



## REGIONAL ELECTRIC VEHICLE DEPLOYMENT WORKING GROUP (REVD)

Meeting Summary: May 15, 2024, 1:00 PM – 3:00 PM

### REVD Local and State Government Members in Attendance:

- Alleyn Harned, VCC
- Amanda Campbell, City of Rockville
- Brian Booher, Montgomery County
- Caitlin McKinley, WMATA
- Chris Berg, VDOT
- Dan O'Brien, Supervisor Rodney Lusk's Office
- Emma West, WMATA
- Erica Shingara, City of Rockville
- Griffin Frank, NVTa
- Julie Gurnee, Fairfax County
- Lindsey Shaw, Montgomery County
- Luisa Robles, City of Greenbelt
- Mel Hogg, DOEE
- Michelle Smyk, Prince William County

- Steve Skolnik, City of Greenbelt

### Additional Attendees:

- Alicia Birky, NREL
- Brennan Borlaug, NREL
- Andrew Kotz, NREL
- Sarah McKearnan, NESCAUM

### COG Staff:

- Leah Boggs, COG DEP
- Robert Christopher, COG DEP
- Maia Davis, COG DEP
- Erin Morrow, COG DTP



## 1. INTRODUCTION AND WELCOME

*Robert Christopher, COG Staff*

Robert Christopher welcomed attendees and introduced the presenters for meeting.

## 2. NESCAUM MEDIUM AND HEAVY-DUTY ZERO EMISSIONS VEHICLE PLAN

*Sarah McKearnan, NESCAUM*

Sarah McKearnan from NESCAUM presented an in-depth overview of NESCAUM's Medium- and Heavy-Duty Zero Emissions Vehicle (ZE-MHDV) Action Plan. She described NESCAUM's multi-state collaboration model, grounded in governors' MOUs, which has led to coordinated regional efforts to accelerate the adoption of electric trucks and buses. Highlights from the presentation include:

- **Historical context:** The effort builds on a 2013 light-duty EV MOU and was expanded in 2020 with a new MOU for medium- and heavy-duty vehicles involving 17 states, DC, and Quebec. The MOU set targets of 30% ZE-MHDV sales by 2030 and 100% by 2050.
- **Equity and air quality:** The plan emphasizes equity, focusing on pollution burdens in overburdened communities and highlighting that communities of color in the Northeast and Mid-Atlantic face up to 75% more vehicle pollution exposure. Extensive stakeholder engagement—including environmental justice organizations, helped shape the plan's recommendations.
- **Policy and implementation tools:** The plan includes 65+ recommendations covering vehicle incentives, utility partnerships, infrastructure planning, and financing mechanisms (e.g., green banks, fleet electrification-as-a-service). NESCAUM emphasized the importance of states and municipalities returning to core policy tools as federal funding becomes more limited.
- **Local government role:** Recommendations for local governments include supporting zoning and permitting reform, identifying sites for truck charging (especially for small fleets and independent operators), offering local incentives, and leading coordination efforts with utilities and fleets.
- **Regional projects:** McKearnan highlighted the Clean Corridor Coalition project along I-95 (including Maryland and Delaware), which will invest \$250 million in truck charging infrastructure using EPA CPRG funding, as well as upcoming DOE-funded studies to help determine high-priority charging locations.
- **Discussion:** REVD members raised concerns about infrastructure strain, loss of momentum in smaller jurisdictions due to funding cuts, and the need for coordination with utilities. NESCAUM offered to share additional resources, and recommended convening fleet partners and initiating site planning work even in the absence of major grants.

## 3. NREL PRESENTATION: PERSPECTIVES ON CHARGING MEDIUM AND HEAVY-DUTY ELECTRIC VEHICLES

*Brennan Borlaug, NREL, Alicia Birky, NREL, Andrew Kotz, NREL*

Brennan Borlaug and colleagues from the National Renewable Energy Laboratory (NREL) presented on technical and planning considerations for charging medium- and heavy-duty electric vehicles (MHD EVs). Key points from the presentation included:

- **Vehicle Segmentation and Energy Demand:** Commercial vehicles vary significantly in use, size, and energy demand. While smaller trucks are more numerous, Class 7–8 trucks consume the majority of energy due to longer trips and heavier loads.
- **Total Cost of Ownership (TCO):** Despite higher upfront costs, electric MHD vehicles can reach TCO parity within 5–10 years, especially with declining battery costs and fuel savings. However, high variability in duty cycles complicates cost forecasting and infrastructure needs.
- **Charging Infrastructure Design:**
  - Depot charging is expected to be the primary strategy for fleet vehicles with predictable routes.
  - Larger, long-haul trucks will require megawatt-level public charging, which is still emerging.
  - Site design, charger placement, and grid capacity constraints (especially in urban areas) are critical challenges.
- **Modeling Tools and Resources:** NREL uses tools like FleetDNA, T3CO, and the EVI-X modeling suite to assess:
  - Fleet behavior and duty cycles
  - Charging needs and infrastructure planning
  - Cost comparisons across scenarios
- **Differences from Light-Duty EV Charging:**
  - MHD EVs have higher energy requirements, more limited downtime, and fewer opportunities to charge.
  - Charger location planning is less flexible due to fleet operational constraints and limited access to depots for many independent operators.
- **Current Trends and Recommendations:**
  - E-commerce growth has increased the number of regional and local trucks operating within 50 miles of home base—ideal for early electrification.
  - Strategic infrastructure rollout should begin in urban freight hubs, then expand to key corridors.
  - Local governments can help by streamlining permitting, identifying sites for shared-use hubs, and engaging utilities early.

The presentation reinforced the importance of early planning, data-driven site selection, and interagency coordination to prepare for the large-scale deployment of electric commercial vehicles.

#### 4. ADJOURNMENT

*Robert Christopher, COG Staff*

Robert Christopher adjourned the meeting after a reminder that the next meeting would be held in July.

*All meeting materials including speaker presentations can be found on the MWCOG website by clicking the link below –*

<https://www.mwcog.org/events/2025/5/15/regional-electric-vehicle-deployment-working-group/>

Reasonable accommodations are provided upon request, including alternative formats of meeting materials. For more information, visit: [www.mwcog.org/accommodations](https://www.mwcog.org/accommodations) or call (202) 962-3300 or (202) 962-3213 (TDD)