FAIRFAX COUNTY
VIRGINIA

Electric Vehicle Charging Infrastructure

Information

Susan Hafeli, Deputy Director
Office of Environmental and Energy Coordination
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Board Direction on EVs and Charging Infrastructure

- July 2018 OES – Electric Vehicles
  - **By 2025, ensure that Level 2 charging infrastructures is installed at up to 20 major government facilities.**
  - By 2030, ensure that 5% of government passenger vehicle purchases are electric or plug-in hybrid.

- July 2021 OES – Fleet Electrification
  - **Develop a plan to use 100% non-carbon emitting fuels for county fleet vehicles by 2030**. For non-bus fleet vehicles that may not have non-carbon emitting alternatives, develop a plan to mitigate emissions.
  - County buses and fleet vehicles will be electric or a non-carbon emitting alternative by 2035. By 2035, 99% of Connector bus fleet miles traveled will be with non-carbon emitting vehicles.
  - No diesel buses will be purchased after FY2024 without further Board discussion.

ChargePoint CT 4023 EV Charge Station Dual Port Wall Mount

EVCS Funding

To date, the Board has approved $3.046 million

- 4/30/2019: $750,000 as part of *FY 2019 Third Quarter Review* to fund first of two planned phases to implement 2018 OES
- 9/30/2020: $750,000 as part of *FY 2020 Carryover Review* to fund second phase of 2018; includes parking garage installations
- 5/3/2021: $146,192 in FY 2022 Budget (Environmental Improvement Program)
- 10/5/2021: $1.4 million as part of *FY 2021 Carryover Review*; also approved funding of eight Nissan Leafs

Parking Garage Installations Underway

Site	# EV Installations	# Parking Spaces	Comments
Fairfax County Government Center	1 single-port and 8 dual-port stations	17 spaces	17 spaces located in a secure garage with no public access. Next phase is expected to address surface lot.
Public Safety Headquarters	1 dual-port station	2 spaces	An additional 18 spaces in the secure garage are planned for next phase.
Herrity Building	3 dual-port stations	6 spaces	NA
Merrifield Center	3 dual-port stations	6 spaces	NA
Pennino Building	3 dual-port stations	6 spaces	NA

Installation Challenges and Considerations

- FMD staffing challenges
  - Expected to be mitigated over time by approval of 12 new FMD positions as part of *FY 2021 Carryover Review*
- Equipment and supply chain issues
  - No issues currently reported with EV charging stations, but demand may lead to constraints in the future and in other areas
- Permitting
  - Agencies working together to better understand requirements and concerns
- Accessibility
  - No clear guidelines to date

Upcoming Projects

- Staff has identified 79 county government and Park Authority locations as potential sites for Level 2 charging stations
- Next tranche includes county government sites where EV infrastructure expected to be installed by or before mid-CY 2023, including:
  - New construction or major renovations with estimated completion dates by or before mid- CY2023
  - DVS maintenance and other operations facilities
  - Board member priorities where feasible

EVCS Availability

Fairfax County

Total registered EVs: 4,114

Total EV charging stations: 194

Per 100,000 population: 17

Per square miles: 0.5

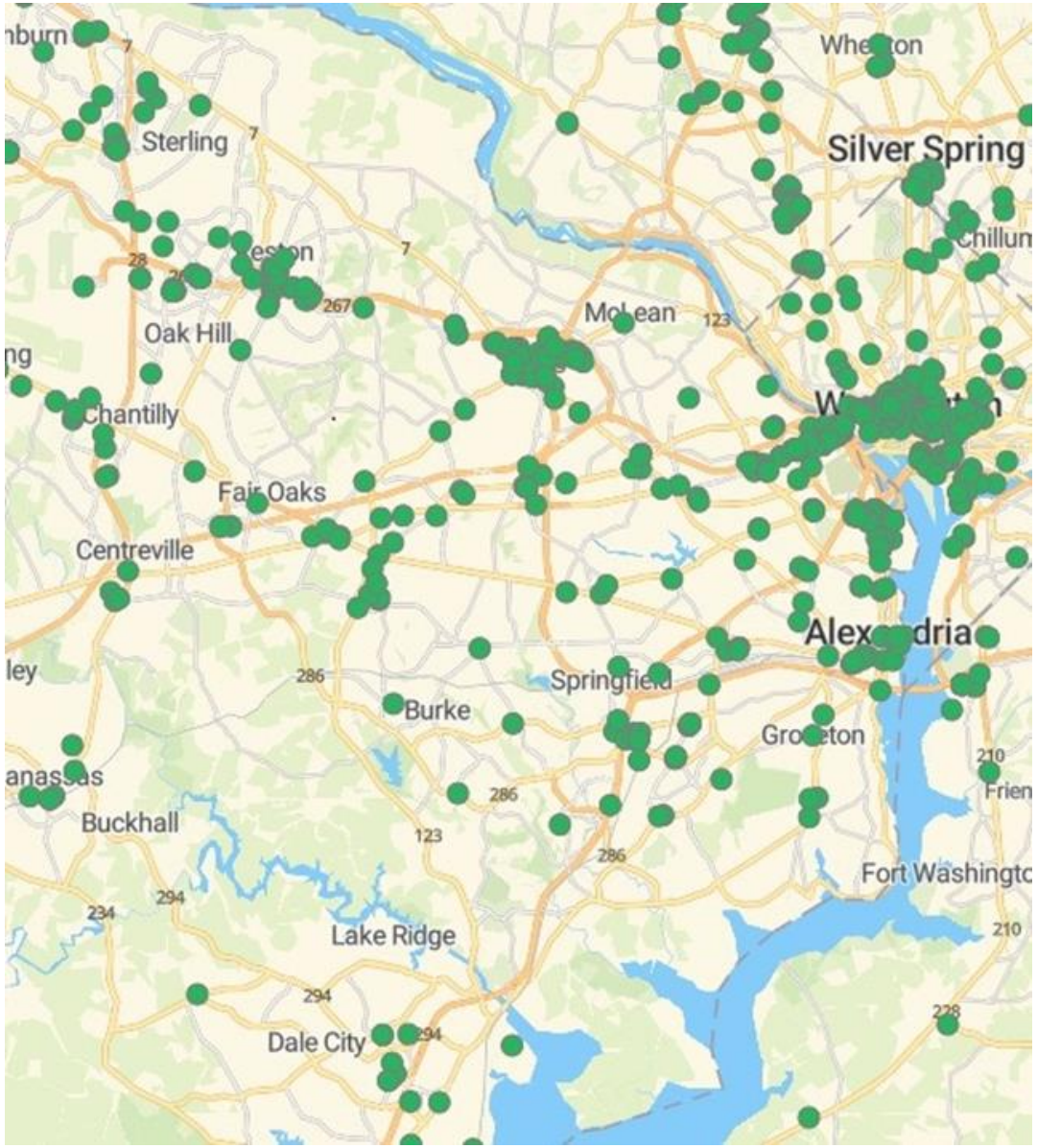
Montgomery County

Total registered EVs: 12,763

Total EV charging stations: 214

Per 100,000 population: 20

Per square miles: 0.43



U.S. DOE AFDC EVCS Map

Proposed Public EV Charging Rates

Staff anticipates presenting proposal in early 2022 for Board consideration

Two-part proposal:

- $0.25 - $0.30/kilowatt hour to charge, and
- “Dwell time” rate of $2.00/hour if not charging

Level 2 EV Charging Rates by Selected Providers in the Region

Supplier	Charging Level	Non-Member Cost per kWh	Comments
Blink	2	VA: $0.59	Rate depends on state and membership status.
EVgo	2	VA: $0.30	Rate depends on state and membership status.
Dominion Energy Virginia	2	VA: $0.28 (proposed)	Proposed rate for future DEV-owned and operated charging stations.
Montgomery County	2	$0.13	Per kWh rate in addition to parking fee.

Conclusion

Installation of EV charging infrastructure is underway, consistent with the 2021's OES target of a carbon-free vehicle fleet by 2030