District of Columbia

Transportation Electrification Roadmap

EV/EV Service Equipment Strategy

Webinar will begin shortly…

DEPARTMENT OF ENERGY & ENVIRONMENT

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

District of Columbia

Transportation Electrification Roadmap

EV/EV Service Equipment Strategy

Thursday, 24 June 2021

DEPARTMENT OF ENERGY & ENVIRONMENT

GOVERNMENT OF THE DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

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

Roadmap - Status

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

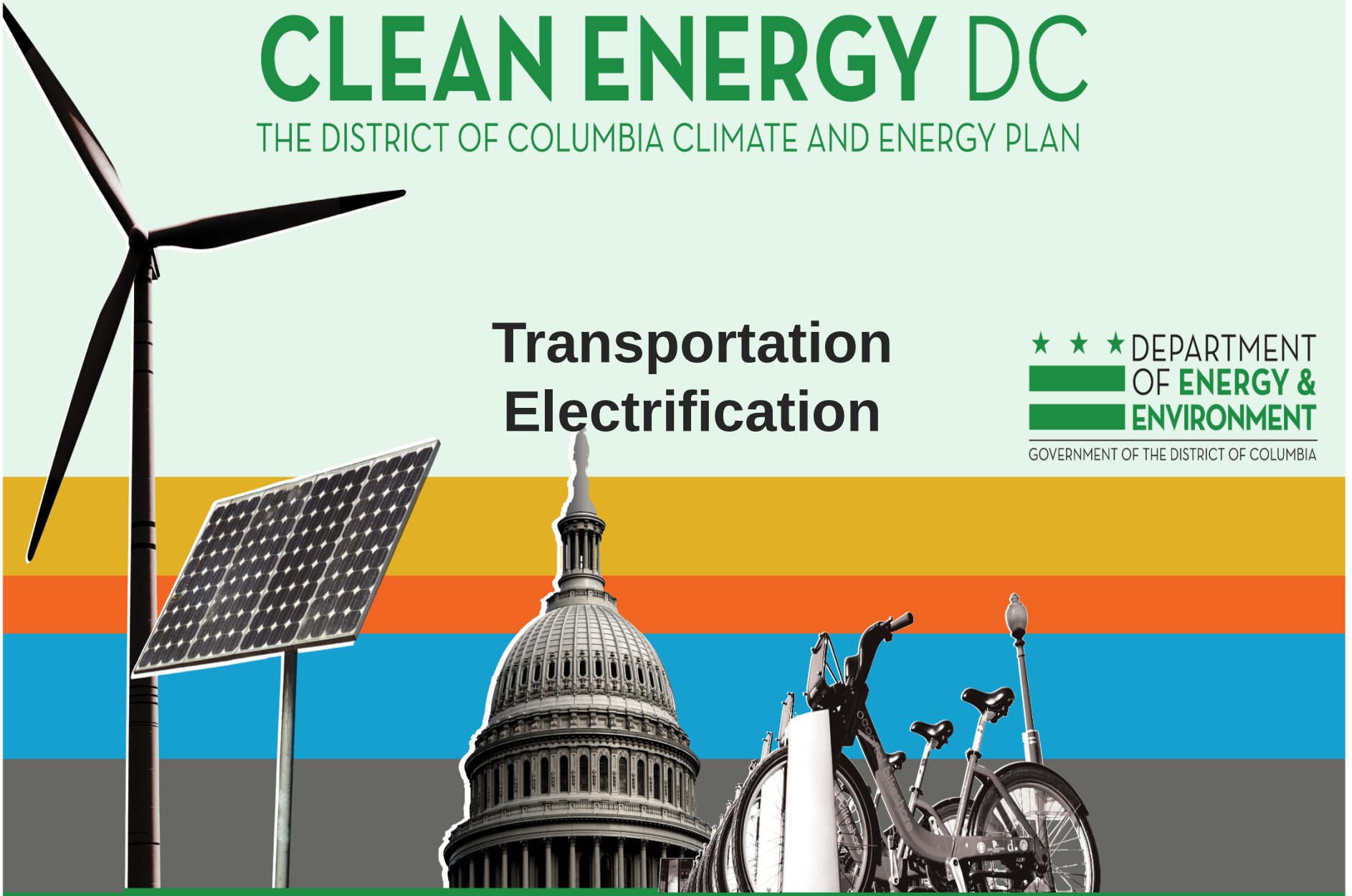
CLEAN ENERGY DC

THE DISTRICT OF COLUMBIA CLIMATE AND ENERGY PLAN

Transportation Electrification

DEPARTMENT OF ENERGY & ENVIRONMENT

GOVERNMENT OF THE DISTRICT OF COLUMBIA

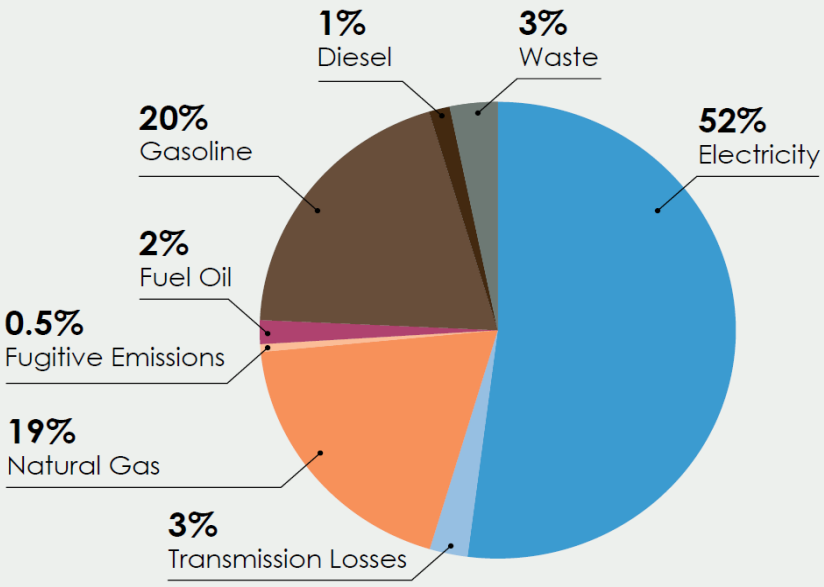


@DOEE_DC

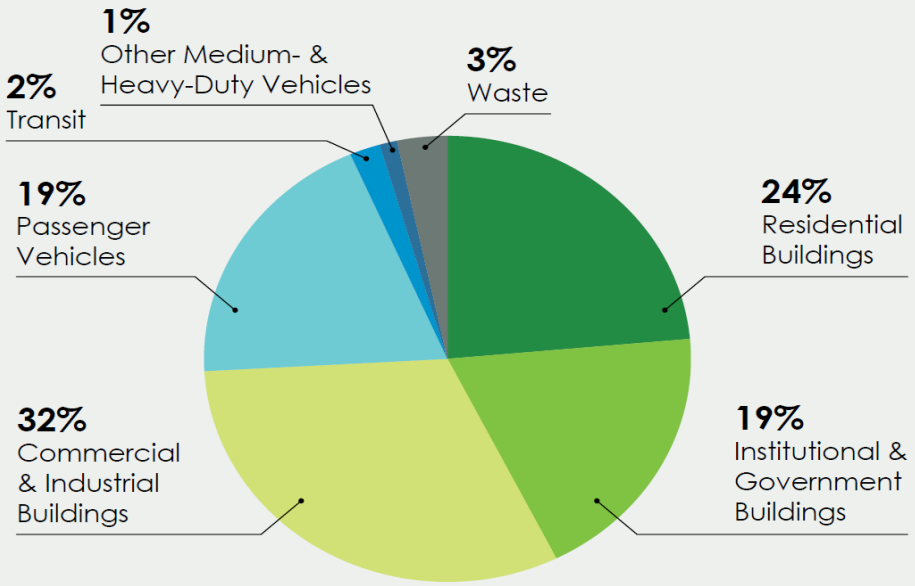
DC CLIMATE AND ENERGY GOALS

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

GHG EMISSIONS BY SOURCE



GHG EMISSIONS BY SECTOR

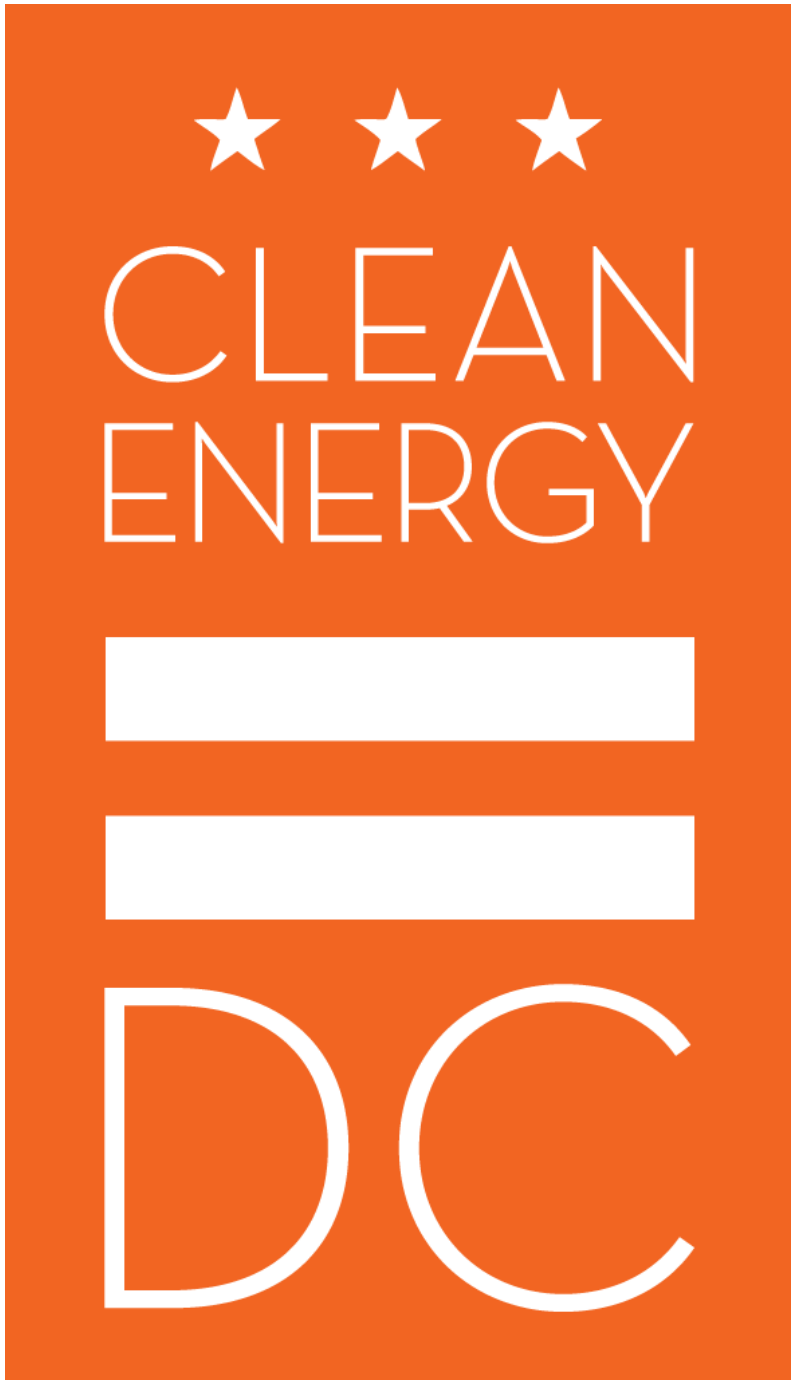


The plan will **reduce emissions by 50 %** by 2032 compared to 2006 levels, and will help the city achieve **carbon neutrality by 2050**

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

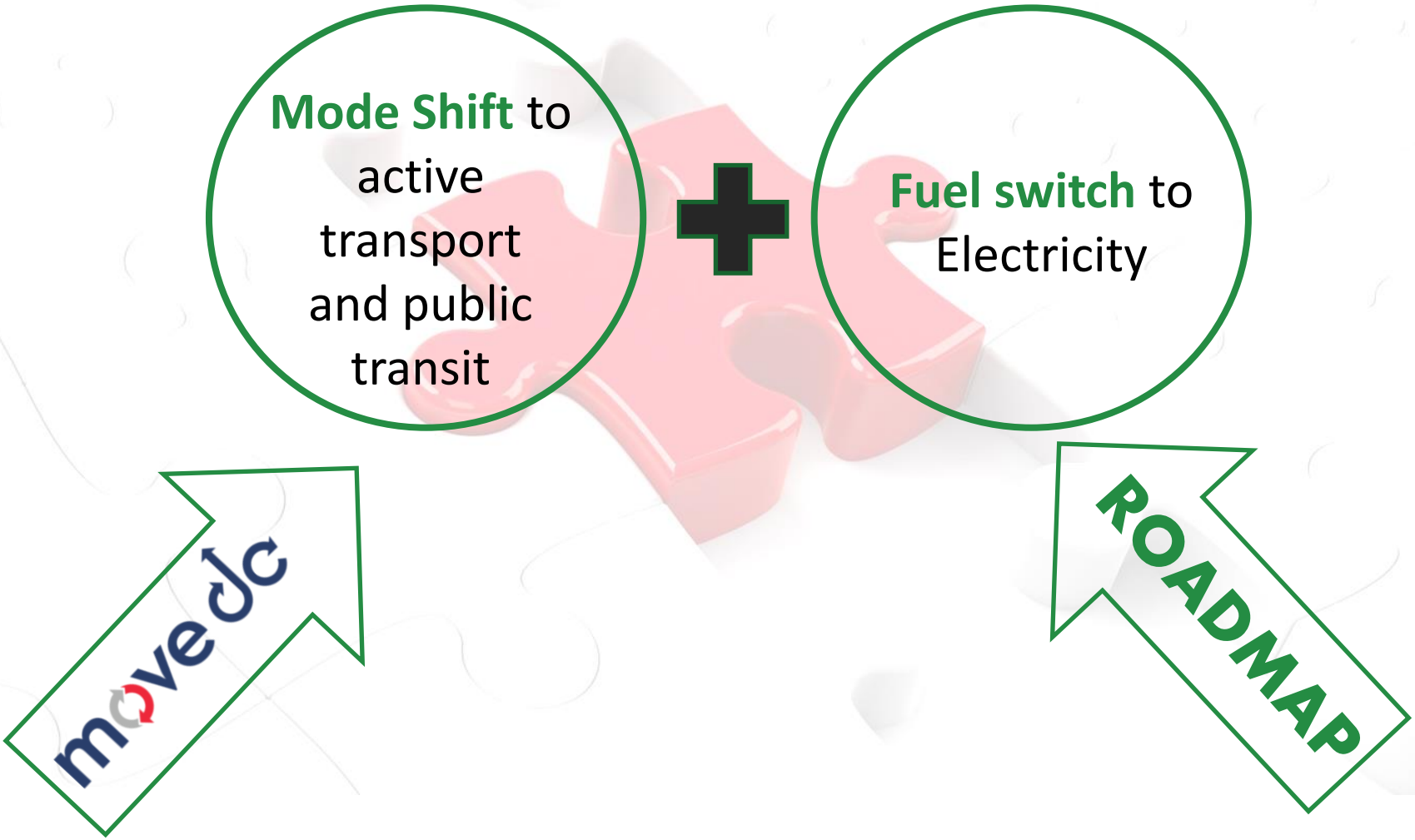
2. 100% EV replacement of public buses and school buses at End-Of-Life by 2021

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

Provide policies, cost estimates, and timelines

Transportation Electrification Roadmap

Transportation Vision:



QUESTIONS?

CONTACT INFORMATION

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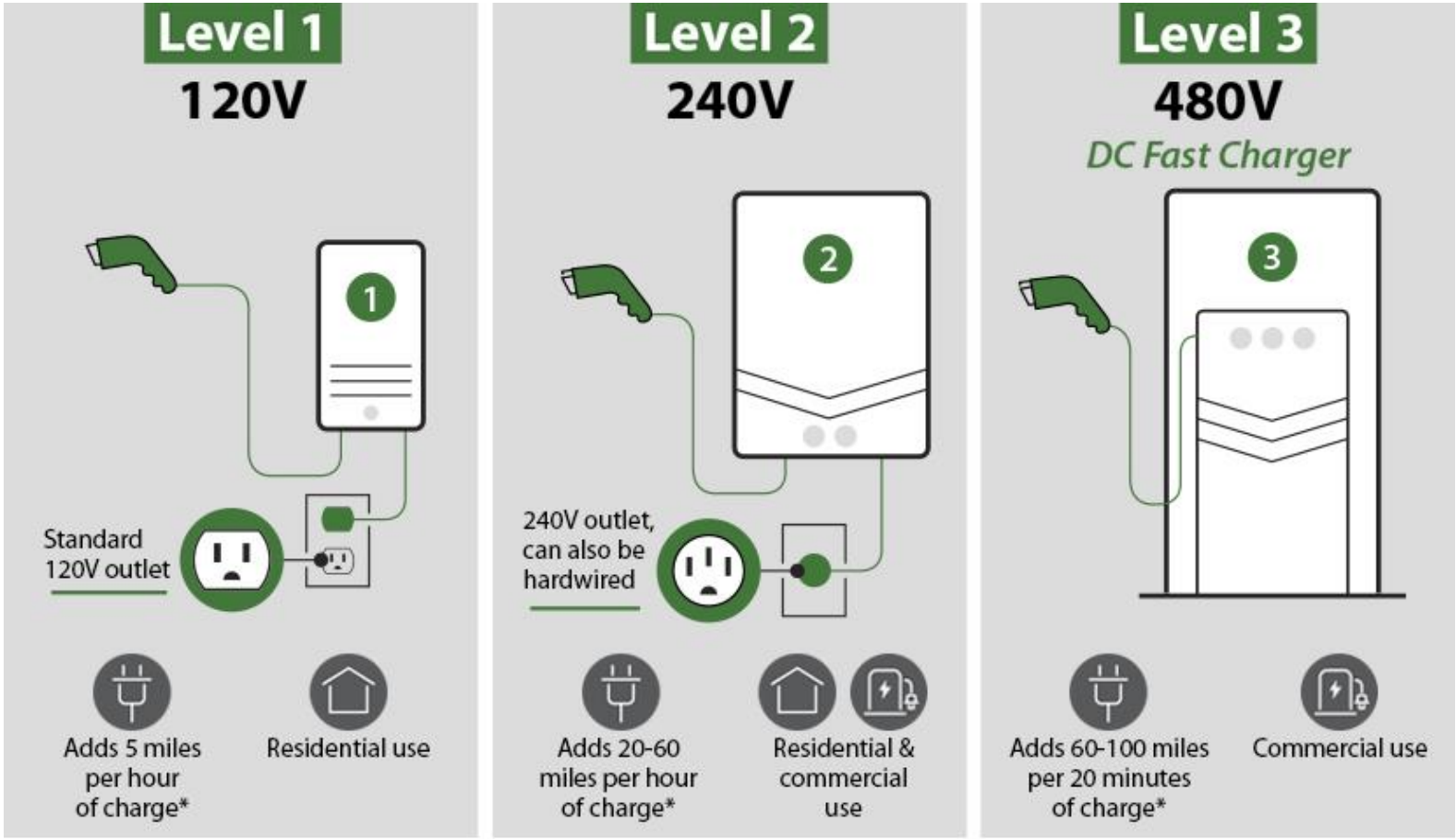
EV/EV Service Equipment Strategy

EV Service Equipment (Charging Equipment/Charging Stations)



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

	Current Policies	Policy Summary
Monetary Incentives	AFV Conversion Tax Credit	50%/$19k per vehicle
	AFV Infrastructure Tax Credit	50%/$1k Res/$10k Public EVSE
	Reduced Registration fee for AFVs	$36 Total-First 2 yrs
	Plug-In PEV Title Excise Tax Exemption	6% of MSRP/Median:$680
Operational Incentives/ Requirements	AFV Exemption from Driving Restrictions	Fleets (10+) Time-of-day/day-of-week restrictions/commercial bans
	AFV Acquistion Requirements	Fleets (10+) - 70%(8.5k lbs)/50%(25k lbs)
	Passenger Gov Fleet Procurement Requirements	Avg MPG 22+ & no SUVs (W/exemptions)
	Emission Reduction Plan for TNCs	Every 2 yrs TNCs - update GHG reduction plan (Increasing ZEV use & VMT)
City Goals/ Supportive Programs	ZEV Deployment Support	Ex order – Public & commercial fleets (2030: 25% ZEVs/ 2045: 100% ZEVs)
	MHDV ZEV MOU Signatory	2030: 30% ZEV /2050: 100% ZEV (Sales)
	Regional Transporation and Climate Initiative	Develop policies and programs energy efficiency of regional transportation systems and reduce emissions. (EVSE)
	AFV and Infrastructure Support	Green Finance Authority – Increase private investment in clean transportation projects (Bonds & funding allocations)
	Low Emission Vehicle Standards	Title 13 of CA code of Regulations

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.**

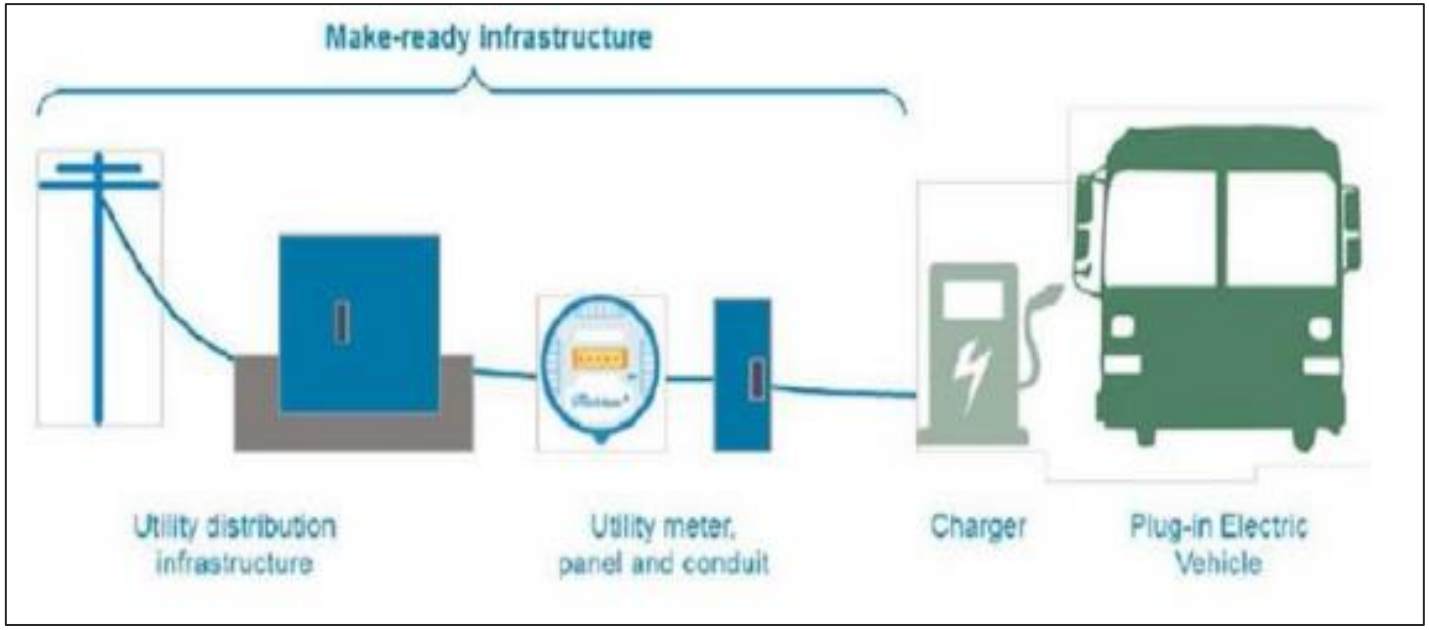
Exclusions:

- 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.

Utility Transportation Electrification

Pepco's Proposed Transportation Electrification Program

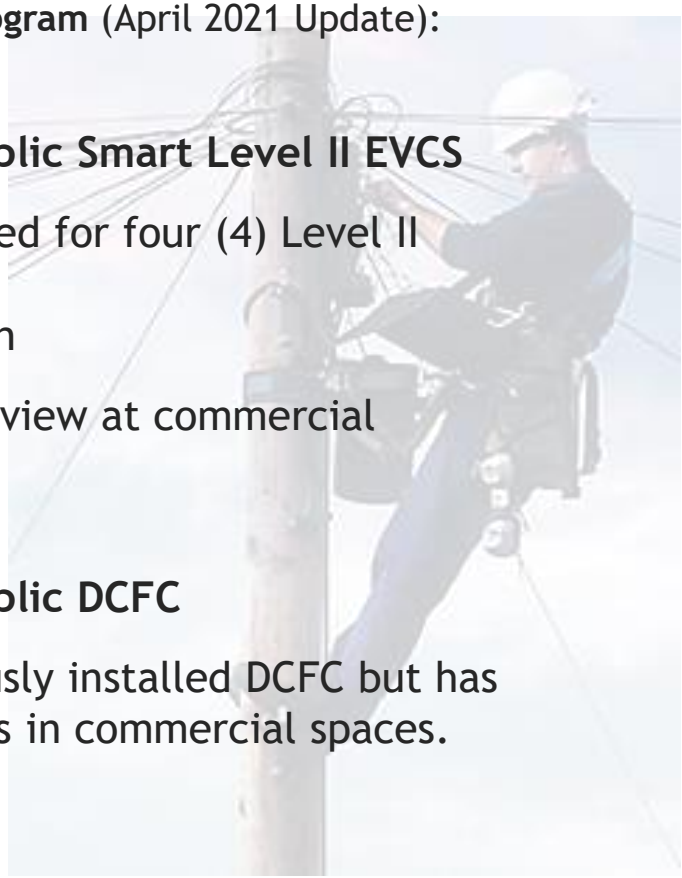
- The PSC did approve Pepco to provide "make ready" infrastructure to support EV charging stations, which includes improvements to utility-side infrastructure up to the conduit and meter.



Up to 35 Smart Level 2 charging stations; Up to 5 depot and 1 on-route chargers; 20 Fast-Charging stations

Utility Transportation Electrification

Excerpts from Pepco's **Transportation Electrification Program** (April 2021 Update):



<u>Offering 7:</u> 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.

<u>Offering 8:</u> 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

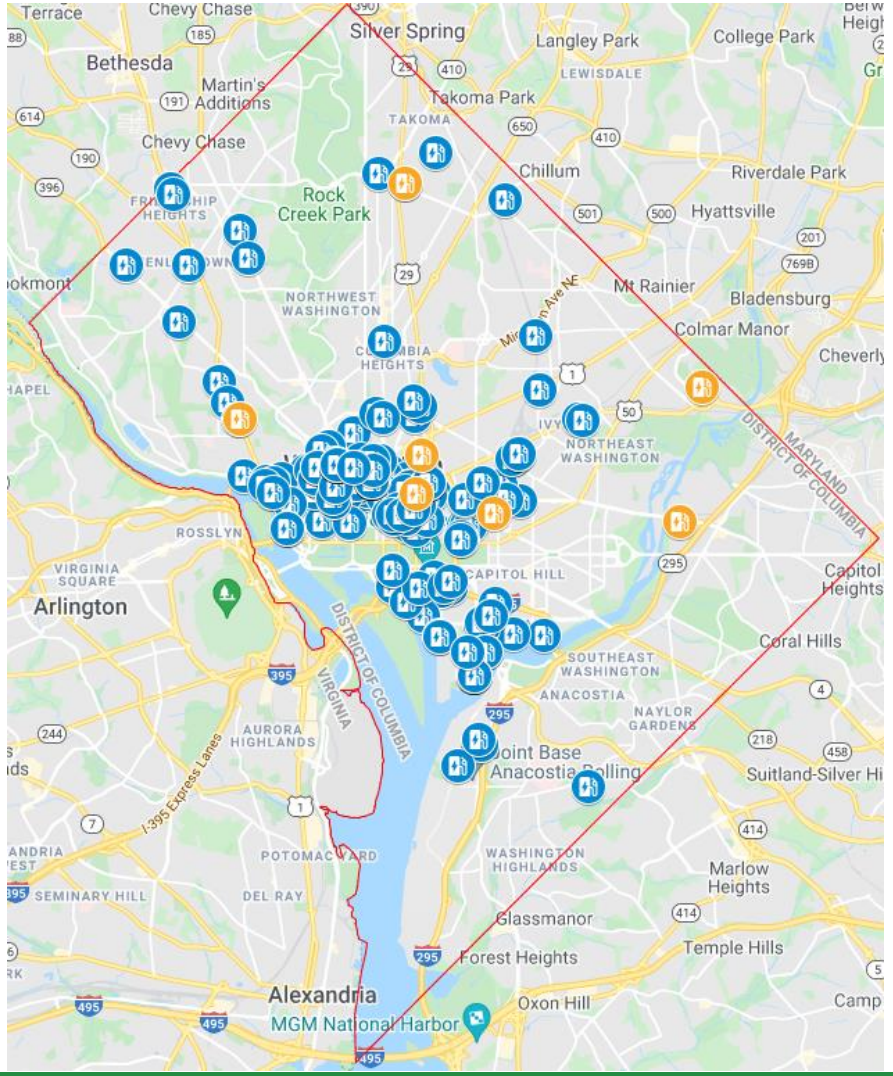
Multi-Unit Dwellings EV Charging

- 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:

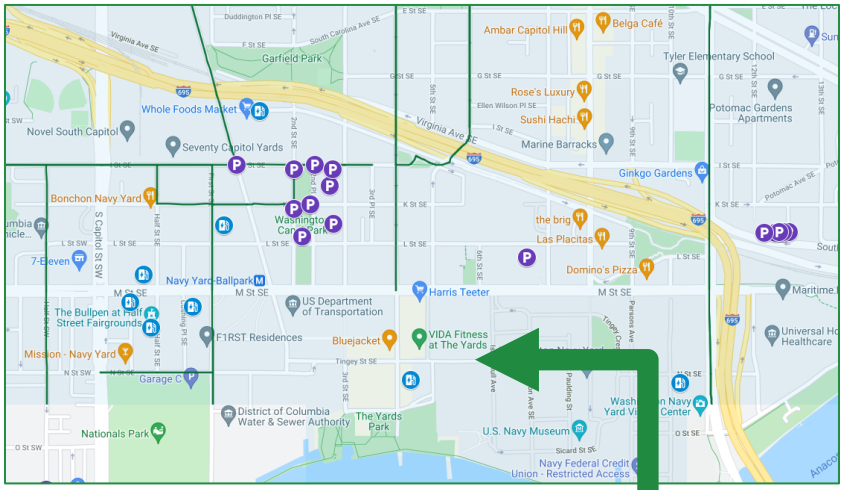
- Level 2 – 546 outlets (blue)
- DC Fast – 33 outlets (Yellow)

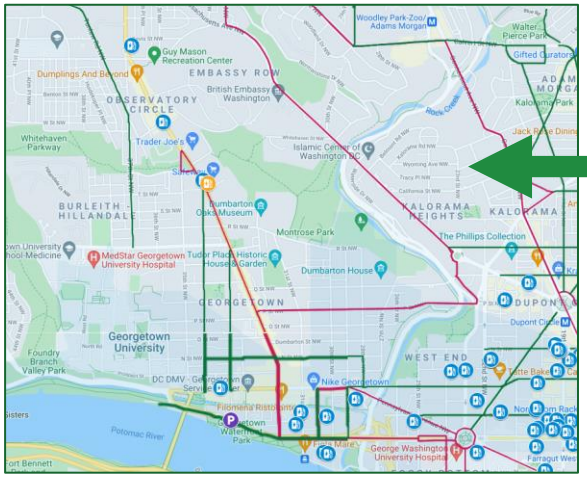


Where EV Charging Gaps Exist

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.



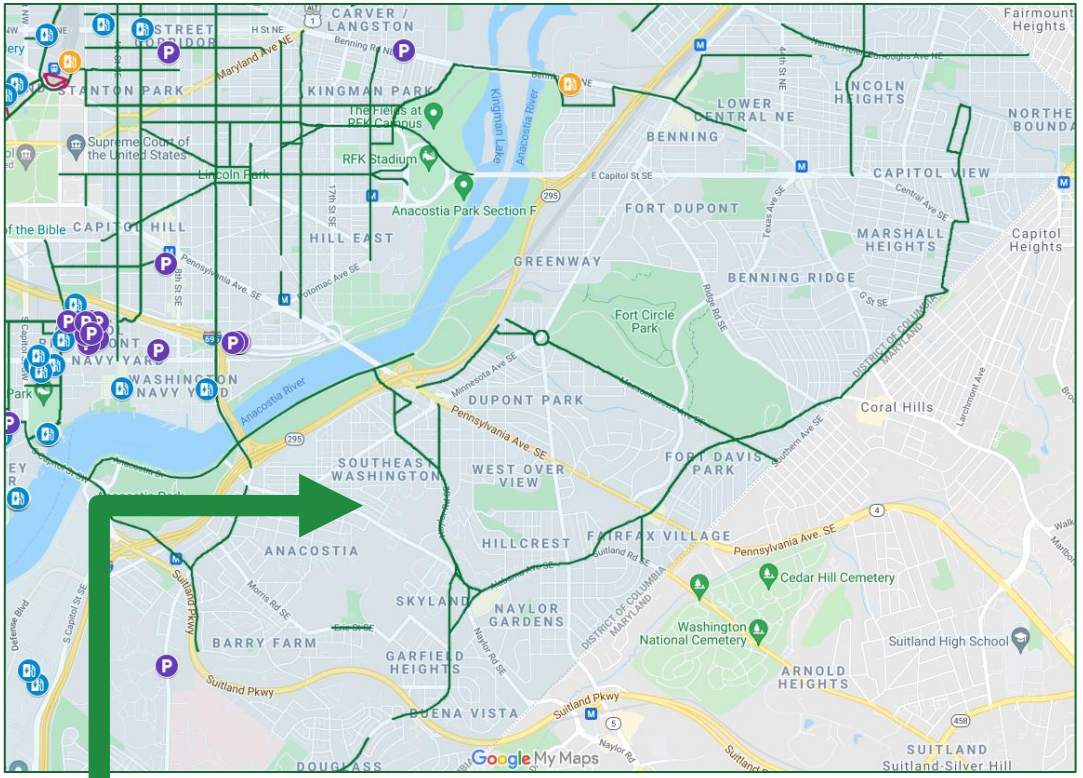


Mismatched Level 2 deployment to parking creates low utilization, blocking of opportunity charge

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

EV Charger Type	Number of Charge Ports
Workplace – Level 2 (L2)	2,677
Public – Level 2 (L2)	1,858
Public – DC Fast Charging (DCFC)	542

Current Public EV charging:
Level 2 - 546 outlets
Level 3 – 33 outlets

EVSE Vendors:
Public Private Partnerships

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

Contact Information

Thank you for your participation.

How Can We Improve?

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