STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission
Regarding Electric Vehicle Supply Equipment
and Infrastructure

Case 18-E-0138

COMMENTS OF
THE LONG ISLAND POWER AUTHORITY AND
PSEG LONG ISLAND

I. BACKGROUND

Pursuant to the New York State Public Service Commission’s (“Commission”) August 16, 2018 Notice of Working Group Meeting and Request for Post-Conference Comments in the above-referenced proceeding, the Long Island Power Authority and PSEG Long Island1 (collectively the “Long Island Parties”) jointly submit these comments in response to the 14 questions listed in the Commission’s Notice.

The Long Island Parties support the goal of this proceeding to determine the role of electric utilities in encouraging greater penetration of electric vehicles (“EVs”) and electric vehicle supply equipment (“EVSE”) in New York State in order to meet the greenhouse gas reduction targets set forth in New York’s State Energy Plan. We support the Commission’s efforts to advance transportation electrification and to facilitate statewide policies and programs to jumpstart and sustain beneficial transportation electrification in New York State. The Long Island Parties submit that electric utilities have an important role to fulfill in helping to encourage and remove barriers to increased EV usage. LIPA and PSEG Long Island’s EV-related policy objectives include supporting New York’s zero emission vehicle and emissions reduction targets; seeking to empower competitive EV and EVSE markets; maximizing net benefits to Long Island electricity consumers; and encouraging efficient use of electric grid assets – e.g., through the use of rate incentives and smart charging technology.

PSEG Long Island has already begun implementing the following EV-related initiatives:

- Launched workplace charging rebate program;

1 PSEG Long Island LLC, through its subsidiary, Long Island Electric Utility Servco LLC, is the Service Provider and agent for the Long Island Power Authority’s subsidiary, the Long Island Lighting Company d/b/a/ LIPA.
• Added EVs and chargers to PSEG Long Island’s vehicle fleet;
• Proposed a residential smart charging rate in PSEG LI’s Utility 2.0 Plan;\(^2\)
• Launched a customer EV outreach and engagement campaign.

Additionally, overcoming consumer concern about range anxiety is an important obstacle that must be overcome to increase EVSE penetration and consumer adoption of EVs. Consumer access to a comprehensive network of fast convenient public charging stations (high power Direct Current Fast Chargers - “DCFC”) is critical for overcoming consumer range anxiety. The Long Island Parties recognize that initial DCFC charger installations will be challenged by low utilization rates. High voltage draws when the DCFCs are being used – combined with existing utility demand tariff rates – make the economics of DCFC owners’ business cases challenging. It is for this reason that the Long Island Parties are proposing to temporarily reduce the demand charges paid as the DCFCs load factor improves with greater usage.

Following are the Long Island Parties’ specific comments on the questions set forth in the Commission’s Notice:

II. COMMENTS

1. **What role should the utility play in supporting Electric Vehicle Supply Equipment (“EVSE”) deployment? Please address this question from the perspective of utility ratepayers, Electric Vehicle (EV) suppliers, and providers of EVSE. How should utility investment costs, if any, be compensated or recovered? Should utilities have the opportunity for earnings adjustment mechanisms related to successful EVSE deployment?**

Utilities have an important stake in EVSE deployment. Utilities should have a role in helping EV adopters overcome their perceived barriers and serving as a trusted advisor associated with outreach related to electric vehicles and supporting equipment. Like other utility programs that provide early adopters incentives to move or create a market, utilities should have the flexibility to provide incentives to EV early adopters and future EV adopters. This would help to create economies of scale, new EV choices and improved EV charging infrastructure. Utilities also need to create rate designs that both incent EV adoption but also encourage off-peak charging to better utilize existing utility infrastructure. Having a role in EV programs and incentives will help utilities accomplish both of these important tasks for the benefit of their customers.

\(^2\) PSEG Long Island Utility 2.0 Long Range Plan 2018 Annual Update (June 29, 2018), NYS Department of Public Service Matter 14-01299.
2. **What are the most significant changes the Commission can make in order to enhance the utilities’ roles in supporting EVSE deployment? What are the benefits and problems with utility ownership of EVSE?**

   See response to Question 10 below.

3. **What role should the utility play in encouraging EV adoption? Should the role of the utility extend beyond customer education and awareness? Please address this question from the perspective of utility ratepayers, EV suppliers, and providers of EVSE. How should utility costs, if any, be compensated or recovered?**

   The Long Island Parties believe the electrification of transportation has the potential to provide significant societal benefits to the utility’s customers and the environment. The Long Island Parties have the following key goals:

   - Enhancing the penetration of EVs on Long Island.
   - Aligning PSEG Long Island’s EV customer adoption strategy with NY REV objectives of reducing GHG emissions.
   - Empowering customers while animating the EV charging infrastructure market.
   - Deploying smart EV charging systems that have the capability to help PSEG Long Island balance grid demands, peak capacity periods, and improve the overall system load factor.

   Increasing the adoption of EVs is a key objective of the Long Island Parties that drives PSEG Long Island’s EV strategy. With nearly 10,000 EVs on the road as of year-end 2017, the Long Island region has the highest level of EV adoption in New York State. The number of EVs registered on Long Island represents approximately 40% of EVs registered in New York State. The ratio of EVs to charging stations is approximately 12:1 in New York State and 40:1 on Long Island. Currently, there are approximately 175 public and private commercial charging stations on Long Island, with approximately 150 Level 2 chargers and 25 Level 3 DCFC ports. The Long Island Parties have the unique opportunity to develop Long Island as a leader in the deployment of smart EV charging systems across residential and commercial customer accounts. The high EV and low charger penetration on Long Island provides an optimal market to advance adoption of smart EV charging systems. Smart chargers are of interest to utilities over non-communicating chargers because of their capability to support managed charging and load shedding during system peak load conditions, offering incremental grid and societal benefits. To that end, the New York DPS issued an advisory letter in December 2017 that broadly supported PSEG
Long Island’s EV program objectives to deploy an even more aggressive and comprehensive EV program.

4. **What is the best way for utilities, charging station providers, and site hosts to work together to locate charging stations where they best meet electric system, customer, and community needs? What data is needed to further this collaboration?**

The Long Island Parties submit that this is a multi-phased issue. First, the primary issue is where to place the chargers that provide the most benefits to EV users and the electric system without oversaturation, which would result in inefficient use of utility resources and provider capital. Second, to overcome “range anxiety” concerns, the Long Island Parties suggest consideration of geospatial coverage mapping of general locations where fast charging capability will be necessary to overcome such concerns. Such mapping would need to incorporate any associated grid constraints to allow potential charging station developers insight with respect to real estate selection. ³

The Long Island Parties also recognize that another significant issue is that some charging locations may be economically challenged during the initial years when vehicle penetration and usage is modest. To remedy that concern, PSEG Long Island has proposed as part of its 2018 Utility 2.0 filing an alternative incentive mechanism aimed at ensuring that the charging stations necessary to overcome “range anxiety” are kept financially sound until such time that vehicle penetration levels render the charging station independently self-supporting. This proposal is outlined in the response to question 10.

5. **Are there any communities or customer groups that require special consideration in the placement of EVSE facilities? What role should the utility play in encouraging or facilitating increased EV usage by low- to moderate-income households?**

The Long Island Parties submit that our proposed mapping effort is a means to more fully assess the EVSE needs of the entire service territory to help ensure that EVSE is accessible in all areas and to all communities without respect to the socio-economic characteristics of the households. Areas where home charging may be impractical due to parking limitations — such as areas with greater concentrations of multi-family dwellings — will require alternative solutions and charging options and greater coordination among

³ In its Utility 2.0 Plan, PSEG Long Island proposed performing such a mapping analysis of its service territory for locations where DCFC charging would be needed in order to alleviate “range anxiety” perceptions which might otherwise dissuade potential EV purchasers from going forward with the purchase of an electric vehicle.
utilities, municipalities, and building owners; therefore, mapping efforts need to correlate both the amount of personal vehicle ownership and available home or alternative charging options by areas.

6. **What rules, requirements, and standards are needed to enable EVs and EVSE to operate as a source of grid services and system value, including possible data and instrumentation needs?**

   [No response.]

7. **What are the barriers to treating EVs and EVSE as Distributed Energy Resources (DERs)? How does rate design affect the ability of EVs and EVSE to provide this value? How does rate design affect the extent to which the value provided by EVs and EVSE (including environmental and economic benefits) is compensated?**

   Electric vehicles have two unique characteristics that need to be considered before they can be used as DER providers. The first is the mobility of the asset; unlike fixed battery installations, this resource can be there one minute and gone the next, which will complicate the Measurement & Verification done for current DER providers. The second barrier is the utilities ability to make payments based on the existing on board vehicle data systems, which are not revenue grade meters.

   Through robust data analysis, aggregation of greater numbers of EVs, and advances in metering and other technology, these barriers could soon be overcome. Utilities should be encouraged to pilot Vehicle-to-Grid projects and share their learnings. Fair, cost-based pricing and compensation for DERs that does not arbitrarily preclude particular end-uses will ensure that the value provided by EVs and EVSE is compensated.

8. **Should EVs and EVSE be treated as DERs? If so, what factors need to be addressed to include EVs and EVSE within the DER market and compensation structure for DERs?**

   See response to question 7. EVs and EVSE should not be precluded from participation in DER markets and programs, the rules of which should be structured wherever feasible to be technology neutral.

9. **What considerations should be taken into account in designing rates for charging stations? For example, should a typical three-part tariff (customer, demand and energy charge) be applied? Should the rate design be different for residential versus commercial use? Should the rate design be expected to change over time as EV penetration increases? Should time-of-use rates be required for EV charging? Should utility residential EV charging tariffs (filed in Case 18-E-0206) be modified? Please address these questions from the perspective of utility ratepayers, EV owners, and EVSE suppliers.**
PSEG Long Island has set forth its initial plans on rate approaches in its 2018 Utility 2.0 filing, and components of that plan are further discussed in the response to question 10 below. Those approaches are appropriate for the initial years of EV adoption on Long Island. The Long Island Parties expect that as actual EV penetration increases, it may be necessary to revisit rate structures and incentives based upon actual penetration levels and customer charging practices in the residential, commercial and DCFC sectors.

10. How should the cost of recovering distribution network upgrades for EVSE be recovered if not through the demand charges?

As stated previously, initial DCFC charger installations will be challenged by low utilization rates. High kilowatt draws when being used – combined with existing demand tariff rates – make the economics of DCFC owners’ business cases difficult. In recognition of these facts, which could lead to insufficient DCFC charging stations being installed in the Long Island service territory, PSEG Long Island has proposed an innovative DCFC “set point” incentive to complement our existing EV initiatives and to lead to development of the infrastructure necessary to support greater adoption of EVs.

The set point approach mitigates one of the primary risks preventing higher DCFC penetration: economic losses caused by the combination of low utilization and high electricity demand charges. However, the set point approach offers several additional benefits, as described below:

First, the set point approach avoids subsidizing profitable stations because the incentive decreases automatically as utilization increases. As a result, the amount of the incentive for each charging station is matched with the size of the economic loss caused by low utilization. This happens naturally because, as overall utilization of the charging station increases, so will the DCFC customer’s load factor, and as a result the average $/kWh paid by the owner will approach and ultimately fall below the set-point $/kWh cap. In

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4 Our Utility 2.0 plan outlines our plans to launch a new Residential Smart Charging Program in 2019 and to implement EV specific TOU rates, first as a pilot and then system wide based on our AMI implementation schedule. See PSEG Long Island Utility 2.0 Long Range Plan Annual Update (June 29, 2018), NYSDPS Matter 14-01299.
contrast, the Joint Petition\(^5\) proposes to put all DCFCs on SC-2 (Large Commercial) energy-only rates, which would produce a low effective rate for all DCFCs without differentiation.

Second, the set point approach, as proposed by PSEG Long Island, is structured as a rebate rather than a rate and tariff charge, which makes it simple for utilities to implement and administer. DCFCs will remain on standard demand-metered rates based on their usage and load characteristics, and the rebate will be paid as an off-bill incentive for a set term. This avoids the need for modifications to the utility’s billing system, tariffs, and rate code eligibility.

Third, the set point approach is also easy for DCFC station owners to understand and create charging rates for EVs and will result in predictable electric charges. In contrast, SC-2 rates fluctuate monthly (Power Supply Charge) and seasonally (Delivery Rate). Such volatility in EV rates may undermine the goal of accelerating deployment of EVs. The fixed effective $/kWh cap proposed in the set point approach mitigates these swings and provides greater certainty to the DCFC market.

Last, the set point approach also provides for a smooth transition at the conclusion of the incentive period from a rebated rate to full tariff rates. In contrast to the Petitioners’ proposal, since DCFCs will remain on standard rates, participating utilities will not be in the position of needing to move DCFCs from SC-2 back to standard rates at the expiration of the incentive. In addition, because the set point incentive declines naturally as utilization increases, stations will gradually become self-sustaining as they reach targeted levels of utilization, avoiding a potential shock to the market from (and resulting resistance to) a sudden loss of incentives. By comparison, putting all DCFCs on SC-2 rates could set an unreasonable market expectation that the generic case will result in a similar energy-only rate or other permanent incentives and could make it difficult for utilities to return DCFCs to demand-based rates when incentives are no longer needed.

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\(^5\) On April 13, 2018, the New York Power Authority, New York State Department of Transportation, New York State Thruway, and New York State Department of Environmental Conservation (“Petitioners”) submitted to the Commission a Joint Petition to Encourage Statewide Deployment of Direct Current Fast Charging (“DCFC”) Facilities for Electric Vehicles (the “Joint Petition”).
Costs incurred due to EV charging, including demand-related costs, will continue to be recovered through standard rates, including through demand charges where applicable. The Long Island Parties anticipate that rebates it paid during the initial low utilization phase will be recovered through an appropriate tariff rider.

11. **In designing EV and EVSE programs, how can the Commission ensure compatibility with ongoing regional initiatives, programs offered in other states, and potential private investment?**

Given the data and communication systems being deployed by most EV manufacturers, we believe that the Commission’s deliberations should be made with first-hand information from the Electric Vehicle manufacturing industry with respect to likely data outputs and products and services they may be able to provide in the relatively near future. The Commission should coordinate its efforts with neighboring states to ensure a seamless network of public charging stations throughout the region.

12. **Should the Commission address electrifying light-duty passenger vehicles, and medium and heavy-duty vehicles within this Case?**

The Commission, utilities, and other stakeholders should look for opportunities to advance the State’s EV-related policy objectives in all market segments, including light, medium, and heavy-duty vehicles.

13. **How should Staff structure future stakeholder engagement in this proceeding? Should additional issue-specific working groups be held prior to Staff issuing recommendations?**

[No response.]

14. **Any other issues that stakeholders wish to raise.**

[No response.]

**III. CONCLUSION**

The Long Island Parties respectfully request that the Commission issue an order in this proceeding consistent with the recommendations set forth herein. We support the Commission’s efforts to advance transportation electrification and to facilitate statewide policies and programs to jumpstart and sustain beneficial transportation electrification in New York State. LIPA and PSEG Long Island look forward to working with the
Department of Public Service Staff, the Joint Petitioners, and other stakeholders to further develop state EV/EVSE policies and utility programs that will be beneficial for Long Island electricity consumers.

Respectfully submitted,

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