

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

Case No. 16-M-0411

In the Matter of Distributed System Implementation Plans.

CHARGEPOINT, INC. COMMENTS ON INITIAL DISTRIBUTED SYSTEM IMPLEMENTATION PLANS

Introduction

ChargePoint, Inc. (ChargePoint) appreciates this opportunity to provide comments on the Initial Distributed System Implementation Plans (DSIPs) submitted by investor-owned electric utilities (IOUs) in New York, as ordered by the commission on July 26, 2016.¹ The Commission specifically ordered IOUs to incorporate planning for electric vehicle supply equipment (EVSE) in a pending Supplemental DSIP to be filed jointly by all IOUs on November 1, 2016², and each Initial DSIP as filed by each IOU includes references to EVSE to varying degrees.

ChargePoint manufactures and sells EV charging equipment and related services, and operates an extensive network of more than 30,000 EV charging locations at major employers, municipalities, universities, public locations, parking garages and multi-unit residential buildings. ChargePoint has partnered with the New York State Energy Research and Development Authority (NYSERDA) to deploy almost 450 public charging stations in New York, and to date has deployed a total of more than 1,400 charging ports in New York State. We have participated actively in this and related proceedings.

ChargePoint acknowledges that DSIPs focus on a range of critically important issues facing New York, though our comments are focused solely on those elements in the DSIPs that pertain to EV charging infrastructure. ChargePoint submits these comments to: (1) provide input from the perspective of a third-party provider of EV charging infrastructure and network services, (2) encourage continued and further integration of PEV charging into DSIP analysis and planning moving forward, and (3) highlight the importance of addressing PEV issues as a near-term priority.

¹ State of New York Public Service Commission (NY PSC). July 26, 2016. Notice of New Case Number and Soliciting Comments on the Initial Distributed System Implementation Plans.

² NY PSC. April 20, 2016. Order Adopting Distributed System Implementation Plan Guidance

In considering how utility DSIPs can include plans for deploying PEV infrastructure, it is necessary to first reach a common understanding of the term “PEV infrastructure.” The term “PEV infrastructure” generally includes two related, but distinct, elements: the “make ready” infrastructure, and the charging hardware and network services. The term “make ready” infrastructure refers to one or more service panels and junction boxes, together with the electrical conduit, transformers, metering, and electrical wiring capable of supporting Level 2 and DC fast charge EVSE, including any subsurface remediation if and when required, all associated engineering, installation labor, and finishing work and landscaping to complete the installation. Make ready infrastructure could include a new service drop as an alternative to retrofit facilities.

Question 1. Was the material presented in the Initial DSIPs beneficial to understanding current utility practices and capabilities?

ChargePoint acknowledges that IOUs were ordered to address the development of an engagement plan for increased deployment in the Supplemental DSIP, not in the Initial DSIP.³ That said, the material presented in the Initial DSIPs provided varying degrees of detail on current utility practices and capabilities regarding EVSE and preparation for increased load due to plug-in electric vehicles (PEVs):

- Central Hudson flagged EVSE for investigation in the Supplemental DSIP, and also identified the Joint Utility (JU) process for engaging with stakeholders in developing the Supplemental DSIP⁴;
- Con Edison included forecasts of incremental load growth associated with PEVs, as well as identifying current R&D projects into EV load management and a pending fast-charging hub project in Manhattan;
- Orange & Rockland (O&R) leveraged Con Edison’s incremental load growth forecast for its service territory, and also noted that future RFI solicitations would seek parkers for REV Demo Projects in EVSE;
- New York State Electric & Gas (NYSEG) indicated that it was in the initial planning stages of a REV demonstration project related to PEVs;⁵ and

³ NY PSC, DSIP Guidance Order Attachment 1, p. 4

⁴ See Central Hudson Initial DSIP, p. 7

⁵ NYSEG Initial DSIP, p. 94

- National Grid provided an assessment of EVSE and an estimate of PEV drivers in its service territory, time of use (TOU) proposals, and notes that it may seek to “accelerate EV adoption by installing stations in targeted segments such as work places and multi-unit dwellings.”⁶

Question 2. What is your overall assessment of the Initial DSIP filings?

The Initial DSIP contained limited details on existing capacity and plans to engage with increasing adoption of PEVs and the EVSE necessary to support such growth. ChargePoint is committed to continue contributing to the JU Stakeholder Engagement process to develop a more robust and fully developed plan that is consistent with the New York REV goals, the New York State Energy Plan goals, and New York’s commitment through the Zero Emission Vehicle (ZEV) Memorandum of Understanding (MOU) to put over 800,000 ZEVs on the road by 2025.

The varying degree of detail provided in each Initial DSIP underscores the need for each IOU to fully develop its own plans to support growth in the PEV market, notwithstanding the Joint Utility process underway to develop a single Supplemental DSIP for the State. ChargePoint recommends that each utility continue to engage with industry stakeholders to develop more detailed individual DSIPs, either in the form of revisions to Initial DSIPs or as interim updates specific to EVSE efforts. The value of common approaches to EVSE created in the jointly-filed Supplemental DSIP will be in the application of these approaches by each IOU. ChargePoint urges to Commission to consider continued stakeholder engagement by each IOU in order to revise Initial DSIPs to include more robust plans and an increased number of demonstration projects to support the increased deployment of EVSE. Moreover, ChargePoint recommends that the Supplemental DSIP reflect stakeholder comments as gathered and submitted through the JU stakeholder engagement process.

Question 3. What aspects of the Initial DSIPs did you find most beneficial and why?

Of the filed Initial DSIPs, ConEd provided the most detail in its forecast of incremental load growth associated with Electric Vehicles, which was also utilized by Orange & Rockland (O&R).⁷ This type of analysis could be made even more valuable with greater transparency into the underlying assumptions driving it. For example, forecasting is based on “current registrations and expected growth

⁶ National Grid, Initial DSIP, p. 80

⁷ See Con Edison, Initial DSIP, p. 24 and O&R, Initial DSIP, p. 27

rates for both system and network forecasts”,⁸ but the manner by which these growth rates are determined is unclear.

4. Do the DSIPs provide information that will help to better inform investment decisions?

While many of the Initial DSIPs include references to current and pending REV Demo Projects and related RFIs, there is limited detail included across all DSIPs that would help to inform investment decisions. Revisions to individual Initial DSIPs, upon completion of the JU Supplemental DSIP, could serve as vehicles for providing greater clarity into IOU planning and assessment that would better inform investment decisions.

In addition to incorporating EVSE into Initial and Supplemental DSIPs, ChargePoint encourages the Commission to consider opening up dedicated forums to fully vet proposals to support sustainable and scalable growth in the PEV and EVSE markets. One option proposal raised by parties to Case No. 14-M-0101 suggests that the Commission establish a new matter.⁹ Measures like this would help to centralize efforts and build targeted and effective stakeholder engagement to support the increased deployment of EVSE in New York.

5. Were there any areas of a particular utility’s Initial DSIP that should be replicated by other utilities?

As noted in the response to Question 3, Con Edison’s forecasting of load growth associated with PEVs was a useful feature that, if supplemented with additional details providing insight into how projections were made, could be a useful feature in other DSIPs.

6. Are there any deficient areas within the Initial DSIP filings that you believe are not going to be addressed as part of the Supplemental filing?

ChargePoint has been one of the many parties engaged in the JU Stakeholder engagement process to develop the Supplemental DSIP. It is of critical importance that this Supplemental DSIP identify underlying guiding principles to shape how utilities can play a role in the sustainable and scalable growth of the competitive EVSE market, which is necessary to support an increasing number of PEVs on the road in New York.

Utility policies and plans, such as Initial and Supplemental DSIPs, have significant power to affect how quickly EVs become widely adopted and their societal benefits enjoyed through their influence on

⁸ Con Edison, Initial DSIP, p. 42

⁹ Sierra Club et al. June 17, 2016. Comments Regarding Integration of Electric Vehicles, Case No. 14-M-0101

electricity rates and investment programs. The Supplemental DSIP is an opportunity to lay out a series of guiding principles for the utility's role in EVSE, which are necessary to ensure that bringing in regulated monopolies into the competitive EVSE market results in accelerated growth while retaining healthy competition, innovation, and customer choice.

The White House recently convened a group of nearly 50 vehicle manufacturers, electric utilities, EV charging companies, states, and organizations to develop *Guiding Principles to Promote Electric Vehicles and Charging Infrastructure*¹⁰. Specifically, these guiding principles were as follows:

- Drive the market transformation to electric vehicles by making it easy for consumers to charge their vehicles with grid-connected infrastructure that is accessible, affordable, available and reliable, and interconnected with other low-carbon transportation options where feasible.
- Promote electric vehicle adoption by increasing access to charging infrastructure and supporting the development of plug-in electric vehicles that are as accessible, available, and convenient as gasoline-powered vehicles.
- Promote a robust market for vehicle manufacturers, utilities, equipment service providers, and support industries that ensures a consistent user experience, customer choice, and allows for a streamlined permitting process.
- Enhance American manufacturing competitiveness, innovation, and the development of advanced technology.
- Attract and leverage private, State, and Federal investment in electric vehicle deployment, infrastructure, research and development, and education and outreach.
- Enable smart charging and vehicle grid integration through solutions such as demand response, and other energy storage and load management strategies.

Signatories to these guiding principles included ChargePoint, Con Edison, the Edison Electric Institute (EEI), Ford, General Motors, the National Association of State Energy Officials (NASEO), National Grid, New York State, Nissan, and Orange & Rockland.

¹⁰ <https://www.whitehouse.gov/the-press-office/2016/07/21/fact-sheet-obama-administration-announces-federal-and-private-sector>

These guiding principles point to the delicate balance that must be struck when bringing regulated monopolies into the competitive PEV charging market. The integration of these two types of markets can either accelerate or put the brakes on the adoption of PEVs and EVSE. Three of the key issues raised in the White House guiding principles are innovation, competition, and customer choice, and it is essential that guiding principles developed in the Supplemental DSIP include these three features to ensure that a role for utilities in EVSE bolsters, and does not stifle, the PEV charging market:

Innovation

New technologies and business models make the EV market thrive. It is essential to avoid situations in which stakeholders are “picking winners” for the EV charging market. A make ready investment by utilities will always encourage innovation to thrive because it allows consumers to freely pick from the best and newest offerings by the competitive market. If a utility is qualifying equipment and vendors, that qualification should be “rolling” to allow new entrants to join the program while it is underway. This will allow new technologies to be brought to market without artificial delays. Utilities should seek to “future proof” their programs by requiring technologies to allow for load management and demand response capabilities.

Competition

Competition occurs when vendors are directly competing with each other for a customer. With a make ready model, PEV charging businesses will naturally compete with each other to deploy PEV charging assets. PEV charging businesses need to hear directly from the customer about what needs they have, how they can improve products and drive down costs. This competition drives the ability to continue to innovate and come up with better products and services. It also ensures that PEV charging businesses have a sustainable market place where there is more than a single vendor.

Customer Choice

The site host, not the utility, should ultimately choose the equipment and services installed on their own property, regardless of which entity owns the equipment. It is important the site host have the ability to decide the equipment, network, and pricing to drivers that makes the most sense for that unique site. For example, the charging behavior for drivers at retail locations is different from that for a resident at an apartment complex. The site host has the relationship with their employees, customers, residents or visitors that makes them uniquely qualified to determine what is needed.

Fortunately, innovation, competition, and customer choice are all mutually supportive goals – as long as customers, namely the EVSE site hosts, have freedom of choice among providers of PEV charging stations, the market will ensure that customers receive the benefits of competition and innovation.

In the process of working with utilities across North America, ChargePoint has identified further principles that will support the most effective and sustainable ways to (i) reduce barriers to electric vehicle charging, (ii) allow utility investments to be optimized for a future with a smarter grid and widespread clean distributed energy resources, and (iii) demonstrate benefits for all utility customers and maintain customer choice in charging equipment and services and innovation in the market:

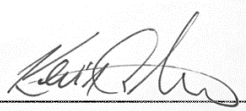
- Utilities should enable customer choice in charging equipment and services. The site host must have the ability to choose, from a list of multiple qualified vendors, the technology they want installed on their own site.
- Utilities should set requirements for chargers and grid management capabilities (including demand response) but allow for future innovation by creating a “rolling” vendor certification program. By allowing new technologies to apply for certification mid-program, additional features for network and chargers can be brought to market by vendors to enable competition and differentiation.
- Site hosts should have the ability to control pricing for charging services. This allows pricing to be tailored to the specific driver behavior unique to that site. (Example: free workplace charging vs. need to move drivers at retail sites.)
- Site hosts should be required to have “skin in the game” – with the exception of underserved markets or disadvantaged communities. This ensures effective siting and efficient use of ratepayer funding.
- Utilities should avoid creating island networks given that a drivers’ network is always going to be larger than a utilities’ territory or a single Commission’s jurisdiction.

Conclusion

ChargePoint appreciates this opportunity to provide comments on the Initial DSIPs. We look forward to continued collaboration and discussion as the Commission explores how best to incorporate EVSE into DSIPs. We recommend that (1) the Supplemental DSIPs include guiding principles that enshrine innovation, competition, and customer choice in the EVSE market and (2) Initial DSIPs be revised and informed by the outcome of the Supplemental DSIP process.

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Respectfully Submitted,

By: _____

Kevin George Miller
Director, Government Relations & Public Policy
ChargePoint, Inc.
254 East Hacienda Avenue
Campbell, CA 95008