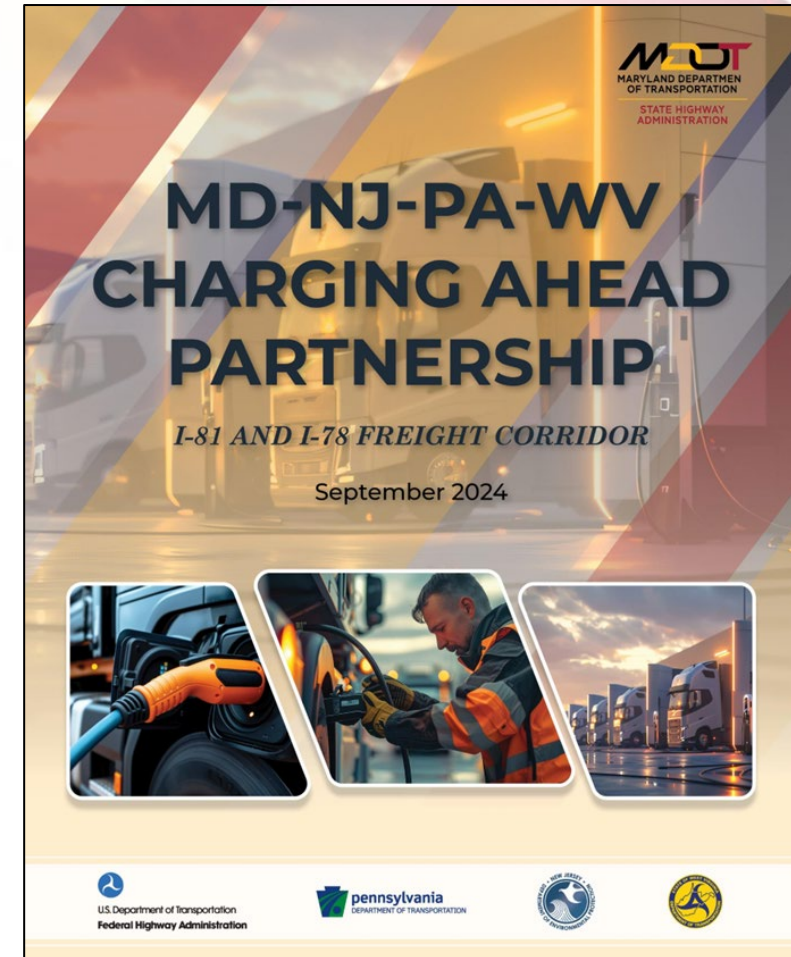
Charging and Fueling Infrastructure (CFI) Program Round 2 Grant Award

MD-NJ-PA-WV Charging Ahead Partnership

- MDOT (lead), NJDEP, PennDOT, and WVDOT
- Support freight ZEVs traveling along I-81 and I-78
- First Phase: Visioning Plan for near-term charging and long-term hydrogen infrastructure opportunities
- Second Phase: Deploy charging infrastructure
- **Awarded \$18.6M** (requested \$19.5M) total
- \$4.3M for Maryland deployment
- 20% non-federal match
- Confirming project details with FHWA and partners

Impact

- 1 MHDV charging depot on I-81 in Maryland
- Min. 547 short tons of GHG reductions annually project-wide



MDOT - Update

NEVI Program Update

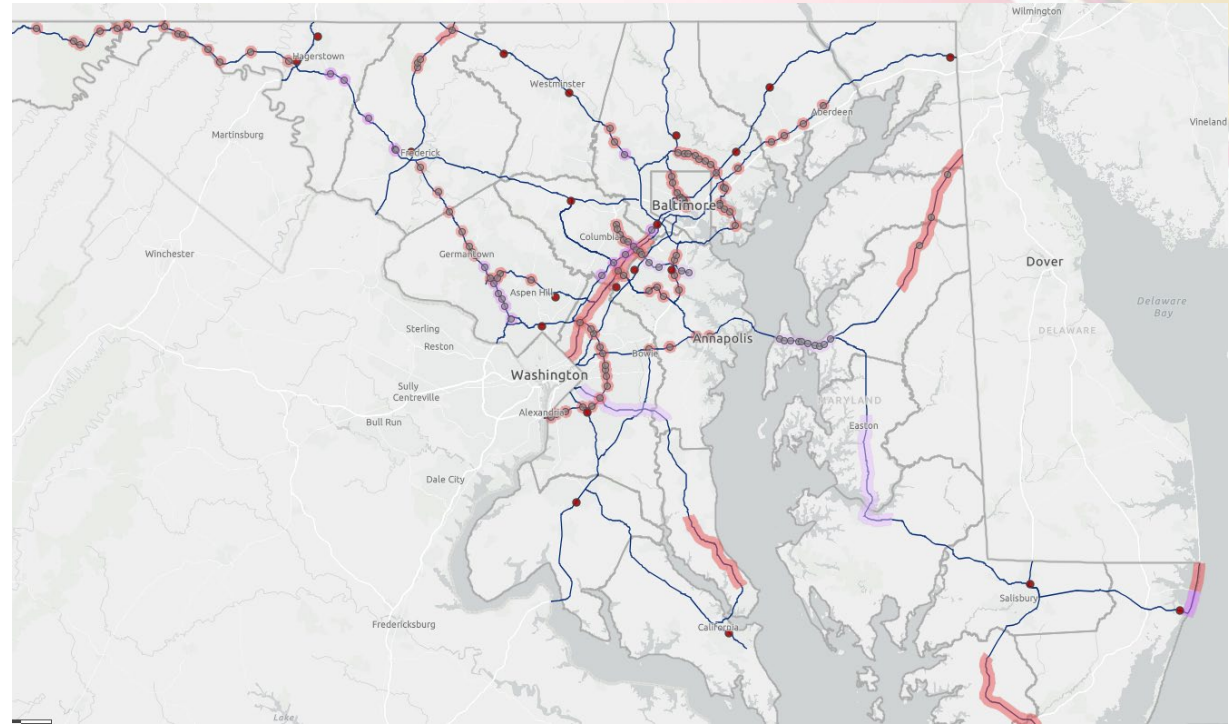
Round 2 Request for Proposals Issued on Dec. 17th

- Closes March 26th
- Pre-Proposal Conference hosted on Jan. 14th
- 29 Target Areas to finish corridor buildout
- Up to \$30M in awards
- Minimum 20% non-federal cost share

Read MDOT's press release about NEVI Round 2 [here](#).

New Resource

- Partnering Form now available [here](#)
- Opportunity to seek partnerships with other organizations interested in installing publicly available EV charging



MEA - Announcements

- Medium and Heavy Duty Grant Program - **Closes 1/31/2025!**
- Community EVSE Grant Program - supports Multifamily Unit and Underserved Community EVSE planning, make ready and chargers - **Open Closes 3/28/2025!**
- School Bus EV Program - **Planning, Chargers, Vehicles and more included! Closes 2/24/2025!**
- Open Innovation Grant - **Supports capital projects that lower emissions. Closes 1/24/2025!**

*All programs need promotion.
Send us any potential project ideas!*

MDE - Announcements

- Maryland VW EVSE Infrastructure – Round 3
 - MDE met with EVSE providers in 2024 to get feedback for Third Round
 - Programs will focus on Workplace Charging (Level 2) and Corridor/Hub charging (Level 3).
 - Approx. \$4.5 million in funding
 - Workplace: 60% up to \$4,500 for network and \$2,500 for non-network
 - Corridor/Hub: 80% up to \$150,000 per 175kW charger and \$900,000 per site
 - Proposals due April 18, 2025
- Maryland Electric School Bus Program
 - Approx. \$3 million in funding
 - Provides \$300,000 per bus
 - Proposals are due February 7, 2025.

PSC Updates

ZEEVIC Meeting

Jan 22, 2025

- Utilities have filed phase 2 proposals, awaiting Commission Order for next steps (Case No. 9478)

- PSC EV Work Group shall address the following in 2025 (more may come)
 - Finalize utility reliability data templates (early 2025)
 - Managed Charging (By May 1, 2025)
 - Efficacy and appropriateness of different load management options and incentives
 - Barriers to expanding managed charging to MUD EV customers
 - Work with MDOT and ZEEVIC to: (By May 1, 2025)
 - determine if the State has a process for determining ideal locations for public charging stations and
 - to develop a process for determining when it is appropriate to permit utility incentives for or ownership of public charging stations.

DGS - Update

- Fleet charging infrastructure update:
 - 281 total ports completed
 - 194 state owned
 - 87 utility ports - working through transition from Shell Recharge to SWTCH network.
 - 77 ports in construction

Announcement – see you there?

MWCOG, in collaboration with the Greater Washington Region Clean Cities Coalition, is hosting ***Electrifying the Future: Strategies for Climate Pollution Reduction*** in conjunction with the Washington Auto Show. This forum will address the role electric vehicles play in achieving the region's climate goals.

January 30, 2025

1:30 PM - 5:00 PM

Walter E. Washington Convention Center, Washington, DC

Agenda

Networking - 1:30 to 2:00 pm

Panels - 2:00 pm

1. State of Charge - 2:10 to 2:45 pm
2. Challenges of EV Charging at Multi-Family Housing - 2:45 to 3:30 pm
3. Making EV Charging More Accessible, Reliable, and User-Friendly - 3:45 to 4:15 pm
4. Developing a Successful Fleet Electrification Strategy - 4:15 to 5:00 pm

Auto Show Sneak Peak - 5:00 pm

(Registration has reached capacity)



Closing Remarks

Next ZEEVIC Meeting Dates

- February 12 (tentative)
- April 23

Next Communications WG Meeting: Date TBD

To receive ZEEVIC Meeting Notices, email: ZEEVIC@mdot.maryland.gov