

Meeting Notes:

ACC2 and ACT Work Group - September 9, 2025

Attendees:

Seat	Name	Organization
Rep of OEMs	Cynthia Williams	Ford Motor Company
Maryland Automobile Dealers Assn.	J. Peter Kitzmiller	Maryland Automobile Dealers Assn.
Maryland Motor Truck Assn.	Louis Campion	Maryland Motor Truck Assn.
Environmental Org	Joshua Stebbins	Sierra Club
Environmental Org	Dr. David William Cooke	Union of Concerned Scientists
Environmental Org	Ramon Palencia-Cavlo	Maryland League of Conservation Voters
Environmental Org	Neda Deylami	Environmental Defense Fund
Rep of OEMs	Beau Whiteman	Rivian
Public Service Commission	Benjamin Baker	Public Service Commission
Environmental Org	Susan Stevens Miller	Earthjustice
Senate Appointee	Senator Dalya Attar	Maryland State Senate
House Appointee	Delegate Dana Stein	Maryland House of Delegates
Secretary of the Environment	Serena McIlwain	Maryland Department of the Environment
Rep for Secretary of Transportation	Joe McAndrew	Maryland Department of Transportation
Chief Sustainability Officer	Meghan Conklin	Office of the Governor
Deputy Chief of Staff	Shaina Hernandez	Office of the Governor
Staff	Zachary Schafer	Maryland Department of the Environment

Presentation 1: Assistant Secretary Joe McAndrew, MDOT

- **EV Registration Snapshot (August 2025):** Maryland has 144,669 registered EVs, with 2,885 added in August. There are 5,336 charging stations and 1,712 charging ports.
- **EV Growth:** The monthly percentage change in EV growth between January 2024 and August 2025 ranged from 1.3% to 4.5%.
- **Maryland EV Charging Network (Data as of August 2025):** The state has 1,717 public charging sites with 4,062 public charging ports, including 1,235 public Direct Current Fast Ports and 4,094 public Level 2 Ports.
- **National Electric Vehicle Infrastructure (NEVI) Program:** Maryland was apportioned approximately \$63 million over five years. The 2025 NEVI Plan Update was to be submitted to FHWA by September 10, 2025.
 - **NEVI Round 1 Construction:** Three sites have broken ground: Pilot Travel Center in Grantsville (4 ports), Royal Farms (Tesla) in Jessup (12 ports), and Pilot Travel Center in Elkton (8 ports). Most Round 1 stations are expected to open in Spring 2026.
- **Charging Port Projections by 2031:**
 - **DCFC Ports:** A target of 5,495 ports, with a projection of 5,242 based on past growth, leaving a delta of 253 ports.
 - **Level 2 Ports:** A target of 43,368 ports, with a projection of 13,094 based on past growth, leaving a delta of 20,275 ports.
- **Zero Emission Vehicle Infrastructure Plan (ZEVIP):** This statewide plan, anticipated for release in Winter 2026, will identify suitability for public infrastructure deployment, a multi-agency strategy, and potential resources to accelerate infrastructure buildout through 2045.
- **Areas of Opportunity** include EV performance standards, expanded utility engagement, fleet transition support, public and consumer education, EV workforce readiness, car-sharing and charging hubs, strategic DCFC, EV-ready multi-unit dwellings, and expanded low-income access.
- **Charger Access and Siting:** Maryland is mapped in 1-mile areas to solve for publicly available charging adjacent to multi-unit dwellings, equitable access, commuter-based EV adoption, and rural and urban differences.
- MDOT is inviting feedback on the ZEVIP and offers opportunities for workgroup members to meet with their ZEVIP team.

Presentation 2: Ben Sharpe, Atlas Public Policy (MDE)

- **Topic:** "Commercial Vehicle Charging Needs and Electrical Grid Impacts Resulting from the Advanced Clean Trucks Regulation in Maryland"
- **Methodology:** This work involved building a baseline vehicle fleet from MD Motor Vehicle Administration data, estimating the fleet's evolution with ACT implementation, calculating energy demands and required charging/hydrogen stations, and assessing the impact on the state's electrical grid (additional demand, generation, and peak loads). Stakeholder interviews were also conducted, but were not discussed during the presentation.

- **Vehicle Fleet Evolution:** Zero-emission vehicles are projected to overtake conventional vehicles around 2040, particularly for Class 7-8 tractor trucks and Class 4-8 vehicles.
- **Charging Infrastructure:** Approximately 90% of chargers can be low-power (L2 chargers <19 kW).
- **Cost:** The charging infrastructure is estimated to cost around \$4 billion by 2050, with costs distributed across depot, enroute, and private residence charging. (Page 8)
- **Electrical Grid Impacts:**
 - ACT implementation could require about 5% more electricity generation by 2050. (Page 9)
 - It could also add up to approximately 6% to peak loads by 2050. (Page 10)

Discussion:

- Challenges faced by MDOT include the relative newness of their programs and the need to catch up after previous administrations
- MDOT is open to information/advice from other states in determining how to use funds, and they are looking for opportunities to speed up progress
- Emphasis was placed on pursuing local, medium-duty transportation in EV infrastructure projects to focus resources on MD-based vehicles. This would increase state funding focus on overnight charging stations rather than en-route charging, which could be supported with federal funding
- Other benefits of medium-duty charging stations:
 - Overnight charging has lower electricity burden, avoiding peak hours
 - Medium-duty vehicles are less polluting, and supporting them in-state could have positive impacts on air quality

Presentation 3: Louis Campion, President and CEO of Maryland Motor Truck Association

- Charging Location Types:
 - On-site: Private chargers at a fleet's depot, suitable for large national fleets.
 - On-route local: Shared charging hubs or public-access chargers for various fleet types.
 - On-route highway: Public-access chargers along highways for long-haul vehicles.
- Charger Configurations: Level 2 (AC < 20 kW), Level 3 (DC 50-150 kW), and DCFC (DC fast chargers ≥ 350 kW).
- Use Case Segments:
 - Medium Duty (Class 3-6):
 - Local (low mileage): On-site charging at depots.
 - Local (high mileage): On-site and on-route public charging.
 - Heavy Duty (Class 7-8):
 - Local: On-site and on-route public charging.
 - Long-haul: Top-up and overnight charging at highway truck stops.
- Challenges and Key Findings:
 - Smaller, low-mileage fleets face the fewest challenges but still need significant upfront investment.

- High-mileage medium-duty vehicles require a substantial on-route charging network.
- Heavy-duty local fleets face high upfront costs for chargers and utility upgrades.
- Long-haul vehicles need increased range and very high-capacity chargers to reduce charging times.
- Site-specific upgrade costs can be substantial, and utility service upgrades can be expensive with long lead times.
- Parking and space constraints are issues at on-highway charging locations.
- discussion points included:
 - the focus on local on-site terminals
 - the prioritization of public or private charging
 - the impact of public charging investment and subsidies on adoption
 - the role of OEMs
 - the effect of truck parking shortages on site selection

Presentation 4: Ben Baker, Senior Commission Advisor for Maryland Public Service Commission

- **Electric Grid Basics:** utility systems consist of supply, transmission, and distribution. The Maryland PSC has regulatory jurisdiction primarily over the utility distribution system, including rate setting, with limited authority over supply and transmission, which fall under FERC and PJM. Supply and transmission make up the wholesale market, from which Maryland utilities procure energy services.
- **Grid Planning for Electrification:** issues with electric vehicles (EVs) are similar to those expected from broader electrification and large load development. Key considerations include peak management, load shape shifting, and the increased need for generation capacity and energy movement. The presentation emphasized the importance of timing and certainty of need in distribution planning.
- **The Grid and Electric Vehicles:** A December 2023 electrification study found that load growth in Maryland's distribution system, even with high electrification scenarios and meeting clean car targets, was manageable through 2031. Recent concerns have shifted to incorporating large load growth (e.g., data centers) and changes in generation, impacting future grid needs. The challenge lies in balancing grid preparation, load certainty, and guiding developers on interconnection.
- **General Rate Design:** The goal of rate design is to ensure revenue recovery and potentially reduce the need for greater investment, with prices ideally reflecting the economic costs of providing energy services. The presentation discussed upfront charges (interconnection/facilities) and ongoing charges (fixed, demand, volumetric). The presenter notes a tension between cost causation and rate simplicity, especially with EV rates, driven by the passing of costs from utilities to EV drivers by charging station operators.
- **Various EV Rate Designs in MD:** Existing rate designs include standard rates, Time-of-Use (TOU) rates (whole home and EV specific), and Smart Charge Management. Historically, demand charge credits were used, and demand charge relief

riders (C&I) were previously considered, with possible future discussions on new approaches.

Presentation 5: Joshua Stebbins, Managing Attorney for Sierra Club

- **Load Size and Upgrades:** Increasing load sizes from EV charging stations (e.g., 0.6 MW for a NEVI minimum highway plaza to 19 MW for 100 school buses depot charging) significantly increase the likelihood of requiring major grid upgrades, such as new feeders or substations.
- **Interconnection Timeframes:** The time needed for interconnection also increases with the complexity of upgrades. Simple upgrades can take 6-12 months, while building a new substation for large loads can take 3-5+ years.
- **Grid Limitations:** Both EPRI and BGE acknowledge that the existing distribution grid is not designed for the high energy density loads of EVs, and upgrades are often costly and time-consuming, hindering fleet EV adoption.
- **Proposed Solutions for Maryland:** The presentation suggests that the Maryland Public Service Commission (PSC) could direct utilities to proactively:
 - Conduct customer outreach.
 - Plan and upgrade the distribution grid for EV loads.
 - Stockpile equipment.
 - Employ flexible interconnection strategies, like Customer Management Systems (CMS), fleet advisory services, and hosting transparency.
 - Set timetables for charger interconnection and energization.
 - Rate base grid upgrades and revise rate structures.
- **Economic Benefits:** Investments in EV infrastructure are projected to reduce everyone's utility bills, a "Walmart Effect," leading to a positive cumulative EV net rate impact for Maryland.

Conclusion:

- The next meeting of the ACCII/ACT Workgroup will be in person on October 21st, 2025 at the Maryland State House
- This meeting was recorded, and it can be accessed at this link:
<https://vimeo.com/event/4067005>