District of Columbia
Transportation Electrification Roadmap

Incentives

Webinar will begin shortly…
District of Columbia
Transportation Electrification Roadmap

Incentives

Thursday, 27 May 2021
Welcome – Opening Remarks – Agenda

Agenda Outline

• Welcome
• The District’s Clean Energy Plan (Eric Campbell, DOEE)
  • Transportation Electrification Roadmap
• Recapping previous webinars
• Types of Potential Incentives (Will Drier)
• Breakout Discussion
• Report-out/Questions/Feedback/General Discussion
Transportation Electrification Roadmap Final Report due October 31, 2021

- Receive Stakeholder comments and redraft accordingly

Introduction and Orientation: Outline of Roadmap Activities

Introduction to Mobility Equity: Introduction to Electric Vehicles and Charging Equipment

Equitable EV Charging Placement: Discussion about desirable locations for EV chargers

Transportation Needs Assessment/Incentives Framework: Discussion about potential incentives for consumers

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

- Thur, May 27 | 7pm: Incentives For Businesses, Fleets, Utility and Energy Interests
- Thur, June 24 | 7pm: EV/ EV Service Equipment Strategy
- Thur, July 29 | 7pm: School Bus Electrification
- Thur, August 26 | 7pm: Concluding Roadmap Feedback Group

Register at bit.ly/electrification-roadmap
Transportation Electrification
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
Potential Incentives
Utilities & PSC

• Utility (Pepco)
  – Regulated electricity service provider
  – Can submit TEPs or other rate proposals to PSC to approve new program spending and rate-based cost recovery

• Public Service Commission (DCPSC)
  – Regulates monopoly services to ensure rates are just and reasonable
  – Protects and educates consumers
  – Approves, modifies, or rejects utility proposals and rate structures
Demand Charges

- Demand charges represent a significant cost barrier for fleet electrification.
- Based on “peak usage” - highest 15-minute kW average of the month, $/kW

![Chart](source: RMI)

380 kW * $5.63/kW = $2,100
Types of rate structures

Rate structures to incentivize electrification:

- **Time of use (TOU)**
  - Price based on time of the day, incentivizes lower cost charging during off-peak hours

- **Minimize demand charges**
  - Eliminate, minimize, or establish a moratorium on demand charges

- **Subscription-based fees**
  - In place of demand charges, a flat fee based on expected peak usage
Shifting Demand Load

Chart Source: McKinsey & Company
DRVE Tool

**Figure 7: Top 5 Passenger Vehicles to Procure**

<table>
<thead>
<tr>
<th>Vehicle Model</th>
<th>Average of Percent Savings from EVs</th>
<th>Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020 Chrysler Pacifica Hybrid PHEV</td>
<td>25.46%</td>
<td>13</td>
</tr>
<tr>
<td>2020 Chevrolet Bolt EV BEV</td>
<td>15.90%</td>
<td>16</td>
</tr>
<tr>
<td>2021 Ford Mustang Mach-E BEV</td>
<td>11.11%</td>
<td>21</td>
</tr>
<tr>
<td>2021 Lordstown Endurance BEV</td>
<td>-6.58%</td>
<td>19</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>10.05%</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

**Figure 9: Top 100 Vehicles**

<table>
<thead>
<tr>
<th>VIN</th>
<th>Conventional Vehicle</th>
<th>EV Alternative</th>
<th>Average of Percent Savings from EVs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1FAFP53U05A267107</td>
<td>FORD Taurus</td>
<td>2020 Chevrolet Bolt EV BEV</td>
<td>22.32%</td>
</tr>
<tr>
<td>1FAFP53U05A267105</td>
<td>FORD Taurus</td>
<td>2020 Chevrolet Bolt EV BEV</td>
<td>22.32%</td>
</tr>
<tr>
<td>1FAFP53U05A267109</td>
<td>FORD Taurus</td>
<td>2020 Chevrolet Bolt EV BEV</td>
<td>22.32%</td>
</tr>
</tbody>
</table>

[https://atlaspolicy.com/rand/dashboard-for-rapid-vehicle-electrification-drive/](https://atlaspolicy.com/rand/dashboard-for-rapid-vehicle-electrification-drive/)
Breakout Groups

Discussion areas:

Input on the barriers to procure EVs and EV charging

Feedback on potential EV/EV charging incentives
Contact Information

Thank you for your participation.

How Can We Improve?

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

Electrification Coalition