Jersey Central Power & Light
A FirstEnergy Company

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April 24, 2023

VIA ELECTRONIC MAIL ONLY

Sherri L. Golden, Secretary
New Jersey Board of Public Utilities
44 South Clinton Ave.
Trenton, NJ 08625
Board.secretary@bpu.nj.gov

Re: Comments of Jersey Central Power & Light Company on Stakeholder Notice
In the Matter of Modernizing New Jersey's Interconnection Rules, Processes and Metrics
Docket No. QO21010085

Dear Secretary Golden:

On behalf of Jersey Central Power & Light Company ("JCP&L" or the "Company"), please accept this letter as JCP&L's comments on the proposed rule changes issued on January 23, 2023 pursuant to *In the Matter of Modernizing New Jersey's Interconnection Rules, Processes and Metrics*, Docket No. QO21010085. JCP&L was an active participant in the stakeholder proceeding initiated by the New Jersey Board of Public Utilities ("Board" or "BPU") and its consultant, Guidehouse, Inc. ("Guidehouse"), which began in the fall of 2021 and ran through issuance of a final report to the Board in August 2022 ("Guidehouse Report"). We look forward to an equally, if not more, thorough process as the Board begins consideration of specific modifications to the Board's rules governing interconnection.

At the request of Staff of the BPU ("Board Staff"), JCP&L has worked closely with the State's other electric distribution companies ("EDC" or "EDCs") on joint comments and "redlines" ("Joint EDC Comments"), which are being submitted by the EDCs under separate cover. Please consider JCP&L's comments as supplemental to the Joint EDC Comments, as Board Staff determines next steps in drafting of proposed rule changes. The Company's comments provide additional justification or rationale from JCP&L's perspective for modifications found in the Joint EDC Comments.

General Comments

JCP&L commends Staff for undertaking the complex topic of updating the rules around interconnection of distributed energy resources ("DER"). While JCP&L's comments herein and the Joint EDC Comments pose significant concerns with numerous aspects of the proposed language, we are confident there are a number of areas where we the EDCs and the Board can move together expeditiously. These include creation of an enhanced portal-based application process, establishment of a pre-application process that must be available to certain applicants, and formalization of a dispute resolution process.

However, as JCP&L noted during the Guidehouse stakeholder proceeding, the electric grid is essential to the provision of electric service for millions of customers in New Jersey. The Board must proceed with

caution to avoid sacrificing the safety, integrity, power quality and reliability of the electric grid for the sake of an "accelerated pace".[1] The interconnection process should first and foremost be about protecting the integrity and maintaining reliability of the grid, as we work together to simultaneously make the interconnection process more efficient, achieve the Energy Master Plan's ("EMP") ambitious goals, accommodate customers' growing interest in DER, and ensure thorough and comprehensive planning that accommodates those goals and interests. For these reasons, we encourage the Board to provide more time and additional opportunities for workshopping, debate and discussion with all interested Parties, as well as to consider separate tracks of discussion on certain aspects of this proposal, as suggested herein and in the Joint EDC Comments.

JCP&L notes that with respect to California Rule 21 ("Rule 21"), upon which Staff's proposal heavily relies, there have been numerous iterations and revisions to that rule over many years. In fact, the current Rule 21 rulemaking (R.17-07-007) to consider improvements to the interconnection process was initiated in July 2017 and has yet to complete Phase 1. While there are benefits to looking to the collaborative work that has occurred at the California Public Utilities Commission ("CPUC") in this area, California and New Jersey are very different states, with unique electrical distribution and transmission systems. Substituting California's work for our own fails to recognize the importance of those differences. However, California does offer important lessons with respect to the very thorough process in which they engaged, and are still engaged, to make such significant decisions. Similar work can and should occur in New Jersey and is necessary given the complexity of the matters at hand and potential negative consequences if handled hastily.

Our Company has been actively engaged in development of an improved on-line system for distributed energy resource applications, as we recognize the benefit of modernization and enhancement of our own interconnection application process for all involved. This system enhancement is being developed on a FirstEnergy-wide basis to enhance DER interconnection data collection and cross-functional visibility through a consistent intake and data repository format, as it is most cost efficient and effective for our customers to develop such a system throughout the Company's entire footprint. Generally, we encourage the Board to act with maximum flexibility and focus primarily on ensuring that the "Common Interconnection Application Process" implemented by the EDCs is portal-based. The rules should broadly require the type of information sought/shared through the portal, rather than dictating with specificity exactly how it is to be collected, maintained, displayed, communicated, and the like. While we recognize the benefit of modernization and improvement of this system, we question the apparent premise that having essentially identical portals across the four electric distribution companies ("EDC") provides significant benefit to developers and is worth potential additional expense to ratepayers and inefficiency in development across multi-state utilities. A similar argument may be made with respect to Hosting Capacity Maps and the assumption that identical mapping across the four EDCs leads to benefits that outweigh potentially significant additional development and maintenance costs.

A drive towards identical online systems may undermine the goal of efficient use of ratepayer dollars. Likewise, a drive towards speed in development and implementation of new or revised systems may also increase costs; thus, the time within which implementation is required should be carefully crafted with input from the EDCs. JCP&L recommends that all new requirements be implemented within a specified period of time from the effective date of adoption of the revised rules, not a date specified before the

[1] The Board initiated the Guidehouse stakeholder process by Notice dated October 25, 2021. The Notice stated, "[t]o enable clean energy to be generated at an *accelerated* pace and as effectively and efficiently as possible, New Jersey's interconnection rules and processes require updating." *See* Notice at p. 2 (emphasis added).

Board knows when the rule changes will receive final publication in the New Jersey Register, as the proposed rules are currently written. The Joint EDC Comments specify timeframes that the EDCs consider to be reasonable, and in many areas those timeframes are suggested to be a minimum of one year from the effective date of the rules.

In furtherance of the argument for flexibility, JCP&L notes that much remains to be determined with respect to how FERC Order No. 2222, and PJM's associated compliance filings, which recently received partial FERC approval, will be implemented. The Board should ensure that utilities are afforded the flexibility to collect the necessary information as part of, and subsequent to, an interconnection application, and this proposal should not in any way preclude utilities from "further review"[2] of DERs with existing interconnection agreements that may seek to become part of a DER aggregation. The approved portion of PJM's compliance filing provides explicitly for such utility review, including review to ensure the participation of the DER "does not pose a threat to the reliable and safe operation of the distribution system, the public, or electric distribution company ('EDC') personnel."[3] Thus, Staff's proposal appears to run contrary to approved FERC and PJM direction. This example is just one justification for JCP&L and the EDCs' recommendation that the Board consider a "separate track" for FERC Order 2222 and associated DER aggregation-related discussion, and thus that Staff remove references to FERC Order 2222 and DER aggregation from this proposal. Board Staff should establish a working group of subject matter experts from the utilities, DER developers, Board Staff, and other interested parties to focus on State-level implementation of FERC Order 2222, including changes that may be required to the Board's rules. This workgroup can, and should, coordinate with PJM's Distributed Resources Subcommittee ("DISRS"), an ongoing subcommittee established by the Market Implementation Committee ("MIC") at its November 2, 2022 meeting. JCP&L is currently actively participating with the DISRS and would be pleased to also participate in a similar state-level workgroup.

Finally, JCP&L appreciates the reference to cost recovery with respect to the proposed Common Interconnection Agreement Process ("CIAP"). However, numerous aspects of this proposal, across the proposed changes to Chapter 8, are likely to result in substantial incremental costs to the EDCs. Thus, the EDCs should be provided the opportunity for full and timely recovery, through a rider or similar mechanism, for *all* incremental costs associated with this proposal. If the Board rightfully determines DER interconnection to be a key component of New Jersey achieving its clean energy goals, regulatory lag associated with recovery of such costs should be minimized. The Joint EDC Comments recommend language to achieve this objective.

§ 14:8-4.2 Net metering Definitions

JCP&L concurs with the changes proposed to these definitions in the joint EDC comments. We highlight the following for emphasis.

JCP&L requests that the proposed changes to the **definitions of "Customer-generator" and "Customer-generator facility"** be removed from the current proposal. Discussion of multiple sources of generation behind the meter, including class I and non-class I renewable generation (potentially fossil-fueled

[2] *See* proposed changes to Section (p) of N.J.A.C. 18:8-5.2.

[3] *Order No. 2222 Compliance Filing of PJM Interconnection, L.L.C. Motion for Extended Comment Period*, Docket No. ER22-962-000 (February 1, 2022) ("PJM Compliance Filing").

generation), in the context of net metering should be more thoroughly considered and subject to a separate stakeholder discussion.

The statute only allows net metering of class I renewable generation. N.J.S.A. 48:3-87(e).[4] While Board Staff's proposed definition of "Net-Metering Generator" provides that "only the electricity produced by the class I renewable energy sources shall be eligible for Net metering treatment" it provides no guidance on how to ensure only output from the class I source is being "counted" and no parameters, restrictions, or rules that such customers must follow that will ensure that other sources of generation behind the meter are not used to "prop up" net metered output. The potential for numerous present and future customers to fall under this scenario also raises questions of how this can be handled appropriately in an automated retail billing system.

With these points in mind, JCP&L requests that discussion of modification to net metering definitions be shifted to a "separate track", within which JCP&L will gladly participate and offer its expertise.

Resources that "store energy" have been added to these definitions as well, without restriction as to whether they may be storing energy generated by non-class I resources behind the meter, or directly from the electric grid. This further complicates the ability to ensure that "only the electricity produced by the class I renewable resource is eligible for Net metering credits". And, pursuant to current regulations, the primary objective of net metering is to allow customers to offset their annual load. *See* N.J.A.C. 14:8-4.3(a) (limiting the capacity of a qualifying Class 1 resource to the size of the customer's annual average load).

Further, the Board has an existing docket and stakeholder proceeding open with respect to energy storage.[5] That is the appropriate proceeding for discussion of the role of energy storage and related interconnections. The Company accordingly recommends deleting reference to storage where it has been added throughout the chapter, with the understanding that we will work together with the Board and developers using the separate, existing docket on the important role storage will play as a distribution system and customer resource in the future.

§ 14:8-5.1 Interconnection definitions

JCP&L concurs with the changes proposed in definitions in this subchapter in the Joint EDC Comments. We highlight the following definitions for emphasis. In addition, JCP&L encourages Board Staff to align definitions with the referenced standards from the Institute of Electrical and Electronics Engineers ("IEEE"), *e.g.*, IEEE 1547, and incorporate them herein by reference. Minimizing the potential for differing definitions of identical terms across states, IEEE, and PJM will provide more consistency benefitting all Parties. The comment window for this proposal did not provide sufficient time for the Company to engage in a "side-by-side" with IEEE 1547 and the proposed rule changes.

[4] "The standards shall require electric power suppliers and basic generation service providers to offer net metering at non-discriminatory rates to industrial, large commercial, residential and small commercial customers, as those customers are classified or defined by the board, that generate electricity, on the customer's side of the meter, **using a Class I renewable energy source**, for the net amount of electricity supplied by the electric power supplier or basic generation service provider over an annualized period" (emphasis added).

[5] *In the Matter of the New Jersey Energy Storage Incentive Program,* BPU Docket No. QO22080540, Notice dated September 29, 2022.

"Common Interconnection Agreement Process" Definition: The Company supports changes to this definition proposed in the Joint EDC Comments consistent with its concern that the proposed rule changes are overly proscriptive regarding the form, means of collection and maintenance of data, communication, and the like.

"DER Aggregation" Definition: Given the concerns expressed in the general comments above regarding the necessity of handling FERC Order 2222 and DER aggregation on a separate track, we recommend deleting this definition. This definition does not wholly align with PJM's definitions, and it allows for DER aggregations for participation in wholesale markets "including those established under Order No. 2222, *or otherwise*." It is not clear what "otherwise" refers to and what additional DER aggregations it would allow beyond the FERC Order 2222 paradigm.

"EDC Grid Flexibility Services" Definition: As the Board and EDCs have not yet determined the mechanism for offering such services, JCP&L prefers that this definition be deleted. JCP&L is conceptually supportive of development of such a mechanism and will actively engage in whatever proceedings are initiated by the Board to develop said mechanism. Certainly, development of this concept should occur in conjunction with the development of "Integrated Distribution Plans" and further "Grid Modernization" rulemaking. However, it is premature to include a definition of an undeveloped program in these rules.

"Expedited Impact Study" Definition: This term is not used elsewhere in the proposed rule modifications, so it is unclear why it is being defined. Establishing potentially unrealistic expectations about "expedited" studies is also concerning when considering the need to assess safety, power quality, and reliability impacts; thus JCP&L suggests this definition be deleted.

"Facilities Study" Definition: The Company supports the changes proposed in the Joint EDC Comments and notes the strict delineation between System Impact Study and Facilities Study, which under this proposal would be accompanied with rigid timelines for each, does not recognize that JCP&L and other EDCs often perform these studies simultaneously and not as separate processes. The Board's proposal would essentially be adding additional components/steps to the process rather than streamlining it. Our preference is that the Board take a more holistic approach for reconstructing Subchapter 5.6 instead of trying to fit its new requirements onto a regulatory construct, which does not match current practices. If the Board does not take that approach, it should adopt the proposed EDC modifications to this and the System Impact Study definitions to provide additional flexibility to allow the studies to "overlap".

"Interconnection Agreement" Definition: The Company recommends modifying this definition to remove reference to aggregations in accordance with its recommendation that FERC Order 2222 and DER Aggregation compliance be handled on a "separate track".

"Non-exporting Technology" and "Non-Exporting Customer-Generator" Definitions: JCP&L has significant concerns with the proposed methodology for certification of Non-Exporting Technology called for in Subchapter 5.3. In that subchapter, JCP&L and EDCs recommend language to limit means of certification to help protect system safety, power quality, and reliability. It is important that definitions only refer to Non-Exporting Technologies that are certified under that subchapter of the rules.

"Proactive System Upgrade Planning" ("PSUP") Definition: As JCP&L understands the concept of a "PSUP", this is a process to identify potential upgrades to create more capacity for interconnected DERs. This process is being proposed for implementation prior to the far more comprehensive planning and

analysis of factors that would be embodied in an Integrated Distribution Plan ("IDP"), which the Board intends to require in the future pursuant to the Energy Master Plan and as is proposed in the Guidehouse Report. JCP&L supports the concept of planning focused on addressing areas of congestion or constraints limiting deployment of DER. However, JCP&L recommends deferral of discussion of the PSUP concept to a wider discussion of planning requirements envisioned in Targeted Findings and Recommendations #8 of the Guidehouse Report.[6] That section of the Report includes recommendations for development of IDPs and "Integrated DER Plans" ("IDER"). JCP&L understands that the Board recently secured Guidehouse to facilitate further discussion and stakeholder collaboration around the latter five Targeted Findings and Recommendations in the Guidehouse Report, including #8. Discussion of planning comprehensively, whether it be a PSUP, IDP, or IDER requirement, will allow it to be addressed in conjunction with discussion of cost recovery for critical grid investments designed to facilitate DER deployment. It is essential to allow for accelerated, full and timely recovery of such investments.

"Rule 21" definition: As noted earlier, the Company objects to essentially adopting California's interim rules by reference and agrees with the other EDCs that this definition as well as reference to the Rule in Subchapter 5.2 should be struck.

§ 14:8-5.2 General interconnection provisions

JCP&L concurs with the proposed changes to this subchapter in the Joint EDC Comments and offers the following for emphasis.

Section (a): Relevant devices are rated in alternating current. Impact to the distribution system is considered and modeled in alternating current. Thus, deletion of all references to direct current and to utilize alternating current is recommended.

Section (b): JCP&L is concerned with modifications proposed by Board Staff to N.J.A.C. 14:8-5.3 and will further describe those concerns and suggested changes in our comments on that section below. However, it is important for clarity that Section (b) of Subchapter 5.2 be clear that the utility has ultimate discretion as to whether Non-Exporting Technology is allowable given the individual circumstances of an interconnection; and, such Technologies must be limited to those considered "certified" pursuant to N.J.A.C. 14:8-5.3. JCP&L also believes that a "finding that a proposal would potentially harm the safety or integrity of the EDC system" should simply be documented, rather than reported to the Board's Interconnection Ombudsman on every occurrence. This will allow BPU Staff to review such documentation at their discretion but not overburden the Board and EDCs with excessive reporting.

With respect to the last point, JCP&L encourages Board Staff to more closely consider the necessity of each of the proposed reports, requirements for provision of documentation, data, and information to Staff called for throughout the proposed changes to Chapter 8. The Board should endeavor to establish a paradigm where there is transparency but not excessive and unnecessary administrative burden placed on the EDCs and Board Staff.

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[6] *See*, Guidehouse, Inc., *Grid Modernization Study: New Jersey Board of Public Utilities*, p. 90-91 (Aug. 24, 2022), https://www.nj.gov/bpu/pdf/reports/NJBPU%20Grid%20Modernization%20Final%20Report.pdf

Section (c): JCP&L proposes deletion of this section, and for the reasons noted previously in these comments, storage-related matters should be addressed in the Board's currently-open energy storage docket.

Section (d): As noted in the general comments section, it is important that the Board establish reasonable timeframes for implementation of the extensive, new requirements throughout this proposal. Given that the Board does not yet know when a final proposal will be adopted and receive final publication in the New Jersey Register, timelines should be tied to effective date of the rules, not an otherwise arbitrary date. The EDCs should be provided with at least a year from adoption of the rules to make the substantial operational, information technology, compliance and other changes proposed herein.

That said, it is not clear what Board Staff is attempting to address with the requirement in Section (d). All existing inverters are *already* UL-1741 compliant. Instead, the following language is suggested, establishing that on a date certain, "all newly installed DER systems shall comply with IEEE1547-2018. Inverter based DER shall be tested and certified as compliant with UL1741 Schedule B and shall meet the additional field testing and commissioning requirements of IEEE1547-2018 as approved by the EDC." Product certification under UL1741-SB is intended to certify the capability of the tested equipment to comply with IEEE-1547-2018. UL certification does not inherently indicate full compliance with the requirements identified in the standard, which requirements are site specific. JCP&L believes the Board should refrain from being overly prescriptive in its requirements to avoid conflict with the proper application of the standard by all involved parties.

Section (e) – Common Interconnection Agreement Process ("CIAP"): As noted in the general comments section, JCP&L supports and is engaged in the process of modernizing its interconnection application system with portal-based functionality. However, the level of prescriptiveness called for in the proposal may create additional cost for questionable benefit to Applicants. Multi-state utilities can more cost effectively and efficiently implement systems changes on an enterprise-wide level. Accordingly, the Company agrees with the changes proposed in the Joint EDC Comments and offer the following additional comments:

- **Subsection 1.v.:** JCP&L does not support the requirement that there be a "check box" available for the Applicant to elect to pursue the proposed "PAVE" process. JCP&L supports the concept of a pre-application process as a means of enhancing communication and efficiency. However, by its very definition, PAVE is a "**Pre-**Application Verification/Evaluation" process, and thus it is incongruous to require completing the full interconnection application in order to initiate pre-application discussions. This will make it unduly burdensome for both Applicant and EDC alike. Later in these comments, the Company suggests language allowing for the initiation of a PAVE discussion through electronic communication by the Applicant with the EDC designee.
- **Subsection 2:** JCP&L supports the Joint EDC Comments' recommended deletion of certain specificity required in this subsection, including requiring "standardized" forms (which implies adherence to some type of template); a "thermometer bar", when it is already clear the portal would need to indicate progress; and the specific form of communication required, where the option for "electronic" communications should suffice. The latter issue may be found throughout the proposal, where we recommend that the rules generally require electronic communication, rather than being unnecessarily prescriptive with respect to multiple types of communication.

- **Subsection 3:** JCP&L is concerned from an Information Technology and Cybersecurity perspective about a requirement to integrate with *any* outside party's software, external interfaces or web applications, particularly given that the described application would appear to require "real time" data from our system. We are not aware of examples of integration of such systems with existing EDC electronic applications. Despite our concerns regarding an integration mandate, JCP&L would be happy to engage in future discussions with the National Renewable Energy Laboratory about SolarAPP+ and its potential contribution to an improved experience for Applicants.
- **Subsection 5:** Consistent with prior comments above, JCP&L agrees with changes proposed in the Joint EDC Comments to simplify wording and focus on the objective of reducing the number of incomplete applications. It is not clear what "departments" or "turnaround time for missing data" mean in this context.
- **Subsection 6:** JCP&L recommends that this subsection simply allow for customization. Each EDC has its own enterprise data system, architecture and protocols. Requiring that the New Jersey EDCs all utilize the same data architecture and protocols is unnecessary to improve the customer experience, may result in significant cost with limited to no associated benefit, and may not be feasible given the companies' existing systems.
- **Subsection 10:** A requirement for "automated data feeds" which provide capability for use of data analysis tools implies ongoing, automated provision of raw data to Board Staff. A more secure and practical approach is to allow Staff access to data when required and requested.

Section (i): While JCP&L recognizes that Board Staff is not recommending that this section in the existing rules be modified, given the proposed modifications of the "screens" for circuit and system impact proposed for Level 1 and 2 interconnections and new requirements for Non-Exporting Technology, the Company is concerned about being completely precluded from requiring controls or external disconnect switches not included in Interconnection equipment. Thus, the Company supports the Joint EDC Comments that it should be at the EDC's discretion to allow for such controls, as the EDCs are each responsible for the safe and reliable operation of the electrical system.

Section (o): As noted earlier, JCP&L believes the concept of "Proactive System Upgrade Planning" should be addressed in a subsequent stakeholder process as suggested in Targeted Findings and Recommendations #8 in the Guidehouse Report concerning planning.

Section (p): JCP&L strongly objects to this section and requests that it be struck from the final rules. As noted in the general comments section the Board must ensure that EDCs are allowed the flexibility to gather the information that they deem necessary as part of, and subsequent to, an interconnection application, and this proposal should not in any way preclude utilities from "further review" of DERs with existing interconnection agreements that may seek to become part of a DER aggregation. Approved portions of PJM's FERC Order 2222 compliance filing provide for such utility review, including to ensure the participation of the DER "does not pose a threat to the reliable and safe operation of the distribution system, the public, or electric distribution company ("EDC") personnel."[7] Thus, it would seem appropriate for the Board to support such review to help protect system safety and reliability and to further align with future DER related programs as referenced above in PJM and FERC direction and requirements.

[7] See *Order No. 2222 Compliance Filing of PJM Interconnection, L.L.C. Motion for Extended Comment Period*, Docket No. ER22-962-000 (February 1, 2022) ("PJM Compliance Filing").

The Company urges Board Staff to establish a working group of subject matter experts from the utilities, DER developers, Board Staff, and other interested parties to focus on State-level implementation of FERC Order 2222, including what changes may be required to the Board's rules. As noted earlier, this workgroup can, and should, coordinate with PJM's Distributed Resources Subcommittee, an ongoing subcommittee established by the Market Implementation Committee at its November 2, 2022 meeting. JCP&L is already actively engaged with PJM on FERC Order 2222 matters at PJM's DISRS and would be happy to participate in state level discussions.

Section (q): JCP&L appreciates the inclusion of language that recognizes that issues outside of the Company's control, such as the occurrence of storm events, may sometimes interfere with ability to meet rigid timelines, especially given the fact that utility personnel may have alternate responsibilities during such events. However, by the same logic, providing written notification to Board Staff within three days of missed deadlines may not always be feasible. The Company recommends this timeline be met where "feasible". This would not release the EDCs from the requirement to report such missed deadlines, but would provide a more practicable way of implementing the requirement. In addition, we encourage Board Staff to consider the impracticality of keeping "…Board Staff…updated of *any* changes in the completion date" (emphasis added). We recommend deletion of this proposed requirement.

Section (s): JCP&L believes this section is overly prescriptive in describing how studies will be conducted. Reverse power flow is a concern for many pieces of equipment that are used throughout the distribution system, not only equipment installed in a substation. JCP&L currently performs studies to identify the impacts of a DER interconnection on all elements of the distribution system, which includes the impact of reverse power flow at relevant substations, and offers solutions to Applicants that will mitigate those impacts. JCP&L supports deletion of the proposed language as called for in the Joint EDC Comments, accordingly.

Cost Recovery (Proposed New Section): JCP&L appreciates the reference to cost recovery with respect to the proposed Common Interconnection Agreement Process ("CIAP"). However, numerous aspects of this proposal, across the proposed changes to Chapter 8, are likely to result in substantial incremental costs to the EDCs. Thus, the EDCs should be provided the opportunity for full and timely recovery, through a rider or similar mechanism, for all incremental costs associated with this proposal. If the Board rightfully sees interconnection as a key component of New Jersey achieving its clean energy goals, regulatory lag associated with recovery of such costs should be minimized. The Joint EDC Comments include such language.

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14:8-5.3 Certification of Customer-generator Interconnection equipment

Section (a)2 and 3: JCP&L opposes allowing certification of non-exporting technology that is certified to the UL-1741 Certification Requirements Decision ("CRD") but out of scope of the IEEE 1547 standard, without additional steps and specification by the Board around parameters for operation of those devices, and specific designation of which devices are allowable. If the Board is going to allow devices that are out of scope to the rigorous IEEE process, JCP&L recommends that the Board engage in a stakeholder process with engineering experts to establish operational parameters that it can subsequently adopt in an Order. Simply relying on another State's process and incorporating its "interim" testing protocols by reference is insufficient to ensure the safety, power quality, reliability, and protection of critical systems. An example

of the type of specificity suggested for New Jersey's rules may be found in Illinois rules Section 466.75 - Limited-Export and Non-Exporting Distribution Energy Resources Facilities.[8] Those rules specify the type of export controls that are allowable (*i.e.*, Reverse Power Protection, Minimum Power Protection, Relative Distributed Energy Resource Rating, Directional Power Protection, Configured Power Rating, and Limited Export Utilizing Power Control Systems) and contain specific requirements around open loop response time and failure of the inverter or control system for power control systems. *Id.* In addition, those rules require that "[t]he export control types and settings listed [above] are acceptable for controlling export capacity *unless the EDC identifies and communicates to the customer during the interconnection screening or study process specific impacts that affect the reliability, safety, operation and power quality of the EDC's system associated with the protection relays, settings and control schemes listed in this Section*" *Id.* (emphasis added). Board Staff should consider these types of specific requirements for discussion among the effected Parties in New Jersey.

JCP&L objects to "certification" of non-exporting technology that has been approved under California's Rule 21 but has not been certified to the UL-1741 CRD, which Subsection 3 would appear to allow. We note that California Rule 21 may change in the future, as it has been modified many times since its adoption in 1982. The current round of modifications to the Rule began in 2017 and remains underway. It is unwise to essentially substitute the California Public Utility Commission's rules for the BPU's rules, not knowing how the former rules will evolve. The Board must not take regulatory shortcuts when system reliability is at stake. Proposed changes associated with this concern may be found in the Joint EDC Comments.

14:8-5.4 Level 1 Interconnection Review

JCP&L concurs with the Joint EDC Comments with respect to this subchapter and highlights some additional background and justification below.

Section (a): JCP&L supports the increase from 10 kW to 25 kW for Level 1 interconnections. This will help to streamline the process for both Applicants and EDCs.

Section (b): JCP&L supports and appreciates the establishment of a fee of $100 per Level 1 application. As JCP&L has indicated, we anticipate that there will be substantial additional cost associated with implementation of the changes to this Chapter, and the establishment of a Level 1 fee will help to offset ratepayer cost impacts.

Sections (c) – (f): With respect to the modifications to the circuit impact "screens" proposed for Level 1 and Level 2 interconnections, JCP&L seeks further clarification from Board Staff of the rationale for the changes. Many of these modifications appear to be arbitrary. JCP&L would gladly make its engineering experts reasonably available to participate in discussions with the outside resources that Staff has indicated were consulted in development of these changes. This will help to provide assurance to all parties that the proposed screen changes do not risk circuit integrity.

Section (i): This section provides an illustrative example of the proposal being overly-prescriptive, with respect to dictating the means of communication with Applicants. It is unnecessary to dictate

[8] *Ill. Admin. Code tit. 83, § 466.75.*

communication through multiple electronic means of communication; thus we have changed this to "electronically". Similar modifications to the proposal should be considered throughout.

Section (k): JCP&L supports addition of language in this section that will provide that an Applicant who has not taken the necessary steps after receipt of Part 1 of the application will have its application expire. While JCP&L is happy to discuss location or wording of such language, we believe it is important that inactive applications be closed after a certain period of inactivity, in order to ensure they are not taking up a spot the in the EDC's queue, and thus disadvantaging other Applicants who may be ready to move forward but are in a lower queue position. JCP&L would be happy to consider extensions by mutual agreement as well.

Section (o): While this language is in the Board's existing rules, JCP&L and the EDCs note that it is often more expeditious to engage in inspections without appointments and that it is not common practice for the EDCs to schedule such appointments for most Applicants, except for larger level 2 and level 3 Applicants. JCP&L thus encourages Board Staff to make this section optional, rather than mandatory.

Section (p): JCP&L objects to allowing Applicants who have their applications denied the opportunity to receive an "expedited" review of their amended applications. This would be to the disadvantage of other Applicants who have met the required criteria, and "expedited" is not defined in the proposed rules. We recommend this requirement be deleted.

14:8-5.5 Level 2 interconnection review

JCP&L concurs with the Joint EDC Comments with respect to this subchapter and provides some additional background and justification below.

Section (b): JCP&L believes that the standards found in IEEE 1547, which establishes a technical standard for interconnecting distributed energy resources with electrical power systems, should ultimately govern whether additional requirements may be imposed by the EDC. JCP&L and the EDCs have proposed language to ensure that EDCs are not precluded from imposing requirements that are contemplated by IEEE 1547.

Sections (c) – (i): Consistent with earlier comments, in the various sections of this subchapter modifying the circuit impact "screens" JCP&L seeks further clarification from Board Staff of the rationale for the changes. Many of these modifications appear to be arbitrary. JCP&L would gladly make its engineering experts available to participate in discussions with the outside resources that Staff has indicated were consulted in development of these changes. This will help to provide assurance to all parties that the proposed screen changes do not risk circuit integrity.

Section (n): This section references a PAVE review after receipt of a complete application. As the PAVE process is intended to occur pre-application, it does not make sense to have it occur after a complete application has been submitted.

Section (p): As JCP&L and the EDCs have suggested for Level 1 interconnections, JCP&L suggests language that will provide that an Applicant who has not taken the necessary steps after receipt of Part 1 of the application notice will have its application expire. As previously noted, while JCP&L is happy to discuss location or wording of such language, we believe it is important that inactive applications be closed after

a certain period of inactivity, in order to ensure they are not unnecessarily taking up spots in the in the EDC's queue, and thus disadvantaging other Applicants who may be ready to move forward but are in a lower queue position. JCP&L would be happy to consider extensions by mutual agreement as well.

Section (r): As noted previously in JCP&Ls comments, requiring *scheduled* appointments for all Level 2 interconnected DER is not always necessary and may unnecessarily complicate the process of approval. We recommend, as we did for Level 1 interconnection, that the scheduling process enumerated in the current rules be made voluntary, rather than mandatory (*i.e.,* change "shall" to "may" in subsection 2).

In addition, the EDCs believe that the language in existing subsection 6 should be strengthened to ensure that unauthorized system interconnection or operation will result in no payment for excess generation credits, and that the EDC has the right to terminate unauthorized interconnections for safety, power quality, and reliability reasons.

14:8-5.6 Level 3 interconnection review

JCP&L strongly encourages Board Staff to convene meetings of DER developers and the EDCs to further discuss the proposed processes specified in this subchapter. JCP&L notes that Board Staff's proposal may be making the process more complex and time consuming for all parties. As a primary example, the delineation between System Impact Study and Facilities Study, which will now be accompanied with rigid timelines for each, does not recognize that EDCs often essentially perform these studies simultaneously and not as distinct processes. The Board's proposal would essentially be adding additional components/steps to the process rather than streamlining it. The Board should take a more holistic view of reconstructing this subchapter instead of trying to fit its new requirements onto a regulatory construct that often does not match current practices. JCP&L notes that the Guidehouse Report recommended "NJ BPU [to] direct the working group to consider specifying milestones and associated maximum timelines for Level 3 projects"[9]. The Company recommends adopting such a working group process. If Board Staff continues with the current approach, however, the Joint EDC Comments include the addition of language in the Level 3 subchapter that allow for flexibility with respect to the System Impact Study and Facilities Studies and ability to combine such studies.

In addition, JCP&L supports the proposed changes to this Section in the Joint EDC Comments and highlights the following sections.

Section (c): JCP&L supports the establishment of the application fee of $100 plus $10/kW of capacity. As JCP&L has indicated, we anticipate that there will be substantial additional cost associated with implementation of the changes to this chapter, and the establishment of the Level 3 fee will help to offset ratepayer impacts and costs.

[9] *See,* Guidehouse, Inc., *Grid Modernization Study: New Jersey Board of Public Utilities,* p. 76 (Aug. 24, 2022). *Note,* "working group" refers to a recommendation by Guidehouse in the area of Interconnection Application Software that "[T]the NJ BPU should establish a working group to balance the need for transparency and access by a broad set of stakeholders while maintaining the privacy of customer data, and security of other sensitive data pertaining to the electric grid." It does not appear from the Board Staff's proposed rules that such recommendation is being adopted.

Section (d): This section contains provisions that allow for a Pre-Application Verification Report ("PAVE") to occur after completion of an application. This will only complicate and "bog down" the process for all Applicants. The PAVE process should only occur prior to an application being submitted.

Section (h): JCP&L agrees with the Joint EDC Comments that it is unnecessary and burdensome to include these requirements in the utility Tariff. In addition, the component studies enumerated in this section should also be discretionary, as the EDCs do not presently require all of these types of studies and only require certain studies with certain types of generation, *e.g.*, rotating versus inverter-based generation.

Section (i): JCP&L believes that thirty (30) days is an insufficient period of time for the System Impact Study, whether done separately or in conjunction with a Facilities Study. This timeframe should be expanded to at least 60 days, and the rule should allow for more extension at the mutual agreement of the Applicant and the EDC.

Section (k): The reference in this section to an "estimate of the modification costs and a timeline" should make clear that when the System Impact Study is conducted prior to the Facilities Study, the System Impact cost estimate is subject to change in the Facilities Study, wherein more detailed study would occur.

Section (m): JCP&L is in agreement with the Joint EDC Comments in this section, and we note that 45 days is insufficient for completion of a Facilities Study, especially when said study is incorporating the System Impact Study requirements as well. We recommend that this timeline be expanded to at least 90 days.

In addition, the language of this section contemplates a "true up" of costs when the upgrades required by the Facilities Study are completed. JCP&L does not presently "true up" costs. Our system produces upgrade costs as a result of study, and those are the costs the Applicant will be charged, regardless of whether actual costs exceed the study estimate. The rules should allow for this process, which JCP&L believes to be more efficient for the Applicant and EDC. This may be accomplished in this Section by deletion of "…which may not be exceeded by 125 percent if actual upgrades are completed."

Section (p): The period of time allowed for a start date for commercial operations of within 36 months of the Applicant's execution of the Interconnection Agreement should be shortened as recommended in the Joint EDC Comments. JCP&L notes that the rules would still allow for an extension by mutual agreement of the EDC and Applicant. If the Applicant never reaches commercial operations, the proposed period disadvantages other Applicants in the queue who may be seeking capacity on the same circuit.

Section (r): This section also would implement a cost reconciliation process that is inconsistent with JCP&L's current procedure, which procedure JCP&L believes is more efficient for the Applicant and the EDC. The associated process should be made permissive for those EDCs who do engage in a reconciliation of costs, but not required.

§ 14:8-5.7 Interconnection fees

JCP&L supports and appreciates the proposed revisions establishing and modifying fees for the three Levels of interconnection. We also support proposed modifications found in the Joint EDC Comments.

§ 14:8-5.8 Testing, maintenance and inspection after interconnection approval

JCP&L has no comment on this subchapter.

§ 14:8-5.9 Interconnection reporting requirements for EDCs

JCP&L is concerned that this subchapter contains numerous, burdensome new data collection, tracking, reporting and retention requirements that offer dubious benefit to Applicants and the public. They will create additional cost that will ultimately be borne by our customers. Board Staff should more closely consider what it is ultimately hoping to glean from this data. For example, if the concern is around the period of time for completion of interconnections, then the "Key Performance Indicators" should focus on number of times applications took longer to complete than the regulatory-required timeframes.

The Company supports the Joint EDC Comments' modifications to the proposed new tracking and reporting requirements to make them more practical, though we encourage Board Staff to go further and discuss with the EDCs and developer community what specific issues it is attempting to identify and/or track through this data, and how to hone the tracking and reporting requirements to align with its goals. Data for the sake of data is an imprudent use of ratepayer dollars.

The additional, annual report proposed in section (d) of this subchapter is also unnecessary, burdensome, duplicative of information found in hosting capacity maps and duplicative of the proposed PSUP. As JCP&L similarly argues concerning the PSUP, Board Staff should defer discussion of the proposed annual report to a wider discussion of planning requirements envisioned in Targeted Findings and Recommendations #8 of the Guidehouse Report .

§ 14:8-5.10 Pre-Application Verification/Evaluation Process

JCP&L supports a requirement that the EDCs make available to applicants a Pre-Application Verification/Evaluation process ("PAVE"), though as noted earlier, we disagree with the current allowance in the proposed rules for the PAVE process to occur after an application has already been filed. We support the proposed changes to this section found in the Joint EDC Comments and highlight the following:

Section (b): This section specifies numerous components of the PAVE information required to be provided to the potential Applicant, many of which components will not be required from a potential Applicant for the potential Applicant to determine whether it is worthwhile to proceed, *i.e.* whether there will likely be substantial, insubstantial, or no costs. The Joint EDC Comments propose striking some of the unnecessary provisions from this list, as well as using "may" instead of "shall", which makes this section more consistent with Section (d), which provides that the EDC is not required to provide data that is "unavailable".

JCP&L notes that sometimes the receipt of an address from a developer and an electronic (*e.g.,* email) or verbal conversation with the EDC may be sufficient to provide the developer with the necessary information to determine whether it is worthwhile to file an application. These rules should provide the flexibility for such less-formalized discussion as a PAVE where the Parties agree it is sufficient.

Section (f): JCP&L agrees with the Joint EDC Comments that it is important to make clear to the potential Applicant that participation in a PAVE discussion or process does not establish a queue position.

§ 14:8-5.11 Hosting Capacity Maps

JCP&L has a number of concerns with proposed requirements governing Hosting Capacity Maps. We feel strongly that a drive towards identical capacity maps across the State's EDCs provides only marginal

benefit to developers while increasing potential costs and inefficiency across multi-state utilities such as FirstEnergy. It is also not clear what Board Staff intends with respect to a number of provisions of this subchapter. The Joint EDC Comments make suggested changes to address these concerns and need for clarification, though JCP&L would gladly engage in a discussion of Hosting Capacity maps with Board Staff and interested Parties focusing on what components are truly of value to potential Applicants.

The Board should be cognizant that physical security concerns limit what types of system components and constraints can and should be shown on public-facing maps. We face an evolving threat environment with respect to physical and cyber security, as evidenced by recent sabotage of utility infrastructure in other states. Requirements to "visually present… substations, feeders, and related distribution assets…", identification of "potentially limiting equipment", "transmission interdependencies", circuit "transient/dynamic stability limitations" and the like all raise serious security concerns that warrant further discussion before proceeding with adoption of any such requirements.

The Electric Power Research Institute notes the following about Hosting Capacity Maps.

> Hosting capacity maps will, however, always have limitations. They are inherently the product of model-based calculations that provide hosting capacity approximations based on a snapshot in time and the impact factors evaluated. The maps are intended to act as a guide rather than an approval mechanism. They do not always reflect the design and/or "as operated" system conditions. Because of the operational requirements of the distribution system and the rate of DER application acceptance in some areas, the information provided on maps is not "real-time."[10]

JCP&L provides this excerpt to reinforce that Hosting Capacity Maps are one important tool for potential Applicants, but also to note these Maps are a "guide" that helps a potential Applicant to determine if an application is worthwhile. They are neither a means for making a decision about whether a certain project will ultimately be approved, nor a system planning tool. JCP&L notes that Hosting Capacity Maps are actively being discussed for electric vehicle charging locations and battery storge systems, which may result in more entities "chasing" the same pockets of available capacity and resulting in a more dynamic impact on the distribution system. Such additional dynamism will require timely impact studies and analysis for projects for impacts that may not be captured in the Hosting Capacity mapping process.

The fact that the PAVE process will now be required to be offered to Applicants under this Chapter also obviates the need for the expense and administrative burden associated with implementation of a number of the new requirements called for in this subchapter.

§ 14:8-5.12 Proactive System Upgrade Planning

For reasons stated earlier herein, JCP&L agrees with the Joint EDC Comments that this subchapter should be struck, allowing deferral of discussion of the PSUP concept to a wider discussion of planning requirements envisioned in Targeted Findings and Recommendations #8 of the Guidehouse Report.

§ 14:8-5.13 Dispute Resolution

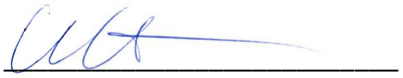
[10] Electric Power Research Institute, *Recommended Best Uses and Expectations for Public-facing Hosting Capacity Maps", p. 15 (2020).*

JCP&L supports establishment of a formalized dispute resolution process for interconnections. We support the Joint EDC Comments with respect to suggested changes. In particular, we believe the proposal should not establish a new third-party mediation process, but rather comport with the Board's current paradigm of "informal" compliant (which would now be via the Interconnection Ombudsman) and "formal" complaint (which would continue to be via a filing with the Board).

Conclusion

JCP&L commends Board Staff for initiating what is likely to be a very productive dialog and opportunity for additional work by the Parties to develop proposed changes to the Administrative Code. Such a process will help to ensure an improved Interconnection process for all. We appreciate that Staff offered the EDCs an additional 45 days as an opportunity to develop joint "redline" and comments, and we hope that Staff will find the Joint EDC Comments, as well JCP&L's narrative comments, useful as it decides next steps. JCP&L will gladly make its technical experts available for further technical review and discussion with Staff and the impacted parties. Thank you for Board Staff's consideration.

Very truly yours,



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