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VIA ELECTRONIC MAIL

Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
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**Re: In the Matter of Straw Proposal on Electric Vehicle Infrastructure Build Out
Docket No. OO20050357**

Dear Secretary Camacho-Welch:

Jersey Central Power & Light Company (“JCP&L” or the “Company”) is pleased to submit comments on the Board of Public Utilities’ (“Board” or “BPU”) Straw Proposal on Electric Vehicle (“EV”) Infrastructure Build Out (“Straw Proposal”). As recognized within the Energy Master Plan and through the recent adoption of Senate Bill 2252, accelerated EV adoption is a key clean energy objective for New Jersey. The transportation sector represents 42% of all net greenhouse gas emissions in the state.¹ Accordingly, widespread adoption of EVs would have a transformative impact on New Jersey’s air quality.²

Utility involvement in the development of EV charging infrastructure is crucial to encourage widespread EV adoption in New Jersey. Although New Jersey committed to deploying 330,000 EVs by 2025,³ as of June 2019, there were only 26,000 EVs registered throughout the state.⁴ One of the main barriers to EV adoption is range anxiety, *i.e.*, if the public does not observe public charging infrastructure in their day-to-day travel, they are discouraged from purchasing EVs based on the legitimate concern that they may be unable to charge their vehicle away from their home. Due to this low penetration of EVs, a shortage of public charging infrastructure exists because private EV service equipment (“EVSE”) infrastructure companies will not install chargers where there is no demand for charging. This dynamic creates a “chicken or the egg” problem.

¹ 2019 New Jersey Energy Master Plan Pathway to 2050 (“EMP”), p. 59.

² *See id.*

³ *See* Multistate Zero-Emission Vehicle Programs Memorandum of Understanding, available at <https://www.zevstates.us>.

⁴ EMP, p. 63.

Without more EVs in the state, the competitive market will not install more public charging infrastructure, but without public charging infrastructure, residents will not purchase new EVs. New Jersey must build the charging infrastructure necessary to overcome this range anxiety barrier to achieve its clean energy goals and reduce greenhouse gas emissions from the transportation sector.

Electric utilities solve this “chicken or the egg” problem. Where utilities develop and own public charging infrastructure, a baseline level of public charging infrastructure is established, which will, in turn, reduce range anxiety for residents and increase EV purchases. Once there are more in-state EV drivers, the competitive market for EV charging infrastructure will expand.⁵ This important role that electric utilities can play in jumpstarting EV adoption has been recognized by numerous commissions throughout the country.⁶

In its Straw Proposal, the Board recognizes the importance of electric utility involvement in the development of public charging infrastructure. In the following comments, JCP&L addresses each of the components within the Board’s Straw Proposal and responds to certain questions posed by the Board. JCP&L is looking forward to working with the Board and other stakeholders to develop a comprehensive EV infrastructure buildout program that facilitates electrification throughout the state.

Shared Responsibility Model

In the Straw Proposal, the Board proposes a “shared responsibility” model for electric utility charging infrastructure programs. In this model, the utility would develop all backbone wiring and distribution infrastructure, including any necessary distribution system upgrades, *i.e.*, “make ready” work, needed to support EV chargers at public and multifamily sites throughout its territory. Where a private EVSE infrastructure company is interested in installing a charger at one of those sites, that private company would be charged with installing, owning, and operating the charger moving forward. Alternatively, where private EVSE infrastructure companies have no interest in a site, the utility would be responsible for installing, owning, and operating the charger at that location. All costs associated with making these sites “charger ready” would be recoverable by utilities via a rider recovery mechanism.

The Company supports the shared responsibility model subject to certain key changes highlighted below. Primarily, electric utilities should have a more central ownership role of public charging infrastructure. As part of their December filings, electric utilities should be permitted to propose a certain percentage of public chargers that would be owned and operated by utilities. Permitting utility ownership of public charging infrastructure at the time of program launch would ensure the most accelerated deployment of public charging infrastructure. In the Straw Proposal,

⁵ See Electric Vehicles: Key Trends, Issues, and Considerations for State Regulators, National Association of Regulatory Utility Commissioners (October 2019).

⁶ *Electric Transportation Biannual State Regulatory Update*, Edison Electric Institute (May 31, 2019), available at https://www.eei.org/issuesandpolicy/electrictransportation/Documents/FINAL_ET%20Biannual%20State%20Regulatory%20Update_May%202019.pdf.

the Board correctly recognizes the importance of utility ownership of public chargers, particularly in equity areas, to ensure all New Jersey residents have access to local public charging infrastructure. Additional benefits of public charging infrastructure, which are extremely important for equity areas, include mobility, job creation, and reduced health care costs. The Board should seek to make this public charging infrastructure available to New Jersey residents as soon as possible to achieve its clean energy and public policy goals.

Program Timeline

In the Straw Proposal, the Board correctly recognizes the urgency associated with public charging infrastructure deployment. JCP&L supports the Board's recommendation for an expedited timeline in which utility filings are submitted in December 2020 followed by an accelerated Board approval process that allows for program launch in April 2021. New Jersey committed to deploying 330,000 EVs by 2025. In order to have any realistic opportunity to meet that objective, utility charging infrastructure programs must be launched within the next year. Wherever possible, the rules associated with these utility programs should reflect this urgency. Allowing utility ownership of a certain percentage of public charging infrastructure at the time of program launch is the way to accomplish this objective. In addition, after identifying circuits where potential public chargers could be installed that would be available to private EVSE infrastructure companies, utilities should only be required to wait for a defined and limited period of time to obtain a commitment from private EVSE infrastructure companies before utilities could choose to unilaterally move forward with a utility-owned charger along those circuits as well. JCP&L suggests a period of 60 days after opening the application period proposed below for private EVSE infrastructure companies to make a commitment to install a charger on a circuit. If no interest is expressed by private companies within 60 days, then the utility should be permitted to begin installing public charging infrastructure at those locations.

A longer application timeline, in which utilities are simply waiting for private companies to express an interest in necessary public charging locations, would be contrary to New Jersey's public policy goals. The Board's top priority should be installing public chargers on an expedited basis in order to meet its commitment of 330,000 EVs by 2025. Electric utilities are well-positioned to own and operate public chargers and should be permitted to begin installing, owning, and operating public chargers as soon as this program launches in April 2021. JCP&L's affiliate, The Potomac Edison Company ("Potomac Edison"), is already owning and operating public charging infrastructure in Maryland, and the Company intends to rely on that experience to launch its own charging network in New Jersey. Deploying these chargers expeditiously must be a cornerstone of these programs, which means utilities must have a central and early role in the installation, ownership, and operation of chargers.

Cost Recovery

In the Straw Proposal, the Board recognizes that rider recovery is appropriate for this program. Rider recovery via the Company's Societal Benefits Charge seemingly would be appropriate due to the recognized environmental and societal benefits provided by electrification

and the use of cleaner, more efficient technologies.⁷ The Board should permit full and timely rider recovery for all costs associated with utility programs, including, among other things, all make ready work, distribution infrastructure upgrade costs, operation and maintenance (“O&M”) costs associated with developing and implementing these programs, the capital and O&M costs associated with utility-owned chargers, consumer education, rebates, and rate discounts. Cost recovery should include a return on and of all capital investments. Revenues received from the use of the utility-owned chargers would be credited back to the rider as an offset of program costs.

Where the Board is seeking to encourage utilities to launch a new program on an expedited basis, rider recovery is the appropriate cost recovery mechanism because it facilitates prompt action. While cost causation principles may support recovering the cost of the make ready infrastructure directly from the charging station owner or the site owner, it is unlikely that the state would accomplish its clean energy goals in the transportation sector without proactive steps to address EV charging infrastructure and range anxiety. Rider recovery also provides the Board with transparency regarding utility spending when the utility files for annual reconciliation of the rider.

Any delay or uncertainty associated with cost recovery may discourage utilities from deploying public chargers and related distribution infrastructure. Although JCP&L strongly supports electrification of the transportation sector, it cannot move forward with the installation of new distribution infrastructure or a utility-owned charger if it lacks clarity regarding its ability to recover those costs. A few elements within the Straw Proposal raise concerns in this regard. First, the Straw Proposal discusses an earnings test that would be applied to evaluate whether a utility may recover its program costs. The Straw Proposal does not explain what factors would be included in the test or how the test would be applied. JCP&L disagrees with such an approach. An earnings test is not appropriate as the investments are required to advance state policy goals and this test would contribute to additional uncertainty during the program. Before installing new infrastructure, JCP&L would spend time trying to evaluate if it would meet a future undefined earnings test, which would inevitably contribute to additional delays throughout the process. Instead, if the Board approves a utility’s EV infrastructure buildout program, the utility should be permitted full and timely rider recovery for all costs associated with that program without a subsequent Board review of that spending. In other words, if the utility follows the framework outlined in its BPU-approved program, cost recovery should be certain.⁸

Second, the Straw Proposal discusses a few different program costs that may not be rider recoverable, such as the capital costs associated with utility-owned chargers, the distribution infrastructure costs related to multifamily chargers installed at assigned parking spaces, and where a utility’s make ready work is not completed within 12 months. Again, creating exceptions to rider recovery does not promote timely or widespread installation of public and multifamily chargers.

⁷ Rider recovery is permissible pursuant to N.J.S.A. 48:3-98.1.

⁸ To the extent the Board determines that an earnings test will be applied, JCP&L recommends using the earnings test provided under the Infrastructure Investment & Recovery Program (commonly referred to as “IIP”). The evaluation of reasonableness and prudence of costs could take place in a subsequent rate case, as is also the case with the IIP programs.

If there is no interest from private EVSE infrastructure companies to install chargers at a location, presumably these locations have investment risk related to market conditions or usage/revenue projections. As such, the Company should be able to recover the capital investment of the charger through a rider mechanism in the same manner as the backbone and make ready wiring for the chargers. The Board should adopt program rules that encourage expedited deployment of utility-owned chargers at the location to help New Jersey reach its goal of 330,000 EVs by 2025. Moreover, potential EV users who live in that location deserve equitable access to public charging infrastructure. Revenues from the utility-owned chargers would offset the rider costs.

In addition, if the Board believes that multifamily chargers at assigned parking spaces should be included within utility programs, then all utility costs associated with these installations must be rider recoverable. Finally, the Company expects that it will be able to meet a 12-month installation deadline for make ready work; however, the Company should not be penalized in its cost recovery where unforeseeable delays, such as local zoning and permitting issues, weather, pandemic-related, or communication delays, prevent JCP&L from meeting this deadline. If the BPU's intention is to ensure the utilities are completing the requested work in a timely and efficient manner, JCP&L recommends the BPU consider regular status reporting as an alternative to an established time period for construction.

To the extent the Board is concerned about bill impact, based on the experience of JCP&L's affiliate, Potomac Edison, in Maryland, an EV infrastructure buildout program may be adopted without significant cost to customers. In January 2018, Potomac Edison joined the other investor-owned electric utilities in Maryland to submit a joint petition for implementation of a statewide electric vehicle portfolio, which was deemed the second largest utility charging infrastructure program in the country including approximately 24,000 EV chargers.⁹ Even with the size of the proposed program, the maximum projected monthly residential bill impacts ranged between \$0.25 and \$0.42 among all the utilities.

Program Framework

The Company anticipates using the next six months to work internally and with the Board and other stakeholders to develop the mechanics of a utility EV infrastructure buildout program. For example, the Company needs additional time to evaluate the proposed number of public and multifamily chargers that would be included in its program, develop the mapping tools, adopt application requirements, conduct a request-for-proposal ("RFP") for the utility-owned component of the program, and obtain input from private EVSE infrastructure companies, local government authorities, and other stakeholders. However, the Company has a few overarching recommendations regarding the program framework at this time.

As part of its December filing, the Company would provide a recommendation regarding the number of Level 2 and DC Fast chargers that would be included in the program, and the

⁹ Merchant, Emma, *Maryland Could Soon Have the Second-Largest EV Charging Network in the US*, Green Tech Media (Jan. 26, 2018), available at <https://www.greentechmedia.com/articles/read/maryland-second-largest-ev-charging-network>.

percentage of chargers that would be owned by utilities versus private EVSE infrastructure companies. The Company is exploring whether it can develop an EV charger load hosting map for its service territory to determine where the distribution grid can manage the installation of public and multifamily chargers. JCP&L does not have the capability to prepare maps reflecting specific lot information; however, the maps may be able to present load hosting data on a circuit level. All costs associated with this mapping effort should be rider recoverable.

When the Company's program launches on April 1, 2021, the Company would begin the process of installing its assigned percentage of public chargers. At the same time, private EVSE infrastructure companies would be asked to submit applications to install chargers. This application period would close on May 31, 2021. For those locations where private EVSE infrastructure companies do not express any interest within the 60-day application period, the Company would have the right to move forward with installing a utility-owned charger at that location.

Once the charger sites are assigned to either private companies or JCP&L, a charger installation schedule would be adopted to ensure deployment occurs on an expedited basis. JCP&L expects that the installation of chargers will need to be staggered over a multiyear period, particularly if a private EVSE infrastructure company ends up with many different sites in a utility program.

The Company generally agrees with an initial program timeline of five years (2021 to 2025) but recommends that the Board permit the program to extend if New Jersey has not met its EV penetration goal of 330,000 EVs by 2025. This extension should also apply to a utility's ability to own and operate public charging infrastructure. In general, the Company encourages flexibility throughout the deployment of utilities' buildout programs, allowing utilities to make modifications to their programs where necessary to encourage faster charger installation and EV adoption.

Utility Chargers and Make Ready Work

Learning from the experience of its affiliate Potomac Edison, the Company is already prepared to install, own, and operate public chargers. The Company anticipates issuing an RFP to identify its network and equipment vendors. The chargers would be equipped with charging ports that allow for accessibility from the greatest number of EV models, currently the SAE J-1772 and CHAdeMO ports. The Company expects to use a single network vendor for all of its public and multifamily chargers and would charge Board-approved fees at these chargers. The metrology of the charger would be used to charge individual EV users, and JCP&L would review the accuracy of that metrology based on the monthly readings at its interval meters. All costs associated with installing, owning, and operating these chargers must be rider recoverable.

At sites where private EVSE infrastructure companies will be installing, owning, and operating chargers, the Company should be compensated for all costs associated with preparing the site for the installation of the charger. This work includes, but is not limited to, all wiring, conduit, distribution infrastructure extension and upgrades, transformers, service panels, junction

boxes, etc. In addition, the 12-month timeline for a utility's make ready work should not begin until the private EVSE infrastructure company has obtained all necessary property rights and receives authorization from the site host that construction may begin.

Private EVSE Infrastructure Companies

The Company recommends a few modifications to the performance requirements for private EVSE infrastructure companies in the Straw Proposal. First, private EVSE infrastructure companies should not need 12 months (with two optional six-month extensions) to install a public charger. Based on the experience of the Company's affiliate in Maryland, the make ready work is significantly more time consuming than the delivery and installation of the charger itself. At most, private EVSE infrastructure companies should be permitted six months to install and begin operating the charger after a site is charger ready.

Additional clarification is also needed regarding the ownership and control of private charging sites. Once a private company chooses an area for a public or multifamily charger, that company will need to negotiate with potential third-party site hosts of the charger, if applicable. Although the utility may be able to identify the circuits where chargers may be installed, it is the responsibility of the private EVSE infrastructure company to identify the specific lot for the charger and obtain property rights for that location. While the utility would be responsible to maintain the distribution infrastructure at that location moving forward, the utility should not be responsible for managing charger availability at that site. The utility would have no ownership or operational control of the charger. If the private EVSE infrastructure company ceases operating at that location at some point in the future, it should be up to the site host to find a replacement charger operator and equipment or engage the utility to become the replacement owner/operator.

The Company also disagrees with the requirement for utility monitoring of private EVSE infrastructure companies' performance. Other than confirming installation of the charger, utilities will not have any information regarding the charger operation. Private EVSE infrastructure companies have no current regulatory obligation to report any information to utilities or the Board. However, the Company would support that, as a program participation requirement, private EVSE infrastructure companies agree to provide charging metrics and charger metrology information, *e.g.*, time and duration of charging, to the Board and utilities.

To the extent a private EVSE infrastructure company fails to install a charger within the required period, JCP&L would notify that company that it is no longer eligible to install a charger at that location. Subsequently, the Company would either install a utility-owned charger at the location or seek new applications from other private EVSE infrastructure companies for that site and provide an additional 60-day application response timeframe.

Rate Design

The Company is open to evaluating new rate design offerings for EV chargers subject to the following conditions. If JCP&L is directed to create a new rate schedule for multifamily

dwelling chargers to allow rate parity with single family dwelling chargers, the discount provided on the applicable commercial schedule should be recoverable via the EV program's rider recovery mechanism. Similarly, if public chargers are authorized to receive a demand charge credit, that credit amount must be recoverable via rider. The Company understands the Board's interest in developing these new rate structures to promote important policy objectives, but JCP&L must continue to be compensated for all of its costs.

Regarding the Straw Proposal's recommended time-of-use tariff rate offering, JCP&L would apply this tariff rate offering to the generation or supply component of the bill only. Generation charges vary by time and are therefore the appropriate subject of a time-of-use offering. This time-of-use rate would be notional, based on a historical average differential between on and off-peak values, and all costs associated with the offering should be recovered via the proposed rider.

In addition, the appropriate tariff rate offering to EV owners/site hosts would depend on the location of the charger and potential users. A time-of-use EV tariff rate offering to EV owners/site hosts for public chargers likely would be structured differently from residential or multifamily chargers. The time-of-use EV tariff rate offering may need to rely on the metrology of the charger itself rather than the electric meter as charging supply is not the same as site electric usage.

For a residential customer, the time-of-use rate should be based on the metrology of the charger to encourage customers to charge at off-peak times. If the only time-of-use rate available is based on a customer's home electric meter, the impact of on-peak versus off-peak charging will not be as clear to a customer because the electric usage for the whole house is also included in the on-peak/off-peak calculation. To the extent the Board seeks to include a residential component within these programs, the Company recommends initially offering an off-peak credit program to residential customers, which is an off-bill payment customers would receive when the majority of their charging occurs off-peak (*i.e.*, credit applied to each off-peak kWh, in excess of on-peak kWh, for EV charging). The off-peak credit program would be available to customers with Level 2 chargers installed at their residence which JCP&L is able to qualify for the program for purposes of gathering charging interval data. JCP&L's affiliate, Potomac Edison, offers a similar program in Maryland. To help customers become more comfortable with the time-of-use concept, there is no penalty if the customer charges during more on-peak than off-peak hours.

For public and multifamily chargers accessible to multiple EV users, the only way the Board can ensure an EV user would benefit from a time-of-use rate is if the utility owned and operated the charger. Because the Board does not have any jurisdiction over the public charging rates of private EVSE infrastructure companies, there would be no way to ensure these companies are charging EV drivers different rates based on their time of charging. The Company is open to developing a time-of-use rate for these locations if the Board is aware that only the charger owner will be charged this rate. If the charger can be separately metered, the Company expects that either an interval meter, or once available, a smart meter would be used for billing purposes at these

multifamily or public chargers. These credits for residential customers would also be recovered through a rider.

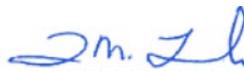
Utility Partnerships with Municipalities, Schools, and Transportation Authorities

The Company is very interested in exploring partnership opportunities for electrification with local entities and transportation authorities. If the Board authorizes the inclusion of school bus electrification as part of utility programs, JCP&L would reach out to its municipalities and school districts to assess interest and discuss program components. When Potomac Edison discussed its EV charging program with municipalities, some municipalities expressed significant interest in a utility-owned EV charging network because it did not require additional resources from the municipality in order to operate. They also appreciated that the charging rate was established by the utility and approved by the Maryland Public Service Commission. As a result, the Board should permit utility ownership of chargers that are used to serve municipalities, schools, and transportation authorities.

JCP&L will need additional information from these entities to determine the estimated costs associated with electrifying these sites. Although JCP&L may be able to discern the location of airports, seaports, and bus and rail terminals in its service territory based on their standard industrial classification codes, the Company does not have sufficient information to provide cost estimates or distribution infrastructure designs for these sites. JCP&L would need to conduct site visits and receive equipment and peak load addition information from the customer in order to determine this information. Accordingly, the Company recommends a customer-driven process for electrification of these sites. The timing associated with developing these planning estimates is currently unknown, because it would entirely depend on when the customer reaches out for an estimate, as well as the specific electrification design, necessary distribution infrastructure upgrades, and required customer equipment upgrades. Additionally, economic recovery of customer operations and budget constraints due to the COVID-19 pandemic will vary by customer.

JCP&L appreciates the opportunity to provide these comments on the Straw Proposal and looks forward to working with the Board and other stakeholders as it prepares its EV infrastructure buildout program filing.

Best regards,



Lauren Lepkoski

Teresa Harrold

Jersey Central Power & Light Company