

June 17, 2020

**VIA ELECTRONIC FILING**

Aida Camacho-Welch  
Secretary of the Board  
New Jersey Board of Public Utilities  
Post Office Box 350  
Trenton, NJ 08625-0350


***Re: I/M/O the Straw Proposal on Electric Vehicle Infrastructure Build Out  
BPU Docket No. QO20050357***

Dear Secretary Camacho-Welch:

On behalf of ChargePoint, Inc. ("ChargePoint"), we appreciate the opportunity to offer the enclosed comments of ChargePoint in the matter referenced above.

Thank you.

Very truly yours,

  
Murray E. Bevan

Enclosure

## I. Introduction & Background on ChargePoint

### A. Introduction

On May 18, 2020, the New Jersey Board of Public Utilities (“BPU”) Staff (“Staff”) released its *New Jersey Electric Vehicles Infrastructure Ecosystem 2020 Straw Proposal* (“Straw Proposal”).

ChargePoint applauds BPU Staff for the proposed EV Ecosystem (“Ecosystem”). We appreciate the opportunity to offer these comments in response to the proposed program design, as well as related issues raised in the Straw Proposal. In addition to our comments below, ChargePoint respectfully requests stakeholders be afforded an opportunity to submit reply comments. ChargePoint recommends reply comments be submitted no later than July 2, 2020.

In summary, our comments are as follows:

- The shared responsibility model proposed in Staff’s Charger Ready Straw Proposal is a key first step to build out New Jersey’s EV infrastructure;
- Customer rebates, combined with make-ready incentives, are among the most effective tools to incentivize EVSE deployment;
- The Straw Proposal should expressly recognize that the EV charging market is growing and dynamic and that there is no one business case for the EVSE industry or for EV charging site hosts;
- The Straw Proposal should be expanded to incentivize transportation electrification across the entire EV Ecosystem to include medium and heavy-duty electric vehicle charging applications and commercial fleets;
- The BPU should establish a Charger Ready Advisory Council to inform program evaluation;
- It is premature to request EDCs submit proposals to establish a process and timeframe for EDCs to provide a “Last Resort” function by owning and operating EV charging stations;
- The Straw Proposal should not restrict the manner in which a site host may price EV charging services to customers;
- The Straw Proposal should allow for EVSE Infrastructure Companies to develop appropriate locations and for independent site hosts to directly participate in the Charger Ready program;
- It is not necessary to create a new process to identify ‘Poor Performing EVSE Infrastructure Companies;’
- The BPU should initiate a separate proceeding to consider EV tariffs that present alternatives to traditional demand-based rate structures; and,
- We recommend certain modifications to Staff’s proposed terminology.

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### B. Background on ChargePoint

ChargePoint is the leading electric vehicle (EV) charging network in the world, with scalable solutions for every charging need and for all of the places that EV drivers go: home, work, around town, and on the road. ChargePoint's network offers more than 113,000 places to charge, including more than 1,696 spots in New Jersey, and those numbers continue to grow. With thousands of customers in several verticals including workplaces, cities, retailers, apartments, hospitals, and fleets, ChargePoint provides an integrated experience enabling consistent performance, efficiency and reliability at every touchpoint whether one is using a mobile app, plugging into a charger, managing the station or analyzing charging data. On the network, drivers have completed more than 78 million charging sessions, saved upwards of 93 million gallons of fuel, and driven more than 2.2 billion electric miles.

ChargePoint delivers scalable solutions that enable businesses to support more drivers, add the latest software features and expand their electric vehicle and fleet needs with minimal disruption to overall business. Hardware offerings include Level 2 (L2) and DC fast charging (DCFC) products, and ChargePoint provides a range of options across those charging levels for specific use cases including light and medium duty and transit fleets, multi-unit dwellings, residential (multi-family and single family), destination, workplace, and more. ChargePoint's software and cloud services enable site hosts to manage charging onsite with features like Waitlist, access control, charging analytics, and real-time availability. All products are UL-listed, ENERGY STAR® and CE (EU) certified, and the modular design minimizes downtime and makes maintenance and repair more seamless.

ChargePoint's primary business model consists of selling its smart charging solutions directly to businesses and organizations while offering tools that empower site hosts and station owners to deploy charging designed for their individual application and use case. ChargePoint provides charging network services and data-driven and cloud-enabled capabilities that enable site hosts to better manage their charging assets and optimize services. For example, with those network capabilities, site hosts can view data on charging station utilization, frequency and duration of charging sessions, set access controls to the stations, and set pricing for charging services. These features are designed to maximize utilization and align the EV driver experience with the specific use case associated with the specific site host. Additionally, ChargePoint has designed its network to allow other parties, such as electric utilities, the ability to access charging data and conduct load management to enable efficient EV load integration onto the electric grid.

## II. Comments on Charger Ready Program Design

- A. The Straw Proposal provides the necessary foundation for building a robust EV Ecosystem in New Jersey, however, ChargePoint recommends several enhancements to Staff's Proposal to ensure its effectiveness

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1. The Shared Responsibility Model proposed in Staff's Charger Ready Straw Proposal is a key first step to build out New Jersey's EV infrastructure

Staff explains that the Charger Ready Straw Proposal is based on a "shared responsibility" model in which, "EDCs invest in (and earn on) the wiring and backbone infrastructure necessary to enable a robust EV Ecosystem and the private sector owns, operates and advertises the EVSE. Even though under normal circumstances, private investors will install, operate, and market the charging stations, making sites across the state Charger Ready represents an extension of EDC responsibility."<sup>1</sup>

The shared responsibility model is generally consistent with approaches taken in the majority of utility EV charging programs around the country and plays to the strengths of utilities as well as competitive market site hosts,<sup>2</sup> vendors, and EV Infrastructure Companies. A cohesive partnership between regulated utilities and competitive market actors will be critical to meeting New Jersey's ambitious energy, environmental, and transportation goals.

However, as discussed further below, while the Charger Ready proposal as currently structured is a key first step to deploying EV infrastructure throughout New Jersey, ChargePoint recommends several enhancements to Staff's proposal.

2. Customer rebates, combined with make-ready incentives, are among the most effective tools to incentivize EVSE deployment

In the Straw Proposal, Staff broadly endorses utility and customer side "make-ready" but proposes, "that charging station infrastructure, or EVSE, costs will be generally borne by private investors, with no recourse to ratepayer funds."<sup>3</sup> ChargePoint interprets this statement to eliminate the possibility of customer rebates for EVSE.<sup>4</sup> However, rebates toward EVSE purchase costs, combined with make-ready incentives, have been utilized by utilities across the country to successfully incentivize deployment of EV infrastructure while minimizing overall program costs.<sup>5</sup> As discussed further below, the BPU has the authority to authorize rebates for EVSE.

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<sup>1</sup> EV Straw Proposal at 7

<sup>2</sup> Site host means the entity that owns, leases, manages, or otherwise possesses the premises upon which the electric vehicle charging station is or is planned to be located for the purpose of charging an electric vehicle. The site host may also be the utility customer of record and responsible for operation and maintenance of, and paying for the energy delivered to the electric vehicle charging station.

<sup>3</sup> EV Straw Proposal at 7.

<sup>4</sup> It is unclear to ChargePoint if this prohibition would apply to all EV charging use cases, or only public/MUD deployments.

<sup>5</sup> See, e.g., Alternate Proposed Decision Regarding Southern California Edison Company's Application for Charge Ready and Market Education Programs, CPUC, Docket No. A.14-10-014, (Jan. 16, 2016), available at: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M157/K682/157682806.PDF>; Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio, Case No. 9478, Order No. 88997, (MPSC Jan. 14, 2019), available at: <https://www.psc.state.md.us/wp-content/uploads/Order-No.-88997-Case-No.-9478-EV-Portfolio-Order.pdf>; Decision Directing PG&E to Establish an Electric Vehicle Infrastructure and Education

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Customer rebates should apply to costs associated with private businesses or entities deploying EVSE that meet functional requirements of the utility program to ensure that grid benefits are created. Under this program design, participating EV charging site hosts receive a utility incentive to support the purchase and installation of smart EV charging hardware and software that meet core functional requirements, such as collecting data and providing the ability for load management. Rebate programs have been utilized by investor owned utilities for years supporting energy efficiency programs so there is already an administrative framework making it simple to add EV program incentives without driving up utility costs.

ChargePoint urges the BPU and Staff not to prejudge the ability for utilities to offer customer rebates for EVSE, regardless of use case or market segment. Prematurely eliminating the ability for customer rebates to play a vital role in incentivizing EVSE will impair the State's ability to meet its ambitious transportation electrification goals. Therefore, ChargePoint recommends the Charger Ready proposal be expanded to include customer rebates for EVSE, particularly for priority market segments and Equity Areas. In the alternative, ChargePoint recommends that any rebate program proposed by an EDC be evaluated by the BPU, with input from stakeholders, on a case by case basis through individual utility applications.

ChargePoint recommends that in many cases rebate levels be "partial," meaning something less than the full cost of the EVSE and thus still requiring site host investment ("skin in the game"). These partial rebates should be based on guidelines that are supported by the BPU and Staff with broad stakeholder input and should target residential, workplace and other commercial locations. Higher levels of rebates should be considered for segments that have been traditionally harder to reach due to market barriers, e.g., DCFC or Equity Areas (including LMI communities).

Finally, cost recovery for utility rebates can be approached by treating the rebate as a regulatory asset, thereby allowing both cost recovery and a rate of return on the investment similar to other capital investments.<sup>6</sup>

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Program, CPUC, Docket No. 16-12-065 (Dec. 21, 2016); Massachusetts Department of Public Utilities. Docket 17-05. "Order Establishing Eversource's Revenue Requirement." November 30, 2017. (available at <https://eeaonline.eea.state.ma.us/EEA/FileService/V1.4.0/FileService.Api/file/FileRoom/dehehcjj>); New York Public Service Commission. Matter No. 17-00887. "Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of Niagara Mohawk Power Corporation d/b/a National Grid for Electric Service." (available at <http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterCaseNo=17-E-0238>) (utility-provided make-ready coupled with EVSE rebates provided by New York State Energy Research and Development Authority).

<sup>6</sup> See, e.g. In the Matter of the Petition of the EV Work Group for the Implementation of a Statewide EV Portfolio, Case No. 9478, Md PSC (January 14, 2019) (approving rate based rebates for three Maryland investor owned utilities); In the Matter of the Application of Consumers Energy Co for Authority to Increase its Rates, Case No. U-20134, MI PSC (May 19, 2020) (approving rate based rebates for Consumers Energy); In the matter of the Application of DTE Electric Company for Authority to Increase its Rates, Case No. U-20162, MI PSC (May 2, 2019) (approving rate based rebates for DTE); Petition of Virginia Electric & Power Company, For approval of a Plan for

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- a) *The BPU has a long history of authorizing customer rebates to further New Jersey's clean energy goals*

On many prior occasions during the last 30 years, the BPU has exercised its broad regulatory authority to approve similar customer rebate and incentive programs offered by utilities for purchases of equipment that would not be owned by the utilities and has allowed those utilities to recover their associated costs from ratepayers. Several of these BPU orders approving utility rebate and incentive programs pre-dated New Jersey's passage of the Regional Greenhouse Gas Initiative Act ("RGGI Act"), which was enacted in January 2008, the Clean Energy Act ("CEA"), which was enacted in May 2018, and the New Jersey Plug-In Vehicle Act ("PIV Act"), which was enacted in January 2020.

For example, in 1994, five years prior to New Jersey's enactment of the Electric Discount and Energy Competition Act ("EDECA") and long before the RGGI Act, Clean Energy Act, and PIV Act were enacted, the BPU approved utility rebates for the purchase of compressed natural gas-powered vehicles ("NGVs") by utility customers and allowed PSE&G to recover from ratepayers the partial cost of providing these rebates.<sup>7,8</sup> This NGV incentive program, like the current proposals for electric vehicle charger rebates by utilities, was intended to jump start the market for this transportation technology.

Furthermore, for over a decade the BPU has been approving New Jersey electric utility customer rebate programs for the purchase of energy efficient equipment for residential customers (such as smart thermostats) and incentives for the installation of energy efficient equipment for hospital customers, local government customers, and multi-family building owners.<sup>9</sup> The BPU also has a long history of approving gas utility customer rebates, including:

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Electric Distribution Grid Transformation Projects, Case No. PUR-2019-00154, VA SCC (March 26, 2020) (approving rate based rebates for Dominion).

<sup>7</sup> *Re Public Service Electric and Gas Company*, 1994 WL 534983 (N.J.B.P.U.), 155 P.U.R. 4th 441 (Sept. 8, 1994).

<sup>8</sup> *Id.*

<sup>9</sup> *See, e.g., I/M/O Petition of Public Service Electric and Gas Co. Offering and Energy Efficiency Economic Stimulus Program in Its Service Territory On a Regulated Basis And Associated Cost Recovery Mechanism*, B.P.U. Docket No. EO09010056, (Decision and Order Approving Stipulation, August 1, 2009) ("EEE Program"); *I/M/O Petition of Public Service Electric and Gas Co. for Approval of Its Energy Efficiency 2017 Program and Recovery of Associated Costs*, B.P.U. Docket No. EO17030196 (Order Adopting Stipulation, August 23, 2017) (including Smart Thermostat rebate program). The EEE Program was extended via B.P.U. Docket No. EO11010030 (July 14, 2011) ("EEE Extension I"), and B.P.U. Docket No. EO14080897 (April 15, 2015) ("EEII Program").

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- a 2009 order authorizing South Jersey Gas to implement, among other programs, an enhanced residential heating, ventilation, and air conditioning (“HVAC”) rebate program which was renewed by the BPU several times;<sup>10</sup>
- a 2018 order authorizing the New Jersey Natural Gas “SAVEGREEN” program that provides, among other things, rebates to customers for energy efficient products, home energy assessments, and HVAC incentives.<sup>11</sup>

In addition, the BPU has over multiple years approved PSE&G’s recovery from ratepayers for “Solar Loan” programs that involved the utility’s investment of capital in loans to developers of solar generation facilities that are not owned by the utility.<sup>12</sup>

The BPU’s June 10, 2020, Order Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs (“EE Order”) continues its long history of allowing utility rebates and incentives to achieve New Jersey’s energy goals by directing each electric and gas public utility to establish energy efficiency and peak demand reduction programs pursuant to the EE provisions of the Clean Energy Act of 2018, and approving BPU Staff’s recommendations for utility administered rebates and incentive programs for residential, multi-family, and commercial and industrial customers.<sup>13</sup>

As noted by the BPU in its June 10, 2020, EE Order, “[m]any of New Jersey’s electric and gas public utilities offer a variety of EE programs that serve specific markets or customers not explicitly addressed by NJCEP programs or that enhance NJCEP offerings through additional incentives or alternative payback options”, and “[t]he State also administers the Comfort Partners program in conjunction with the utilities, working to offer free energy efficient upgrades to qualified low-income customers”.<sup>14</sup>

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<sup>10</sup> *I/M/O THE PETITION OF SOUTH JERSEY GAS COMPANY FOR APPROVAL OF AN ENERGY EFFICIENCY PROGRAM (“EEP”) WITH AN ASSOCIATED ENERGY EFFICIENCY TRACKER (“EET”) PURSUANT TO N.J.S.A. 48:3-98.1*, BPU Docket No. GO12050363 (June 21, 2013) (discussing its original approval of the rebate program in its July 24, 2009, order).

<sup>11</sup> *I/M/O Petition of New Jersey Natural Gas Company for Approval of Existing and New Energy Efficiency Programs and a Class I Renewable Energy Program and the Associated Cost Recovery Mechanism Pursuant to N.J.S.A. 48:3-98*, BPU Docket No. GO18030355 (September 17, 2018) at 4, ¶ 13.

<sup>12</sup> *I/M/O Petition of Public Service Electric and Gas Co. for Approval of a Solar Loan III Program and Associated Cost Recovery Mechanism*, B.P.U. Docket No. EO12080726 (Decision and Order Approving Stipulation, May 29, 2013) (“Solar Loan III”); *I/M/O Petition of Public Service Electric and Gas Co. for Approval of a Solar Loan II Program and an Associated Cost Recovery Mechanism*, B.P.U. Docket No. EO09030249 (Decision and Order Approving Stipulation, November 10, 2009) (“Solar Loan II”); *I/M/O Petition of Public Service Electric and Gas Co. for Approval of a Solar Energy Program and an Associated Cos Recovery Mechanism*, B.P.U. Docket No. EO07040278 (Decision and Order Approving Settlement, April 8, 2008) (“Solar Loan I”). Notably, the BPU conducted a full evidentiary proceeding regarding the merits of the Solar Loan I program during 2007 (pursuant to the BPU’s general ratemaking authority) prior to the enactment of the RGGI Act.

<sup>13</sup> *I/M/O the Implementation of P.L. 2018, C. 17 Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs*, NJ BPU Docket Nos. QO19010040, QO19060748, QO17091004 (Agenda Item 8D - June 10, 2020) (“EE Order”) at 10, 50, 86.

<sup>14</sup> EE Order at 5-6.

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Moreover, the BPU emphasized in the recent EE Order the long history of utility involvement in demand side management (“DSM”) incentive programs for energy conservation, which the BPU began approving as early as the 1980s.<sup>15</sup>

New Jersey law defines “demand side management” as “the management of customer demand for energy service, through the implementation of cost effective energy efficiency technologies, including, but not limited to installed conservation, load management, and energy efficiency measures on and in the residential, commercial, industrial, institutional and governmental premises and facilities in this state.”<sup>16</sup> The PIV Act amended EDECA to include “plug-in vehicles and plug-in electric vehicle charging infrastructure” programs as demand side management programs eligible for funding through the Societal Benefits Charge (“SBC”), which is a charge that appears on ratepayers’ utility bills.<sup>17</sup> Electric vehicle charging infrastructure can serve as a very effective demand side management tool for grid load management if EV charging is incentivized to occur during off peak time periods. New Jersey’s 2019 Energy Master Plan (“EMP”) emphasizes the following demand side management benefits of electric vehicle charging infrastructure:

“Electrified transportation can provide grid benefits such as better utilizing the distribution grid, shaving peak load, and providing power back to the grid. With managed charging, battery EVs can charge when there is excess capacity or reduced demand, better utilizing the distribution grid during off-peak times. Further, as Vehicle-To-Grid technology matures, electrified vehicles on the grid can provide mobile battery storage and load balancing power, which will further reduce or shift energy demand to avoid increased capacity costs.”<sup>18</sup>

The NJ 2019 EMP also clarifies that programs designed to increase the use of electric vehicles are energy conservation measures because “[v]ehicle electrification reduces total final energy demand. EVs are more efficient than gasoline-powered vehicles in terms of energy used per mile traveled, and allow New Jersey’s final energy demand to decrease in the Least Cost scenario, even as electricity load increases”.<sup>19</sup> Therefore, in addition to the BPU’s general regulatory authority to approve utility customer rebates and incentives, section 13 of New Jersey’s RGGI Act authorizes the BPU to approve rate recovery for utilities that offer customer rebates for EV charging infrastructure since such infrastructure is an energy conservation measure.<sup>20</sup> The RGGI

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<sup>15</sup> EE Order at 4 (“The Board began approving utility demand side management (“DSM”) programs for energy conservation in the 1980s and adopted DSM regulations in 1991 that (1) required electric and gas public utilities to offer conservation, EE, and load management programs, known collectively as DSM programs; (2) provided incentives to initiate and implement programs; and (3) permitted cost recovery of the programs and recovery of the fixed cost portion of lost revenues due to the programs.”).

<sup>16</sup> N.J.S.A. § 48:3-51.

<sup>17</sup> N.J.S.A. § 48:3-60(a)(3).

<sup>18</sup> New Jersey 2019 EMP at 62, available at: [https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf).

<sup>19</sup> 2019 EMP at 61.

<sup>20</sup> N.J.S.A. § 48:3-98.1(a)(1).



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Act defines “energy efficiency and energy conservation programs” to include both programs that conserve energy and programs for making the use of electricity “more efficient”.<sup>21</sup>

Moreover, the 2019 EMP emphasizes that the importance of developing financing for clean energy projects, including instructing the BPU to “work with utilities, third-party providers, and other industry actors to develop mechanisms to provide rebates at the point of sale. This lessens administrative overhead and lowers barriers to entry for those who otherwise wouldn’t be able to afford waiting for a rebate check.”<sup>22</sup> Specifically with respect to electric vehicles, the 2019 EMP repeatedly emphasized the BPU’s authority to facilitate the growth of electric vehicle infrastructure in New Jersey and instructed the Board to explore “both rate-based and non-rate based solutions” to ensure that “utility providers and other stakeholders can offer a significant opportunity for widespread charging deployment across multiple transportation modes and sectors.”<sup>23</sup> The PIV Act should be read in parallel with New Jersey’s 2019 Energy Master Plan because the New Jersey Legislature expressly referenced the Energy Master Plan and its “objectives” as being synonymous with the goals of the PIV Act.<sup>24</sup> The PIV Act further states: “The Legislature therefore determines that it is in the public interest to establish goals for the increased use of plug-in electric vehicles in the State, to support the increased use of plug-in electric vehicles by providing incentives for the purchase or lease of such vehicles and for related charging equipment.”<sup>25</sup> The PIV sets forth ambitious goals for the development of electric vehicle charging infrastructure in New Jersey, and the New Jersey Legislature expressly provided in the PIV Act that the Board may “pursuant to P.L.2019, c.362 (C.48:25-1 et al.) **and any other existing statutory authority**, adopt policies and programs to accomplish the goals established pursuant to this section.”<sup>26</sup> The phrase “any other existing statutory authority” clearly includes the BPU’s general ratemaking and regulatory authority over utilities<sup>27</sup> as well as the RGGI Act, Clean Energy Act, and EDECA. As discussed above, the BPU has a long history of exercising its broad authority under all of these statutes to approve utility customer rebates for equipment that will not be owned by the utility. There is absolutely no legal basis or policy justification for the Board to treat utility customer rebates for electric vehicle charging infrastructure differently.

- B. The Straw Proposal should expressly recognize that the EV charging market is growing and dynamic and that there is no one business case for the EVSE industry or for EV charging site hosts

In developing the “shared responsibility” model to deploy EV infrastructure, the Straw Proposal appears to take the position that only EVSE Infrastructure Companies will be site hosts. For

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<sup>21</sup> N.J.S.A. § 48:3-98.1(d).

<sup>22</sup> 2019 EMP at 222.

<sup>23</sup> See 2019 EMP at 68.

<sup>24</sup> N.J.S.A. § 48:25-1.

<sup>25</sup> *Id.*

<sup>26</sup> N.J.S.A. § 48:25-3(b) (emphasis added).

<sup>27</sup> See, e.g., N.J.S.A. § 48:2-13(a) (“The board shall have general supervision and regulation of and jurisdiction and control over all public utilities...”).

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example, the Straw Proposal states that EVSE Infrastructure Companies would be primarily responsible for, “*Installing, owning, maintaining and marketing the EVSE...*”<sup>28</sup> Further, the Straw Proposal assumes that, “*EVSE Infrastructure Companies could charge customers either based on the time of charging or the amount of electricity the customer consum[es].*”<sup>29</sup> As discussed below, the Straw Proposal oversimplifies the current market for EV infrastructure.

The EV charging market is growing and dynamic, and there is no one static business case for the EVSE industry or for EV charging site hosts. For example, currently charging station providers approach site hosts with their unique products and features, competing with other providers to sell or install charging equipment. Site hosts have an open choice of several options for charging equipment and networks from different providers with different business models. Site hosts also compete for EV drivers in providing charging services and set their pricing and access features in ways that will attract drivers to their sites. In most cases, it is the site host, not the EVSE Infrastructure Company, that owns and operates the charging equipment.

The business case, or value proposition, for various entities to install and operate charging stations incorporate many different value streams and varies across use cases. As an example, for DCFC, a significant driver of value for site hosts are the ancillary transactions that take place while a driver is charging up an EV. The assumed EVSE Infrastructure Company model in the Straw Proposal only considers a model which primarily depends on driver revenues or subscriptions and are unable to account for other value streams associated with the site host. Site hosts balance costs against the value created by hosting a station, which are often beyond direct revenue that may be generated. Non-financial benefits include providing fringe benefits to attract and retain employees, attracting new customers and have them stay for longer periods of time for businesses, meeting sustainability goals for local governments and businesses, appealing to new tenants, amongst many others. Additionally, the vast majority of EV charging does not take place at public charging stations.<sup>30</sup> Residential customers acquire EVSEs for use at home in order to take advantage of faster charging and provide for a connected user interface to support scheduling and tracking of charging at home.

According to the Department of Energy’s Alternative Fuels Data Center (“AFDC”), across New Jersey, there are 791 public charging outlets,<sup>31</sup> or ports, utilizing a standard connector that enable charging of any model of EV deployed by nine EV charging companies. Of those 791 outlets, there are 122 DC fast ports and 669 Level 2 charging ports. It is important to note that the AFDC total does not include essential, non-public charging locations, such as workplace and residential, that

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<sup>28</sup> EV Straw Proposal at 9.

<sup>29</sup> EV Straw Proposal at 9, FN 4.

<sup>30</sup> See, e.g., DoE at, <https://www.energy.gov/eere/electricvehicles/charging-home>, (most plug-in electric vehicle drivers do more than 80% of their charging at home.)

<sup>31</sup> U.S. DoE Alternative Fuel Data Center; filtered by New Jersey, Electric Fuel, Level 2 and DC Fast, Standard Connectors J1772/CCS/CHAdeMO; Accessed June 8<sup>th</sup>, 2020. Despite the best efforts of this database to include all public chargers, it is likely this number is undercounting the total numbers simply due to a delay in registering new installations.

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are often cornerstones of successful utility EVSE programs. The vast majority of these public charging stations have been the result of site host investment, in whole or in part. This is an emerging market defined by natural demand and private investment across a diversity of communities. As EV adoption continues to grow and become more widespread in New Jersey, we will continue to see greater and increasing demand for EV charging solutions in new areas. ChargePoint and its competitors will continue to market and sell charging stations to a variety of site hosts in New Jersey, who own and operate those charging stations on their properties. As such, the Straw Proposal's assumption that all charging stations will be owned and operated by an EVSE Infrastructure Company does not accurately reflect the market, and New Jersey's EV Ecosystem should be developed with a recognition of all business models.

The Straw Proposal also assumes there are two methods for site hosts to price charging services. However, networked EV charging stations provide site hosts with the ability to set pricing for EV charging services in many ways. These dynamic pricing tools allow charging station hosts to incentivize driver behavior, which is essential given that EV charging is a combination of vehicle refueling and parking. Flexibility in pricing allows site hosts to tailor pricing to the unique needs of the site, including, but not limited to:

- A free charging session;
- A fixed rate for the session, for which the driver pays a set fee for the entire session;
- An energy rate, for which the driver pays for the energy consumed on a per kilowatt-hour (kWh) basis;
- An hourly rate, for which the driver pays per hour, similar to how a parking meter operates;
- Length-of-Stay pricing, for which one price is charged during the first x hours and another price is charged for every hour afterwards;
- Time-of-Day pricing, for which one price is charged during peak hours and another during off-peak hours.
- A minimum and/or a maximum fee per session;
- A combination of the above, in which, for example, a flat session fee followed by an hourly rate, an hourly rate followed by per kWh pricing, a minimum session fee followed by an hourly rate, or a free period of time followed by per kWh pricing; and
- Driver groups, for which station owners may set unique policies for different classifications of drivers (e.g. employees vs. visitors) using the options above.

ChargePoint recommends the Straw Proposal be revised to not restrict the manner in which a site host may price EV charging services to customers.

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- C. The Straw Proposal should not require DCFC chargers to simultaneously charge two vehicles

The Straw Proposal establishes “*certain performance requirements*”<sup>32</sup> that an EVSE Infrastructure Company must accept in order to use an EDC-funded Charger Ready location. One requirement is that an EVSE Infrastructure Company, “*Commits to using chargers capable of handling more than one EV, such as dual-port chargers, wherever technically feasible.*”<sup>33</sup> ChargePoint interprets this requirement to mean that each EV charger deployed under the Charger Ready program must be capable of charging two vehicles *simultaneously*.

ChargePoint recommends that Staff allow site hosts more flexibility in selecting the appropriate charging solution when participating in the Charger Ready program given the wide array of charging solutions provided by the EVSE industry.

For L2 stations, many EVSE manufacturers offer both single and dual-port stations. Dual-port stations allow up to two vehicles to charge simultaneously. This can be supported by dedicated electrical circuits for each connector, or by sharing a single circuit between the two connectors.

For DC fast charging, EVSE manufacturers generally provide multiple ports to allow drivers whose vehicles use different connector standards to plug in. Typically, publicly accessible DCFC provide both an SAE Combo Charging System (CCS) or CHAdeMO connector. Due to the design considerations for DC fast charging, most solutions on the market allow for only one of the connectors to be in use at any time at a given station.

We respectfully recommend that Staff remove the requirement that charging solutions be able to charge two vehicles simultaneously, to allow EVSE Infrastructure Companies to deliver the best charging solution for the site host.

- D. The Straw Proposal should be expanded to incentivize transportation electrification across the entire EV Ecosystem to include medium and heavy-duty EV charging applications and commercial fleets

As recognized in the Straw proposal, “*New Jersey needs to create a comprehensive EV Ecosystem that provides consumers with easy access to electric vehicle charging infrastructure where they work and play.*”<sup>34</sup> However, Staff has limited the Charger Ready Straw Proposal to publicly available light duty and MUD charging infrastructure. By only considering a small subset of the EV Ecosystem, Staff may have inadvertently limited the effectiveness of the Charger Ready proposal. The Charger Ready program, as currently constructed, will lead to an over-deployment of EVSE at public locations and under-deployment of EVSE at workplaces. More importantly, this

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<sup>32</sup> EV Straw Proposal at 10.

<sup>33</sup> EV Straw Proposal at 11.

<sup>34</sup> EV Straw Proposal at 1.

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program would fail to account for the significant value for ratepayers and the public created by deploying workplace and residential EVSE.

ChargePoint recommends the Straw Proposal be expanded to incentivize transportation electrification across the entire EV Ecosystem by including public and non-public EVSE locations. Making all charging locations eligible to receive Charger Ready incentives will increase effectiveness of the program and increase benefits for all ratepayers:

- Over 90% of EV charging takes place at home and work.<sup>35</sup> The EVSE-related load at residential and workplace locations is flexible and responsive to price signals, as drivers at these locations typically park for extended periods of time.
- Workplace and residential charging load profiles are good matches to support increased volumes of variable energy resources like wind and solar on the grid, because it can be moved to times when variable renewable energy resources are more prevalent.<sup>36</sup>
- Supporting the deployment of EVSE at workplaces, where availability thereof makes employees six times more likely to buy an EV, would accelerate the achievement of New Jersey's EV goals.<sup>37</sup>
- Multiple medium and heavy-duty vehicles have been announced and will hit the market within the term of the Charger Ready Program, including: Freightliner eM2 106 (medium duty delivery truck), Peterbilt Motors 220EV (medium duty truck), Navistar eMV (medium duty truck), Freightliner eCascadia (heavy duty highway tractor), Mack Trucks LR BEV (heavy duty refuse truck), Tesla Semi (heavy duty truck), and Volvo VNR (heavy duty regional-haul truck). The Charger Ready Program should be designed to ensure support for operators interested in electrifying their medium and heavy-duty fleets, especially since upfront charging infrastructure is a core barrier in this sector.

States across the country, including Wisconsin,<sup>38</sup> Ohio<sup>39</sup> and Michigan<sup>40</sup> are moving forward to incentivize fleet and workplace transportation electrification and we urge the BPU to similarly address these vital transportation segments. New Jersey's 2019 Energy Master Plan supports

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<sup>35</sup> Smart, John, *Lessons Learned About Workplace Charging in the EV Project*, Idaho National Labs (2015), available at [https://www.energy.gov/sites/prod/files/2015/07/f24/vss170\\_smart\\_2015\\_p.pdf](https://www.energy.gov/sites/prod/files/2015/07/f24/vss170_smart_2015_p.pdf).

<sup>36</sup> Regulatory Assistance Project, "Beneficial Electrification of Transportation," at 37 (Jan. 2019) ("RAP 2019 Electrification Report"), available at <https://www.raonline.org/wp-content/uploads/2019/01/rap-farnsworth-shipleigh-sliger-lazar-beneficial-electrification-transportation-2019-january-final.pdf>.

<sup>37</sup> U.S. DOE, Workplace Charging Challenge, available at: [https://www.energy.gov/sites/prod/files/2017/01/f34/WPCC\\_2016%20Annual%20Progress%20Report.pdf](https://www.energy.gov/sites/prod/files/2017/01/f34/WPCC_2016%20Annual%20Progress%20Report.pdf).

<sup>38</sup> Application of Northern States Power, as an Electric Utility, for Approval of Electric Vehicle Service Programs, Wisconsin PSC Docket 4220-TE-104 (Proposed).

<sup>39</sup> I/M/O the Application of Duke Energy Ohio, Inc. for Authority to Adjust its Power Forward Future Initiatives Rider, Ohio PUC Docket 19-1750-EL-UNC (Proposed).

<sup>40</sup> I/M/O the Application of Consumers Energy Company for Authority to Increase its Rates for the Generation and Distribution of Electricity and for Other Relief, Michigan PSC Case U-20697 (Proposed).

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ChargePoint's recommendations regarding incentivizing fleet and workplace transportation electrification:

[T]his shared responsibility model ensures that utility providers and other stakeholders can offer a significant opportunity for widespread charging deployment across multiple transportation modes and sectors (i.e., residential, multifamily, **workplace, fleets**, and public DC fast charging), using both rate-based and non-rate-based solutions, and resulting in diminished consumer "range anxiety" and increased EV adoption rates.

....State agencies will work with industry leaders and manufacturers to establish which kinds of vehicles (e.g., buses, refuse trucks, delivery trucks, drayage trucks, jitneys, etc.) should be incentivized as "first adopters" to further drive development and enable the technologies and efficiencies established in the early generations of vehicles to inform future vehicle manufacturing. NJEDA is finalizing a Request for Information aimed at commercial fleet owners, supply chain companies, and other related parties (e.g., truck leasing/financing), and **will offer electric truck purchase incentives beginning in the second half of 2020**. When this nascent market is more fully developed, the state will establish transition goals to EVs for the **medium- and heavy-duty fleet**. Further, the state will work with local industry to create incentives to encourage EV adoption for local delivery to reduce the emissions around warehouses and ports (see Goal 1.3). The strategy adopted should take account of opportunities that may exist for New Jersey to participate in the development of the supply chain for these vehicles by bringing relevant assembly and manufacturing jobs to the state. Finally, the state will also work with school district-owned and commercially-owned school bus fleet operators to incentivize and encourage EV adoption as a means to upgrade fleets and reduce operating costs. Those may include, as an example, incentives for Boards of Education that prioritize contracting with bus companies that utilize EVs.

New Jersey should also consider **truck and bus rebate or grant programs** to reduce the incremental up-front cost of purchasing EVs over their conventional counterparts, or explore a state-wide procurement mechanism wherein the batteries in medium- and heavy-duty EVs are leased, thereby reducing the up-front cost of one comparable to a new diesel vehicle, and allowing the reduced operating costs (e.g., for fuel and maintenance) to cover the battery lease payments over time. In addition, agencies such as NJEDA should work with private lenders and trucking industry participants to develop longer term loan products that can enable the lower projected operating costs for EV trucks and buses to more effectively provide for the payback of the high upfront investment in electric versions of vehicles. The state could also help facilitate financing for bulk purchases to drive down capital procurement costs. New Jersey will work with transportation network companies, as discussed earlier, to advance the

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deployment of public charging infrastructure along busy transportation corridors and within urban areas and to ensure private sector support for an electric fleet transition.

....New construction offers New Jersey the most cost-effective opportunities to incorporate modern technologies into buildings. As discussed earlier in Strategy 1: Reduce Energy Consumption and Emissions from the Transportation Sector, a common barrier to electric vehicle (EV) adoption is the lack of charging opportunities, **particularly at the workplace** and at multi-unit dwellings. The state should consider mechanisms, such as new legislation or incentives, to ensure that new commercial and multi-unit dwelling construction are built to EV-ready standards. Development of these mechanisms should be done in conjunction with stakeholders and local municipalities.<sup>41</sup>

- E. EV chargers deployed pursuant to the Charger Ready Program should meet minimum specifications

ChargePoint understands that in developing the Straw Proposal, Staff focused largely on the Charger Ready aspects of the Ecosystem, rather than the EV charging infrastructure that will be deployed. However, in doing so, Staff misses an opportunity to set minimum functional requirements that any EVSE installed under the Charger Ready program must meet.

ChargePoint recommends that any EVSE installed under the Charger Ready program shall require advanced charger capabilities in order to future-proof any investments, and reduce Staff's concerns with EVSE obsolescence. Advanced, or smart, chargers will be vital to ensuring that EV charging benefits New Jersey's grid by enabling the EDCs, or third-parties, to have advanced remote load management controls to facilitate off-peak charging and other managed charging strategies.<sup>42</sup> An advanced charger can also collect interval data to inform usage patterns, and provide enhanced network communication capabilities between the EV driver and the utility, or third-party systems. Specifically, ChargePoint recommends that chargers have the ability to connect to a network, be UL certified, have smart energy management and data storage capabilities, and low standby power consumption (which may be demonstrated by ENERGY STAR certification). By requiring advanced chargers from the outset, the BPU and Staff will enable program administrators, vendors, and customers to reap significant benefits from increased functionality, wider program design options, and ultimately a more successful program deployment. In addition, networked charging would obviate the need for installation of AMI meters in many use cases thereby lowering the overall cost for a customer to install EV charging infrastructure.

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<sup>41</sup> NJ 2019 EMP at 68, 74-75, 166 (emphasis added).

<sup>42</sup> ChargePoint notes that managed charging may be appropriate for residential charging for Level 2 stations but may not be appropriate for public DC fast charging stations, where it is more difficult for drivers to plan their routes or change charging behavior.

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Furthermore, ChargePoint recommends that EDCs should be required to develop a methodology to qualify EVSE equipment and to regularly update the list of qualified charging solutions to keep up with the pace of innovation and allow site hosts to best meet the evolving needs of drivers, site hosts, and grid operators.

### F. Establish a Charger Ready Advisory Council to inform program evaluation

The Straw Proposal is silent on program evaluation and reporting guidance. ChargePoint requests that Staff and the BPU consider providing guidance on these topics as part of this proceeding. The Charger Ready program is a complex program with many interrelated activities and market players. Regular review and check-ins on the efficacy of its various elements will ensure it swiftly adapts to technological and market developments and takes advantage of valuable insights from participating stakeholders.

In order to increase program transparency and accountability, we recommend establishing a Charger Ready Advisory Council (“CRAC”) that would meet quarterly to review pertinent metrics and evaluate program options. The CRAC would also inform a formal bi-annual program review by the BPU.

We recommend that the CRAC be comprised of representatives from relevant constituencies, including Staff, municipalities, public agencies and authorities, the EDCs, EV charging industry, environmental justice advocates, labor and installation partners, environmental stakeholders, and the automotive industry.

We further recommend that each EDC, in consultation with the CRAC, be directed to file annual reports detailing the status of its individual program implementation, lessons learned, and potential enhancements to the program to ensure full deployment is achieved. The reports should include, at minimum: number of sites made Charger Ready; number of Charger Ready sites operational; location of each deployment; average time to make locations Charger Ready and, how many Charger Ready sites are in Equity Areas.

## III. Comments on Ensuring Equitable Distribution of EVSE

ChargePoint applauds the Straw Proposal’s focus on ensuring, *“equitable geographic diversity, particularly with respect to ensuring a viable EV ecosystem in low-income, urban, environmental justice communities, or rural communities [collectively Equity Areas] ...If the market is not delivering EV services to a particular Equity Area, within a given timeframe, the EDCs would be eligible to act in lieu of an EVSE Infrastructure Company, meaning that it could directly own and operate the EVSE.”*<sup>43</sup> The Straw Proposal refers to this as a “Last Resort” function by the EDCs. Staff is seeking stakeholder comment on proper criteria to implement any “Last Resort” function by the EDCs.

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<sup>43</sup> EV Straw proposal at 11-12.



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### A. EDC “Last Resort” function

ChargePoint understands Staff’s concern that the market may not deploy charging equipment when and where desired. However, ChargePoint stresses that the BPU must provide sufficient time for the market to meet customer needs. As stated in the EV Stakeholder Workshop on June 3rd, “a Last Resort must mean last resort”.<sup>44</sup> As such, ChargePoint believes it is premature to request EDCs submit proposals to establish a process and timeframe for EDCs to provide a “Last Resort” function by owning and operating EV charging stations.<sup>45</sup> Specifically, combining Charger Ready with EVSE rebates for these “Equity Areas” should first be tested, given these are less costly, less risky for ratepayers, and more flexible alternatives to accelerate the market. Further, ChargePoint argues that it is premature to determine the “Last Resort” function can only be met by an EDC owning and operating EV Charging stations.

Prior to authorizing EDCs to own and operate EV charging stations, ChargePoint encourages the BPU to carefully consider whether and under what circumstances supplemental EVSE incentives can be made available. We recommend that prior to considering utility ownership and operation of EV charging stations, the BPU should establish a stakeholder working group to determine whether additional financial incentives (i.e., rebates covering EVSE and related operating costs) are necessary to support EVSE deployment at (i) strategic locations and (ii) underserved communities. Granting EDCs the flexibility to propose additional incentives in response to unique community needs will support wider and more equitable access to electric transportation. Authorization for additional incentives could be granted temporarily by the BPU and revisited at the bi-annual review.

Should the BPU feel it necessary to determine a timeframe for when the market is not delivering EV services to Equity Areas in this proceeding, ChargePoint recommends a period of not less than 24 months from the commencement of provision of make-ready and EVSE rebate incentives to provide the market appropriate time to respond.

### B. EDC ownership of EVSE

ChargePoint believes it is premature to consider EDC ownership and operation of EV charging stations. However, should the Board consider direct ownership of EVSE by utilities in this proceeding, ChargePoint respectfully recommends that the Board identify program requirements associated with such ownership to avoid any unintended market impacts.

For example, the Board should ensure that such utility-owned EVSE include local site host choice of at least two vendors for both hardware and software and choice over whether to flow through the applicable EV rate charged by the utility to the driver or to flow through alternative pricing

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<sup>44</sup> Stephanie Brand, NJ Rate Counsel, EV Workshop, available at: [www.njcleanenergy.com/ev](http://www.njcleanenergy.com/ev), at 1:15:51.

<sup>45</sup> EV Straw Proposal at 13.

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to the driver (with the site host responsible for the applicable EV rate in both circumstances). In doing so, market forces can still be in play, private market actors will be encouraged to invest their own capital and local site hosts will be able to maximize station utilization and optimize the driver experience. Examples of such programs that include utility ownership with local site host choice and control include San Diego Gas & Electric “Power Your Drive” and Pacific Gas & Electric’s EV Charge Network in California.<sup>46</sup>

In addition, the Board should develop appropriate procedural valves/gates to avoid prematurely authorizing utilities to directly own and operate publicly-available EV charging stations. For example, in response to National Grid’s proposal to own & operate public EVSE, the Rhode Island Public Utility Commission (“RIPUC”) required that the Company first pursue non-ownership incentives (i.e., make ready and rebate) for at least one year before returning to the RIPUC with a proposal to own and operate EVSE. Requiring a “waiting period” was an important factor in ensuring the prudence of ratepayer investments.<sup>47</sup> Indeed, National Grid identified in its first annual filing that it would defer consideration of ownership for an additional year.

### IV. Comments on The Proposed EV Mapping Effort

The Staff Straw proposal establishes a process combining an ‘EV Mapping Effort,’ which refers to an effort, *“to map existing and proposed EV Ecosystem investments, under the lead of the Department of Environmental Protection (“DEP”), in conjunction with the Board and other Agencies,”*<sup>48</sup> with a ‘Charger Ready Map Proposal,’ which *“is a proposal from an EDC which pre-identifies areas that are suitable for Level Two or DC Fast Charging based on the EV Mapping Effort.”*<sup>49</sup> ChargePoint understands Staff’s desire to coordinate the deployment of resources to create a robust EV Ecosystem, however the proposal provides few guidelines regarding how the mapping efforts will be conducted, the timeframe in which the efforts will be completed, or who will participate in the mapping efforts.

Utilities and regulatory agencies can, and should, play a central role in supporting the deployment of EVSE in New Jersey. However, ChargePoint is concerned that the proposed process would (a) inadvertently exclude critically important locations and participants and (b) unduly burden utilities with the responsibility of designing comprehensive EV charging networks without the assistance of third-parties with significant industry experience. ChargePoint requests clarification from Staff and the BPU that site hosts and EVSE Infrastructure Companies can request sites be made Charger Ready whether or not the site has been identified via either mapping effort.

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<sup>46</sup> See, Decision Regarding Underlying Vehicle Grid Integration Application and Motion to Adopt Settlement Agreement, CPUC, Docket No. A.14-04-014 (January 28, 2016); Decision Directing PG&E to Establish an Electric Vehicle Infrastructure and Education Program, CPUC, Docket No. 16-12-065 (Dec. 21, 2016);

<sup>47</sup> In Re: The Narraganset Electric Company d/b/a national Grid Proposed Power Sector Transformation Vision and Implementation Plan, Rhode Island PUC Docket No. 4780. (Order Issued may 5, 2020), Available at: [http://www.ripuc.ri.gov/eventsactions/docket/4770-4780-NGrid-Ord23823%20\(5-5-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4770-4780-NGrid-Ord23823%20(5-5-20).pdf)

<sup>48</sup> EV Straw Proposal at 5.

<sup>49</sup> EV Straw Proposal at 4.

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Additionally, a site not being identified during the mapping processes should not impede, in any way, the work necessary to make the location Charger Ready.

### A. Encourage site host recruitment without restricting participation

Staff's Straw Proposal establishes that EDCs will, *"Develop hosting maps in conjunction with the EV Mapping Effort that identify where to prioritize making sites Charger Ready...while avoiding lengthy and costly distribution upgrades."*<sup>50</sup> ChargePoint recommends that the Charger Ready proposal allow for a variety of participants and avoid imposing strict eligibility criteria based on load capacity and/or site host business models.

Load serving capacity data is critically important to inform developers and site hosts and should be an important consideration when deploying EVSE. However, installation and interconnection costs are not the sole consideration. Other key site considerations include, but are not limited to: safe and well-lit access; access to key locations and amenities (workplaces, dining, restrooms, shopping); and wi-fi and cell connectivity.

As stated previously, EV charging stations are not only operated by entities whose sole business is the provision of charging services. The EV charging market is growing and dynamic, and there is not a uniform business model for the industry or for EV charging site hosts. The business case, or value proposition, for various entities to install and operate charging stations incorporate many different value streams and varies across use cases.

Should Staff prefer to impose strict eligibility criteria, we recommend delaying such implementation until the first bi-annual program review to allow for collaborative development of criteria through the CRAC process.

### B. Recruit program participants through multiple channels

We recommend against making utilities bear the sole responsibility for identifying priority Charger Ready locations. Instead, we recommend that the Straw Proposal allow for EVSE Infrastructure Companies to develop appropriate locations and for independent site hosts to directly participate in the Charge Ready program.

Allowing for broad customer engagement by third-party vendors, and by independent site hosts themselves, would be in both customers' and the public interest. There are no one-size-fits-all charging solutions, and EVSE providers often work closely with site hosts to provide customized infrastructure and equipment deployment solutions that meet their specific needs, which reduces the risk of stranded assets.

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<sup>50</sup> EV Straw Proposal at 8-9.

Including third-parties in developing locations and recruiting site hosts would not prevent utility engagement with potential program participants, nor would it delay the program. Utilities should, of course, freely engage with their customers about the Charger Ready program, provided that such utility engagement does not inadvertently limit third-party participation.

## V. The Straw Proposal Inappropriately Directs EDCs to Identify “Poor Performing EVSE Infrastructure Companies”

In the Straw Proposal, Staff, “*proposes that the EDCs will jointly establish and file for Board approval criteria for identifying Poor Performing EVSE Infrastructure Companies (i.e., not adequately maintaining operational equipment)*”<sup>51</sup>

ChargePoint supports ensuring robust consumer protection mechanisms for EV charging in New Jersey, which are critical to drivers, site hosts, and the general public. However, we are concerned that requiring EDCs to carry out consumer protection functions would be inconsistent with state law and prematurely impose requirements that should otherwise be administered through existing state agency channels.

The New Jersey Legislature recently found that the provision of EV charging is “a service and not a sale of electricity by an electric power supplier or basic generation service provider.”<sup>52</sup> As the provision of competitive services is outside the BPU’s jurisdiction, it would be more appropriate for related consumer protection issues to be overseen by the Office of Weights and Measures within the New Jersey Division of Consumer Affairs.<sup>53</sup> Similar offices around the country have begun to implement the *Tentative Code for Electric Vehicle Fueling Systems*, which is included in Section 3.40 of the National Institute of Standards and Technology’s (NIST) Handbook 44.

To the extent that the Board would seek to ensure ongoing operations and maintenance of stations deployed under the auspices of the Straw Proposal, ChargePoint recommends including a requirement that participants commit to keeping EV charging equipment maintained and operational with a 95% annual uptime guarantee for a minimum term (e.g., five years).

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<sup>51</sup> EV Straw Proposal at 11.

<sup>52</sup> N.J.S.A. § 48:25-1 .

<sup>53</sup> NJ Division of Consumer Affairs website, <https://www.njconsumeraffairs.gov/OWM/Pages/default.aspx> (“The New Jersey Office of Weights and Measures tests and inspects all commercially used devices from prescription pharmacy balances to large capacity truck scales. In addition, the office is responsible for testing fuel meters, airplane fuel trucks located in area airports, laser guns and radar tuning forks used for speed enforcement and portable vehicle scales used in highway safety programs. This is just a small sample of the devices tested and inspected annually by the New Jersey Office of Weights and Measures....The New Jersey Office of Weights and Measures core mission is to protect consumers from unscrupulous business practices and maintain equity in the marketplace.”).

## VI. Comments on Rate Reforms Designed to Encourage Adoption of Electric Vehicles

### A. New Jersey should develop alternatives to traditional, demand-based rates

As Staff correctly notes, *“DC Fast Chargers, have a large instantaneous draw, which can create large demand charges, particularly when such stations are combined into “banks” of chargers. This problem is particularly acute in the early days of EV adoption, where some stations may have relatively few monthly charging sessions over which to recoup a high demand charge.”*<sup>54</sup>

ChargePoint appreciates Staff’s acknowledgement of the burden traditional demand charges place upon DCFC stations and we support the recommendation to consider alternatives to traditional demand-based rates to sensibly address this challenge. However, ChargePoint believes it is premature to limit the potential solutions to, *“either wave demand charges associated with EV charging or develop a rebate methodology that ensures that the effective \$/kW-hour rate (i.e., the demand charge averaged over the number of kW-hours used in a given month added to the standard \$/kW-hour rate) remains below a specified “setpoint.”*”<sup>55</sup>

While short-term subsidies like those identified in the Straw proposal can offset burdensome demand charges, as stated at the workshop, multiple approaches to rate design are necessary because there is not a singular use case for EV charging.<sup>56</sup> ChargePoint believes that it is critical for the Board to ensure the development of long-term, sustainable, tariff-based solutions that reflect actual costs and benefits to the grid of EV load, rather than short-term subsidies. We urge the BPU to initiate a separate proceeding to consider such long-term sustainable rate designs that more precisely allocate costs and benefits of EV load. This type of long-term, sustainable tariff-based EV rate design is necessary to attract private investment in EV charging infrastructure, especially at the DCFC level. Many examples have already successfully been implemented or are currently being developed in other jurisdictions. For example:

- Charging stations can be separately metered with unique “EV Charging” rates, reflective of marginal costs and benefits to serve the EV charging use case in question.<sup>57</sup>
- Replacing or pairing demand charges with higher volumetric pricing to provide greater certainty for charging station operators with low utilization. This rate could be scaled based on utilization or load factor as charging behavior changes over time.<sup>58</sup>

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<sup>54</sup> EV Straw Proposal at 12.

<sup>55</sup> EV Straw Proposal at 13.

<sup>56</sup> Adam Benshoff, Edison Energy Institute, EV Workshop, available at: [www.njcleanenergy.com/ev](http://www.njcleanenergy.com/ev), at 4:58:11.

<sup>57</sup> Alternative rate structures have been recently approved in California by Pacific Gas & Electric (PG&E) and Southern California Edison (SCE) to the California Public Utilities Commission.

<sup>58</sup> Pacific Power has implemented such a rate in Oregon, providing for a demand charge transition discount of 90% and an on-peak energy charge transition discount of 10%, and reducing the demand charge transition discount gradually each year to 0% while increasing the on-peak energy charge transition discount gradually each year to 100%. See Pacific Power, Oregon Schedule 45, Public DC Fast Charger Optional Transitional Rate Delivery Service at

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- Implement a “rate limiter” as EV adoption increases, in which the average cost equivalent of a customer’s demand charges would be limited to no more than a set cents/kWh value.<sup>59</sup>
- Forgive a portion of billed demand when the customer has a low load factor.<sup>60</sup>

### B. New Jersey should avoid short-term subsidies, like the set point method, to fix long-term problems

1. The set point subsidy is designed to solve a different problem than that which is faced by DC fast charging site hosts

Traditional, demand-based commercial and industrial electricity rates are misaligned with low load-factor use cases like DC fast charging. The most appropriate and sustainable solution to this problem would come in the form of non-discriminatory electricity rates that reflect cost-causation, send appropriate price signals to customers, and avoid artificially subsidizing otherwise misaligned electricity rates on an ongoing basis.

In contrast, the set point method has been described by Atlantic City Electric as a short-term “incentive to offset the customer’s demand charges” in the form of a “monthly rebate to reduce the effective cost of electricity.”<sup>61</sup> As envisioned in the Straw Proposal, Staff suggest that the “*actual level of the set point would be agreed to by the EDCs, in conjunction with interested stakeholders, and then filed with the Board,*” and would “*be benchmarked so that electric vehicle charging remains below the equivalent cost of diesel or gasoline on a per-mile traveled basis.*”<sup>62</sup>

ChargePoint is generally supportive of proposals that mitigate the significant cost of demand charges that are borne by EVSE site hosts, be they operators of highway corridor chargers, municipal electric fleets, or state agencies like NJ Transit. We acknowledge that the set point method would likely lower the cost to operate DC fast chargers for customers that are allowed to participate in the program. However, we are concerned that the set point subsidy is an unsustainable and inappropriate method to mitigate unintentional flaws in rate design.

Specifically, the set point subsidy:

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[https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/045\\_Public\\_DC\\_Fast\\_Charger\\_Optional\\_Transitional\\_Rate\\_Delivery\\_Service.pdf](https://www.pacificpower.net/content/dam/pcorp/documents/en/pacificpower/rates-regulation/oregon/tariffs/rates/045_Public_DC_Fast_Charger_Optional_Transitional_Rate_Delivery_Service.pdf). Approved in Oregon PUC Docket No. 485 on May 16, 2017.

<sup>59</sup> Ameren implemented such a rate in Illinois, which was designed to limit the average monthly cost for customers who limited their total kWh usage during the four summer billing periods of June through September to 20% or less of their annual kWh consumption. See <https://www.ameren.com/-/media/rates/files/illinois/aiel14rt4.pdf>. (Docket No. 16-0387).

<sup>60</sup> Xcel Minnesota’s general service rate offers an example of this approach, see [https://www.xcelenergy.com/staticfiles/xcel/Regulatory/Regulatory%20PDFs/rates/MN/Me\\_Section\\_5.pdf](https://www.xcelenergy.com/staticfiles/xcel/Regulatory/Regulatory%20PDFs/rates/MN/Me_Section_5.pdf).

<sup>61</sup> Petition by ACE at 18.

<sup>62</sup> EV Straw Proposal at 13.

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- **Fails to address geographic variability in DCFC load factor.** DCFC utilization will continue to vary greatly based on a number of different factors beyond light-duty EV adoption. For example, DCFC deployed in a less-traveled corner of an EDC's service territory will consistently experience lower utilization than a high-density corridor deployment, irrespective of statewide EV adoption. It would be short-sighted to assume that the unintended impacts of demand charges will be overcome at the conclusion of a short-term rate subsidy.
- **Pegs the price of electricity to the price of gasoline.** The Straw suggests that set point subsidies would depress the cost of EV charging at a DCFC enrolled in a C&I electricity rates below the market price of gasoline. This would be an inappropriate use of ratepayer funds. Gasoline prices are determined by market prices, not by the Board. In contrast, a site host's electricity costs are based in part on the Company's distribution and transmission costs, both of which have no relation whatsoever to the price of gasoline and fail to appropriately capture the cost to serve DCFC customers.
- **Provides discriminatory relief from demand charges.** Electricity rates are made available to customers on a nondiscriminatory basis, and so subsidies that offset structural problems with C&I should similarly be made available without discrimination. We are concerned that, in practice, this would not take place. For example, ACE proposed to limit set point subsidy eligibility to new customers that participate in an infrastructure make ready program, thereby excluding existing C&I customers and customers that do not elect to participate in an infrastructure deployment program.

We respectfully urge the Board to require utilities to develop alternatives to traditional, demand-based tariffs to provide customers in New Jersey with sustainable, cost-based, long-term solutions reflective of actual marginal net costs to serve EV chargers. Such a long-term sustainable rate design is necessary to attract private capital investment in the long-term.

### C. EV TOU rates

ChargePoint supports the Staff straw proposal requirement, *"that each EDC offer a time-of-use rate for EV chargers designed to reward customers who charge during periods where electricity is cheap."*<sup>63</sup> Incentivizing EV charging to take place during off-peak periods through TOU rates can lead to increased utilization of existing utility assets and avoid the need for additional capacity and grid infrastructure. However, TOU rates may not be a perfect application for public DCFC stations since these stations are often used by EV drivers that cannot adjust their usage to avoid the impact of higher priced TOU time periods. This user group may include drivers traveling longer distances on highways unable to schedule their stops to align with changes in pricing or charger availability caused by higher priced TOU time periods. Therefore, any rates should be

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<sup>63</sup> EV Straw Proposal at 13.

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developed with careful consideration of the needs of both site host utility customers and EV drivers, and with an express goal of avoiding unintended consequences.

### VII. Recommended Changes to Charger Ready Terminology

Based on the comments above, ChargePoint recommends the following modifications, deletions and/or additions to Staff's proposed terminology (Section III of the Straw proposal).

- "EVSE Infrastructure Company" refers to an entity that offers EVSE and/or associated software/cloud and other services in support of operating EV charging stations. using private capital to deploy Electric Vehicle Service Equipment (i.e., "charging station infrastructure"). An EVSE Infrastructure Company cannot be an EDC, affiliated with an EDC, or controlled by an EDC, unless otherwise approved by the Board.
- "Operational" means a charging location that an EVSE Infrastructure Company, or site host, would be required to maintain and promptly fix, in accordance with industry standards, in the event of malfunctioning hardware or software that would impede the use of the equipment by a consumer.
- ~~"Poor Performing EVSE Infrastructure Companies" means EVSE Infrastructure Companies that fail to regularly maintain or promptly fix malfunctioning locations in accordance with industry practices, i.e., EVSE Infrastructure Companies that fail to maintain Operational charging locations, as defined above.~~
- "Site Host" means the entity that owns, leases, manages, or otherwise possesses the premises upon which the electric vehicle charging station is or is planned to be located for the purpose of charging an electric vehicle. The site host may also be the utility customer of record and responsible for operation and maintenance of, and paying for the energy delivered to the electric vehicle charging station.

### VIII. Conclusion

ChargePoint appreciates the opportunity to provide comment on Staff's Straw Proposal, which would establish a comprehensive statewide EV Ecosystem to support the deployment of EV charging stations throughout New Jersey. Our recommendations would strengthen the proposed EV Ecosystem by accelerating the achievement of New Jersey's statewide energy and environmental goals, minimizing costs and maximizing benefits for ratepayers, and ensuring that New Jersey builds out a robust electric transportation network. ChargePoint reserves its rights to provide additional comments as this process develops, and additional stakeholders weigh in.