



June 5, 2017

Via Electronic Filing

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

Re: FC1143 Reply Comments

Dear Ms. Westbrook-Sedgwick,

Enclosed please find Greenlots' Reply Comments in Formal Case No. 1143.

Sincerely,

A handwritten signature in black ink, appearing to read "Thomas Ashley". The signature is fluid and cursive, with a large initial "T" and "A".

Thomas Ashley
Vice President, Policy
Greenlots

BEFORE THE
PUBLIC SERVICE COMMISSION
OF THE DISTRICT OF COLUMBIA

In the Matter of the Application of)
Potomac Electric Power Company to)
Establish a Limited Demand Management)
Program for Plug-In Vehicle Charging) Formal Case No. 1143

Greenlots' Reply Comments

Greenlots hereby submits these Reply Comments in response to PEPCO's Application and the Comments of other parties.

Greenlots is a leading provider of grid-focused electric vehicle charging software and services. The Greenlots' network supports a significant percentage of the high power DC fast charging infrastructure in North America. Greenlots' smart charging solutions are built around an open standards-based focus on future proofing while helping site hosts, utilities, and grid operators manage dynamic EV charging loads. By communicating with hardware through an open communication language, the Greenlots' software platform is able to be paired with a wide range of hardware options, with a focus on protecting the hardware investments made by our partners and clients, and maximizing site host choice.

Greenlots strongly supports the Application for a Limited Demand Management Program submitted by PEPCO, and recommends Commission approval of the Application.

Parties offered a number of perspectives and considerations for the Commission. Greenlots wishes to provide additional perspective for the Commission.

In respect to the inclusion of this pilot filing in Formal Case 1130, Greenlots respectfully requests that the Commission deny the submitted motion, and continue consideration of FC1143 in a separate docket. Greenlots is involved in or tracking electric vehicle charging and grid modernization dockets in a number of jurisdictions, and have unfortunately seen time and again, the considerations inherent in electric vehicle infrastructure filings disproportionately taking over larger dockets. As such, the result is that a combined docket becomes inundated by electric vehicle charging stakeholders and considerations, or the combined docket does not allow for adequate consideration of the electric vehicle charging stakeholders' perspectives, and the issues that the Commission need consider. In either case, the result is an inadequate consideration, and a lengthening of the time horizon for deepening the grid integration of electric vehicles in a given jurisdiction or service territory, as well as slowing the adoption of electric vehicles in that same geography.

While parties reference the competitive market for charging services, the reality is that the closest approximation of a competitive market that the charging industry has is for selling hardware and software to site hosts that have decided to own and operate charging infrastructure, despite the poor economics. However, the reality of this market is that it is currently dominated by one entity with a

disproportionately large sales force, as compared to the rest of the participants in this market. So in effect, this is not a competitive market.

In terms of what drivers see: public charging station owners and operators, this market is far from competitive, for the reasons identified below. As such, PEPCO's investment and involvement as an owner/operator in this space, rather than being anticompetitive or entering a competitive market, is an important, and arguably necessary development to grow the infrastructure investment and market in the District. Indeed, this investment will improve the market in the District, for the reasons identified below, not impede or impair it.

Recognizing that the business model for ownership and operation of charging stations with the intent of developing a sustainable revenue model around charging for charging has resulted in limited private investment, it is reasonable to conclude that thus far, this has resulted in market failure. A primary element in this equation is the level of utilization of charging infrastructure—a data point inherently affected by the level of adoption of electric vehicles. Lower utilization equals a more challenging business case, higher utilization equals a more attractive business case. A useful analogy, at least as it regards DC fast charging, is one of load factor. System efficiency (or in this case, business case viability) is only achieved at a load factor of X%. In this case, while the load factor most critical to the charging station owner's end calculus is the utilization of the charge station, the pool of vehicles in a given geography that could use the charge station is the baseline.

Although often seen as a chicken v. egg situation, emerging industry experience recognizes the need for a volume of infrastructure to be available in advance of the purchase decisions of many drivers. As greater infrastructure in advance of utilization decreases load factor—at least in the near term—at each charging station, private investment to this end has been limited. This cycle of inadequate investment in infrastructure to accelerate adoption, leading to inadequate adoption of electric vehicles to attract investment in infrastructure, must be broken.

While not necessarily yet at issue in this docket, one party identified an interest in separating the procurement of charging hardware and software. Fundamentally, doing so requires the adoption of an open communication protocol, to ensure that hardware and software can integrate and communicate seamlessly. Currently the most widely adopted protocol is the Open Charge Point Protocol (OCPP). This strategy is one of the strongest guards against asset stranding and vendor lock-in currently available. Certainly, as the Commission is considering how best to protect ratepayer investment, it is appropriate to consider best in class strategies for future-proofing and ensuring utility choice in systems inherent to its operations. Greenlots is available to discuss these subjects in detail and at length, as desired by the Commission.

One party raised the issue of program costs and budget, and referenced Southern California Edison's Charge Ready Program, as it relates to charge station equipment

costs. The overlying recommendation that PEPCO request a set budget and support the deployment of as many charge stations as can be accomplished within the Pilot Program's design, is a good one. As a member of the Advisory Board for Charge Ready, Greenlots is acutely aware that Southern California Edison has experienced costs well above what was budgeted for, primarily on the installation front. That in turn, is reducing by an order of magnitude the number of stations able to be deployed.

Utilities are uniquely positioned to spur this market by making investments that the private market has been unable to, and by incorporating transportation electrification into robust grid modernization strategy and rates packages.

However, it is critical to allow utilities a deeper understanding of consumer behavior to different rate structures, and to ensure that there is an adequate pool of participants to draw from. Integrating electric vehicles and electric vehicle charging with utility distribution systems is critical to market growth and utility planning.

PEPCO's Pilot Program application is robust approach to deepening its understanding of electric vehicle charging behavior and modestly spurring the market in the District. This Pilot is a critical and modest extension of PEPCO's prior electric vehicle demand response pilot, and one that Greenlots believes should receive Commission approval.

Respectfully submitted,

/s/ Thomas Ashley

Thomas Ashley
Vice President, Policy
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Certificate of Service

I hereby certify that a copy of Greenlots' Reply Comments was served via electronic mail to known parties of record in this proceeding.

/s/ Thomas Ashley
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