June 3, 2022

Hon. Michelle L. Phillips
Secretary
New York Public Service Commission
3 Empire State Plaza
Albany, NY 12223-1350

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

Reply Comments of the Vehicle-Grid Integration Council (VGIC)

Introduction

The Vehicle-Grid Integration Council (VGIC)[1] is a 501(c)(6) membership-based advocacy group committed to advancing the role of electric vehicles (EVs) and vehicle-grid integration (VGI) through policy development, education, outreach, and research. VGIC supports the transition to decarbonized transportation and electric sectors by ensuring the value from EV deployments and flexible EV charging and discharging is recognized and compensated in support of achieving a more reliable, affordable, and efficient electric grid. VGIC appreciates the opportunity to respond to the initial comments filed by parties to the Public Service Commission's proceeding on demand charge alternatives for commercial EV charging.

VGIC's Recommendations Have Broad Stakeholder Support

In initial comments, VGIC provided four recommendations in relation to Question 4 ("What solution design elements should be considered to best maintain an incentive to manage electric demand?"). Each of VGIC's recommendations were in line with the positions of several other parties:

[1] VGIC member companies and supporters include American Honda Motor Co., Inc., dcbel, Enel X North America, Inc., ENGIE NA, Fermata Energy, FlexCharging, Flo/AddEnergie, Ford Motor Company, FreeWire Technologies, General Motors Company, Nissan Group of North America, Nuvve Holding Corporation, Sacramento Municipal Utility District, Stellantis N.V., Sunrun, The Mobility House, Toyota Motor North America, Inc., Veloce Energy, Inc., Wallbox USA Inc., and WeaveGrid. The views expressed in these Comments are those of VGIC, and do not necessarily reflect the views of all individual VGIC member companies or supporters. https://www.vgicouncil.org/.

- *Recommendation 1: The Commission should look beyond a "one size fits all" solution and instead consider a range of solutions*: Alliance for Transportation Electrification (ATE), PowerFlex, Environmental Defense Fund (EDF), the Joint Utilities, Advanced Energy Economy (AEE) & Alliance for Clean Energy New York (ACE NY), the Metropolitan Transit Authority (MTA), Joint Commenters, Nuvve Holding Corporation (Nuvve), and Electrify America urge the Commission to ensure flexible solutions that account for the various different EV charging use cases, which range from public charging stations along highway corridors to dedicated charging stations serving commercial light-duty and heavy-duty fleets. Specifically, both programmatic and rate design approaches must be pursued simultaneously to meaningfully recognize, value, and compensate flexible EV charging and, in turn, accelerate widespread adoption of light-, medium-, and heavy-duty EVs.
- *Recommendation 2: The Commission should enable increased use of dynamic pricing as an option for EV customers:* The City of New York, PowerFlex, MTA, and Electrify America support solutions that enable and incentivize managed charging and grid services for long dwell-time sites (i.e., Level 2 chargers) and fleet charging (i.e., DC fast charging for school bus fleets, transit bus fleets, or other commercial fleets). While the time-varying value of vehicle-to-grid (V2G) exports are already compensated through the VDER tariff in New York, load flexibility from imports (*i.e.*, charging) can also be incentivized through dynamic pricing. An example of dynamic pricing is Pacific Gas & Electric's (PG&E) Day-Ahead Hourly Real-Time Pricing rate, under which marginal energy costs are recovered by a CAISO hourly day ahead market rate component, generation costs of service above marginal costs are recovered by a time-variable volumetric rate adder, and marginal generation capacity costs are recovered by a generation capacity component, while distribution costs are recovered through a monthly subscription charge in 50 kW increments.[2] This example is only illustrative, and VGIC does not endorse or oppose the specific design of PG&E's tariff. Instead, VGIC offers itself as a resource to collaborate with the Commission, the IOUs, and other stakeholder to develop efficient dynamic pricing and other rate designs tailored to the New York context. For example, the Commission could consider a dynamic pricing tariff where distribution costs are also dynamic.
- *Recommendation 3: Solutions should address customers with EV charging integrated with on-site load and distributed energy resources (DERs):* PowerFlex, the City of New York, New York Battery and Energy Storage Technology Consortium (NY-BEST), and Nuvve warn against requiring EV supply equipment (EVSE) to be on a

[2] CPUC Decision 21-11-017. https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M424/K557/424557371.PDF

dedicated meter and/or separate service drop, as this requirement would eliminate VGI opportunities and the associated value from co-location with building load and DERs. Additionally, solutions that avoid a requirement for a separate meter/service drop help facilitate deployment of bidirectional chargers to manage customer bill and provide backup power by discharging energy from the vehicle.

- *Recommendation 4: The Commission should explore solutions that incentivize co-location with energy storage and other Automated Load Management (ALM) approaches*: ATE, PowerFlex, EDF, AEE & ACE NY, NY-BEST, Electrify America, and Nuvve voiced support for demand management approaches through ALM such as on-site storage or power sharing. In addition to cost savings on the larger distribution grid from reducing coincident demand, ALM solutions can also deliver cost savings on local, site-specific distribution costs (i.e., make-ready infrastructure costs) from reducing non-coincident demand. VGIC urges the Commission to consider specific incentives to encourage the deployment of these technologies, such as an upfront, fixed rebate amount per kW reduced below the cumulative EVSE nameplate capacity, based on the average EV make-ready upgrade costs. For example, if average make-ready costs are $200/kW and the EVSE nameplate capacity of a site is 200 kW, a site host installing an ALM solution that limits the site's peak demand to 150 kW would yield $10,000 in ratepayer savings. The customer and/or service provider implementing these solutions should be eligible for a prescribed share of these savings, while the remainder would benefit all utility ratepayers.

VGIC supports Con Edison's proposed Commercial Managed Charging Program, with modifications

VGIC believes Con Edison's proposal is a good start in providing an incentive for EV charging stations to manage demand. The proposed program is consistent with VGIC's recommendations above by 1) providing incentives for demand management while still being flexible and able to provide benefits to charging stations of all types, 2) leveraging the metering capabilities of EVSE to avoid a requirement for a separate meter, allowing for integration with on-site load and DERs, and 3) incentivizing technological solutions that enable demand management, such as co-located energy storage or ALM. VGIC also appreciates the fact that such a program can be implemented on a more accelerated timeframe compared to other tariff-based solutions, as well as the ability to provide adders for certain sites and use cases with beneficial attributes to be identified by the Commission.

However, VGIC strongly urges that three key modifications be applied to Con Edison's propose program:

A. *Leverage EVSE submetering and vehicle telematics.* The program should be open to customers using either EVSE submetering or vehicle telematics. This could significantly expand customer participation by allowing EVs, as well as EVSE, to appear on the eligible technologies list. Notably, some customers may not have networked EVSE or may simply prefer to enroll and participate via their EV rather than EVSE. Among existing programs that use EVSE submetering, vehicle telematics, or both, programs that leverage both pathways have a considerably larger eligible technologies list and, therefore, are open to a greater number of customers.

B. *Measure performance using average daily demand, rather than monthly peak demand.* Con Edison's proposed incentive structure, based on the station's monthly peak demand, can lead to a situation where a single 15-minute period of charging at full capacity during a peak window will negate the entire per kW incentive for the month. This is especially challenging for public DCFC stations that do not control when drivers plug in to charge and where curtailment of charging capacity will negatively impact customers' on-the-go charging experience. Furthermore, once this peak has occurred, the station will then no longer have an incentive to further manage its demand under the program for the rest of the month. A simple and effective way to address this issue is by measuring program performance using the average daily demand, rather than the monthly peak demand. Using average daily demand will ensure that there is an ongoing incentive to manage demand, while avoiding overly penalizing charging stations for unusual demand spikes.

C. *Offer complementary options for customers, including efficient rate design.* Lastly, as discussed in VGIC's Recommendation 1, a single solution will be unlikely to accommodate the wide range of EV charging use cases. For example, even with VGIC's proposed modification, the program's reporting requirements and the demand charges associated with the underlying tariffs may still present barriers for some EV customers. As such, other approaches, including rate designs highlighted by other parties and other specific incentives for ALM, are still necessary. Moreover, programmatic approaches similar to Con Edison's proposed program should be viewed as time-bound to achieve the level of EVSE deployment needed, but in the longer term, efficient rate design should be the primary approach to incentivize the desired charging behaviors. One design element that could help achieve this is narrowing the time period for which demand charges apply, such as by assessing demand charges based on coincident system peak demand as proposed by NY-BEST, Nuvve, and AEE & ACE NY or based on network peak periods similar to Con Edison's proposal.

Subscription charges should not act as fixed charges

Several parties, including ATE, PowerFlex, AEE & ACE NY, and the City of New York, highlighted subscription demand charges as a solution that the Commission should consider. While VGIC is not opposed to subscription demand charges, subscription rates should be carefully designed as to provide customers with an incentive to manage their demand below the subscription level. For example, the customer could have an option to lower their subscription level if the site demand is lower than the subscription level for three consecutive months.

Conclusion

VGIC appreciates the opportunity to provide these comments and looks forward to working with the IOUs, the Commission, and other stakeholders to ensure the success of New York's transportation electrification efforts.

Respectfully submitted,

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Vehicle-Grid Integration Council (VGIC)