October 5, 2021

Via Electronic Mail (board.secretary@bpu.nj.gov)

Hon. Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625-0350

RE: In the Matter of Medium and Heavy Duty Electric Vehicle Charging Ecosystem, Rates Track– Docket No. QO21060946

Dear Secretary Camacho-Welch,

Electrify America, LLC, appreciates the opportunity to comment on the Straw Proposal for Medium and Heavy Duty Electric Vehicle Charging Ecosystem. Electrify America participated in the Board of Public Utilities' (BPU) panel regarding How to Determine Rates held on September 15, 2021 as part of the BPU's series of workshops related to its Medium and Heavy-Duty EV Straw Proposal proceeding.[1] This presentation detailed several challenges related to the impact of capacity charges included in Basic Generation Service (BGS) rates.

Electrify America appreciates the diverse stakeholder contributions to the Straw Proposal workshops and submits this comment letter to reiterate several points raised during the Rates workshop. These points include: Medium & Heavy-Duty Vehicle (MHDV) charging needs are highly segmented by use case; Direct Current Fast Charging (DCFC) loads for vehicles in transit are inelastic; there are immediate opportunities for improvement in the assignment of initial capacity tags to new DCFC accounts; and alternative rate designs are needed within the BGS to recover costs for generation and transmission capacity charges in the PJM wholesale power market.

MHDV charging needs are highly segmented and range from long dwell time fleet vehicles that are parked overnight to in-transit vehicles that must charge to complete their routes or drayage trucks that are in constant use at port facilities. It is important to keep in mind that the latter types of use cases are inelastic and require rate designs that recoup their revenue requirements based largely, if not exclusively, on volumetric charges. For MHDV electrification to be successful, mid route charging options must have high availability and preclude rate designs that require demand response and throttling charging speeds to in-transit MHDVs.

The current practice of assigning default capacity tags for new DCFC station accounts based on estimated monthly Non-Coincident Peak (NCP) demands is inaccurate and drives unnecessary and burdensome charges to new DCFC stations. In Electrify America's experience, each new station was

[1] BPU Docket No. QO2106094

assigned Generation and Transmission capacity tags exceeding 100 kW. After a year of operation, these capacity tags reset based on actual peak hour usage from the prior summer (2020). Nearly all accounts experienced a significant reduction in capacity tags demonstrating that actual DCFC station loads exhibited low coincidence with peak PJM load hours in 2020. This data shows that lower estimated capacity tags on new DCFC station accounts are warranted. This issue is of great importance as new DCFC stations are highly capital intensive and take time to build charging loads as driver awareness and charging habits adapt. As a result, load factors in the first year of DCFC station operation are low and capacity charges at the levels initially assigned to Electrify America can preclude DCFC stations from earning a positive gross margin while the station is still building traffic. The unintended consequence of the current practice is to create a significant upfront operational expense that delays the DCFC station operator from realizing a positive gross margin. This is in direct conflict with NJ's transportation electrification goals and presents an unreasonable obstacle to DCFC station operators given the capital-intensive nature of DCFC station construction and NJ's objective to attract private capital to this sector.

While NJ has made significant strides toward improving rate designs for EV charging loads via alternatives to demand charges[2,3,4] the capacity charges within the BGS remain a significant hurdle for DCFC station operators. DCFC station loads are inelastic as they serve EV drivers who are in-transit and need to charge in order to complete their journeys. As a result, DCFC station operators have no control over their usage during the five PJM peak load intervals used to determine Generation capacity tags or the peak intervals used to determine Transmission tags. These charges represent an unhedgeable risk of severe cost exposure, putting DCFC station operators in a position where future costs of station operation are impossible to forecast with accuracy. While capacity charges can be mitigated in part with battery storage, the introduction of storage to DCFC station sites results in a significant increase in site costs, complexity (interconnection requirements, engineering, etc.), and space requirements (which may preclude siting in space constrained areas and require the need to forego installation in needed locations). Electrify America has implemented storage but has found that it only mitigates a fraction of the risk caused by capacity charges. The volatility in the current BGS rate designs for capacity in PSE&G, JCP&L, and ACE when load exceed 500 kW, amounts to a de-facto storage mandate if DCFC station operators want to achieve predictable operating costs, and consequently likely reduces the number of DCFC stations built in NJ.

Electrify America is joined by other DCFC station operators who have voiced alarm over capacity charges in the BGS as a barrier to DCFC station deployment. In Tesla's 9/15/2021 presentation regarding rates for the MHDV straw proposal, Tesla illustrated the burden of capacity charges on low load factor DCFC stations.[5] This issue has been raised previously and the BPU has recognized the need for additional rate options for DCFC loads to be addressed in future BGS proceedings.[6]

The present BGS proceeding presents the BPU with an opportunity to take action on this clear and present barrier to DCFC station deployment. Electrify America has requested that the BPU consider an alternative revenue neutral volumetric rate design for BGS capacity charges for DCFC station loads. In

[2] BPU Docket QO20050357, Order Adopting the Minimum Filing Requirements for Light Duty, Publicly Accessible Electric Vehicle Charging, entered 9/23/2020, pp. 9-10
[3] BPU Docket EO18101111, Decision and Order Approving Stipulation, entered 1/27/2021, pp. 14-15
[4] BPU Docket EO18020190, Order Approving Stipulation of Settlement, Demand Charge Solution Provisions
[5] MHDV Straw Proposal QO21060946, Tesla Presentation on 9/15/2021, Slides 9-10
[6] BPU Docket EO18101111, Decision and Order Approving Stipulation, entered 1/27/2021, pp. 15

the current BGS docket, Electrify America has put forth a proposal for an optional volumetric rate option for DCFC station operators.[7] This rate design includes the following features:

- The cost of wholesale generation and transmission capacity charges are collected via a volumetric charge that applies to all kWh at all hours on a flat basis devised to be revenue neutral to the LDC.
- Portfolio enrollment is required on an all-in basis and for a multiyear commitment so that a DCFC station operator must enroll all sites for multiple years, to prevent any potential gaming.

Electrify America's proposal would remove a significant barrier to DCFC operation while recovering the costs for capacity from DCFC operators on a portfolio basis. In this model, DCFC stations with low capacity tags would offset those with higher capacity tags and provide the budget and forecast certainty that DCFC station operators require to operate their business, while also delivering capacity revenues to the EDCs which they can remit to BGS Suppliers.

In the context of this Straw Proposal proceeding, Electrify America urges the Board to restate its concern with capacity charges and demand charges that pose a barrier to realizing NJ's transportation electrification goals. Electrify America welcomes proposals and solutions to reduce the impact of demand charges felt by DCFC station operators, and appreciates that the Notice for this Straw Proposal proceeding includes a focus on rate reforms to "[e]nsur[e] that demand charges applicable to MHD charging are not an obstacle to investment in MHD EV adoption."[8] As Electrify America has made clear in its presentation in this proceeding and in its BGS proceeding filing, any rate reform concerning the demand charge obstacle should address BGS capacity charges and their detrimental impact on private market investment in EV infrastructure in NJ.

We appreciated the opportunity to participate in the MHDV Rate panel and we welcome the attention and consideration of the BPU and other stakeholders to these important rate design issues.

Respectfully submitted,

/s/ Jigar J. Shah
Jigar J. Shah
Manager, Distributed Energy and Grid Services
Electrify America, LLC

[7] BPU Docket ER21030631, Electrify America Initial Comments, pp. 7-9
[8] BPU Docket No. QO2106094, Notice, updated 8/12/2021, pp. 16