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Ms. Brinda Westbrook-Sedgwick
Commission Secretary
Public Service Commission of the District of Columbia
1325 G Street N.W., Suite 800
Washington, DC 20005

RE: Formal Case No. 1130 – PEPCO’s Proposed EV Filing

January 14, 2019

Dear DC Public Service Commission:

Thank you for the opportunity to provide comments on the electric transportation program proposed by Potomac Electric Power Company (PEPCO).

Plug In America is the national consumer voice for plug-in electric vehicles (PEVs) and works to promote policies and programs nationwide that put more PEVs on the road.¹ Our members are passionate PEV advocates and have driven PEVs for many years, affording Plug in America a unique perspective on how consumers think about PEVs and what actually inspires a consumer to purchase a PEV.

The development of a PEV program by PEPCO represents the very timely opportunity to expand the charging infrastructure for PEVs in the District of Columbia. On behalf of the current and future PEV drivers in DC, and the many visitors to the city, we urge the Public Service Commission to accept the proposed investment program. Pepco’s proposed programs would drive transportation electrification for individuals, fleets, and ride share operators by adding infrastructure for charging in the home, at the workplace, and in public spaces. The programs proposed by Pepco represent an opportunity to move towards accomplishing the goals of the DC Clean Energy Omnibus Amendment Act of 2018, recently passed by the DC Council. To achieve the amendment’s goal that 100% of light duty vehicles be low or zero emission by 2045, the District must expand transportation electrification infrastructure. PEPCO’s proposals will help towards that end. Delaying the application will only delay the cities response to needing electrification infrastructure.

The PEV market is quickly growing. From January 2011 through December 2018, U.S. consumers have purchased over 1 million electric vehicles,² with sales accelerating as new vehicle makes and models become available. U.S. EV sales increased 80% from 2017 to 2018. Many states across the country have

¹ More information available at: www.pluginamerica.org

² Vehicle count based on <https://insideevs.com/monthly-plug-in-sales-scorecard/>.



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been preparing for the mass adoption of these clean vehicles due to the significant benefits these vehicles offer to the consumer, electric grid and each state.

Therefore, due to the anticipated near-term rapid acceleration in PEV adoption amongst drivers, we are pleased to reiterate our support for PEPCO's proposed Electric Transportation program. Plug In America supports each of the elements of the proposed plan. We have a few specific comments. Several of these were previously included in our comments of July 12, 2018 but have been modified to reflect the current proposal:

A. Residential

- A.1. **Residential Whole-House Time of Use rates:** Plug In America supports the *option* of whole-house time of use (TOU) rates for EV drivers. For those who are not home during times of peak electricity demand, this can be an appealing way to reduce electricity bills for the household and for charging. We suggest studying consumption data to distinguish the shifting of EV and non-EV loads.
- A.2. **FleetCarma units for residential customers with existing EVSE:** this is an appealing option. Plug In America does support EV-only time-of-use rates. Some drivers may not be ready to transition their whole homes to a time-of-use rate, but EVs are a relatively flexible load. The FleetCarma system can allow a rebate for off-peak charging without the cost of an additional meter as might be required for an EV-only TOU rate. This approach has been used successfully by Con Ed in New York, among others.
- A.3. **Residential Smart Level 2 EVSE:** while charging an EV generally costs much less than fueling a gasoline car, there is some additional cost with installing a Level 2 charger at home. The 50% discount on the charger and its installation will speed EV adoption.
- A.4. **\$500 Rebate for Residential Smart Level 2 EVSE:** some EV owners may want to select their EVSE, possibly for feature such as 'green charging.' This rebate allows them choice in the selection of their EVSE.
- A.5. **MDUs:** This is one of the most important elements of the plan. Most residents of Washington, DC live in multi-family housing. Such properties have been difficult for private companies or EV owners to address on their own. We strongly endorse the proposed investment to support deployment of 100 Level 2 chargers. Many properties may benefit from a mix of Level 2 and Level 1 chargers. We suggest that approximately 3-6 Level 1 chargers should count as one Level 2 charger for the purposes of fulfilling this offering's goals (based on the average kW output).
- A.6. **Workplace EVSE:** Workplace charging is one of the best means of increasing EV adoption. It alleviates range anxiety, increases familiarity with EVs among coworkers, and can be a relatively low-cost option. However, Level 1 is often a better option for workplace charging than Level 2. For the same cost, a greater number of Level 1 chargers can be installed. This



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generally reduces or eliminates the need to move fully-charged vehicles in the middle of the workday. A vehicle will typically only need to replenish the daily commute distance. If the commute is 30 miles, a Level 1 charger will replenish this over the course of eight hours or so. A level 2 charger would fully charge the vehicle after one to three hours. Since there would not be as many level 2 chargers, possibly fewer than there are EVs, it could be necessary to move the vehicle in the middle of the workday. Some workplaces have found this to be inconvenient. As with the MUD offering, we suggest that approximately 3 to 6 Level 1 chargers should count as one Level 2 charger for the purposes of fulfilling the goals of this offering.

B. Public

B.1. 35 Public Neighborhood Smart Level 2 EVSE: these systems would be owned and operated by PEPCO and supplied by 100% renewable electricity. We support this action, but note the importance of ensuring that this does not stifle a competitive market. PEPCO EVSE in close proximity to competitive EVSE should not undermine these stations' business model.

B.2. DC Fast Chargers: We support this action. We recommend signage to increase utilization of these systems, especially by the many visitors to DC.

C. Commercial

C.1. Fleets and Light Duty Commercial Vehicles: This is an important market for EVs, and we support the proposed investments. We suggest that PEPCO target fleets with relatively predictable duty cycles.

C.2. Taxis and Ridesharing Services: These services will be increasingly important in the District in the years to come. We support the proposed investment for DCFC, although we are uncertain about the viability of Level 2 charging for this purpose. The Level 2 systems should be made available to the general public if the taxi or ridesharing companies determine they are not suitable for their business models.

C.3. Electric Bus Charging: This step has the potential to offer significant air quality benefits to the District and to disadvantaged communities. We *strongly* support it.

D. Innovation and Technology

D.1. Innovation Fund: It is very likely that new transportation models will continue to develop, and PEPCO's Innovation Fund will provide a means to support EV deployment through these new models and new ideas. The proposed investment, as a share of the total EV program, seems reasonable.

D.2. Technology Demonstration: We look with interest towards the findings from the integration of battery storage into charging systems. We suggest PEPCO consider the opportunity for storage to provide multiple grid services and not simply demand charge reduction.

E. Consumer Education and Outreach: Plug In America regards consumer education and outreach as key to the success of the electric vehicle revolution. This is a vital part of PEPCO's proposal



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and we strongly encourage the Commission to accept it. We stand ready to work with PEPCO on dealer trainings, National Drive Electric Week, other ride-and-drives, and other forms of outreach and education. Utilities have an important role to play in encouraging EV deployment. Utilities are in regular direct communication with consumers, and are generally a trusted voice. They are particularly important for encouraging EV drivers to try time-of-use rates (whether whole-house or EV-only).

Furthermore, we encourage that consumer protection standards are adhered to in the deployment of the charging infrastructure, regardless if the charging infrastructure is owned by PEPCO or third party companies. Key consumer protection issues include the following as listed below. These principles should be strictly adhered to:

- a) **Open Access** – This is defined as the ability to get a charge at any public charger - including L1, L2 and DCFC - either via a credit card swipe or mobile app to enable the charge. PEV drivers should never be stranded at a public charging location where they cannot actually charge.
- b) **Transparency** – The price of a charge should be clear when the PEV driver connects to the charger. This price should also be reported in mapping API so that drivers can consider the price when selecting a charging station during a trip.
- c) **Interoperability** - This is a key principle for the entire charging infrastructure ecosystem. Currently, many companies have their own card or key, which means drivers must either join multiple “clubs” or risk being unable to charge. Fortunately, we have seen numerous partnership and agreements in the charging space in recent months, reducing barriers.
- d) **Mapping data** - all electric vehicle service providers should provide mapping data for charging locations, including costs for charging (both in and out of network), and operational status.
- e) **Signage** – There is a critical need for charging station signage, from highway visibility down to the last several hundred feet where the charging station is. While the charging station may be listed on a smartphone, car navigation, or web-based maps, the stations are still challenging to locate as the physical hardware is not that large. Directional signage installed on streets around the stations would help immensely, and also reduce consumer range anxiety. Signage also plays a key role in educating *potential* EV drivers about the existence of a charging infrastructure.

Please send any questions to Pete O’Connor, Policy Specialist, at poconnor@pluginamerica.org.

Best regards,

A handwritten signature in black ink that reads "Pete O'Connor".

Pete O’Connor
Policy Specialist
Plug In America