District of Columbia
Transportation Electrification Roadmap

EV/EV Service Equipment Strategy

Webinar will begin shortly…
District of Columbia
Transportation Electrification Roadmap

EV/EV Service Equipment Strategy

Thursday, 24 June 2021
Welcome – Opening Remarks – Agenda

**Agenda Outline**

- Stakeholder session schedule
- The District’s Clean Energy Plan
  - Transportation Electrification Roadmap
- EV/EV Service Equipment Strategy
  - Current Initiatives
  - Workplace and MUD Charging
  - EVSE Siting
- Breakout Discussion
- Report-out/Questions/Feedback/General Discussion
Transportation Electrification Roadmap Final Report due **October 31, 2021**

• *Receive Stakeholder comments and redraft accordingly*

**Past stakeholder session topics**

• January 27  Introduction and Orientation
• March 17   Introduction to Mobility Equity
• April 29   Equitable EV Charging Placement
• May 13   Transportation Needs Assessment/Incentives Framework
• May 27   Potential Incentives

Recordings of past sessions can be provided.
Schedule of Stakeholder Sessions

Upcoming stakeholder session topics

- Thurs, June 24, 7pm  EV/ EV Service Equipment Strategy
- Thurs, July 29, 7pm  School Bus Electrification
- Thurs, August 26, 7pm  Concluding Roadmap Feedback Group

Register at bit.ly/electrification-roadmap
CLEAN ENERGY DC
THE DISTRICT OF COLUMBIA CLIMATE AND ENERGY PLAN

Transportation Electrification
Clean Energy DC is the District’s first quantified roadmap to meet the Sustainable DC climate and energy goals.

The plan will **reduce emissions by 50%** by 2032 compared to 2006 levels, and will help the city achieve **carbon neutrality by 2050**.
Overview of CEDC Act

The Act, effective as of March 2019, will realize CEDC goals by targeting three areas:

• **Transportation Emissions Reduction and Electrification** - mandates and incentivizes a path for zero-emissions fleets, buses and private vehicles

• **Renewable Energy** - mandates 100% renewable energy by 2032

• **Energy Efficiency** - Establishes a first-of-its kind Building Energy Performance Standard for buildings
**Transportation Electrification Roadmap Goals**

1. **Buses and private fleets** 50% Low or Zero Emissions Vehicle (ZEV) by 2030 → 100% ZEV by 2045

2. 100% EV replacement of public buses and school buses at End-Of-Life by 2021

3. At least 25% ZEV registrations by 2030 (estimate ~75,000 EVs)

Provide policies, cost estimates, and timelines
Transportation Electrification Roadmap

Transportation Vision:

- **Mode Shift** to active transport and public transit
- **Fuel switch** to Electricity

move dc

ROADMAP
QUESTIONS?

CONTACT INFORMATION

Eric Campbell
Eric.Campbell@dc.gov
202-450-0190
EV/EV Service Equipment Strategy
EV Service Equipment
(Charging Equipment/Charging Stations)

**Level 1**
120V
- Standard 120V outlet
- Adds 5 miles per hour of charge*
- Residential use

**Level 2**
240V
- 240V outlet, can also be hardwired
- Adds 20-60 miles per hour of charge*
- Residential & commercial use

**Level 3**
480V
- DC Fast Charger
- Adds 60-100 miles per 20 minutes of charge*
- Commercial use

17-25 hours to fully recharge a 100-mile battery
4-5 hours to fully recharge a 100-mile battery
Current Initiatives

- Current vehicle and infrastructure policies
- EV Readiness Amendment Act of 2020
- Curbside charging program
- Pepco’s Transportation Electrification Program
# Current EV Policies

<table>
<thead>
<tr>
<th>Monetary Incentives</th>
<th>Current Policies</th>
<th>Policy Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFV Conversion Tax Credit</td>
<td>50%/$19k per vehicle</td>
</tr>
<tr>
<td></td>
<td>AFV Infrastructure Tax Credit</td>
<td>50%/$1k Res/$10k Public EVSE</td>
</tr>
<tr>
<td></td>
<td>Reduced Registration fee for AFVs</td>
<td>$36 Total-First 2 yrs</td>
</tr>
<tr>
<td></td>
<td>Plug-In PEV Title Excise Tax Exemption</td>
<td>6% of MSRP/Median:$680</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational Incentives/Requirements</th>
<th>Current Policies</th>
<th>Policy Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFV Exemption from Driving Restrictions</td>
<td>Fleets (10+) Time-of-day/day-of-week restrictions/commercial bans</td>
</tr>
<tr>
<td></td>
<td>AFV Acquisition Requirements</td>
<td>Fleets (10+) - 70%(8.5k lbs)/50%(25k lbs)</td>
</tr>
<tr>
<td></td>
<td>Passenger Gov Fleet Procurement</td>
<td>Avg MPG 22+ &amp; no SUVs (W/exemptions)</td>
</tr>
<tr>
<td></td>
<td>Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emission Reduction Plan for TNCs</td>
<td>Every 2 yrs TNCs - update GHG reduction plan (Increasing ZEV use &amp; VMT)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>City Goals/Supportive Programs</th>
<th>Current Policies</th>
<th>Policy Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ZEV Deployment Support</td>
<td>Ex order - Public &amp; commercial fleets (2030: 25% ZEVs/ 2045: 100% ZEVs)</td>
</tr>
<tr>
<td></td>
<td>MHDV ZEV MOU Signatory</td>
<td>2030: 30% ZEV /2050: 100% ZEV (Sales)</td>
</tr>
<tr>
<td></td>
<td>Regional Transporation and Climate Initiative</td>
<td>Develop policies and programs energy efficiency of regional transportation systems and reduce emissions. (EVSE)</td>
</tr>
<tr>
<td></td>
<td>AFV and Infrastructure Support</td>
<td>Green Finance Authority - Increase private investment in clean transportation projects (Bonds &amp; funding allocations)</td>
</tr>
<tr>
<td></td>
<td>Low Emission Vehicle Standards</td>
<td>Title 13 of CA code of Regulations</td>
</tr>
</tbody>
</table>
EV Readiness Amendment Act of 2020

• After January 1, 2022
  – all new construction or substantial improvement of commercial buildings and multi-unit buildings that have
  – at least 20% of the parking spaces must include make-ready infrastructure for future installation of an electric vehicle charging site
  – 3 or more automobile off-road parking spaces

• Incentives will be established for exceeding the 20% minimum requirement
Curbside Charging

**DDOT:**
- Final rulemaking underway -- EVSE vendors will be able to apply for permits to install, own, and operate EV charging stations in public space and along the curb.

**Exclusions:**
- Rush hour restrictions
- Snow emergency routes
- Locations with reserved accessible parking
- Streets designated as part of moveDC’s transit or bicycle priority network
- Places where bus and bicycle lanes are adjacent to the curb.
Pepco’s Proposed Transportation Electrification Program

- The PSC did approve Pepco to provide “make ready” infrastructure to support EV charging stations, which includes improvements to utility-side infrastructure up to the conduit and meter.

Up to 35 Smart Level 2 charging stations; Up to 5 depot and 1 on-route chargers; 20 Fast-Charging stations
Excerpts from Pepco’s Transportation Electrification Program (April 2021 Update):

**Offering 7: Make-ready infrastructure for 35 Public Smart Level II EVCS**
- Through March 31, 2021, construction completed for four (4) Level II EVCS.
  - Another six (6) stations under construction
- Applications for thirteen (13) stations under review at commercial locations.

**Offering 8: Make-ready infrastructure for 20 Public DCFC**
- Pepco received inquiry for a rebate for previously installed DCFC but has not received applications for DCFC installations in commercial spaces.

*EVCS = EV Charging Station*
Workplace Charging

- Encourage employers to provide stronger incentives for employees to take public transit and/or active transportation and provide a lower tier of incentives for using EVs

- Create guidance for installing EV chargers at workplaces

- Provide best practices for a workplace EV charging program
Multi-Unit Dwellings EV Charging

• Need to support EVSE installation in existing MUDs

• Recommendations for awareness campaign illustrating the benefits of installing EV charging at MUDs

• Advocating for incentives that support charging infrastructure at existing MUDs

• Emphasize the importance of programs with the electric utility
Current Public EVSE Locations

Current Public EV Charging:
Level 2 - 546 outlets (Blue)
DC Fast - 33 outlets (Yellow)
Where EV Charging Gaps Exist

**Key second and third-tier corridors, such as popular city streets or commuting routes.**

**Popular destinations, where larger, denser deployment of EV charging is needed.**

Mismatched Level 2 deployment to parking creates low utilization, blocking of opportunity charge.

Popular for local traffic/community, only 1 DCFC.
Where EV Charging Gaps Exist

LOW INCOME AND LIMITED OFF-STREET PARKING, DENSE NEIGHBORHOODS

Some overlapping charging, but more needed to serve residents.

Lack of low-income neighborhood charging
Equitable EV Service Equipment Placement

3. At least 25% ZEV registrations by 2030 (estimate ~75,000 EVs)

**Projected EV Charging Need by 2030**

<table>
<thead>
<tr>
<th>EV Charger Type</th>
<th>Number of Charge Ports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace – Level 2 (L2)</td>
<td>2,677</td>
</tr>
<tr>
<td>Public – Level 2 (L2)</td>
<td>1,858</td>
</tr>
<tr>
<td>Public – DC Fast Charging (DCFC)</td>
<td>542</td>
</tr>
</tbody>
</table>

Current Public EV charging:
Level 2 - 546 outlets
Level 3 - 33 outlets
Montgomery County, March 2021:

- Opening pre-determined spaces on County-owned property for EVSE companies to install-finance-operate-maintain electric vehicle charging stations.

- Third-party would implement, at its sole cost. **Final award is to be based on the proposal that provides the greatest overall community benefit and value to the County.**

**Considerations:** Sovereignty/security concerns
Breakout Groups

Discussion areas:

• Input on the barriers to install EV chargers
• Comments on Level 1 charging needs
• Feedback on potential EV/EV charging incentives
Thank you for your participation.

How Can We Improve?

Annie Freyschlag  
*Outreach Coordinator*  
afreyschlag@electrificationcoalition.org

Andrea McCarthy  
*Program Manager*  
amccarthy@electrificationcoalition.org  
(202) 753-4126