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**VIA ELECTRONIC FILING**

Sherri L. Golden, Secretary  
New Jersey Board of Public Utilities  
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**Re: Comments of Jersey Central Power & Light Company on the 2024 update  
to the New Jersey Energy Master Plan (EMP)**

**Docket Number QO24020126**

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Dear Secretary Golden:

Pursuant to the Public Hearing Notices and opportunity to comment issued by the New Jersey Board of Public Utilities (“Board”) on March 11, 2024, and March 22, 2024, Jersey Central Power & Light Company (“JCP&L”) herein submits its comments in the above-referenced Docket on the 2024 update to the New Jersey Energy Master Plan.

JCP&L thanks the Board for the opportunity to comment. If you have any questions, please do not hesitate to contact me.

Very truly yours,



Timothy K. McHugh

Counsel for Jersey Central Power &  
Light Company

## Jersey Central Power & Light Company's Comments

RE: 2024 New Jersey Energy Master Plan ("EMP")

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Jersey Central Power & Light Company ("JCP&L" or the "Company") appreciates the opportunity to provide comments as Governor Murphy's administration seeks input for the drafting of New Jersey's 2024 Energy Master Plan ("EMP"). By Notices dated March 11, 2024,<sup>1</sup> and March 22, 2024,<sup>2</sup> the Board of Public Utilities ("Board") initiated a series of virtual public hearings to discuss the update to the State's 2019 EMP and allow for interested parties to express their views and submit written comments regarding the progress of the 2019 EMP. The 2019 EMP outlined New Jersey's roadmap with specific strategies aimed to reach the State's goal of 100% clean energy and an 80% reduction in greenhouse gas ("GHG") emissions by 2050.<sup>3</sup> The goal of the 2024 EMP is to build upon the 2019 EMP to help the State reach its goal of 100% clean energy by 2035 and an 80% reduction in GHG emissions by 2050.<sup>4</sup>

JCP&L supports New Jersey's ambitious clean energy goals and recognizes the significant role that the State's public utilities must play in order to achieve them. The Company continues to look forward to serving as a partner to the Murphy Administration and the Board as they work towards a cleaner, smarter, and more resilient means to provide energy to the State. In doing so, the Company supports efforts to increase electrification of buildings and the transportation sector, harness clean energy sources such as offshore wind, drive additional energy efficiency measures, and increase investment to modernize the electrical grid. However, the initiatives outlined in the EMP and addressed herein require substantial planning and investment by the State's public utilities to ensure the continued safe and reliable operation of their systems. And, given the growing resource adequacy concerns in the PJM Interconnection, L.L.C. ("PJM") footprint, the Company encourages the State to simultaneously be mindful of resource adequacy as it looks to accelerate the pace for renewable energy development. It is important that there are firm, adequate resources for all customers at all hours of the day.

As stated in its comments in response to the 2019 Draft EMP ("2019 EMP Comments"), the Company encourages the Board and other policymakers to consider using the current regulatory mechanisms in place to their fullest potential, and to continue to work to remove regulatory barriers that may exist in order to provide incentives for the substantial investments that are necessary to help achieve the State's clean energy goals. Similarly, JCP&L continues to recommend to the Board and other policymakers to consider opportunities to use alternative regulatory mechanisms and proper incentive structures that encourage investment in modernization of the electric grid, achievement of ambitious energy efficiency targets, and utility investment in and ownership/operation of energy storage resources. By working together to achieve the State's goals, the Company believes that the Board, the State's utilities, and other stakeholders will be able to maximize benefits to the State's energy consumers while working to meet New Jersey's clean energy goals in an efficient manner.

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<sup>1</sup> *In the Matter of the 2024 New Jersey Energy Master Plan*, BPU Docket No. QO24020126, Notice issued March 11, 2024.

<sup>2</sup> *In the Matter of the 2024 New Jersey Energy Master Plan*, BPU Docket No. QO24020126, Notice issued March 22, 2024.

<sup>3</sup> New Jersey Board of Public Utilities, *2019 New Jersey Energy Master Plan: Pathway to 2050*, at 12-14 ("2019 EMP").

<sup>4</sup> *Exec. Order No. 315* (Feb. 15, 2023), 55 N.J.R. 509(A)-11(A) (Mar. 20, 2023); Global Warming Response Act of 2009.

### **Electrification of the Transportation Sector**

JCP&L strongly supports Strategy 1 of the 2019 EMP and its goals regarding vehicle electrification. As stated in the 2019 EMP, electrification of the transportation sector, which represents nearly half of all net GHG emissions in New Jersey, has the greatest potential to reduce emissions to help achieve New Jersey's clean energy goals.<sup>5</sup> New Jersey's electric utilities are uniquely situated to build upon approved electric vehicle ("EV") and electric vehicle supply equipment ("EVSE") incentivization programs that are designed to encourage widespread EV adoption and availability of charging infrastructure while managing the increasing load growth associated with such.

The Company will continue to work with the Board on ongoing implementation of its EV Driven Program, which was approved by the Board in its June 8, 2022 Order.<sup>6</sup> In fact, the Company has recently sought authorization from Board Staff to shift funding to the EV Driven residential subprogram from its non-residential subprograms. This request was driven by higher-than-expected demand for customer-side make ready rebates, which has exceeded the approved budget for the EV Driven residential subprogram. This level of demand reflects significant customer enthusiasm for EV adoption in the Company's service territory, and JCP&L hopes to continue to partner with the State to encourage this level of enthusiasm. The requested budget reallocation would allow the Company to continue to incentivize its customers to purchase EVs and help the State achieve its clean energy goals.

Customer education remains necessary to alleviate concerns that customers may have regarding owning and operating an EV and EV charging station. As an electric utility, JCP&L has the customer service experience and technical knowledge necessary to answer customer questions about EVs to help address any uncertainty that they may have regarding EV adoption. As such, the Company remains committed to engaging its customers in effective education and outreach programs within its service territory. JCP&L has committed to such education measures including, but not limited to: a series of media campaigns highlighting the benefits of the EV Driven Program and electrification; the availability of an online eBook entitled "Driving Your Business into the Future and the Benefits of Investing in EV Charging;" hosting of the JCP&L EV Driven Electrification Engagement Webinar for non-residential customers; and the establishment of the "Choose EV" website on our EV Driven site for customers to learn about EVs, fuel savings, and charging.

JCP&L supports the Board adopting a Medium- and Heavy-Duty ("MHD") EV Charging Program. However, given a changing market, customer motivations, and regulatory requirements (e.g., on March 9, 2024, the Environmental Protection Agency announced a final rule that sets stronger standards for reduction of GHG from heavy-duty vehicles beginning in model year

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<sup>5</sup> 2019 EMP at 12.

<sup>6</sup> *In the Matter of the Verified Petition of Jersey Central Power & Light Company for Approval of an Electric Vehicle Program and an Associated Cost Recovery Mechanism*, BPU Docket No. EO21030630, Order dated June 8, 2022.

2027<sup>7</sup>), it will be important for the Board to provide sufficient time for electric utilities to develop thorough and appropriate filings for adoption of MHD charging programs. Much has changed since Board Staff first issued a "straw proposal" for a MHD program in June 2021.<sup>8</sup> Thus, the Company requests that it be provided with sufficient time to develop any filing required pursuant to a Board Order regarding MHD EV Charging Program once minimum filing requirements ("MFR") are adopted. JCP&L encourages the Murphy Administration and Board Staff to work with the electric utilities on the establishment of a mutually agreeable period of time for submission of filings after issuance of MFRs.

The Company is also committed to continuing to work with the State to ensure that the National Electric Vehicle Infrastructure ("NEVI") Program is implemented as effectively as possible. "Range anxiety" continues to be a factor for potential EV purchasers, and the NEVI Program will help alleviate this concern along transportation corridors. To help guarantee the success of the NEVI Program, the Company looks forward to working with the Board, New Jersey Department of Transportation, and New Jersey Department of Environmental Protection to ensure thorough communication about timelines, expectations, information regarding the awarded entity, including approved system size, and to provide sufficient time for electric utilities to process NEVI applications and perform necessary system upgrades for awarded projects.

### **Deployment of Renewable Energy and Distributed Energy Resources**

As an electric utility, the Company's primary responsibility during the State's transition to clean energy is to preserve the integrity of the electric distribution system, pursuant to its statutory obligation to provide safe, adequate, and proper service. Balancing this obligation with the Administration's goals for clean energy deployment and electrification will require strategic transmission and distribution system planning and significant investment.

**a. Electric utilities must continue to be involved in the accelerated deployment of DER to ensure it occurs in a manner that complements the electric grid.**

The rapid and continued deployment of distributed energy resources ("DER") in New Jersey must include a collaborative and coordinated interconnection process between the DER developer and the electric utility. It is crucial that electric utilities continue to conduct appropriate and thorough reviews and, if required, studies of each interconnection application to determine if system upgrades will be necessary. This will become even more important with the implementation of FERC Order 2222, which will result in an influx of distributed energy resource aggregations ("DERAs").<sup>9</sup> Any attempt to expedite the interconnection process must ensure

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<sup>7</sup> See U.S. Environmental Protection Agency, *Final Standards to Reduce Greenhouse Gas Emissions from Heavy-Duty Vehicles for Model Year 2027 and Beyond* (March 2024), available at [Greenhouse Gas Emissions Standards for Heavy-Duty Vehicles: Phase 3 – Regulatory Announcement \(EPA-420-F-24-018, March 2024\)](#).

<sup>8</sup> Notice, *In the Matter of Medium and Heavy Duty Electric Vehicle Charging Ecosystem*, New Jersey Electric Vehicles Infrastructure Ecosystem 2021- Medium and Heavy Duty Straw Proposal, BPU Docket No. QO21060946, August 12, 2021.

<sup>9</sup> *Participation of Distributed Energy Res. Aggregations in Mkts. Operated by Reg'l Transmission Orgs. & Indep. Sys. Operators*, Order No. 2222, 172 FERC ¶ 61,247 (2020), *order on reh'g*, Order No. 2222-A, 174 FERC ¶ 61,197, *order on reh'g*, Order No. 2222-B, 175 FERC ¶ 61,227 (2021) (*hereafter* "FO 2222").

adequate opportunity for necessary review and study of the impacts to the electrical grid. The State's interest in acceleration of DER deployment to help achieve its clean energy goals cannot compromise the safety and reliability of the distribution system.

Accordingly, JCP&L appreciates the ongoing dialogue it has had with other electric utilities and Board Staff about the development of updated rules for DER interconnection. Proposed rules were recently published in the New Jersey Register, and the Company is actively engaged in a detailed review of the extensive changes. JCP&L recognizes that significant revisions to the interconnection rules are necessary given the State's goals and changing circumstances, and the Company will continue to work with Board Staff to ensure that the finalized rules help facilitate timely DER deployment while protecting the integrity of the electric grid.

In order to achieve the goals of the EMP, including the significant increase in electrification and deployment of DER, a continuing evolution in the way that electric utilities plan their distribution systems is essential. The 2019 EMP calls for the Board to "[r]equire utilities to establish Integrated Distribution Plans to expand and enhance the location and amount of distributed energy resources and electric vehicle charging on the electric distribution system."<sup>10</sup> The 2024 EMP should align with the approach taken by Board Staff thus far on this complex matter. Board Staff is establishing a technical working group that includes subject matter experts and will confidentially handle sensitive electric system data. This is a sensible approach to what will be a complex undertaking – the establishment of MFR for utility Integrated Distribution Plans ("IDP"). The 2024 EMP should not diverge from this approach.

Correspondingly, the Company supports the development of "non-wires solutions" ("NWS") to address system distribution constraints or limitations using non-traditional means. JCP&L believes that the development of NWS in certain circumstances will provide an opportunity for electric utilities and the Board to work together on innovative ideas and to develop alternative recovery mechanisms that provide incentives for non-traditional investments. As noted in its 2019 EMP Comments, JCP&L should be provided the opportunity to propose pilot programs to identify approaches, best practices, and opportunities to transition from traditional planning to an approach that includes NWS. Pilot programs will give electric utilities the opportunity to consider alternative investment strategies designed to reduce long-term costs by replacing existing infrastructure with higher-specification equipment. This should reduce line losses and demand on the distribution and transmission systems on a continuing basis. The relative cost effectiveness of NWS investments compared to the benefits of traditional investments must be carefully considered. A mandate requiring one investment approach over the other would be impractical without appropriate time to conduct pilot programs and determine the best way to resolve any issues that may arise. A pilot program approach will also allow for increased collaboration to develop and implement creative ideas and provide an opportunity for the Board to evaluate the success of such programs before issuing policy recommendations or promulgating regulations. JCP&L encourages the Board to adopt a pilot program-based approach to NWS in the new EMP.

As DER (and eventually DERA) continue to be deployed across the State, transmission and distribution systems will become more complex and upgrades will continue to be necessary to

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<sup>10</sup> 2019 EMP at 176.

host certain DER. Currently, the DER developer who directly benefits from a specific deployment is responsible for the incremental infrastructure costs associated with the addition of the DER (*i.e.*, the cost-causer model). JCP&L cautions the Board against considering socializing such costs as it will likely disincentivize developers from identifying the most cost-effective locations or placements while providing maximum benefit to the grid. Consequently, the cost of that inefficiency would be borne by ratepayers. Thus, a paradigm shift away from the cost-causer model must be carefully considered.

In order for New Jersey to meet its clean energy goals, the Company continues to support alternative ratemaking mechanisms that provide for timely cost recovery for necessary distribution system upgrades and investments. This includes, in part, grid modernization investments, additional costs associated with DER interconnection processes, and IDP. As previously stated in its 2019 EMP Comments, the Company recommends that the Board consider alternative ratemaking mechanisms, such as those that incorporate forward-looking test years, multi-year rate plans, and annually reconcilable capital recovery riders. This would reduce regulatory lag and provide transparent rates that are subject to annual Board review.

The Board and Governor Murphy's Administration have established very aggressive targets for the community solar program, including under P.L. 2023, c.200, a recent law which further increased the goals of the community solar program by directing the Board to "establish a goal for the conditional registration of at least 225 MW of solar energy projects prior to June 1, 2024, with an additional 275 MW prior to June 1, 2024 if qualified applications exceed 225 MW, an additional 250 MW prior to June 1, 2025 if qualified applications exceed 500 MW, and at least an additional 150 MW per year thereafter . . ."<sup>11</sup> JCP&L has worked closely with Board Staff to establish additional flexibility for applicants given the significant volume of interconnection applications garnered by the Board's targets and statutory requirements. The Company has also worked effectively with the developers in our service territory. It will be important for the Board to continue to work closely with the electric utilities to ensure that the impact of this program on interconnection, billing, and other resources is continually assessed, while allowing electric utilities the opportunity to timely recover any associated costs.

**b. Electric utilities should be authorized to own and operate energy storage resources.**

JCP&L recommends that electric utilities be permitted to own and operate energy storage resources. This will assist the State in achieving its goals set forth in the NJ Storage Incentive Program ("SIP")<sup>12</sup> and in the 2019 EMP. Simply put, to achieve the grid supply and DER goals, all available storage resources, including utility-owned and operated resources, must be leveraged under the NJ SIP. Electric utility participation is essential to ensure a robust and effective storage build-out and integration.

Electric utilities are in the best position to evaluate where energy storage resources should optimally be located to provide the most benefit for the electrical grid while ensuring the least cost

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<sup>11</sup> N.J. Stat. § 48:3-87.11(f)(2).

<sup>12</sup> *In the Matter of the New Jersey Energy Storage Incentive Program*, BPU Docket No. QO22080540, Notice issued August 8, 2023.

to customers. Also, electric utilities have the inherent motivation to develop energy storage resources that can consistently provide benefits through Grid Supply or via stationary or mobile batteries exclusively intended for distribution and/or transmission use when needed, and not to be utilized for competing obligations or as a generation asset. While DER typically focus on augmenting reliability and resiliency, properly located energy storage resources also have potential environmental benefits as peak demand can be shifted away from reliance on fossil fuel generation.

There are significant reliability and resiliency benefits associated with properly integrated energy storage resources. Battery storage can be coupled with DER to benefit an electric utility's transmission and distribution systems by providing frequency regulation to stabilize the grid during contingencies, or with DC fast chargers to offset the impact of EV charging during peak periods. The optimal amount of energy storage to be added in New Jersey is dependent on the unique needs of each electric utility. The key to maximizing this benefit for electric utilities' customers, while mitigating potential harm to the distribution grid, is the strategic integration of energy storage technologies, which electric utilities are best situated to determine.

**c. Electric utilities have an important role in the design and build-out of the transmission infrastructure that is necessary to achieve the State's clean energy goals.**

JCP&L strongly supports the Governor and Board's offshore wind objectives. We are at a historic moment for the State, and JCP&L is excited to play an important role in helping the State meet its initial clean energy goal of 11,000 megawatts of wind-generated electricity. The Company is proud of the fact that the Board selected JCP&L's plan, the NJ Clean Energy Corridor ("NJCEC"), for transmission investment to accommodate offshore wind under the State Agreement Approach from among 80 proposals submitted by 13 different transmission developers in the nation's first coordinated offshore wind transmission bidding process. The investments awarded to JCP&L to build new and upgrade existing transmission infrastructure represent about 70% of the investment awarded.

Through the NJCEC, power from offshore wind farms off the coast of central New Jersey will be delivered onshore to a collection point in Monmouth County. The electricity will then be converted from direct current to alternating current power that flows through the grid and enters JCP&L's transmission system at the company's Larrabee, Atlantic, and Smithburg substations, all located in Monmouth County. In addition to construction of new JCP&L transmission infrastructure to support the project, the award also allows for additional upgrades to existing transmission equipment by JCP&L and other electric utilities to help support the additional electricity and preserve grid integrity.

JCP&L truly appreciates the productive working process it has established with the Board's project management staff who have worked on implementation of the NJCEC project. The Company looks forward to continued partnership over the coming years for successful completion of the project and ultimately the injection of 11,000 megawatts of new, clean wind energy.

### **Energy Efficiency and Conservation and Peak Demand Reduction**

The Clean Energy Act ("CEA") called for a significant overhaul of New Jersey's clean energy systems and called for robust energy efficiency ("EE") programs to help electric utilities' customers reduce their electricity use.<sup>13</sup> Since the implementation of the 2019 EMP, JCP&L has sought and received Board approval for its current Energy Efficiency and Conservation Plan, which began on July 1, 2021, and will end on December 31, 2024. This Plan includes seven EE programs and 11 subprograms, which are projected to yield over half a billion kilowatt-hours in gross annual energy savings and are demonstrative of the Company's commitment to maximizing EE.

In furtherance of that commitment, JCP&L is currently seeking Board approval of its second Energy Efficiency and Conservation Plan, which, if approved, would begin on January 1, 2025, and end on June 30, 2027, and be available to residential, commercial and industrial, and multifamily customers. As proposed, the Plan consists of ten EE programs and one peak demand reduction program that are being increased and expanded from the current program, and one new building decarbonization program that will primarily promote the electrification of building heating and water heating systems to reduce GHG emissions from the building sector. The Plan would provide near- and long-term energy saving opportunities for customers, including single, prescriptive, and custom measures, direct install, and comprehensive whole building solutions. The Plan would also address both educational and initial cost barriers and tap a variety of delivery channels and vendors to support customer engagement, education, and participation. Ultimately, the Plan supports the State's vision for achieving 100% clean energy by 2035 by working to reduce customers' energy bills, create "green" jobs, and lower GHG emissions, all while improving the overall utility experience for customers.

The CEA directs the Board to require electric utilities to achieve annual reductions of at least 2% of the average electricity usage in the prior three years within five years after implementing their EE programs. While JCP&L has targeted achieving the goals established by the Board in compliance with the CEA as part of its Second Triennium of EE and Peak Demand Reduction Programs, the 2% reduction requirement is an aggressive and expensive goal and will become increasingly difficult, expensive, and extremely challenging to achieve in future trienniums due to ongoing adoption of more efficient codes and standards, among other factors. As such, the Company respectfully recommends that future goals be based on a market potential study and consideration of the cost to customers. Furthermore, future goals should also consider all Federal and State mandates, such as stricter codes and standards since these initiatives will decrease the opportunity for energy savings from electric utilities' EE programs.

Further, the Company acknowledges that many of the goals and targets included in the 2019 EMP are currently being implemented by the State's utilities. JCP&L has been and remains committed to meeting these goals by providing successful and cost-effective EE programs to its customers. To the extent any additional programs or measures are proposed in the State, they should not compete with or interfere with existing Board-approved utility EE programs. Instead,

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<sup>13</sup> P.L. 2019, c.17.



any such new proposals should leverage or coordinate with existing utility EE programs to avoid customer confusion, market competition, and undermining existing utility EE initiatives. In addition, the energy savings of all programs or measures in the State should be both tracked and reported towards the State's energy goals and considered when establishing future utility EE goals.

### **Grid Modernization**

Traditionally, the distribution grid has been designed to operate as a radial system. For a radial grid to operate, there is a balancing that occurs to maintain proper steady state voltage and to ensure proper overcurrent protective device coordination. The significant increase in DER penetration contemplated by the 2019 EMP will require bidirectional power flow, necessitating electric utility upgrades to current protection equipment and schemes to ensure the continued safe and reliable operation of the distribution system and to avoid degradations in circuit performance and power quality. For example, to support this more modern grid, customers will benefit from the building of circuit ties and reconductoring of circuits to develop a looped system. Such a system can more readily enable bi-directional power flow from distributed generation sources and provide added reliability benefits that are not available with a radial system. Additionally, substation enhancements and the addition of supervisory control and data acquisition points are necessary to support a modernized grid.

While New Jersey's utilities should continue to be responsible for determining the investments necessary to ensure the safe and reliable operation of their distribution systems, the Board and other policymakers will have important roles to ensure that investments are cost effective, and that deployment is well planned and coordinated to meet New Jersey's ambitious clean energy goals. Chief among these roles is ensuring that electric utilities are provided full and timely recovery to make these investments. New Jersey already has in place the Infrastructure Investment Program ("IIP") rules that provide for accelerated cost recovery of capital investments "that enhance safety, reliability, and/or resiliency."<sup>14</sup> JCP&L encourages the Board to use the IIP mechanism or alternative ratemaking mechanisms that policymakers may put in place to their full potential to encourage the investments necessary to meet New Jersey's goals, including for investments that advance grid modernization.

Relatedly, JCP&L has filed a new infrastructure improvement program with the Board that would strengthen the backbone of its local electric system and provide the foundation for smart grid capabilities in the future. Known as "EnergizeNJ," the five-year, \$931 million proposal includes key investments in grid modernization, system resiliency, and substation modernization, and represents the largest infrastructure upgrade investment in Company history.

EnergizeNJ reaffirms the Company's commitment to safe, affordable, and reliable electric service into the future, ensuring our customers receive the service they expect and deserve from a modernized electric system. This plan represents a transformational upgrade of our electric grid infrastructure, using modern technology and smart devices to help reduce the size and duration of outages. EnergizeNJ builds upon system enhancements completed since the Board approved the Company's Reliability Plus program in 2019. To date, that program has resulted in improved

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<sup>14</sup> N.J.A.C. § 14:3-2A.1

**Jersey Central Power & Light Company's Comments**

**RE: 2024 New Jersey Energy Master Plan ("EMP")**

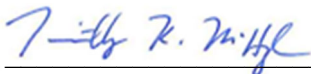
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outage restoration times for customers in areas where smart technology was installed and prevented or reduced the length of outages by millions of minutes, cumulatively.

As the Board proceeds with its "GridMod" efforts, JCP&L encourages Board Staff to continue to closely engage the electric utilities and their subject matter experts. It is important to remember that overall grid modernization will relate closely to DER interconnection, IDP requirements, the proposed SIP, and the like, and such measures should be addressed in a holistic context, and not in a piecemeal fashion, due to the interdependency of the matters. Working together to ensure they are considered in such a manner will better assist the State to achieve its goal to modernize New Jersey's electrical grid so that it will accommodate the ambitious clean energy goals of the EMP and the Murphy Administration.

JCP&L appreciates the opportunity to provide these comments on the 2024 EMP and hopes that the EMP Committee will find them useful as it works towards updating the 2019 EMP. JCP&L looks forward to working with the Murphy Administration and Board as a partner and resource as the State strives toward these goals. If the EMP Committee would like to discuss these comments or has any questions, please contact me, and I would be glad to oblige.

Respectfully submitted,

  
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Timothy K. McHugh

Counsel for Jersey Central Power &  
Light Company