July 23, 2018

VIA ELECTRONIC DELIVERY

Honorable Kathleen H. Burgess  
Secretary  
New York State Public Service Commission  
Three Empire State Plaza, 19th Floor  
Albany, New York 12223-1350

RE: Case 18-E-0138 – In the Proceeding in Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure

JOINT UTILITIES COMMENTS ON THE PETITION OF THE NEW YORK POWER AUTHORITY, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION, NEW YORK STATE DEPARTMENT OF TRANSPORTATION, AND NEW YORK STATE THRUWAY AUTHORITY REGARDING ELECTRICITY RATES FOR DIRECT CURRENT FAST CHARGING FACILITIES

Dear Secretary Burgess:

In response to the May 23, 2018 notice published in the New York State Register seeking comments on the Joint Petition for Immediate and Long-Term Rate Relief to Encourage Statewide Deployment of Direct Current Fast Charging Facilities for Electric Vehicles filed with the New York State Public Service Commission by the New York Power Authority, New York State Department of Environmental Conservation, New York State Department of Transportation, and New York State Thruway Authority on April 13, 2018, Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation (collectively, the “Joint Utilities”) hereby submit their comments.

Respectfully submitted,

/s/ Janet M. Audunson

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Enc.
On April 13, 2018, the New York Power Authority ("NYPA"), New York State Department of Environmental Conservation, New York State Department of Transportation, and New York State Thruway Authority (together, the “Petitioners”) filed a Joint Petition for Immediate and Long-Term Rate Relief to Encourage Statewide Deployment of Direct Current Fast Charging Facilities for Electric Vehicles (“Petition”) requesting the blanket waiver of demand charges for direct fast charging (“DCFC”) facilities. Shortly thereafter, on April 24, 2018, the Public Service Commission (“Commission”) initiated a proceeding focused on electric vehicle supply equipment and infrastructure (the “EVSE Proceeding”) and incorporated the Petition therein. The Commission commenced the EVSE Proceeding “to consider the role of electric utilities in providing infrastructure and rate design to accommodate the needs and electricity demand of EVs [electric vehicles] and EVSE.”


2 EVSE Proceeding, Order Instituting Proceeding (issued April 24, 2018)(“EVSE Order”).

3 Id., p. 3.
Corporation, Consolidated Edison Company of New York, Inc. (“Con Edison”), New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation d/b/a National Grid, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation (collectively, the “Joint Utilities”) submit the following comments on the Petition. The Joint Utilities look forward to addressing the issues briefly discussed in these comments throughout the course of the EVSE Proceeding.

I. Introduction

The EVSE Proceeding Order states that “New York’s transportation sector is responsible for more of the state’s carbon dioxide emissions than any other sector.” Moreover, for New York to meet the State Energy Plan “targets of reducing greenhouse gas emissions 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050, the state’s transportation sector must be electrified.” The Joint Utilities support the Commission’s direction to expand New York’s efforts to advance statewide transportation electrification. In fact, the Joint Utilities are already engaged in a number of efforts to advance these goals including developing the EV Readiness Framework with other stakeholders, undertaking demonstration projects, incorporating EV programs in their distribution system implementation plans (“DSIPs”), and offering residential EV tariffs and other programs. Despite these efforts, more work needs to be done by the various stakeholders to meet the State’s goals. The Joint Utilities look forward to

4 Id., p. [1].
5 Id.
6 E.g., see Case 17-E-0814, Tariff Filing by Consolidated Edison Company of New York, Inc. to Modify its Electric Tariff Schedule, P.S.C. No. 10, to Expand the Scope of its Economic Development Business Incentive Rate to Include an Electric Vehicle Quick Charging Station Program (“Con Edison BIR Tariff Filing”), Order Approving Tariff Amendments (issued April 24, 2018)(“BIR Order for EV Quick Charging Station Program”). See also Case 16-E-0060, Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Consolidated Edison Company of New York, Inc. for Electric Service, Con Edison Proposed Expansion of the SmartCharge New York Program (filed March 1, 2018).
working with the Commission, Department of Public Service Staff ("Staff"), the Petitioners, and other stakeholders throughout the EVSE Proceeding to further develop the portfolio of policy solutions to jumpstart and sustain transportation electrification in New York.

Part of this effort will necessarily involve expanding public access to fast charging infrastructure, which allows EV drivers to charge their vehicles typically within about 30 minutes. This convenient means of charging will be especially important to enabling long-distance trips, allowing EV drivers to charge their vehicles in much the same way as drivers fill their gas tanks today. The Petitioners raise important concerns about the economic viability of these chargers, particularly in the near term where lower EV utilization rates make it challenging to recover the costs of installing and operating these chargers. The Petitioners correctly observe that poor economics will likely limit the deployment of this infrastructure, thereby perpetuating the “range anxiety” and in-route charging challenges that are hindering the growth of the EV market today.7

The Joint Utilities support the need to address these challenges and believe that addressing the economics of fast charging infrastructure should be one objective of the EVSE Proceeding. At the Technical Conference convened by Staff on July 18 and 19, 2018 in New York City, it appeared that many aspects of this Petition will be considered in the EVSE Proceeding. Before a solution can be developed, however, further work is needed to understand the assumptions and modeling undertaken by the Petitioners. The Joint Utilities expect that other stakeholders in the EVSE Proceeding will provide input regarding potential policy and technical solutions into the types of remedies that may be most effective in addressing these concerns, particularly in light of the Commission’s other parallel policy objectives (e.g., advancing energy

7 EVSE Proceeding, Petition, p. 2.
storage). Thus, addressing this issue in the narrow context of this Petition alone, and without the benefit of the broader policy discussion, may miss key considerations.

Turning to the Petition, the Petitioners frame the policy solution as primarily a function of utility rate design, and specifically focusing on waiving demand charges for DCFC facilities. The Petitioners highlight a key feature of fast charging technology, namely that fast chargers create significant instantaneous demands on the electricity system when in use, which generally results in the classification of these facilities as large commercial customers subject to demand-based rates within utility tariffs. The Petitioners observe that demand charges may lead to high energy bills for fast chargers which will contribute to making the chargers unprofitable in the early years of EV adoption, when the chargers are likely to be underutilized relative to their capacity. The Petitioners seek to resolve this issue by creating a technology-specific exemption for fast chargers that would allow them to be classified as small commercial customers billed on volumetric rates.\footnote{Id.}

The Joint Utilities recognize that the cost of electricity service is a significant component of the overall economics of a fast charging EV station and that action is needed to incentivize the development of this infrastructure. In fact, some of the utilities have already begun to offer incentive rates for qualifying resources. The Commission recently approved a tariff amendment filing by Con Edison to establish a business incentive rate for fast charging infrastructure that discounts all delivery charges for seven years.\footnote{BIR Order for EV Quick Charging Station Program, supra note 6.}

As discussed in more depth below, the Joint Utilities are concerned with the specific relief proposed by the Petitioners. The Joint Utilities look forward to working with the Petitioners, Staff, and other stakeholders within the EVSE Proceeding to discuss the portfolio of beneficent measures.
solutions that could be implemented to support the development of fast charging facilities – through a menu of incentive rates, monetary incentive programs, and other mechanisms.

II. More Work Is Needed to Understand Fast-Charging Facility Economics and Design Holistic Policy Solutions

The Joint Utilities would like the opportunity to better understand the Petitioners’ economic analysis of fast charging facilities and would value the input of other parties participating in the EVSE Proceeding on this matter. Many factors contribute to the overall economics of a given fast charging facility, including charger costs, land leasing, interconnection costs, rates charged to the end-use EV drivers, and electricity supply and distribution costs. Assumptions related to EV technology advancement are also important – for example, today’s EV models are not capable of taking advantage of the highest output of fast charging devices, which may limit the instantaneous demand of fast charging facilities at issue in the Petition. The growth of EV utilization in New York is yet another key factor, impacting, in turn, the expected utilization rate of the charging facility itself.

Each element of fast charging economics may lead to a different policy solution. For example, if developers believe that up-front costs, which are generally not utility related, are concerning, perhaps an up-front incentive from the New York State Energy Research and Development Authority (“NYSERDA”) would be appropriate. If the interconnection component under the up-front costs is considered an issue, perhaps these costs could be reduced through utility “make ready” investment programs. Discounted supply rates offered by NYPA could be yet another solution. The point of these examples is to illustrate that the overall policy solution will likely be multi-pronged – and these various policy levers should be considered in concert,
and based on fully-vetted analysis with input from all stakeholders, in order to develop a holistic solution that meets the State’s policy objectives in a cost-effective way for all customers.

III. Appropriate Price Signals Are Needed to Support the Development of Fast Charging Infrastructure in a Way That Takes Electricity System Needs into Account

The Joint Utilities are concerned that eliminating demand charges entirely will remove the price signals needed to encourage charging station developers to manage their impact on the electricity system. Even time-limited (e.g., five- or seven-year) demand charge waivers could lead to the suboptimal development of charging stations that otherwise may have incorporated on-site storage or numerous other energy management techniques and technologies. This would be an unfortunate lost opportunity, particularly in light of the Commission’s concurrent energy storage proceeding.\(^{10}\) Use of the small commercial rate (i.e., “SC-2” for many utilities) would also completely eliminate incentives to encourage off-peak charging, sending a message to charging companies, and presumably ultimately EV drivers, that it does not matter when EVs are charged. Together, these factors could lead to the development of charging infrastructure and end-user rates and behaviors that are counter to the predominate goals of the Commission’s Reforming the Energy Vision (“REV”) Proceeding.\(^{11}\)

In its *Order Adopting a Ratemaking and Utility Revenue Model Policy Framework* ("REV Track Two Order"), the Commission established key rate design principles, including:

- **Cost causation:** Rates should reflect cost causation, including embedded costs as well as long-run marginal and future costs. Fixed charges should only be used to recover costs that do not vary with demand or energy usage.

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\(^{10}\) Case 18-E-0130, *In the Matter of Energy Storage Deployment*.

\(^{11}\) Case 14-M-0101, *Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision* ("REV Proceeding" or "REV").
• **Decision-making**: Rates should encourage economically efficient and market-enabled decision-making, for both operations and new investments, in a technology neutral manner.

• **Fair value**: Customers should pay the utility fair value for services provided by grid connection, and the utility should pay customers fair value for services provided by the customer.

• **Economic sustainability**: Rate design should reflect a long-term approach to price signals and the ability to build markets independent of any particular technology or investment cycle.\(^\text{12}\)

In other proceedings, such as the Value of Distributed Energy Resources (“VDER”) Proceeding, the Commission has sought to advance these principles and has recognized that volumetric rate designs do not align well with utility cost causation.\(^\text{13}\) In fact, the Commission recognized that using volumetric rates as an incentive mechanism for additional NEM projects “would no longer be in the public interest” and directed Staff to convene stakeholders in an effort to design rate structures for those projects “based on the benefits they create and the costs they impose.”\(^\text{14}\)

Adopting the recommendations in the Petition would perpetuate, rather than cure, this issue.

In order to encourage investment and usage decisions that support the needs of the electricity system, electric rates must be technology neutral and appropriately aligned with the way that system costs are incurred, and with accurate price signals that reflect these costs. It is fundamental that customers (and those who can supply the broad array of energy technologies,

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\(^{12}\) REV Proceeding, Order Adopting A Ratemaking And Utility Revenue Model Policy Framework (issued May 19, 2016)(“REV Track Two Order”), Appendix A, p. [1].

\(^{13}\) See Cases 15-E-0751 et al., In the Matter of the Value of Distributed Energy Resources (“VDER Proceeding”), Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters (issued March 9, 2017), p. 21, where the Commission notes the shortcomings of NEM, “especially when coupled with volumetric rate structures,” stating that “for most customers compensated under NEM, compensation … has little or no relationship to the actual values provided to or costs imposed on the system.” See also, id., where the Commission further finds that NEM may lead to the installation of DER that creates lower benefits or higher costs for the electric grid than would otherwise be economically efficient and the Commission notes that “all utility customers, and in particular non-participants, suffer the impacts of those greater costs and lower benefits.” See also, id., p. 23, where the Commission notes that “the continuation of NEM is inconsistent with REV, Commission policy, and the public interest.” The lessons learned in NEM are relevant in this EVSE Proceeding and should not need to be reexamined for the promotion of DCFC facilities.

\(^{14}\) Id., p. 9.
including DER providers), have proper price signals to adjust consumption, adopt technologies to manage demand, or otherwise engage energy services to meet specific needs. Suggesting that utilities should modify their rates so that they no longer reflect costs, with the explicit purpose of supporting adoption of a single technology type, represents a suboptimal approach to rate design, one which is in direct opposition to the fundamental principles of rate design as well as REV goals and principles.

The electric grid is designed and built to meet peak demands, whether during periods of overall system peaks and distribution system peaks (i.e., coincident peak) or customer-specific peaks (i.e., non-coincident peak). While demand charges can have a variety of designs, their purpose is to recover the costs associated with meeting these coincident and non-coincident peak demands and to send price signals to customers to incent them take actions that can reduce their peak demands and so reduce their bills while benefitting the system. This dynamic is equally appropriate for DCFC facilities as for other comparable resources or customers. Contrary to the arguments set forth in the Petition,15 DCFC facilities would likely impact these coincident and non-coincident demands (e.g., morning and evening commutes) in ways that will be additive at upstream facilities and impact system peaks. Any solution that is developed should preserve appropriate price signals that encourage the design of fast charging facilities to limit impacts on the electricity grid from the outset. Demand charges are the mechanism to achieve this goal.

IV. Additional Considerations

A. Alternative Mechanisms to Address Financial Challenges with DCFC Facilities

15 EVSE Proceeding, Petition, pp. 11-13.
The Joint Utilities note that the challenges to DCFC facilities described in the Petition may be addressed through a variety of mechanisms that would not conflict with established rate design principles and related ongoing initiatives. For example, energy storage (i.e., batteries) can mitigate the central issue raised by the Petitioners (i.e., that DCFC facilities have a relatively high registered demand when charging infrequently) by using the storage to supply the relatively infrequent charging needs over the course of a billing period. Indeed, this is how gas stations operate today – by storing fuel onsite and making it available to drivers on demand. Even after the charging activity increases overall such that revenues offset demand charges, the storage system use can still continue to assist with demand charges. Integration of storage with DCFC facilities would support New York’s ambitious energy storage goals and targets.\textsuperscript{16} “Smart charging,” which recognizes distribution system attributes and minimizes strains on the grid, is another opportunity to use incentives to promote more cost-effective behavior.

A variety of funding sources are available to address the economics of DCFC facilities. In particular, the Joint Utilities recommend that NYSERDA funding already collected from customers through surcharges on utility customer bills be used to provide clear, targeted, and transparent levels of support needed to satisfy the particular requirements of DCFC facilities. Additionally, NYPA could offer initial allocations of discounted power or rebates to support initial adoption of fast charging facilities, similar to Con Edison’s BIR program tariff.\textsuperscript{17} A combination of these funding sources and incentives can help improve both the economics of DCFC facilities and the overall societal benefits of EV adoption and utilization. The Petition

\textsuperscript{16} In the 2018 State of the State, Governor Cuomo announced a 1,500 MW energy storage target for New York State by 2025 to put New York on a path toward a 2030 target to be announced in late 2018.

\textsuperscript{17} BIR Order for EV Quick Charging Station Program, \textit{supra} note 6.
itself cites numerous existing policy-based mechanisms to support EV economics\textsuperscript{18} that the Joint Utilities find preferable to implementing inefficient rate designs.

\textbf{B. Risk of a Transitional Mechanism}

The Petition does not address the risk of a temporary rate design accommodation for DCFC facilities. If a market for DCFC facilities develops at a robust pace based on non-cost-based rate designs, the Commission may soon face a situation akin to the NEM transition today, where it must undertake an involved process to transition to cost-based rates.\textsuperscript{19} Grandfathering concerns are also likely to arise as they did with NEM, particularly for fast charging stations that were designed to operate most profitably on volumetric rates and have incorporated few or no mechanisms to manage demand.

\begin{flushright}\textsuperscript{18}See EVSE Proceeding, Petition, p. 5. The Petition identifies various existing policy-based mechanisms. These include: “i) the Governor’s Drive Clean Rebate (a $70 million rebate and outreach initiative to promote EVs); ii) NYSERDA and NYPA’s joint implementation of the Governor’s Charge NY program; iii) a joint NYPANew York State Thruway Authority effort to install four DCFCs along the New York State Thruway; iv) New York State Department of Transportation’s installation of four DCFCs split between two New York State Welcome Centers; v) New York State Department of Environmental Conservation’s Clean Vehicles & Infrastructure program, which offers at least $1 million for electric vehicle infrastructure; and vi) New York State Clean Pass and Green Pass initiatives, which provide high-occupancy vehicle lane access and toll-fee reductions, respectively, for qualifying low and zero emissions vehicles. Recently, NYSERDA has pledged $3.5 million to support technologies and business models that accelerate electric vehicle usage and reduce the cost of installing and operating charging stations. Further, Charge NY 2.0, recently announced in the Governor’s 2018 State of the State, will drive the buildout of EV charging infrastructure in order to promote EV-capable roadways and destinations.”\end{flushright}

\begin{flushright}\textsuperscript{19}However, the Joint Utilities are concerned that even with the provision of a non-cost-based rate, the market for DCFC facilities may not develop as expected and the utility and its customers would be unable to recover costs associated with the facilities and the discount.\end{flushright}
V. Conclusion

The Joint Utilities support the goals of the Commission and the State related to electric vehicles and look forward to developing a portfolio of policy solutions in the EV Proceeding to advance transportation electrification in New York.

Dated: July 23, 2018

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