



January 24, 2023

Via Electronic Filing

Ms. Carmen Diaz, Acting Secretary
New Jersey Board of Public Utilities
44 South Clinton Street, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625

RE: In the Matter of Medium and Heavy Duty Electric Vehicle Charging Ecosystem, Electrify America, LLC Comments on Revised Straw Proposal
Docket No. QO21060946

Dear Acting Secretary Diaz:

Electrify America, LLC appreciates the opportunity to comment on the revised version of the Straw Proposal for Medium and Heavy Duty Electric Vehicle Charging Ecosystem (“Straw Proposal”). Electrify America thanks the New Jersey Board of Public Utilities (“Board” or “BPU”) and Board Staff for their work in developing this Straw Proposal and for their commitment to building out equitable, reliable electric vehicle (“EV”) ecosystem infrastructure for the State of New Jersey.

Electrify America previously submitted comments in this proceeding on October 5, 2021, and Electrify America incorporates those comments herein. Electrify America continues to urge the Board address (1) the current practice of assigning default capacity tags for Direct Current Fast Charging (“DCFC”) station accounts by the Electric Distribution Companies (“EDCs”); and (2) the obstacle of high and burdensome capacity charges and demand charges that pose a barrier to realizing the State’s transportation electrification goals.¹

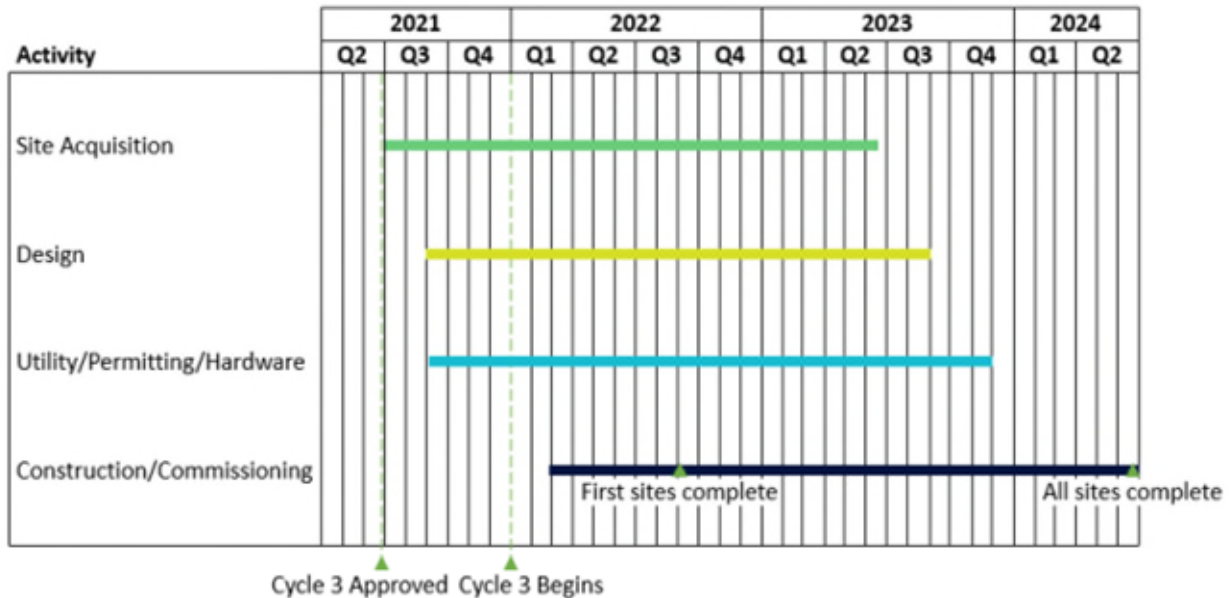
Electrify America has concerns about certain aspects of the revised Straw Proposal. As currently drafted, the minimum filing requirements for medium and heavy duty (“MHD”) vehicle charging do not provide sufficient flexibility to support the private market for EV charging stations, and may instead result in the unintended outcome of many EDC-owned and operated “Last Resort” charging stations. New Jersey’s transportation electrification goals and the goals articulated in the Energy Master Plan depend in part on a successful private market of charging companies. A strong private market of charging companies will reduce range anxiety for EV drivers, encourage greater EV adoption and proliferation throughout the State, and will expand the benefits of greater EV usage to Overburdened Municipalities.

¹ *In the Matter of Medium and Heavy Duty Electric Vehicle Charging Ecosystem – Rates Track*, BPU Docket No. QO21060946, Electrify America, LLC Comments dated Oct. 5, 2021.

I. The Straw Proposal’s Definition of “Last Resort” Does Not Provide the Private Market with a Meaningful Opportunity to Succeed

The definition of “Last Resort” in the Straw Proposal will enable the EDCs to file proposals for the development of EDC-owned and operated charging stations *before* the private market has the opportunity to develop EV charging stations for MHD vehicles in response to new incentives that the Board may adopt in this proceeding. “Last Resort” is defined in Section II of the Straw Proposal as “locations that have not generated private investment interest for a minimum of 12 months after an EDC program has begun for Overburdened Municipalities, or 18 months for other areas. EDCs may petition the Board to own and operate MHD-specific EV charging stations in these areas after those timeframes.” In Electrify America’s experience, it typically takes at least two years to develop a DCFC station.

Station development is a complex process from site development to site acquisition, requiring significant time and resources prior to site energization. Before breaking ground on a new station, the charging company must analyze prospective sites, review traffic patterns, proximate EV charging infrastructure, and assess utility power availability. Months of prospecting and negotiations with site hosts occurs prior to the acquisition of a site. Prospective sites are carefully selected to capitalize on existing market needs, including geographical gaps in available charging stations. The figure below, excerpted from Electric America’s Cycle 3 National ZEV Investment Plan, illustrates company-wide timelines for recent station development activities.²



In order to maintain a shared responsibility model, Electrify America suggests that the Board change the definition of “Last Resort” to include a longer timeframe of three to four years, which

² National ZEV Investment Plan: Cycle 3, p. 44, available at https://www.electrifyamerica.com/assets/pdf/cycle3_investment_plan_epa.1aa21b9b.pdf

more accurately and realistically reflects the time it takes to develop new charging stations. The short time period by which to identify market failures in Overburdened Municipalities as proposed in the Straw Proposal, practically guarantees areas of Last Resort, resulting in EDC-owned and operated MHD EV charging stations.

In Section IV.A of the Straw Proposal, Staff explains that through the shared responsibility model, “this Straw seeks to attract private capital into the MHD EV market while reducing the risk that ratepayers are left responsible for stranded costs.” Accordingly, Electrify America additionally suggests a process to document emerging market failures for areas of Last Resort, which could be made part of an EDC’s petition to open and operate charging stations. Keeping in mind the desired goal for private investment in MHD EV charging, Electrify America’s proposed procedure would aim to identify true market failures in which EDC-owned and operated charging stations are necessary.

First, the EDCs should be required to submit periodic progress reports on private development of EV charging stations that serve MHD vehicles in their respective service territories. Such progress reports would identify any perceived market failures and highlight geographical gaps in station development. To reduce the burden on the EDCs, the progress reports could be based on objective, readily-available metrics, such as interconnection requests for EV charging stations to serve MHD vehicles and participation in programs to develop charging stations intended to serve MHD vehicles.

Second, a petition for an EDC to own and operate charging stations should require an acknowledgement from existing EV service providers within the EDC’s service territory that the documented market failure exists and cannot be remedied through private investment.

Third, the Board should consider adopting a right of first refusal process to provide private charging companies with a final opportunity to open new stations before enabling EDC-owned and operated charging stations. The Georgia Public Service Commission adopted a settlement in Georgia Power’s 2022 rate case, which established a community charging program that allows Georgia Power to construct, own, and operate EV charging stations provided that Georgia Power submits annual plans with the Commission focused on rural and underserved areas.³ Under this program, Georgia Power may propose opening new stations in its annual plans, however EV charging station operators will have a one-time 60-day right of first refusal to claim a location within 15 miles of an existing charging station and must begin construction at the location within 18 months of selection. Only where the charging companies do not exercise the right of first refusal or do not begin construction within 18 months, Georgia Power may move forward to develop and energize such locations.⁴ This right of first refusal process achieves the necessary balance required for an effective shared responsibility model and allows the private market an adequate opportunity to open new stations and address gaps in EV infrastructure development before enabling EDC-owned and operated stations, at reduced cost to ratepayers.

There is no evidence that should cause the Board to abandon or shift its position on the shared responsibility investment model. Moreover, Electrify America joins the New Jersey Division of

³ Order Adopting Settlement Agreement as Modified, Georgia Power Rate Case, Docket No. 44280 (Dec. 20, 2022).

⁴ *Id.*

Rate Counsel in voicing concerns associated with EDC-owned and operated charging stations, which would create higher costs for ratepayers. Therefore, changing the definition of “Last Resort” to better reflect how long it takes to open and energize new charging stations and modifying the EDC petition process to ensure real market failures exist before enabling ratepayer-subsidized EDC charging stations are simple approaches to maintain the shared responsibility model and allow the private market an opportunity to succeed.⁵

II. Demand Charge Reform Is a Necessary Component to Achieve New Jersey’s Transportation Electrification Goals

Electrify America applauds Board Staff and the Board for its interest and commitment in providing demand charge reform to encourage rapid deployment of EV infrastructure for MHD vehicles. This includes “[e]nsuring that demand charges applicable to MHD charging are not an obstacle to investment in MHD EV adoption,” as identified in Section IV.D of the Straw Proposal. Electrify America supports Board Staff’s proposal to implement a “set point” to mitigate demand charges associated with EV charging.

Electrify America has explained in prior filings before the Board that a largely volumetric rate design would provide predictable unit costs over a range of load factors.⁶ In order to overcome the recognized barriers posed by high demand charges, charging stations and DCFC operators in particular seek predictable, stable rates. Stable rates are difficult to achieve under current rate design models, particularly where the industry as a whole is still gaining traction, as the Straw Proposal recognizes that “some stations may have relatively few monthly charging sessions over which to recoup a high demand charge.” Moreover, there is significant volatility in cost based on whether a site is above or below the 500 kW threshold, which currently serves as an arbitrary threshold that results in a demand charge that dramatically increases costs per kWh, which MHD vehicles are more likely to trigger.

While Electrify America supports the objective that the set point should be benchmarked to achieve EV charging below the equivalent cost of diesel or gasoline, the set point must additionally ensure an economically sustainable model for EV charging station operators, recognizing that the delivered cost of energy from an EDC is a major cost component but not the only cost component affecting charging operators. Demand charge reform that is intended to

⁵ The arbitrary assignment of initial capacity tags by EDCs to be often higher than comparable commercial loads, as documented by Electrify America in its comments in the BGS proceeding, show that the EDCs may not be incentivized to enable the private market to succeed where the EDCs stand to profit by potentially owning and operating their own charging stations. *In the Matter of the Provision of Basic Generation Service for the Period Beginning June 1, 2023*, BPU Docket No. ER22030127, Initial Comments of Electrify America, LLC dated Sept. 2, 2022 [hereinafter Electrify America BGS Comments], at pp. 14-16. The EDCs have defended their practice by asserting that high initial capacity tags are usually resolved after one year, which offers credence to Electrify America’s comments concerning the time it takes to become profitable in New Jersey and to open new charging stations. In addition, Electrify America’s experience with tags that were supposedly set high erroneously until reported to the BPU suggests that additional procedural protections would be beneficial to ensure true market failures before enabling EDC-owned and operated charging stations. Electrify America is hopeful that the ongoing working group process in the BGS proceeding will resolve this issue and lead to a workable alternative rate design for these charges.

⁶ See, e.g., Electrify America BGS Comments, at pp. 7-8, 11-13.

encourage rapid deployment of EV infrastructure in the early days of EV vehicle adoption should allow station operators to have sufficient margin to recoup capital and operating costs.

Demand charges represent a critical barrier to widespread transportation electrification. Research from the Great Plains Institute found that demand charges can account for over 90% of electricity costs for DCFC stations, and “lead to operating costs that far exceed the revenue these chargers can receive from customer payments”—a finding that was echoed in a 2021 U.S. Department of Energy report.⁷ It is a misnomer that demand charges provide a market signal that incentivizes innovation or careful site selection. As explained above, site selection for new charging stations is already a focused and methodical process aimed to capitalize on opportunities in the market. However, unmitigated demand charges increase costs for charging station operators, which limits their ability to open new stations, which in turn prevents greater deployment of EV infrastructure resulting in the type of market failures that enable EDC-owned and operated charging stations.⁸

The Straw Proposal at Section IV.D “requests feedback on the best manner in which to achieve demand charge reductions.” Electrify America provides the following suggestions, taken from other jurisdictions that have implemented these rate designs to enable sustainable commercial EV charging operations. Electrify America recognizes that there is no one-size-fits all solution to demand charge barriers, but each of these programs could prove effective in delivering the “set point” discussed in the Straw Proposal.

Table 1: Summary of Selected Alternative Rate Designs

Rate Design	Description
Fully Volumetric Rate	The revenue requirement for a rate class is recovered through volumetric charges. (e.g., Southern California Edison’s TOU-8 tariff, DTE Energy’s GS-3 tariff, and Rocky Mountain Power Utah’s Schedule 6A tariff)
Low Load Factor Rate Variants	A variation on a rate schedule for low load factor customers (typically < 20%) where demand charges are reduced and usage charges are increased relative to the parent rate. (e.g., National Grid Massachusetts Rate G-3, Eversource CT and Avangrid CT commercial EV rates approved Dec. 2022)
Demand Limiters	A rate feature where demand charges are limited for low load factor accounts based on a minimum monthly hours of use or ratio of kW to kWh. (e.g., Xcel Energy Minnesota’s General Service A-14 tariff)

⁷ McFarlane, D., et al, “Overcoming Barriers to Expanding Fast Charging Infrastructure in the Midcontinent Region,” Great Plains Institute, *available at* https://scripts.betterenergy.org/reports/GPI_DCFC_Analysis_July_2019.pdf (July 2019); U.S. Department of Energy, “An EV Future: Navigating the Transition,” *available at* https://smartgrid.gov/files/documents/An_EV_future_10.21.21_FINAL.pdf (October 2021).

⁸ Some stakeholders claim that the burden and costs imposed by demand charges may be alleviated through energy storage. Current rate structures in New Jersey amount to a storage mandate to manage capacity tags for DCFC loads. While Electrify America has added storage to many of its DCFC stations, adding storage introduces complexities for construction, significantly increases capital costs given real estate constraints, and is not possible at all site locations. Increased battery storage and a storage mandate to offset capacity tags ultimately limits the number of stations charging companies are able to open, resulting in fewer DCFC stations and increased costs and availability of charging stations for EV drivers.

Unit Cost Limiters	A calculation method where charges are based on the published tariff, but not to exceed a pre-defined unit cost threshold. (e.g., Dayton Power & Light Tariff D19)
Reduced Demand Charges	Demand charges are reduced to only recover local customer specific facilities-related costs (e.g., transformers), while shared distribution and generation and transmission charges are recovered volumetrically. (e.g., Xcel Energy Colorado, Rate S-EV)
Hours of Use Tiered Charges	A rate structure where usage is grouped into tiers based on the load factor. Low load factor accounts would have usage priced in higher cost tiers and omit a demand charge. (e.g., Georgia Power Rate PLM)

In addition, providing discretion to the EDCs to implement demand charge reform through waivers or options to extend such programs would be ill-advised where the EDCs may not be sufficiently incentivized to encourage the private market of EV charging stations. Waivers in particular introduce significant uncertainty to market participants because it may not be clear if the waivers will be granted and waivers are not a substitute for a permanent rate design solution.

In order to ensure sustainable commercial EV charging operations, any demand charge reforms implemented by individual EDCs to distribution charges based on the minimum filing requirements set forth in this proceeding should be accompanied by demand charge reform in the BGS proceeding.

III. Requirements for Managed Charging for all Fleets and Publicly Accessible MHD Charging May Preclude Certain DCFC Use Cases

Fleets

Section IV.A.3 of the Straw Proposal includes the provision that Make-Ready incentives should only be available to Private Fleet Charging Depots that “agree to participate in a managed charging program that directs most charging to off-peak periods.” Section IV.A.3.iii further expands upon this requirement and includes a proposed requirement that “any entity seeking Private Fleet Charging Depot funding would be required to abide by a managed charging program for at least 90% of its charging needs and no more than a 10% increase in their on-peak instantaneous demand, both measured on an annual basis. The Straw Proposal contemplates that this requirement could be enforced via “retroactive assignment of demand charges, disconnect switches, or other physical or financial means of enforcing the managed charging program.”

This stringent requirement for managed charging and potentially putative financial penalties for increasing on-peak demand is at odds with certain important MHD EV use cases. Implementing such requirements will likely result in an adverse effect by limiting EV expansion to MHD vehicles and fleets. Electrify America recommends that the Board remove managed charging requirements from its minimum filing requirements for MHD EV segments that require daytime charging or demonstrate inelastic charging needs.

Electrify America has unique experience in MHD vehicle electrification through its “Green City” project serving the Port facilities in Long Beach and the Wilmington neighborhood of Los

Angeles.⁹ This project involves the electrification of drayage trucks serving the port complex and public transit buses.¹⁰ The port complex in Long Beach, CA is similar to New Jersey’s Port Newark-Elizabeth Marine Terminal in that it operates on an around-the-clock basis. Drayage trucks are often operated in shifts and may need to charge at any time to complete their routes or prior to commencing a new trip. Transit buses also may need to charge between routes which are concentrated during commuting hours.

Electrify America has additional experience with transit fleets through its Sacramento Green Cities program, which recently celebrated its third year in operation. In Sacramento, Electrify America has provided EV charging infrastructure and services to a fleet of electric buses connecting the University of California (UC) Davis campus with the UC Davis Medical Center campus as well as a fleet of shuttle busses in the South Sacramento area.^{11,12} In both of these MHD projects, the managed charging requirements proposed in the Straw Proposal would directly conflict with the operational requirements of these electrified fleets.

Publicly Accessible MHD Charging

In Section IV.A.4 of the Straw Proposal regarding Publicly Accessible MHD Charging, Staff “acknowledges that tariff demand charges remain a hurdle to private investment and will require each EDC to propose its own method to address demand charge concerns.” Staff then states that “charging should remain competitive between publicly and privately held assets, but also with liquid fuels on a per-mile-traveled basis to the best extent possible.” The need to be competitive with liquid fuels on a per mile traveled basis is a critical insight in this section of the Straw Proposal. Achieving this objective will require total electric charges (delivery and supply) that allow EV charging station operators sufficient headroom to also recoup capital costs and operations and maintenance (O&M) costs in the rates that they charge MHD vehicles for EV charging sessions. The Straw Proposal suggestion that “[a]doption of on-peak demand charges that ensure a rapid recovery of Make-Ready infrastructure funded by ratepayers if the user elects to charge during peak periods” has the potential to severely hinder the economic viability of publicly accessible MHD EV charging business models if these on-peak demand charges are set at levels greater than a few dollars per kW.

In addition, public EV charging infrastructure made accessible to MHD vehicles in transit that require on-the-go charging will not be able to respond to a managed charging requirement. A recent order issued by the New York State Public Service Commission (“NY PSC”) directly addresses the conflict between managed charging and public DCFC stations that serve in-transit drivers. In its January 19, 2023 order in Case No. 22-E-0236, the NY PSC rejected Consolidated Edison’s and Orange and Rockland Utilities’ managed charging proposals for public DCFC stations

⁹ Press Release, “Electrify America Celebrates ‘Green City’ Selection of Long Beach and the Wilmington Neighborhood of the City of Los Angeles for \$25 Million Investment,” June 29, 2021, *available at* <https://media.electrifyamerica.com/en-us/releases/148>

¹⁰ Electrify America California ZEV Investment Plan: Cycle 3, Section 6.3, May 2021, *available at* <https://media.electrifyamerica.com/assets/documents/original/685-20210503PublicCaliforniaC3ZEVInvestmentPlanFinalvF.pdf>

¹¹ Press Release “Electrify America Expands to 100 Electric Vehicle Charging Stations in California,” March 4, 2020, *available at* <https://media.electrifyamerica.com/en-us/releases/92>

¹² Press Release “Electrify America Green City Investment in Sacramento, CA: Sac-to-Zero Campaign Impact,” *available at* <https://media.electrifyamerica.com/en-us/releases/147>

serving light duty vehicles after determining “that managing charging demand is antithetical to public DCFC stations’ core business model.”¹³ The Commission explained that, “[b]ecause public DCFC charging is not predictable, cannot be scheduled, and often cannot be managed without impacting the EV driving experience, public DCFC stations simply cannot be expected to manage their charging at this phase in the EV adoption cycle.”¹⁴

As a result, the provisions for managed charging in Section IV.A.3 and 4 of the Straw Proposal are too restrictive for many MHD fleet use cases and publicly accessible MHD charging. Therefore, these provisions should be revised to allow for charging at any time for use cases that exhibit inelastic charging demand.

IV. Data Sharing Obligations on EV Infrastructure Companies Should Not Be Overly Burdensome

The Straw Proposal at Section IV.B provides that EV infrastructure companies must commit to data sharing in order to be approved for Make-Ready locations for new charging stations. Electrify America recommends that the Board only require EDCs to provide data that is available through the meter and resist from requiring charging companies to supply additional data beyond the meter. The data collected through the meter provides sufficient information to the EDCs without requiring the charging companies to divulge sensitive commercial information. This concern is made stronger by the fact that EDCs stand to become competitors of the charging companies through their own charging stations in areas of Last Resort. Requiring charging companies to abide by demanding and onerous data sharing obligations will limit participation and the success of these programs.

Electrify America maintains that the shared responsibility model will best allow the State of New Jersey to achieve its transportation electrification goals. However, certain adjustments to the Straw Proposal described above will better align with the shared responsibility model by allowing the private market an opportunity to succeed. We appreciate the opportunity to submit comments and provide suggestions in response to the Straw Proposal. We welcome the attention and consideration of the BPU and other stakeholders to these important issues.

Respectfully submitted,

/s/ Jigar J. Shah

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Electrify America, LLC

¹³ NY PSC Final Order, *Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging*, Case No. 22-E-0236, pp. 20 (Jan. 19, 2023).

¹⁴ *Id.*