



2018 D.C. Solar Congress Electric Vehicles Discussion

D.C. in Context

Estimates vary widely, but the number of electric vehicles (EVs) registered in D.C. as of April 2017 was near 1,100.¹ To give a sense of proportion, there are over 327,000 cars and trucks registered in the District, so EVs make up far less than 1% of the total. That is right on par with the national average.²

Future Considerations

These are not encouraging numbers given transportation emissions are on the rise, due mainly to light utility vehicles, and are now the number source of greenhouse gases in the U.S.³ However, energy market researchers expect sales to grow exponentially in the next decade, with EVs accounting for 30-40% of new purchases by 2030.⁴

One key to EV adoption will be how robustly deployed charging infrastructure becomes. As of today, there are approximately 90 publicly available chargers in the District and 1 direct current (DC) fast charger (however, a large number of these are off street in expensive parking garages).⁵ A recent study suggests that if growth in EV adoption stays steady, we might see 30,000 or more EVs in D.C. in roughly the next 10 years. To support that number, the city would need as many as 1,500 more level 2 chargers and 40 DC fast chargers available at work and in public spaces.⁶ Getting there will require a steady annual increase in charging station deployment.

But the path to this much-needed and forecasted growth is not guaranteed, and in order to ensure transportation electrifies quickly enough to help meet CO2 goals, we need the City Council, Mayor, Public Service Commission, the Department of Energy and Environment, and other department heads to back clean technology with strong policies.

Current D.C. Policy

Currently, in addition to the federal tax credit of up to \$7,000, D.C. offers a reduced registration fee (\$36 from \$72) and an exemption from the excise tax, which is 6% of the purchase price (e.g. a \$30,000 vehicle would be taxed an \$1,800 excise).

¹ Public Service Commission, Formal Case 1143 Comments, ChargePoint comments citing figures from IHS Polk

² Federal Highway Administration 1026; <https://www.fhwa.dot.gov/policyinformation/statistics/2016/mv1.cfm>

³ U.S. Energy Information Administration; <https://www.eia.gov/totalenergy/data/monthly/#environment>

⁴ Bloomberg New Energy Finance, Electric Car Outlook 2017

⁵ Plugshare.com

⁶ Department of Energy, National Renewable Energy Lab <https://www.nrel.gov/docs/fy17osti/69031.pdf>

The city also offers a tax credit of 50% of the cost to install residential EV charging equipment, up to \$1,000. Typical costs of installing a level 2 charger can range widely depending on household factors - roughly between \$600-\$2,000. There is also a \$10,000 tax credit available for the installation of chargers that are publicly available.⁷

Efforts Under Way in the District and Issues to Watch For

Three important initiatives are currently underway in D.C. Led by Councilmember Mary Cheh, the city recently enacted a bill, which became law on March 29, requiring the Department of Transportation (DDOT) to deploy 15 public level 2 smart chargers across the city by January 2019, with a minimum of 1 in each ward.⁸ This is the first significant government pilot in the city and should return important lessons learned. Oversight of this program will be an important topic though because DDOT has had issues with meeting EV charging targets in the past (see Cheh's EV bill committee report).

Separately, Pepco is seeking approval for a pilot program that is designed to learn how to manage the additional electricity demand load that will come with the growth in EV adoption. The original program included a number of other offerings such as the deployment of 2 additional DC fast chargers. The pilot has not been approved as of yet and the process is still active. Pepco plans to hold a round of public workshops in April and May. One major issue with the program is that it excludes solar customers from participating in certain offerings. On that front, Solar United Neighbors has been working hard to ensure that the utility is not allowed to ignore or bypass the extremely beneficial combination of EVs + Solar.

Finally, Washington D.C. is receiving \$8.1 million from the VW settlement. Although no funds were allocated to EV charging, DOEE does plan to improve air quality by spending \$4.2 million on electrifying city transit buses and refuse trucks, and \$3.1 million on upgrading diesel locomotive work cars at Union Station with better diesel engines.

Arlington Solar + EV Charging Co-op

Join the Arlington Solar + EV Charging Co-op to:

- Go solar on your home or business;
- Or install a level 2 EV charger;
- Or install both solar and a level 2 EV charger

The co-op is open to homeowners and businesses in Arlington, Alexandria and Fairfax Counties

[JOIN OUR CO-OP](#)



Install solar and electric vehicle charging through our co-op! The co-op is open to homeowners and businesses in Arlington, Alexandria, and Fairfax Counties

Solar United Neighbors is also working to magnify the benefits of solar co-ops by combining EV charging technology into the mix. We are piloting the concept in Arlington, Virginia, where we are offering homeowners or businesses the option of installing solar panels, a level 2 EV charger, or both at discounted pricing. Powering cars with the sun just makes sense!

⁷ Department of Energy, Alternative Fuels Data Center; https://www.afdc.energy.gov/laws/state_summary?state=DC

⁸ B22-0096 - Electric Vehicle Public Infrastructure Expansion Act of 2017