



SWTCH Energy Inc.
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August 17, 2022

Re: Case 18-E-0138 – Notice Announcing Technical Standards Working Group Meeting in the Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure

Dear Mr. Nevins:

SWTCH welcomes the opportunity to provide the Public Service Commission (“Commission”) with comments on the questions posed in the Notice Announcing Technical Standards Working Group Meeting issued July 22, 2022.

SWTCH provides electric vehicle (EV) charging and energy management solutions designed specifically for high-density urban settings. Our innovative open-standards platform optimizes EV charging usage to benefit EV charging station operators and drivers. SWTCH has worked with property owners to install EV charging stations at multifamily properties across New York and has additional projects in progress and, as such, has a direct interest in the upcoming Technical Standards Working Group Meeting. We provide comments directly to the questions posed in the notice below.

1. How do utilities anticipate using telematics/EVSE to engage with EV load in the next 3 years? If the telematics/EVSE will be used for submetering, what are the necessary attributes of the telematics/EVSE that would give confidence that EV load is measured accurately? What is the state of the market for these products today? What would the testing process look like for evaluating telematics/EVSE meter reading ability?

SWTCH is supportive of utilizing EV service equipment (EVSE) to directly manage EV charging load. EVSE has a long history of managing load through credit-based programs, and is increasingly being used to submeter and directly bill customers for EV energy usage.

To accomplish the goal of 100% zero-emissions passenger vehicles by 2035 while maintaining grid reliability the state will need to intelligently manage EV charging. The Public Service Commission has taken major steps toward doing so through its recent approval of utility managed charging pilots. These pilots represent a range of strategies for managing load. SWTCH is supportive of this customized approach that enables utilities to design programs that meet the needs of their service territories. However, the programs approved are, for many utilities, still relatively small pilots. To scale, utilities should be able to leverage all the tools in their toolbox to deliver cost-effective managed charging programs to customers. Programs should be designed to minimize up-front costs, streamline participation, and maximize impact. Doing so will require avoiding expensive (and unnecessary) submetering technology and

leveraging the submetering capabilities of EV chargers that are already being installed in homes and parking garages.

SWTCH suggests that the PSC seek to align submetering criteria with standards approved in other states, and specifically to adopt rules which mirror the California Public Utility Commission's ("CPUC") decision on EVSE submetering. SWTCH identifies two reasons that mirroring this decision would be beneficial to New York utilities: first, the CPUC has studied submetering extensively and the PSC can leverage the learnings and shorten its own timetable for implementation. And second, alignment across various jurisdictions will ensure an interoperable EV charging ecosystem going forward.

Specifically, we suggest the PSC adopt the following guidelines for submetering.

- AC equipment meets accuracy requirements of 1% lab, 2% field/maintenance, in line with accuracy requirements laid out in NIST Handbook 44.
- Equipment certified by California Department of Food and Agriculture Division of Measurement and Standards as compliant with submetering requirements should be automatically qualified in New York.
- Data storage requirements may extend up to, but not beyond, the requirements put in place in California that submeter data be stored onsite for 30 days and remotely for 90 days to ensure billing disputes can be accurately addressed.

2. Department of Public Service staff is recommending that certain open and interoperable communication standards (Open Charge Point Protocol, ISO 15118) for EVSE be adopted. Please provide feedback on this recommendation.

SWTCH strongly supports the Department of Public Service staff's recommendation to adopt open and interoperable communication standards. Such standards are critical to future-proof the state's charging network and ensure maximum customer choice. The Open Charge Point Protocol (OCPP) has been developed to act as the intermediary between charging hardware and network management software, enabling station operators to leverage a single network provider to manage multiple hardware options. This level of flexibility is crucial to effectively deploy EV charging, particularly in the multi-unit dwelling contexts that SWTCH supports. Building owners will install charging equipment sequentially over time as the charging needs of their residents increases - OCPP can ensure interoperability across providers and over time to reduce the risk of stranded charging assets. And further, this open standard will increase competition as customers will not be locked into one hardware or software provider based on a prior purchasing decision.

Importantly, SWTCH emphasizes that the Commission should ensure that equipment is OCPP *in practice*. Use of proprietary features overlaid with OCPP can render OCPP functionalities useless. For instance, SWTCH is working with a major midwestern utility to vet a series of chargers from different manufacturers to see if they can all be aggregated into a common charging network. While all manufacturers of the chargers being tested claim they are OCPP compliant, certain of them operate proprietary networks, and it is not clear that their hardware will seamlessly integrate into an open network.

SWTCH is also believes it is important that the industry as a whole shift toward use of the ISO 15118 standard. Ensuring that EVs can effectively communicate with the grid will be critical to maintain reliability in light of the massive increase in EV charging load noted above. While SWTCH is compliant with the ISO 15118 standard, there are few hardware options that can comply today. We recommend that the Commission encourage network operators and hardware providers to work together to test compliance at a large scale, and require compliance at a future date (e.g. within two years from the date of a forthcoming order).

3. Should the PSC adopt communications, plug type, and other standards that are consistent with the outcome of the June 22 Federal Highway Administration's Notice of Proposed Rulemaking on the National Electric Vehicle Infrastructure Formula Program?

In its Notice of Proposed Rulemaking, the FHWA proposed standards across six areas:

1. Installation, operation, and maintenance by qualified technicians
2. Interoperability of EV charging infrastructure
3. Traffic control devices and signage
4. Project data
5. Network connectivity of EV charging infrastructure
6. Information on publicly available EV charging infrastructure locations, pricing, availability, and accessibility

SWTCH believes that certain requirements included in the FHWA June 22 Notice of Proposed Rulemaking are appropriate for state-level adoption - specifically, those relating to communications, plug type, and network connectivity. Following these standards will ensure a consistent, interoperable ecosystem of charging equipment across the country.

In general, SWTCH believes that consistency of standards and requirements across jurisdictions will support industry maturation and streamline equipment deployment. SWTCH encourages the PSC and stakeholders to consider the outcome of the FHWA rulemaking. However, since a final rule has not yet been published, it is too early to say definitively whether it is in the best interest of the New York program to adopt standards established in the NEVI Program rulemaking.

Regarding standards for signage, installation, and mapping, New York's make-ready program is already well underway and as such SWTCH discourages the Commission from making any major changes to the site development and installation process that may create contractor confusion and slow deployment.

4. In their annual Per Plug Incentive and Make-Ready Program reports, the utilities noted that 15-minute active interval data was difficult to obtain because EV charging networks were not prepared to collect this data. What is the ability of EVSE to report on 15-minute interval data? Is this requirement, as specified in the Make-Ready Order, issued July 16, 2020, able to be met presently by vendors? If not, is this ability expected to be available in the next three years?

SWTCH is able to report 15-minute interval data and has worked with utilities across the continent to do so. However, SWTCH recommends that any data specification be tied to a specific utility use case. In our experience, utilities and regulators have found limited uses for 15-minute interval data. While such a requirement is reasonable to achieve certain, specified outcomes, SWTCH cautions against creating data requirements that are not designed with specific goals or program design features in mind.

5. One of the most frequent customer complaints with public charging stations is that the credit card reader does not work, resulting in frustration for customers and potentially stranding them far away from a functional charger. Should there be credit card reader standards and minimum uptime requirements?

SWTCH agrees with the Commission that charging stations should maintain high uptime and that payment processing should not compromise that goal. However, site owners may have different needs that require the use of different hardware and payment platforms. Particularly since the New York make-ready program is designed with many end-uses in mind, including both public and behind-the-fence charging, SWTCH does not believe a one-size-fits-all payment requirement is appropriate. Rather, the Commission should require that, where payment is required, site hosts enable payment through more than one mechanism, and that users be able to pay by credit card. Note that there are ways to pay by credit card without use of an on-site reader, including in-app payment and payment by phone. Particularly for multi-unit dwelling use cases, site hosts may opt for other means of billing and handling payment.

Respectfully,

A handwritten signature in black ink, appearing to read 'Samuel Bordenave', with a stylized flourish at the end.

Samuel Bordenave

Head of Finance and Strategy

SWTCH Energy, Inc.