

State of New York
Public Service Commission

Case 18-E-0138 Proceeding on Motion of the Commission Regarding Electric
Vehicle Supply Equipment and Infrastructure

Case 22-E-0236 Proceeding to Establish Alternatives to Traditional Demand-Based
Rate Structures for Commercial Electric Vehicle Charging

**INITIAL COMMENTS OF THE NEW YORK POWER AUTHORITY
ON THE PUBLIC SERVICE COMMISSION NOTICE SOLICITING COMMENTS**

The New York Power Authority (NYPA) submits these comments in response to the New York State Public Service Commission’s (PSC or Commission) Notice Soliciting Comments (Notice) regarding the establishment of a commercial tariff for electric vehicle charging infrastructure, issued on April 21, 2022, in Case No. 22-E-0236.¹ This Notice is issued in accordance with Public Service Law (PSL) §66-s, which requires the Commission to “commence a proceeding to establish a commercial tariff utilizing alternatives to traditional demand-based rate structures, other operating cost relief mechanisms, or a combination thereof (collectively, ‘solutions’),”² evaluate the relative costs and benefits of the proposed solutions, and issue an order approving or modifying a proposal made by the Department of Public Service (Department).

In this filing, NYPA is responding to the four questions below as these are areas that NYPA finds to be most critical in addressing the challenges high costs of operation present to the deployment of electric vehicle supply equipment (EVSE). NYPA may provide additional comments in this proceeding.

QUESTION RESPONSES:

- 2. When evaluating the impact of potential solutions, what assumptions should be applied to appropriately represent the investment decision that charging station developers and/or site hosts must make? Key assumptions of interest include, but are not limited to, utilization of the charging stations over the investment horizon, capital costs, capital structure, and operation and maintenance costs (i.e., leasing costs of land, the fees or pricing consumers will pay for public charging, and the minimum financial threshold: Internal Rate of Return or Return on Investment to determine if the tariff or cost relief program is sufficient to spur investment).**

For EVSE owners and operators, long term predictability for the applicable electric tariff rates and charges is a critical factor for forecasting and planning for the electric component of a

¹ [Case 22-E-0236, Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging](#), Notice Soliciting Comments (issued April 21, 2022).

² PSL §66-s(2).

charger's operations and maintenance (O&M) costs. The applicable electric tariff's rates and charges can be a determining factor in whether to install EVSE at a particular location. This is especially true for direct current fast chargers (DCFC) with high demand, at expected low utilization sites where it is probable that the applicable charges will exceed revenues generated from vehicle charging sessions.

A utility's electric tariff for commercial EV charging can provide predictable O&M costs. Having foreseeable O&M expenses would allow EV charging networks, fleet operations, and other potential EV charging customers to make informed decisions whether to invest in EVs. Removing some of the O&M uncertainty for EVSE will remove a barrier to investment and could accelerate deployment of EVSE.

4. What solution design elements should be considered to best maintain an incentive to manage electric demand? For example, should the structure of the potential solutions incentivize charging station owners to use time-varying pricing for drivers, to co-locate storage with electric vehicle charging stations, or to co-locate charging stations with complementary load profiles or anchor customers such as commercial fleets or ridesharing businesses?

Time-Varying Pricing for EV drivers: New York State is still in a nascent stage of the EV marketplace, and to meet the State's goal of having 850,000 light-duty EVs on the road by the end of 2025, the EV adoption rate in the State will need to increase significantly. The State will need to ensure public EV charging is available, convenient, and user-friendly. Time-varying rates are a useful tool to incentivize off-peak charging behavior for at home charging. However, charging EV drivers time-varying rates to use public Level-2 (L2) and public DCFC EV charging could discourage potential EV adopters and serve to slow EV adoption. Drivers of internal-combustion engine vehicles, who the State encourages to transition to EVs, are not used to considering when to re-fuel based on the time-of-day or day-of-the-week, they are accustomed to refueling at their convenience.

Co-Locating EVSE with energy storage: NYPA has considered co-locating energy storage with its chargers as a means of reducing make-ready expenses and demand charges, but NYPA has found that co-locating storage with public DCFC can be uneconomical and difficult to site. While the costs of energy storage technologies have been steadily declining, the cost to purchase and install an energy storage asset still exceeds the expected economic benefits. Co-locating energy storage is most feasible in less urban areas where land is cheaper and more plentiful. However, in less populated areas, the utilization of the EVSE is lower, and therefore the benefits associated with co-location are not fully realized.

Conversely, while charging locations in urban environments with higher anticipated EVSE utilization and potentially higher electric rates would likely have higher financial benefits from operating co-located storage, they are often space constrained and may be more difficult to permit. Four DCFCs occupy five parking spaces as well as roughly 200 square feet of an adjacent area for power equipment. In urban sites, the power equipment necessary for the EVSE often needs to be placed in the parking area as well and creates a further constraint on available real estate. Adding the footprint of storage increases this burden. In addition, it can increase the cost of the installation, and savings from peak shaving may not bring the storage system past a financial break-even point. There are also few incentives currently available for

co-locating energy storage with EVSE, and energy storage is not an eligible expense under the State's Make-Ready Program.

Co-locating public fast chargers with commercial fleet charging: Co-locating public and commercial fleet charging infrastructure is appealing in terms of optimizing make-ready installation costs if the two projects have similar timelines. However, each charging system would likely need to have its own electric meter since the fleet charger would be exclusive to a single user and the equipment would likely have a different owner from the public fast charger. NYPA does see benefit to this approach for certain use cases on a case-by-case basis.

Co-locating public chargers with rideshare fleet charging: EV rideshare fleets have the potential to increase utilization of public DCFC in certain areas of the State. New York City has regulatory requirements encouraging the electrification of rideshare fleets. However, NYPA's understanding that rideshare fleets are concerned that current pricing levels of public DCFC (about 35 cents per kWh) is not sustainable for their current business models. Creating a partnership between a ride-sharing company and public fast charging could spread demand costs among more users and help bring down these costs. NYPA is also aware that rideshare companies have concerns regarding lack of availability of fast charging at peak periods of use and load profiles may not be complementary.

7. Should the solution design address sites that may be necessary to establish a minimum network of public charging but are located in areas that are likely to experience lower utilization in the long-run? If so, how?

NYPA believes that it should. This is a key objective of the solution to incentivize deployment of public DCFC. The development of a publicly accessible and reliable backbone of EVSE throughout the State is critical in supporting the increased adoption of EVs. According to a 2019 report commissioned by Volvo, the single most important reason for members of the public not purchasing an electric vehicle is concern of range anxiety³ which is caused by having limited charging stations available. Potential customer range anxiety is leading the EV industry to conclude that states must build out a robust network of fast charger capacity ahead of EV adoption to address the range anxiety concern, and that charging infrastructure must be built out at regular intervals across the entire State. To address this concern, it will be necessary to have DCFC located in sites that are likely to be seasonal and experience cyclical use patterns or limited use. One such example would be vacation destinations, such as the Adirondack region of New York State. These sites would be likely to have low utilization and high demand charges even as EV adoption increases. A kWh charge-only tariff is one possible solution for making these types of sites more economical and attractive for EVSE deployment.

8. Should a separate service class for commercial electric vehicle charging stations be established for tariff-based solutions? What are the benefits or drawbacks of this approach? Should separate service classes be established for different types of electric vehicle charging infrastructure and applications (e.g., L2 versus High Voltage Direct Current, fleet charging infrastructure)?

³ The State of Electric Vehicles in the USA, Volvo (February 26, 2019) (Volvo EV Report), available at <https://www.media.volvocars.com/us/en-us/corporate/volvo-reports>.

If the Commission makes the decision to implement a tariff or program-based solutions, NYPA suggests focusing on these use cases separately. Fleets that can charge vehicles overnight may be well served by existing commercial time-of-day (TOD) tariffs. Eligibility rules to participate in TOD tariffs vary widely among the utilities and smaller fleets may not qualify. Additionally, the differential between on-peak and off-peak demand charges also varies substantially among utilities. We suggest that the Department/Commission undertake a review of TOD rates with a goal of harmonizing these rates among the different investor-owned utilities in New York State. NYPA also suggest that the Commission consider reducing the on-peak period to actual hours when the utility's system is likely to peak, where possible. Current peak periods often run for 10 hours or more (e.g., 10am to 8pm) making it difficult for fleet operators to recharge during the operating day. For example, school bus fleets are likely to require mid-day charging to meet their route requirements. It is unlikely that TOD rates will meet their needs. Standby rates, which are a form of TOD, can also be cost prohibitive to fleets that would incur the daily as used demand charge on all applicable operating days. An important objective of a TOD review should be to determine how fleets can exclusively charge off-peak and realize substantial operational savings when comparing per mile fuel costs to diesel fuel.

Demand charges can also discourage development of L2 charging. Many parking lots are limited to street lighting loads and are not subject to demand charges. Adding a bank of L2 charging stations can trigger demand charges where such facility operators never experienced them before. In addition, drivers are less likely to pay a premium cost charged to cover a demand charge to use L2 charging (in comparison to the convenience of DCFC). Therefore, it is possible for the owner of L2 charging stations to be in a situation where utilization is insufficient to generate enough revenue to compensate for demand charges.

CONCLUSION

NYPA strongly supports the State's goal of all new passenger cars and trucks sold in New York State being zero-emissions by 2035 and all off-road vehicles and new medium-duty and heavy-duty vehicles being zero-emissions by 2045. NYPA appreciates the Legislature's attention to this important issue, and thanks the Commission for the opportunity to provide comments in this proceeding. NYPA looks forward to working with Department Staff and interested stakeholders in this proceeding.

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Respectfully submitted,

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