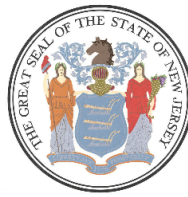


State of New Jersey  
Governor Philip D. Murphy  
Lt. Governor Sheila Y. Oliver



Joseph L. Fiordaliso  
President

Mary-Anna Holden  
Dianne Solomon  
Bob Gordon  
Dr. Zenon Christodoulou  
Commissioners

Board of Public Utilities



[www.nj.gov/bpu/](http://www.nj.gov/bpu/)

**\*Revised 3-2-2023**

## NOTICE<sup>1</sup>

### IN THE MATTER OF MODERNIZING NEW JERSEY'S INTERCONNECTION RULES, PROCESSES, AND METRICS

[Docket No. QO21010085](#)

The New Jersey Board of Public Utilities ("BPU" or "Board") hereby gives notice of a virtual stakeholder meeting to discuss proposed changes to New Jersey's process for interconnecting distributed generation resources to the New Jersey electric grid. Specifically, this Notice, contains, in sequence, both Clean (marked Pages C1-C43) and Redline (marked Pages R1-R50) versions of proposed regulatory text that amends N.J.A.C. §§ 14:8-4.2 and 14:8-5.1 through 14:8-5.9, as well as proposing new provisions at §§ 14:8-10-13. For the Redline version, the black-line text represents the currently effective rules, while the underline portion represents the incremental changes on which Staff seeks feedback. Currently effective language with proposed changes is shown in strikeout.

The draft regulatory text is being provided to spur stakeholder comment and to allow for all parties to focus on short-to medium-term improvements to New Jersey's interconnection process in a collaborative fashion. To the extent that stakeholders have feedback on particular provisions, Staff welcomes stakeholders to propose alternative or amended regulatory text. Proposals that represent the consensus position of multiple stakeholders or stakeholder segments are welcome. Once initial stakeholder comments on the proposed redline are received and addressed, Staff expects that the Board will move forward with a formal rulemaking process.

#### Background

To enable clean energy to be developed at an accelerated pace and in an effective and efficient manner, the 2019 New Jersey Energy Master Plan ("2019 EMP")<sup>2</sup> determined that New Jersey's interconnection rules and processes required updating. The 2019 EMP Strategy 5: Decarbonize and Modernize New Jersey's Energy System, outlines specific strategies to modernize the state's grid, including modernizing New Jersey's interconnection standards and requiring utilities to establish Integrated Distribution Plans.

After a competitive bid process, the Board authorized a contract with Guidehouse, Inc. ("Guidehouse") for consulting services to assist with a grid modernization proceeding that initially focuses on interconnection rules reform. Guidehouse's work included: initial research into grid modernization efforts in other states and emerging technologies; the organization and execution of a comprehensive series of public stakeholder meetings; and data requests for specific information from New Jersey's Electric Distribution Companies ("EDCs"). Guidehouse's work culminated in the development of a report which contained the results of their study and recommendations for improving New Jersey's interconnection processes for integrating distributed generation resources<sup>3</sup> into New Jersey's EDC distribution grids.

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<sup>1</sup> Not a paid legal advertisement.

<sup>2</sup> [https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf)

<sup>3</sup> Distributed generation resources, also known as Distributed Energy Resources ("DER"), hold the potential to be an integral part of New Jersey's clean energy transition, enhance retail competition and efficiencies, and enable customers to better participate in the emerging grid services markets.

On November 9, 2022, the Board issued an Order<sup>4</sup> accepting the [Grid Modernization Study: New Jersey Board of Public Utilities](#) (the “Grid Modernization Study”) and its nine recommendations. This Order also directed Staff to issue a draft containing proposed changes to the New Jersey Administrative Code to implement the NearTerm recommendations<sup>5</sup> contained in the Grid Modernization Study. After receipt and review of public comments on the draft rule changes proposed herein, Staff will initiate a formal rule making process.

The public meeting will be held at the following date and time, and in the following manner:

Meeting Date	Registration Link and Purpose
<p><b>Feb 10, 2023</b></p> <p><b>1:00 to 5:00PM EDT</b></p>	<p>Zoom Virtual Webinar:</p> <p><a href="https://us06web.zoom.us/webinar/register/WN_BlqFKHR6Rky-R0Bm9ZNWVw">https://us06web.zoom.us/webinar/register/WN_BlqFKHR6Rky-R0Bm9ZNWVw</a></p> <p><b><i>After registering, you will receive a confirmation email containing information about joining the webinar</i></b></p> <p>(<u>Note</u>: If you are typing the URL, please use all UPPERCASE for all capitalized letters.)</p> <p>This meeting will consist of a brief presentation by Staff on the Grid Modernization proceeding, followed by a presentation of the proposed rule changes. The floor will then be opened for comments by stakeholders and members of the general public.</p>

Please note that this meeting will be conducted virtually. You must register for the meeting before attending at least 48 hours prior to the scheduled date. Stakeholders and members of the public are invited to participate by utilizing the link set forth above and may express their views. In order to encourage full participation, please submit any requests for needed accommodations, such as interpreters and/or listening assistance, 48 hours prior to the above meeting to the Board Secretary at [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov).

If you want to reserve a speaking opportunity, please designate this during the online registration process. After registering, you will receive a confirmation email containing information about joining the meeting and information about checking your system requirements in advance of the meeting. Stakeholders should check their access devices in advance of the meeting as to ensure that they will properly connect.

Questions on this stakeholder process may be directed to Paul Heitmann at [paul.heitmann@bpu.nj.gov](mailto:paul.heitmann@bpu.nj.gov).

### Comments

**The Board is also accepting written and/or electric comments.**

All public comments should be filed under [Docket No. QO21010085](#). **The deadline for public comments is 5:00 p.m. Eastern Time on ~~March 10, 2023~~. \*April 24, 2023.**

<sup>4</sup> <https://nj.gov/bpu/pdf/boardorders/2022/20221109/8A%20ORDER%20Grid%20Modernization%20Study.pdf>

<sup>5</sup> The NearTerm recommendations are: 1) implementation of Institute of Electrical and Electronics Engineers standard 1547 across all EDC service territories; 2) streamlining and automating the interconnection application process; 3) improving the accuracy and usability of EDC hosting capacity maps; and 4) establishing a mandatory pre-application process for new interconnection requests above a certain size.

Written comments may also be submitted to:

**Carmen D. Diaz**

Acting Secretary of the Board

44 South Clinton Ave., 1<sup>st</sup> Floor

PO Box 350

Trenton, NJ 08625-0350

Phone: 609-913-6241

Email: [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov)

*Carmen D. Diaz*

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Carmen D. Diaz, Acting Secretary

Dated: March 2, 2023

CLEAN VERSION OF DRAFT INTERCONNECTION RULES  
(INCLUDING EXISTING NEW JERSEY ADMINISTRATIVE CODE AND  
PROPOSED CHANGES)

PAGES C1-C43 FOLLOW

## **§ 14:8-4.2 Net metering definitions**

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The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:8-1.2.

"Annualized period" means a period of 12 consecutive monthly billing periods. A Customer-generator's first annualized period begins on the first day of any single monthly billing period, at the customer's choice. Each Customer-generator selects an annualized period under N.J.A.C. 14:8-4.3.

"Avoided cost of wholesale power" means the average locational marginal price of energy in the applicable utility's transmission zone. This cost can be obtained through the website maintained by PJM Interconnection at [www.pjm.com](http://www.pjm.com).

"Customer-generator" means an electricity customer that generates electricity on the customer's side of the meter, using a class I renewable energy source, that stores electricity, or that involves multiple sources of generation that includes a class I renewable energy source, whether separately or as part of an aggregated resource. The Board may deem a pair of entities acting together - that is, a net metering generator and a net metering customer - to constitute one Customer-generator for the purpose of net metering.

"Customer-generator facility" means the equipment used by a Customer-generator to generate, store, manage, and/or monitor electricity. A Customer-generator facility typically includes an electric generator, energy storage device, vehicle to grid device, and/or interconnection equipment that connects the Customer-generator facility directly to the customer, whether separately or as part of an aggregated resource.

"Net metering customer" means a customer that owns and/or operates electrical wires and/or equipment that is connected to the EDC's electric distribution system through a meter used for Net metering. The Net metering customer may or may not be the same entity as the Net metering generator, and may or may not be located on the same property as the Net metering generator.

"Net metering generator" means an entity that owns and/or operates a class I renewable energy generation facility, the electricity from which is delivered to a Net metering customer; provided that only the electricity produced by the class I renewable energy sources shall be eligible for Net metering treatment. The Net metering generator may or

may not be the same entity as the Net metering customer; and may or may not be located on the same property as the Net metering customer.

## **§ 14:8-5.1 Interconnection definitions**

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The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:8-1.2.

“AGIR” or “Authority Governing Interconnect Requirements” means the agency that has authority for setting interconnection rules to the state-jurisdictional electric system, as set forth in IEEE 1547 Standard or subsequent standard as identified in a Board order. The term AGIR is functionally equivalent to the term “Relevant Electric Retail Regulatory Authority.”

"Applicant" means a person who has filed an application to interconnect a Customer-generator facility to an electric distribution system.

"Area network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE 1547 Standard Section 4.1.4, which is incorporated herein by reference, or subsequent standard as identified in a Board order. “Common Interconnection Agreement Process” or “CIAP” means a common EDC application that allows Customer-generators to apply for and manage the interconnection process electronically through a portal-based software application platform capable of tracking key information throughout the subsequent interconnection application process, documenting generation type and capacity, timelines, and incorporating schedule and budget for upgrade commitments and construction timelines.

“DER aggregation” means a grouping of discrete interconnected Customer-generator facilities or behind the meter load modifying resources working as a combined or coordinated group for purposes of providing energy, grid services, or other value stream, on an aggregated basis, whether for the purposes of participating in retail or wholesale markets, including those established under Order No. 2222 or otherwise.

“EDC grid flexibility services” are control capabilities procured from a Customer-generator and compensated by the EDC that help to maintain distribution system reliability and safety, whether separately or as part of a DER aggregation. Volt VAR provided by smart inverters is one example.

“EIS” means an Expedited Impact Study designed to accelerate projects that have no electrical or cost impact on either other distribution circuits, adjacent circuits, or other Customer-generator projects that are seeking individual circuit capacity.

"Electrical power system" or "EPS" means a facility that delivers electric power to a load and has the same meaning as is assigned to this term in IEEE 1547 Standard, which is incorporated herein by reference, or subsequent standard as identified in a Board order.

“Facilities Study” means a study that determines the cost and timeline associated with upgrading the EDC’s electrical power system to safely and reliably accommodate a proposed Customer-generator facility.

"Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase and three-phase. A Fault current is several times larger in magnitude than the current that normally flows through a circuit.

"Good utility practice" has the same meaning as assigned to this term in the Amended and Restated Operating Agreement of PJM Interconnection, which is incorporated herein by reference as amended and supplemented. The Operating Agreement can be obtained on the PJM Interconnection website at <https://agreements.pjm.com/oa/4534>, or such subsequent standard as identified in a Board order. As of October 23, 2022, the Operating Agreement defines this term as "any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act Section 215(a)(4)."

“Hosting capacity” means the available power flow capacity on distribution system circuits that is used to determine incremental allowable interconnection of generator facilities. Hosting capacity may be a positive number, indicating that there is surplus power flow capability or zero, indicating that the circuit is closed to incremental generation facilities.

“Hosting capacity Analysis” means the methodology used to calculate, publish and evaluate the ability to increase the available Hosting capacity of a given circuit.



"IEEE 1547 Standard " means IEEE 1547-2018 Standard, which was approved in 2018, amended in 2020, or any future updated version of the IEEE 1547 Standard as may be directed by Board order.

"IEEE Standards" means the standards published by the Institute of Electrical and Electronic Engineers, available at [www.ieee.org](http://www.ieee.org).

"Interconnection agreement" means an agreement between a Customer-generator and an EDC, which governs the connection of the Customer-generator facility to the electric distribution system, as well as the ongoing operation of the Customer-generator facility after it is connected to the system, whether the facility operates singly or as part of a DER aggregation. An interconnection agreement shall follow the standard form agreement developed by the Board and available from each EDC.

"Interconnection equipment" means a group of components connecting an electric generator with an electric distribution system and includes all interface equipment including switchgear, inverters or other interface devices. Interconnection equipment may include an integrated generator, storage device, or electric source.

"Interconnection Ombudsman" means a member of Board Staff designated to address interconnection issues and work with Applicants and EDCs to ensure a fair and transparent interconnection process.

"Line section" means that portion of an EDC's electric distribution system, which is connected to an interconnection customer and is bounded by automatic sectionalizing devices or the end of the distribution line.

"Non-exporting customer-generator" means a Customer-generator facility that is designed to ensure the one-way flow of electricity from the EDC's electrical power system to the Customer-generator that prevents or limits export of electricity past the Point of common coupling from the facility to the EDC's electrical power system.

"Non-exporting technology" means an electric device that is designed to ensure that a Customer-generator is a non-exporting system or that limits the amount of injection past the Point of common coupling.

"Order No. 2222" means any program adopted by PJM and approved by the Federal Energy Regulatory Commission designed to enable one or more Customer-generator to sell their electrical output into the wholesale market, either singly or as part of an aggregation of more than one Customer-generator facility.

"Party" or "Parties" means the Customer-generator, the EDC, or both.

"PAVE" is a Pre-Application Verification/Evaluation process designed to provide a prospective Customer-generator an opportunity to receive actionable feedback from the EDC about the technical aspects of an interconnection request,

including electrical feasibility, timeline, and other technical and procedural matters at the beginning of the interconnection process.

"Point of common coupling" means the point in the power system at which the EDC and the customer interface occurs, which has the same meaning as assigned to this term in IEEE Standard 1547, or any future updated version of the IEEE 1547 Standard as may be directed by Board order. The Point of common coupling and the point of interconnection are used synonymously. "

"Proactive System Upgrade Planning" or "PSUP" means an annual filing in which the EDC identifies targeted proactive circuit and system upgrades aimed at expanding opportunities for Customer-generator facilities to be interconnected in an efficient and expeditious manner.

"Rule 21" means the California Public Utilities Commission's Electric Rule 21, which is a tariff that describes the interconnection, operating and metering requirements for generation facilities to be connected to an EDC's distribution system. More information about Rule 21 is available at <https://www.cpuc.ca.gov/rule21>.

"Solar Permitting Application Software" is a scalable software platform designed by a national lab or other entity designed to be deployed at a municipality or other local entity to significantly automate and compress the solar/storage permit application and processing times. One example of Solar Permitting Application Software is the SolarAPP+, developed by the National Renewable Energy Laboratory.

"Spot network" means a portion of an electric distribution system that uses two or more inter-tied transformers to supply an electrical network circuit, and has the same meaning as assigned to the term under IEEE Standard 1547-2018, or any future updated version of the IEEE 1547 Standard as may be directed by Board order. A Spot network is generally used to supply power to a single customer or a small group of customers.

"System impact study" means an engineering analysis of the probable impact of a Customer-generator facility on the safety and reliability of the EDC's electric distribution system.

## § 14:8-5.2 General interconnection provisions

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(a) Each EDC shall provide the following three review procedures for applications for interconnection of Customer-generator facilities:

1. Level 1: An EDC shall use this review procedure for applications to connect inverter-based Customer-generator facilities which have a power rating of 25 kW or less, as measured in direct current, and which meet the certification requirements at N.J.A.C. 14:8-5.3. Level 1 interconnection review procedures are set forth at N.J.A.C. 14:8-5.4;
2. Level 2: An EDC shall use this review procedure for applications to connect Customer-generator facilities which meet the certification requirements at N.J.A.C. 14:8-5.3 and that (i) are 2 MW or less, as measured in direct current; (ii) do not qualify for level 1 interconnection review procedures; or (iii) did not pass a level 1 process. Level 2 interconnection review procedures are set forth at N.J.A.C. 14:8-5.5; and
3. Level 3: An EDC shall use this review procedure for applications to connect Customer-generator facilities that (i) are greater than 2 MW, as measured in direct current; (ii) do not qualify for either the level 1 or level 2 interconnection review procedures; or (iii) did not pass a level 1 or level 2 process. Level 3 interconnection review procedures are set forth at N.J.A.C. 14:8-5.6.

(b) In determining the appropriate interconnection level and performing the related studies, the EDC shall allow a prospective generator to limit its ability to export power to the grid to less than its nameplate rating, including by utilizing non-exporting technology that prevents export of electricity past the Point of common coupling, either in whole or in part, or enrollment in an approved EDC grid flexibility services program. The net export capacity of the Customer-generator facility shall form the basis for the appropriate studies, unless the EDC determines, using good utility practice, that the Applicant's proposal would potentially harm the integrity of the EDC system, and shall document such findings to the Board.

(c) For Customer-generator facilities that involve either a stationary or mobile energy storage device, the EDC shall utilize the interconnection level based on the sum of (i) the nameplate power capacity of the energy storage device, as measured in MW of direct current, and (ii) the nameplate power capacity of any Customer-generator facility, in MW of direct current, subject to any export controls or non-exporting requirement, or enrollment in an approved EDC grid flexibility services program, that may be utilized as set

forth in subsection b. The load aspects of the storage device will be treated just like any other load, using the incremental net load for the customer.

(d) By January 1, 2024, each EDC shall make a compliance filing to allow existing Customer-generator facilities to upgrade to a UL 1741-compliant smart inverter without additional study, or add an energy storage device through the appropriate interconnection process.

(e) By June 1, 2023, each EDC shall establish a consistent, secure and auditable electronic interconnection application processing software platform that will provide a structured approach for data intake and notifications for all interconnection Levels, to be known as the Common Interconnection Agreement Process or CIAP. Each EDC's CIAP-compliant portal shall allow Applicants to apply for interconnection electronically through a web portal that maintains a consistent presentation and workflow to interconnection Applicants across EDC service territories. The cost of implementing the CIAP portal and related costs shall be recovered by each EDC as part of its base rates or through an approved Infrastructure Investment Program pursuant to N.J.A.C. 14:3-2A.2. Each CIAP shall, at a minimum:

1. Include a portal-based application form that requires the following types of information:
  - i. Basic information regarding the Customer-generator and the electricity supplier(s) involved;
  - ii. Information regarding the type and specifications of the Customer-generator facility;
  - iii. Information regarding the contractor who will install the Customer-generator facility;
  - iv. Certifications and agreements regarding utility access to the Customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, and receipt of basic information;
  - v. Include a check box to indicate whether the Applicant elects to pursue the PAVE process;  
and
  - vi. Other similar information as needed to determine the compliance of a particular Applicant with this chapter;
2. Include standardized online forms for required Applicant information, ability to save all work in progress for application completion at a later time, a visual "thermometer bar" indicator of progress through the full process, and option for email and phone/text status change notifications, and other

such administrative requirements as the EDCs may jointly propose or the Board shall establish via Order;

3. Integrate with a Solar Permitting Application Software platform, such as SolarAPP+ or other similar solar permitting tool selected and implemented jointly by the EDCs, and approved by the Board;
4. Document generation type and capacity, timelines, schedule and budget for upgrade commitments, when upgrade payments or deposits are due or have been paid, and construction timelines, and other comparable requirements that the EDCs may jointly propose or the Board shall establish via order;
5. Provide automatic email and online notifications to the Applicant with the goal of enforcing clearly defined tariff timelines, and reducing the turnaround time for missing data. The software should be designed to improve the accuracy and consistency of data entry and facilitate cross-department intake of application information and to identify missing data upon submission or as soon as practicable after submission to minimize the number of incomplete applications;
6. Enable each EDC to customize the forms while maintaining common data architecture and protocol structure across all EDCs;
7. Enable each EDC to provide key performance indicators regarding interconnection processing, including the number of applications with missing data, applications with complete information, and achieved timelines for all interconnection applications at all interconnection Levels.
8. Allow for a fully virtual interconnection process, including allowing for the upload of files and documents;
9. Include an Frequently Asked Questions (FAQ) webpage to provide guidance useful to interconnection customers engaging in the interconnection process that clearly presents context and instructions for interacting with the electronic application tracking system; and
10. Provide automated data feeds for all required reporting that is accessible by Board Staff, including capability of establishing dashboards or other data analysis tools, as may be established by Board order.

**(f)** Each EDC shall designate an employee or office from which an Applicant can obtain basic application forms and information through an informal process. On request, this employee or office shall provide all relevant forms, documents, and technical requirements for submittal of a complete application for interconnection review under this section, as well as specific information necessary to contact the EDC representatives assigned to review the application.

**(g)** Upon request of the Applicant, the EDC shall meet with an Applicant who qualifies for level 2 or level 3 interconnection review prior to the filing of an application for the purpose of conducting a PAVE review. The PAVE review shall follow the procedures as set forth at N.J.A.C. 14:8-5.10, to assist the Applicant in preparing the application.

**(h)** An EDC shall not be responsible for the cost of determining the rating of equipment owned by a Customer-generator, or of equipment owned by other local customers.

**(i)** An EDC shall not require a Customer-generator whose facility meets the criteria for interconnection approval under the level 1 or level 2 interconnection review procedure at N.J.A.C. 14:8-5.4 and 5.5 to install additional controls or external disconnect switches not included in the Interconnection equipment, to perform or pay for additional tests or to purchase additional liability insurance, except if agreed to by the Applicant.

**(j)** If the interconnection of a Customer-generator facility is subject to interconnection requirements of FERC or PJM, whether in compliance with rules governing DER aggregations under FERC's Order No. 2222 or otherwise, the provisions of this subchapter that apply to interconnection apply to that facility only to the extent that they do not conflict with the interconnection requirements of FERC or PJM.

**(k)** Each EDC shall develop an interconnection dispute resolution process as set forth in N.J.A.C. 14:5.15, to be included on the EDC FAQ webpages. As part of a dispute resolution process the EDCs should identify an ombudsman to handle customer interconnection complaints. If an Applicant disagrees with an EDC's determination of fact or need regarding matters covered in this subchapter, or if any person has a complaint regarding matters covered in this subchapter, the Applicant or other person may file an initial informal complaint with the Board's interconnection ombudsman under N.J.A.C. 14:1-5.13, or may file a formal petition with the Board under N.J.A.C. 14:1-5.

**(l)** Once a Customer-generator has met the requirements of the relevant interconnection review , the EDC shall notify the Customer-generator through the CIAP-compliant automated portal and to the e-mail address on file.

**(m)** The Applicant shall not operate the Customer-generator facility until the EDC's application and inspection process is completed. Unauthorized system interconnection and operation will result in no payment for excess generation credits.

**(n)** Any Applicant may request that the EDC take into account any significant anticipated changes in load associated with contemporaneous installation of the Customer-generator facility and any of the following: (i) electric vehicle charging infrastructure, including any vehicle-to-grid bidirectional capabilities; (ii) building electrification upgrades; (iii) deployment of energy efficiency upgrades; or (iv) verifiable increases in load; which the EDC shall not unreasonably refuse to consider. The EDC may require the Applicant to delay energization or re-start the interconnection process if the contemplated contemporaneous changes are not completed prior to the planned energization of the system.

**(o)** Each EDC, on an annual basis, shall make a Proactive System Upgrade Planning filing in which the EDC identifies targeted proactive circuit and system upgrades aimed at expanding opportunities for Customer-generator facilities and detail the costs and benefits of the proposed upgrades, as set forth at N.J.A.C. 14:8-5.15.

**(p)** An EDC shall allow entities with Interconnection agreements to participate in a DER aggregation without further review; provided that a DER aggregator will provide the EDC 10 business days' written notice before initiating a DER aggregation of: (i) more than 10 MW in total size; (ii) involving multiple customers of greater than 1 MW (as measured at any single retail meter); or (iii) any proposed modification to a DER aggregation in (i) or (ii) that results in a greater than 50 percent change in aggregation size or adds new individual customers at any single retail meter of 1 MW or greater. The EDC shall have 10 business days after receiving a DER request to either approve the proposed DER aggregation or issue a formal letter of objection, which shall be provided to Board Staff and the DER aggregator, identifying with specificity concerns about the proposed aggregation and how it may adversely affect system reliability, along with possible alternative means of mitigating the concern. If the EDC issues such a letter, the parties shall engage in the dispute resolution provisions set forth in N.J.A.C. § 14:8-5.16. No notice shall be required before a DER aggregation may remove customers from an aggregation.

**(q)** In administering the deadlines in this chapter, the EDC shall make reasonable efforts to meet all established timelines. If the EDC cannot meet a timeline, the EDC shall notify the Applicant and Board Staff in writing within 3 business days after the missed deadline via methodology as established by Board order. The notification shall explain the reason for the EDC's failure to meet the deadline and provide an estimate of when the step will be completed. The EDC shall keep the Applicant and Board Staff updated of any changes in the expected completion date.

**(r)** The Applicant may request in writing the extension of a timeline established in this chapter. The requested extension may be for up to one-half of the time originally allotted (e.g., a 10 business day extension for a 20 business day timeframe). The EDC shall not unreasonably refuse this request. If further timeline extensions are necessary, the Applicant may request an extension through the CIAP portal or from the EDC's interconnection ombudsperson, who shall grant the request, if it is reasonable, or otherwise, deny it, within 3 business days and reflect the decision in the CIAP portal and via email.

**(s)** In conducting studies pursuant to this chapter, each EDC shall plan its system to allow for reverse power flow through substations where minor changes to the substation's control system allow for such flows in a safe and reliable manner and shall prioritize upgrading such control systems in response to interconnection applications that would benefit from such reverse flows.



## **§ 14:8-5.3 Certification of Customer-generator Interconnection equipment**

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(a) In order to qualify for the level 1 and the level 2 interconnection review procedures described at N.J.A.C. 14:8-5.4 and 5.5, a Customer-generator's interconnection equipment shall have been tested and listed by an OSHA-approved nationally recognized testing laboratory for continuous interactive operation with an electric distribution system, except as provided herein, in accordance with the following standards, as applicable:

1. IEEE 1547-2018, Standard for Interconnecting Distributed Resources with Electric Power Systems (published July 2018, amended April 2020) or any future updated version of the IEEE 1547 Standard as may be directed by Board order, which is incorporated herein by reference, as amended or supplemented. IEEE 1547 Standard can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org);
2. UL 1741-Supplement SA or SB Inverters, Converters, and Controllers for Use in Independent Power Systems (September 2021) or any future updated version of the UL1741 Standard as may be directed by Board order, which is incorporated herein by reference as amended or supplemented. UL 1741 can be obtained through the Underwriters Laboratories website at [www.ul.com](http://www.ul.com); and
3. Equipment for which UL 1741 certification does not currently exist, but approved for operation under California's Rule 21 process, including through the interim testing protocols set forth for Non-exporting AC/DC converter technology or other Non-exporting technology, and incorporated herein by reference. Such facilities will be treated as "certified" for the purposes of this chapter.

(b) Interconnection equipment shall be considered certified for interconnected operation if it has been submitted by a manufacturer to an OSHA-approved nationally recognized testing laboratory or alternative testing protocols permitted under this chapter, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards listed in (a) above.

(c) If the Interconnection equipment has been tested and listed in accordance with this section as an integrated package, which includes a generator or other electric source, the Interconnection equipment

shall be deemed certified and the EDC shall not require further design review, testing or additional equipment.

**(d)** If the Interconnection equipment includes only the interface components (switchgear, inverters, or other Non-exporting technology or other interface devices), an Applicant shall show that the generator or other electric source being utilized with the Interconnection equipment is compatible with the Interconnection equipment and consistent with the testing and listing specified for the equipment. If the generator or electric source being utilized with the Interconnection equipment is consistent with the testing and listing performed by the OSHA-approved nationally recognized testing laboratory or alternative testing protocols permitted under this rule, the Interconnection equipment shall be deemed certified and the EDC shall not require further design review, testing or additional equipment.

## **§ 14:8-5.4 Level 1 interconnection review**

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(a) Each EDC shall adopt a level 1 interconnection review procedure. The EDC shall use the level 1 review procedure only for an application to interconnect a Customer-generator facility that meets all of the following criteria:

1. The facility is inverter-based and has smart inverter capability;
2. The facility has a capacity of 25 kW or less; and
3. The facility has been certified in accordance with N.J.A.C. 14:8-5.3.

(b) For a Customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 1 interconnection review procedure upon payment of a fee, not to exceed \$100 or other value established by Board order, if all of the applicable requirements at (c) through (g) below are met. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the Line section to which the Customer-generator facility will interconnect, including the capacity of the Customer-generator facility, shall not contribute more than 10 percent to the distribution circuit's maximum Fault current at the point on the high voltage (primary) level that is nearest the proposed Point of common coupling.

(d) A Customer-generator facility's does not qualify for interconnection under Level 1 if the Point of common coupling is on a transmission line, a Spot network, or an Area network; provided that the EDC will use good utility practice to allow interconnection of a Customer-generator facility to such facilities where feasible.

(e) If a Customer-generator facility is to be connected to a radial Line section, the aggregate generation capacity connected to the circuit, including that of the Customer-generator facility, shall not exceed 15 percent (25 percent for solar electric generation) of the circuit's total annual peak load, as most recently measured at the substation.

(f) If a Customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity connected to the shared secondary, including the Customer-generator facility, shall not exceed 30 kilovolt-amperes (kVA).

**(g)** If a single-phase Customer-generator facility is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the Customer-generator facility shall not create an imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.

**(h)** An Applicant shall submit an Interconnection Application/Agreement Form for level 1 interconnection review through the CIAP portal. The standard form is available from the EDC, and includes a Part 1 (Terms and Conditions) and a Part 2 (Certificate of Completion).

**(i)** Within three business days after receiving an application for level 1 interconnection review, the EDC shall provide notice to the Applicant via email and through the CIAP portal that it received the application and whether the application is complete. If the application is incomplete, the written notice shall include a list of all of the information needed to complete the application.

**(j)** Within 10 business days after the EDC notifies the Applicant that the application is complete under (i) above, the EDC shall notify the Applicant that:

1. The Customer-generator facility meets all of the criteria at (c) through (g) above that apply to the facility, and the interconnection will be finally approved upon completion of the process set forth at (k) through (o) below;
2. That the Customer-generator facility is proposing to connect to a Spot network or an Area network, and the EDC requires additional time to determine whether the interconnection is technically feasible; or
3. The Customer-generator facility has failed to pass one or more of the applicable screens at (c) through (g) above, and the interconnection application is denied, subject to the resubmittal options set forth in section (p) below.

**(k)** If the EDC notifies the Customer-generator under (j)1 above that the facility will be approved, the EDC shall, within three business days after sending the notice under (j)1 above, do both of the following:

1. Notify the Applicant through the CIAP portal and by e-mail or other writing of whether an EDC inspection of the Customer-generator facility is required prior to energizing the facility; or that the EDC waives inspection; and
2. Return to the Applicant Part 1 of the original application, signed by the appropriate EDC representative.

**(l)** Once an Applicant receives Part 1 of the application with the EDC signature in accordance with (k) above, and has installed and interconnected the Customer-generator facility, the Applicant shall obtain approval of the facility by the appropriate construction official, as defined at N.J.A.C. 5:23-4.1.

**(m)** The Customer-generator shall submit documentation of the construction official's successful inspections and permit closing to the EDC, along with a copy of Part 2 of the application, signed by the Customer-generator.

**(n)** If inspection of the Customer-generator facility was waived under (k)1 above, the EDC shall, within five business days after receiving the submittal required under (m) above, notify the customer-generator of authorization to energize the facility. The notice to the Customer-generator shall be provided through the CIAP portal.

**(o)** If inspection of the Customer-generator facility was not waived under (k)1 above, the following process shall apply:

1. The Customer-generator shall submit the construction official's approval and signed Part 2 as required at (m) above, and inform the EDC that the Customer-generator facility is ready for EDC inspection;
2. Within five business days after the Customer-generator notifies the EDC under (o)1 above that the facility is ready for inspection, the EDC shall offer the Customer-generator two or more available four-hour inspection appointments (for example, February 4th from noon to 4:00 P.M. or February 6th from 10:00 A.M. to 2:00 P.M.);
3. The appointments offered under (o)2 above shall be no later than 10 business days after the EDC offers the appointments (that is, within 13 business days after the Customer-generator submittal under (m) above);
4. The Customer-generator shall notify the EDC which of the offered inspection times the Customer-generator prefers, or shall arrange another time by mutual agreement with the EDC;
5. Within five business days after successful completion of the EDC inspection, the EDC shall notify the Customer-generator that it is authorized to energize the facility through the CIAP portal and by email; and
6. The Applicant shall not begin operating the Customer-generator facility until after the inspection and testing is completed.

**(p)** If an application for level 1 interconnection review is denied because it does not meet one or more of the applicable requirements in this section, the EDC shall provide tangible evidence of which screens were failed and why. In response, an Applicant may either:

1. Resubmit an amended Level 1 application for expedited review with appropriate mitigation measures that may include:
  - a. The addition of energy storage or increase in proposed load which would limit export; or
  - b. Reduction in generation or export capability; or
  - c. Prevent or limit injections onto the grid through addition of a Non-exporting technologies or other comparable means; or
  - d. Participation in an EDC grid flexibility service program that uses smart inverter or other functionality to utilize reactive power or predictive analytics to enable the interconnection of more resources that would otherwise be permitted.
2. Resubmit the application under the level 2 or level 3 interconnection review procedure, as appropriate.

## **§ 14:8-5.5 Level 2 interconnection review**

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(a) Each EDC shall adopt a level 2 interconnection review procedure. The EDC shall use the level 2 interconnection review procedure for an application to interconnect a Customer-generator facility that meets both of the following criteria:

1. The facility has a capacity of two megawatts, as measured in direct current, or less; and
2. The facility has been certified in accordance with N.J.A.C. 14:8-5.3.

(b) For a Customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 2 interconnection review procedure if the Customer-generator facility meets all of the applicable screening requirements at (c) through (f) below. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the Line section to which the Customer-generator facility will interconnect, including the capacity of the Customer-generator facility, shall not cause any distribution protective equipment (including, but not limited to, substation breakers, fuse cutouts and line reclosers) or customer equipment on the electric distribution system, to exceed 95 percent of the short circuit interrupting capability of the equipment. In addition, a Customer-generator facility shall not be connected to a circuit that already exceeds 95 percent of the short circuit interrupting capability, prior to interconnection of the facility.

(d) If there are posted transient stability limits to generating units located in the general electrical vicinity of the proposed Point of common coupling (for example, within three or four transmission voltage level busses), the aggregate generation capacity (including the Customer-generator facility) connected to the distribution low voltage side of the substation transformer feeding the Line section containing the Point of common coupling shall not exceed 10 MW.

(e) The aggregate generation capacity connected to the Line section, including the Customer-generator facility, shall not contribute more than 10 percent to the Line section's maximum Fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

(f) If a Customer-generator facility is to be connected to a radial Line section, the aggregate generation capacity connected to the electric distribution system by non-EDC sources, including the Customer-generator facility, shall not exceed 15 percent (or 25 percent for solar electric generation) of the total circuit annual peak load. For the purposes of this subsection, annual peak load shall be based on measurements

taken over the 12 months prior to the submittal of the application, measured at the substation nearest to the Customer-generator facility.

**(g)** If a Customer-generator facility is to be connected to three-phase, three wire primary EDC distribution lines, a three-phase or single-phase generator shall be connected phase-to-phase.

**(h)** If a Customer-generator facility is to be connected to three-phase, four wire primary EDC distribution lines, a three-phase or single phase generator shall be connected line-to-neutral and shall be effectively grounded.

**(i)** If a Customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the Customer-generator facility, shall not exceed 30 kilovolt-amps (kVA).

**(j)** If a Customer-generator facility is single-phase and is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the Customer-generator facility shall not create an imbalance between the two sides of the 240 volt service, which is greater than 20 percent of the nameplate rating of the service transformer.

**(k)** A Customer-generator facility's Point of common coupling shall not be on a transmission line.

**(l)** If a Customer-generator facility's proposed Point of common coupling is on a Spot or Area network, the interconnection shall meet all of the following requirements that apply, in addition to the requirements in (c) through (k) above:

1. For a Customer-generator facility that will be connected to a Spot network circuit, the aggregate generation capacity connected to that Spot network from Customer-generator facilities, including the Customer-generator facility, shall not exceed 10 percent of the Spot network's maximum load; provided that the EDC will use good utility practice to allow interconnection of a Customer-generator facility to such facilities at higher percentages where technically feasible and if solar energy Customer-generator facilities are used exclusively, only the anticipated daytime minimum load shall be considered;
2. For a Customer-generator facility that utilizes inverter based protective functions, which will be connected to an Area network, the Customer-generator facility, combined with other exporting Customer-generator facilities on the load side of network protective devices, shall not exceed 50 percent of the minimum annual load on the network, or 500 kW, whichever is less, or a future standard proposed by IEEE and approved by the Board via order; provided that the EDC will use Good utility practice to allow interconnection of a Customer-generator facility to such facilities at higher percentages



where technically feasible, and if solar energy Customer-generator facilities are used exclusively, only the anticipated daytime minimum load shall be considered. For the purposes of this paragraph, the percent of minimum load for solar electric generation Customer-generator facility shall be calculated based on the minimum load occurring during an off-peak daylight period; and/or

**3.** For a Customer-generator facility that will be connected to a Spot or an Area network that does not utilize inverter based protective functions, or for an inverter based Customer-generator facility that does not meet the requirements of (l)1 or 2 above, the Customer-generator facility shall have the option to utilize Non-exporting technology, reverse power relays or other protection devices that ensure no export of power from the Customer-generator facility, including inadvertent export (under fault conditions) that could adversely affect protective devices on the network.

**(m)** An Applicant shall submit an Interconnection Application/Agreement Form for level 2 interconnection review through the CIAP portal. The standard form shall be available from the EDC's CIAP portal, and includes a Part 1 (Terms and Conditions) and a Part 2 (Certificate of Completion). The Applicant may request that the EDC provide a PAVE report prior to or after the submission of an initial application.

**(n)** Within three business days after receiving an application for level 2 interconnection review, the EDC shall provide notice through the CIAP portal and via e-mail to the Applicant that it received the application and whether the application is complete. If the application is incomplete, the notice shall include a list of all of the information needed to complete the application. Within 10 business days of receiving a complete application and the requisite fee, the EDC shall offer a PAVE report to any Customer-generator of over 500 kW seeking to participate in the PAVE process, as set forth in N.J.A.C. 14:8-5.10. Following receipt of the PAVE report, the Customer-generator may elect to make changes to its application without incurring additional expense.

**(o)** Within 15 business days after the EDC notifies the Applicant that the application is complete under (n) above, the EDC shall notify the Applicant through the CIAP portal and by e-mail of one of the determinations at (o)1 through 4 below, as applicable. During the 15 business days provided under this subsection, the EDC may, at its own expense, conduct any studies or tests it deems necessary to evaluate the proposed interconnection and arrive at one of the following determinations:

**1.** The Customer-generator facility passes the applicable screening requirements in (c) through (l) above. In this case, the EDC shall:

- i. Notify the Applicant, through the CIAP portal and by e-mail, that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below; and
  - ii. Within three business days after the notice in (o)1i above, the EDC shall return to the Applicant Part 1 of the original application through the CIAP portal, approved by the appropriate EDC representative;
2. The Customer-generator facility has failed to meet one or more of the applicable screening requirements at (c) through (l) above, but the EDC has nevertheless determined that the Customer-generator facility can be interconnected consistent with safety, reliability and power quality. In this case, the EDC shall:
  - i. Notify the Applicant through the CIAP portal and by e-mail that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below; and
  - ii. Within five business days after the notice in (o)2i above, the EDC shall return to the Applicant Part 1 of the original application through the CIAP portal, signed by the appropriate EDC representative;
3. The Customer-generator facility has failed one or more of the applicable screening requirements at (c) through (l) above, but the initial review indicates that additional review may enable the EDC to determine that the Customer-generator facility can be interconnected consistent with safety, reliability and power quality. In such a case, the EDC shall via the CIAP portal:
  - i. Notify the Customer-generator of which screening requirements were not met and offer to perform additional review to determine whether minor modifications to the electric distribution system (for example, changing meters, fuses or relay settings) would enable the interconnection to be made consistent with safety, reliability and power quality. The EDC notice shall provide to the Applicant a nonbinding, good faith estimate of the costs of such additional review, and/or such minor modifications, at the +25%/-25% level, as well as the expected timeline for the additional analysis;
  - ii. Within 15 business days the Customer-generator shall notify the EDC if the Customer-generator consents to pay for the review and/or modifications. The EDC shall undertake the review and/or modifications within 15 business days after this notice from the Customer-generator, or longer period as agreed to by the Customer-generator and the EDC in writing. Any required payments for the additional review shall be received within 30 days after invoicing. If such deposits or payments

are not made, the EDC may make the interconnection capacity available to other potential

Customer-generators and may require the Applicant to re-start the interconnection process; and

iii. Within 15 business days after the review or modifications are complete, the EDC shall return to the Customer-generator Part 1 of the original application, signed by the appropriate EDC

representative through the CIAP portal; or

4. The Customer-generator facility has failed one or more of the applicable screening criteria at (c) through (l) above, and the initial review indicates that additional review would not enable the EDC to determine that the Customer-generator facility could be interconnected consistent with safety, reliability and power quality. In such a case, the EDC shall notify the Customer-generator through the CIAP portal that its facility has failed one more screening criteria and shall:

i. provide a written explanation of the reason(s) for the denial, including which screens were failed and why;

ii. provide a list of additional information and/or modifications to the Customer-generator's facility that would allow the project to obtain an approval under level 2 interconnection procedures;

iii. provide guidance to the Customer-generator on submission of an amended Level 2 application with appropriate mitigation measures that may include:

a. Reduction in the size of the proposed Customer-generator facility that would allow the EDC to interconnect the facility;

b. Addition of energy storage or active demand management that would allow the EDC to interconnect the facility;

c. Elimination of injections onto the grid through addition of Non-exporting technology, power relays, or other comparable means;

d. Participation in an EDC grid flexibility services program that uses smart inverter or other functionality to utilize reactive power or predictive analytics to enable the interconnection of more resources that would otherwise be permitted; or

iv. Allow the Customer-generator to resubmit the application under the level 3 interconnection review procedure.

(p) Once a Customer-generator receives Part 1 of the application with the EDC signature in accordance with (o)1, 2 or 3 above, and has installed and interconnected the Customer-generator facility to the EDC's

distribution system, the Customer-generator shall obtain approval of the facility from the appropriate construction official, as defined at N.J.A.C. 5:23-1.4.

**(q)** At least 10 business days prior to starting operation of the Customer-generator facility (unless the EDC does not require 10 days notice), the Customer-generator shall through the CIAP portal:

1. Provide the EDC with documentation that the interconnection has been approved by the appropriate construction official;
2. Submit Part 2 of the application, signed by the Customer-generator; and
3. Indicate to the EDC the anticipated start date for operation of the Customer-generator facility.

**(r)** The EDC may require an EDC inspection of a Customer-generator facility prior to operation, and may require and arrange for witness of commissioning tests as set forth in IEEE Standard 1547 in accordance with the following:

1. The Customer-generator shall submit the construction official's approval and the signed Part 2 under (q) above and inform the EDC that the Customer-generator facility is ready for EDC inspection;
2. Within five business days after the Customer-generator informs the EDC under (r)1 above that the Customer-generator facility is ready for inspection, the EDC shall notify the Customer-generator of three or more available four-hour inspection appointments (for example, February 4th from noon to 4:00 P.M., February 6th from 10:00 A.M. to 2:00 P.M., or February 7th from 1:00 P.M. to 5:00 P.M.);
3. The appointments offered under (r)2 above shall be no later than 15 business days after the EDC offers the appointments, (that is, within 20 business days after the Customer-generator submittal under (r)1 above);
4. The Customer-generator shall notify the EDC which of the offered inspection appointments the Customer-generator prefers or shall arrange another time by mutual agreement with the EDC;
5. Within five business days after successful completion of the EDC inspection, the EDC shall notify the Customer-generator that it is authorized to energize the facility. The notice shall be provided in the format required under N.J.A.C. 14:8-5.2(i); and
6. The Applicant shall not begin operating the Customer-generator facility until after the inspection and testing is completed.

## **§ 14:8-5.6 Level 3 interconnection review**

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(a) Each EDC shall by January 1, 2024, adopt a common set of level 3 interconnection review screens.. An EDC shall use the Level 3 review procedure for applications to connect Customer-generator facilities that: (i) are greater than 2 MW, as measured in direct current; (ii) do not qualify for either the level 1 or level 2 interconnection review procedures; or (iii) did not pass the level 1 or level 2 interconnection review procedures set forth at N.J.A.C. 14:8-5.4 and 5.5.

(b) Within 15 business days after receiving an application for Level 3 interconnection review, the EDC shall provide notice through the CIAP portal and via e-mail to the Applicant that it received the application and whether the application is complete. If the application is incomplete, the notice shall include a list of all of the information needed to complete the application.

(c) An application fee not to exceed \$100 plus \$10 per kW of the nameplate rating up to a maximum of \$2,000 shall accompany any application and an application shall not be deemed complete until the application fee is received. The application fee is in addition to charges for actual time spent on analyzing the proposed interconnection. Costs for EDC studies and facilities necessary to accommodate the Applicant's proposed Customer-generator facility shall be the responsibility of the Applicant.

(d) The Applicant may request that the EDC provide a PAVE report prior to or after the submission of an initial application. If no PAVE report is requested prior to submission of an application, within 10 business days of receiving a complete application and the requisite fee, the EDC shall offer a PAVE report to any Customer-generator seeking to participate in the PAVE process, as set forth in N.J.A.C. 14:8-5.10. Following receipt of the PAVE report, the Customer-generator may elect to make changes to its application without incurring additional expense.

(e) Within 30 days of a completed application and the PAVE report being provided to the Customer-generator, the EDC shall conduct an initial review that includes a scoping meeting with the Applicant. The scoping meeting shall take place in person, by telephone, or electronically by a means mutually agreeable to the parties. At the scoping meeting, the EDC shall provide and additional pertinent information to the Applicant that was not already provided as part of the PAVE report, including items such as the available Fault current at the proposed interconnection location, the existing peak loading on the lines in the general vicinity of the Customer-generator facility, and the configuration of the distribution lines at the proposed

Point of common coupling. By mutual agreement of the parties, the scoping meeting or System impact study may be waived in writing. **(f)** Within 5 business days of the completion of the scoping meeting (or five business days after the EDC receives a completed application if the scoping meeting is waived), the EDC shall provide a draft System impact study agreement to the Applicant, which shall include a good faith cost estimate of the cost and time for an impact study to be performed by the EDC. The Applicant shall execute the impact study agreement within 10 business days, along with any deposit required by the EDC; provided that the Applicant may request that the EDC hold the draft agreement in abeyance for up to 60 calendar days to allow for negotiation of the scope of the System impact study or to engage in dispute resolution procedures as specified in N.J.A.C. 14:8-5.15.

**(g)** A System impact study shall be conducted in accordance with Good utility practice, as defined at N.J.A.C. 14:8-5.1 and shall:

1. Detail the impacts to the electric distribution system that would result if the Customer-generator facility were interconnected without modifications to either the Customer-generator facility or to the electric distribution system;
2. Identify any modifications to the EDC's electric distribution system that would be necessary to accommodate the proposed interconnection; and
3. Focus on power flows and utility protective devices, including control requirements.

**(h)** By January 1, 2024, each EDC shall in a compliance tariff provide standardized protocols governing the conduct of System impact study, facility study, related agreements, and a pro forma Interconnection agreement, as well a detailed description of the various elements of a System impact study it would typically undertake pursuant to this Section, along with, including:

1. Load-Flow Study;
2. Short-Circuit Study;
3. Circuit Protection and Coordination Study;
4. Impact on system operation of the electric distribution system;

5. Stability Study (and the conditions that would justify including this element in the System impact study);

6. Voltage-Collapse Study (and the conditions that would justify including this element in the System impact study); and

7. Additional elements, if approved in writing by Board staff prior to the System impact study.

**(i)** Once an Applicant delivers to the EDC an executed System impact study agreement and payment in accordance with that agreement, the EDC shall conduct the System impact study. The System impact study shall be completed within thirty business days of the Applicant's delivery of the executed System impact study Agreement; provided that if system upgrades are required, the EDC may elect to extend the study process by an additional 20 business days. The System impact study provided to the Applicant shall include a description of the EDC's analysis, conclusions, and the reasoning supporting those conclusions.

**(j)** If the EDC determines that system upgrades are required to accommodate the proposed Customer-generator facility are not substantial, the System impact study will identify the scope and cost of the modifications defined in the System impact study results, and no Facilities study shall be required. Modifications are considered not substantial if: (i) the total cost is below \$200,000, or such other value as the Board shall establish by order, or (ii) the EDC in its reasonable judgement determines the modifications are not substantial.

**(k)** If the EDC determines that necessary modifications to the electrical power system are substantial, the results of the System impact study will include an estimate of the cost of a Facilities study and an estimate of the modification costs and timeline. The detailed costs of any electrical power system modifications necessary to interconnect the Applicant's proposed Customer-generator facility will be identified in a Facilities study to be completed by the EDC.

**(l)** If the Parties do not waive the Facilities study, within 5 business days of the completion of the System impact study, the EDC shall provide a Facilities study Agreement, which shall include a good faith estimate of the cost and time to undertake the Facilities study.

**(m)** Once the Applicant executes the Facilities study Agreement and pays the EDC pursuant to the terms of that agreement, the EDC shall conduct the Facilities study. The Facilities study shall include a detailed list of necessary electrical power system upgrades and an itemized cost estimate, breaking out equipment,

labor, operation and maintenance and other costs, including overheads, for completing such upgrades, which may not be exceeded by 125 percent if actual upgrades are completed. The Facilities study shall also indicate the milestones for completion of the Applicant's installation of its Customer-generator facility and the EDC's completion of any electrical power system modifications, and the milestones from the Facilities study (if any) shall be incorporated into the Interconnection agreement. The Facilities study shall be completed within 45 business days of the Applicant's delivery of the executed Facilities study agreement and receipt of any necessary deposits. If the Applicant fails to execute the Facilities study agreement or make the required deposits within 60 business days after receipt of the Facilities study agreement from the EDC, the EDC may make the interconnection capacity available to other potential Customer-generators and may require the Applicant to re-start the interconnection process.

**(n)** If the proposed interconnection may affect electric transmission or delivery systems, other than that controlled by the EDC, operators of these other systems may require additional studies to determine the potential impact of the interconnection on these systems. If such additional studies are required, the EDC shall coordinate the studies and shall use best efforts to complete those studies within 60 business days of being notified of the need of an affected system study. The Applicant shall be responsible for the costs of any such additional studies required by another affected system. Such studies shall be conducted only after the Applicant has provided written authorization to the EDC.

**(o)** Within 5 business days of the completion of the Facilities study, the EDC shall provide the Applicant with the results of the study and an executable Part I Interconnection agreement. The Interconnection agreement shall list the conditions and facilities necessary for the Customer-generator facility to safely interconnect with the EDC's electric distribution system, incorporate the milestones (if any) from the Facilities study, and include an itemized quote, including overheads, for any required electrical power system modifications, subject to the cost limit set by the Facilities study cost estimate.

**(p)** Within 40 business days of the receipt of an Interconnection agreement, the Applicant shall execute and return the Interconnection agreement and notify the EDC of the anticipated date on which the Customer-generator facility expects to reach commercial operations. Unless the EDC agrees to a later date or requires more time for necessary modifications to its electrical power system, the Applicant shall identify an anticipated start date that is within 36 months of the Applicant's execution of the Interconnection agreement. However, the Parties may mutually agree to an extension of this time if needed, which shall not



be unreasonably withheld. The Applicant shall notify the EDC in writing or through the CIAP portal if there is any change in the anticipated start date of interconnected operations of the Customer-generator's facility.

**(q)** The EDC shall bill the Applicant for the design, engineering, construction, and procurement costs of the EDC provided interconnection facilities and upgrades on a monthly basis, or as otherwise agreed by the Parties. The Customer-generator shall pay each bill within 30 calendar days of receipt, or as otherwise agreed by the Parties and memorialized in writing. At least 20 calendar days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of any EDC facilities or upgrades, the Applicant shall provide the EDC with a deposit equal to 50 percent of the cost estimated for its interconnection facilities prior to its beginning design of such facilities.

**(r)** Within 60 calendar days of completing the construction and installation of the modifications to the EDC's system, the EDC shall provide the Applicant with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation and the budget estimate provided to Applicant in the Interconnection agreement; and (2) the Applicant's previous deposit and aggregate payments to the EDC for such modifications. The EDC shall provide a written explanation for any actual cost exceeding a budget estimate by 25 percent or more. If the Applicant's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the Applicant for the amount due and the Applicant shall make payment to the EDC within 30 calendar days. If the Applicant's previous deposit and aggregate payments exceed its cost responsibility, the EDC shall refund to the Applicant an amount equal to the difference within 30 business days of the final accounting report.

**(s)** Within 10 business days after notice from the Applicant that the Customer-generator facility has been installed, the EDC shall inspect the Customer-generator facility and shall arrange to witness any required commissioning tests pursuant to IEEE 1547 Standard. The EDC and the Applicant shall select a date by mutual agreement for the EDC to witness commissioning tests. For systems greater than 10 MW, IEEE 1547 Standard may be used as guidance. If the Customer-generator facility passes the inspection, the EDC shall provide written notice of the results within 3 business days. If a Customer-generator facility initially fails an inspection, the EDC shall offer to redo the inspection at the Applicant's expense at a time mutually agreeable to the Parties within 30 business days of the Customer-generator requesting a retest. If the EDC determines that the Customer-generator facility fails the inspection, it must provide a written explanation detailing the reasons and any standards violated.

**(t)** Provided that the Customer-generator facility passes any required commissioning tests satisfactorily, the EDC shall notify the Applicant in writing, within three business days after the tests, of one of the following:

1. The interconnection is approved and the Customer-generator facility may begin operation; or
2. The Facilities Study identified necessary construction that has not been completed, the date upon which the construction will be completed and the date when the Customer-generator facility may begin operation. The EDC shall promptly notice the Customer-generator through the CIAP portal of any changes in the construction schedule.

## **§ 14:8-5.7 Interconnection fees**

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(a) An EDC or supplier/provider shall charge an application fee, not to exceed \$100 or other value established by Board order, to an Applicant that requests level 1 interconnection review.

(b) For a level 2 interconnection review, the EDC may charge fees of up to \$ 50.00 plus \$ 1.00 per kilowatt of the Customer-generator facility's capacity, plus the cost of any minor modifications to the electric distribution system or additional review, if required under N.J.A.C. 14:8-5.5, or such other value established by Board order. Costs for such minor modifications or additional review shall be based on EDC estimates and shall be subject to case-by-case review by the Board or its designee. Costs for engineering work done as part of any additional review shall not exceed \$ 100.00 per hour.

(c) For a level 3 interconnection review, the EDC may charge fees not to exceed \$100 plus \$10 per kW of nameplate rating and an application shall not be deemed complete until the application fee is received, , as well as charges for actual time spent on any impact and/or facilities studies required under N.J.A.C. 14:8-5.6. Costs for engineering work done as part of an System impact study or Facilities study shall not exceed \$ 100.00 per hour. If the EDC must install facilities in order to accommodate the interconnection of the Customer-generator facility, the cost of such facilities shall be the responsibility of the Applicant.

(d) An EDC shall not charge any fee or other charge for connecting to the EDC's equipment or for operation of a Customer-generator facility for the purposes of net metering, except for the fees provided for under this subchapter.

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

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(a) Once a net metering interconnection has been approved under this subchapter, the EDC shall not require a Customer-generator to test or perform maintenance on its facility except for the following:

1. An annual test in which the Customer-generator's facility is disconnected from the electric distribution company's equipment to ensure that the facility stops delivering power to the grid;
2. Any manufacturer-recommended testing or maintenance; and
3. Any post-installation testing necessary to ensure compliance with IEEE 1547 Standard or to ensure safety.

(b) When a Customer-generator facility approved through a level 2 or level 3 review undergoes maintenance or testing in accordance with the requirements of this subchapter, the Customer-generator shall retain written records documenting the maintenance and the results of testing for three calendar years. No recordkeeping is required for maintenance or testing performed on a Customer-generator facility approved through a level 1 review.

(c) An EDC shall have the right to inspect a Customer-generator's facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the Customer-generator. If the EDC discovers that the Customer-generator's facility is not in compliance with the requirements of this subchapter, and the noncompliance adversely affects the safety or reliability of the electric distribution system, the EDC may require the Customer-generator to disconnect the Customer-generator facility until compliance is achieved.

## **§ 14:8-5.9 Interconnection reporting requirements for EDCs**

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(a) Each EDC with one or more Customer-generators connected to its distribution system shall (1) track key performance indicators on the EDC's website, updated no less than on a monthly basis; (2) maintain an interconnection queue that includes all level 2 and level 3 interconnection requests currently pending before the EDC, at a level of detail that reasonably preserves customer confidentiality; (3) conduct customer satisfaction surveys and provide those results on its website and to the Board; and (4) submit interconnection reports to the Board on a quarterly basis. The EDC shall submit the reports by the first day of each quarter.

(b) The EDC shall submit any interconnection reports to the Board secretary in a docket as specified by the Secretary.

(c) Each report shall contain the following information regarding Customer-generator facilities that interconnected with the EDC's distribution system or attempted to interconnect during the reporting period, including the following key performance indicators, as may be adjusted by Board order, for each interconnection level, based on the nameplate capacity of the Customer-generator facility:

1. The number and generating capacity of Customer-generators that applied for interconnection;
2. The number and generating capacity of Customer-generators that successfully interconnected;
3. The number and generating capacity of Customer-generators that dropped out at each stage of the process;
4. The number of applications submitted with missing information, not automatically addressed as part of the CIAP process;
5. Number, generating capacity, and type for all PAVE processes undertaken;
6. Number, generating capacity and type of Customer-generator applications processed within the timelines established by this chapter;
7. Length of time each Customer-generator waited for system impact and facilities studies;
8. Number, generating capacity and type of Customer-generator applications not processed within the timelines established by this chapter and for delayed processing, how long did it take to complete processing the application and the reasons for the delay;

9. A complete list of all distribution upgrades undertaken, the geographic distribution of those upgrades, the cost of each upgrade, how long the upgrades took, whether the upgrades were completed on time, and if not, when they were completed and why they were delayed;
10. The number and generating capacity of Customer-generators of each technology type, broken out by class I eligible technology, energy storage, fuel cell, electric vehicle-to-grid projects, and hybrid systems involving multiple behind-the-meter technologies;
11. Data on quantity, capacity, type and processing times for DER aggregation requests;
12. Data on the number of times formal or informal dispute resolution was requested, the timeline for resolution, whether the Board's interconnection ombudsman was involved, and how each dispute was resolved; and
13. A statement for whether the EDC believes it has the resources and capabilities to continue to be able to continue timely processing interconnection applications, as well as a trend analysis that assesses the EDC's capability to continue timely processing interconnection applications if the volume of applications increases.

(d) Each EDC shall also include in a separate annual report the information on their ability to interconnect additional resources on their systems. At a minimum the report shall include:

1. A report with diagrams of which Line sections have additional Hosting capacity for additional interconnections;
2. Reports and diagrams that shows the constrained Line sections that cannot handle additional interconnections;
3. A Data Validation summary report that confirms the quality and accuracy of the underlying distribution system model data and the Hosting capacity analysis representation.
4. An explanation of how the EDC determined (e.g., methodology) whether Line sections have headroom or are constrained;
5. Identify areas where they are considering system upgrades to support additional interconnections within the 12 months following the filing, whether through a PSUP or otherwise;
6. Projected forward capacity growth on the distribution system circuits and where and what possible upgrades will be needed to support the projected amount;

(7) The report shall also contain a summary description of:

- a. Observed patterns of delays with root cause explanation
- b. Where in the application life cycle delays are most common; and
- c. Average deviation on time to completion of the interconnection request (by Levels).

(e) Transparent public queue reporting:

1. Each EDC shall maintain a current summary status, presented in a common graphical format, updated no less than monthly, of all active interconnection showing the following performance metrics:

a. Active interconnections in each Level 1, 2 and 3:

- i. New applications (numeric quantity and MW capacity) received during reporting period;
- ii. Total (numeric quantity and MW capacity) currently active;
- iii. Total (numeric quantity and MW capacity) by percent approved during reporting period;

and

iv Total (quantity and MW capacity) by percent approved from Year to Date.

(f) Each EDC shall provide the full results of all annual testing performed on legacy interconnected customer/generators, segmented by Levels 2 and 3, under 14:8-5.8(a)(1) which shall include:

- 1. Number and Percentage of total interconnected systems that were tested;
- 2. Number and percentage of waivers that were granted for exemption from testing; and
- 3. Number and percentage of total interconnected systems that failed testing and required remediation.

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

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- (a) A Pre-Application Verification/Evaluation (PAVE) process shall be offered by each EDC for any qualified Level 2 or Level 3 projects upon payment of a \$300 fee, or such alternative fee as the Board shall establish by order.
- (b) Within 10 business days of the interconnection customer providing a complete PAVE request, the EDC shall provide the following information about relevant parts of its distribution system through the CIAP portal to the Applicant in support of an informed and timely decision regarding the interconnection of a proposed project, which shall include the following items, as they may be modified by Board order:
1. Total capacity (MW) of substation/area bus or bank and circuit;
  2. Aggregate queued Generating Capacity (MW) proposing to interconnect to the substation/area bus or bank and circuit;
  3. Available capacity (MW) of the substation/area bus or bank and circuit, which is the total capacity less the sum of existing and queued Generating Capacity, accounting for all load served by existing and queued generators. Note: Generators may remove available capacity in excess of their Generating Capacity if they serve on-site load and utilize export controls which limit the their Generating Capacity to less than their nameplate rating.
  4. Whether the proposed Generating Facility is located on an Area, Spot or radial network.
  5. Substation nominal distribution voltage or transmission nominal voltage if applicable.
  6. Nominal distribution circuit voltage at the proposed site.
  7. Approximate circuit distance between the proposed site and the substation.
  8. Relevant Line section(s) and substation actual or estimated peak load and minimum load data, when available.
  9. Number and rating of protective devices and number and type of voltage regulating devices between the proposed site and the substation/area.
  10. Whether or not three-phase power is available at the site and/or distance from three-phase service.
  11. Limiting conductor rating from proposed Point of Interconnection to distribution substation.



12. Based on proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.
  13. Any other information that the EDC deems relevant to the Applicant.
- (c)** Within 10 business days, or at a time mutually agreeable to the parties, of providing the potential interconnection customer with a PAVE Report, the EDC shall offer a meeting to review the findings.
- (d)** In preparing a PAVE Report, the EDC need only include pre-existing data and a PAVE request does not obligate the EDC to conduct a study or other analysis of the proposed project in the event that data is not available. If the EDC cannot complete all or some of a PAVE Report due to lack of available data, the EDC will provide the potential Applicant with a Report that includes the information that is available and identify any information that is unavailable. The EDC shall, in good faith, provide PAVE Report data that represents the best available information at the time of reporting.
- (e)** An FAQ page shall be provided by each EDC that clearly presents context and instructions for the PAVE process. At a minimum, the following shall be provided;
1. Clearly stated purpose and intention of the PAVE Process;
  2. Specific criteria for allowing application to utilize the PAVE process (including an easy to use screening/configurator tool that can take basic parameters in as data field entries);
  3. Any fee schedules, terms, and conditions associated with the PAVE process;
  4. Simplified case studies that illustrate successful handling and outcome of PAVE Applicants;  
and
  5. A designated contact point (email and phone) for handling more detailed questions or issue resolutions.
- (f)** In requesting a PAVE report, a potential Applicant understands that:
1. The existence of “available capacity” does not imply that an interconnection up to this level may be completed without impacts because there are many variables studied as part of the interconnection review process.
  2. The distribution system is dynamic and subject to change, and that the results of the PAVE Report do not represent binding interconnection cost allocations.
  3. Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Application.

## § 14:8-5.11 Hosting Capacity Maps

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- (a) By January 1, 2024, each EDC shall make a tariff filing to include a common Hosting capacity mapping process to aid Customer-generators. Hosting capacity maps shall indicate locations on the distribution with spare capacity and which locations are likely to require additional upgrades.
- (b) Distribution system Hosting capacity maps shall be updated on no less than a quarterly basis and shall include data at both the circuit and substation level. The Hosting capacity values for each circuit shall be calculated using common methodology and presented in a consistent manner across all EDCs. All significant changes shall be summarized and communicated coincidentally to update via posting to the EDC's website and subscriber email list serv. Each EDC shall clearly label their maps with detailed legends explaining what the data means, and adopt a shared lexicon to label their maps.
- (c) All Hosting capacity maps shall be integrated with GIS systems, visually present all system data for substations, feeders, and related distribution assets, and allow prospective Applicants to easily determine, based on entered street address, the following information:
1. Whether the nearby distribution circuit(s) are closed (red indication), have limited available surplus (orange) or open (green indication) to interconnecting additional generation;
  2. A recommended and maximum capacity additional generation that could be accommodated on each nearby open circuits;
  3. A quantified indication of interest level from other projects (and their aggregate capacity) along the same circuit;
  4. A built-in function enabling users to filter sites based on available capacity above a certain threshold;
  5. A range of budgetary cost estimates for anticipated required upgrades that would make additional Hosting capacity available, based on high-level estimates (e.g., +/- 25%);
  6. Uniform load on a circuit segment;
  7. Preliminary information on the circuit segment and whether it has a known transient/dynamic stability limitation, if a transmission ground fault overvoltage is possible, if a proposed facility has any transmission interdependencies, and if all islanding conditions are met based on the utility's screening policies;

8. Require identification of potentially limiting equipment requiring a system upgrade on the Hosting capacity maps (e.g., voltage controllers, protective relays, communication systems, conductor ampacity, etc.); and
  9. For each feeder, the load Hosting capacity and with both the normal generation, energy storage capacity, and PV generation labeled individually.
- (d)** Each EDC shall ensure that the Hosting capacity process includes a documented process for validating models, publishing the Hosting capacity, and allow for customer feedback collection and compilation
- (e)** Each Hosting capacity map shall include data on both a static grid (the amount of generation that can be integrated without violating one of the four criteria in thermal, steady-state voltage, voltage fluctuation, and protection) and operational flexibility (for evaluating whether the construction of a DER project would limit the EDC's ability to reconfigure circuits in the case of an emergency fault or other event.)

## § 14:8-5.12 Proactive System Upgrade Planning

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- (a) Each EDC shall make a Proactive System Upgrade Planning (PSUP) filing on January 1 of each even numbered year, starting on January 1, 2024. The PSUP shall identify congested areas on each EDC system that are significantly limiting the ability to interconnect new resources to the EDC's distribution system and identify proposed upgrades that would proactively alleviate those constraints.
- (b) In preparing a list of PSUP upgrades, each EDC shall focus on proposed upgrades to facilities that would:
- a. Affect multiple interconnection Applicants or open areas where the EDC reasonably anticipates significant growth in interconnection applications;
  - b. Identify upgrades that would result in a 20 percent or more cost savings over the expected costs of addressing multiple interconnections serially;
  - c. Significantly reduce the expected interconnection timeline;
  - d. Upgrade facilities costing over \$2 million that are unlikely to be funded on a participant-funded basis; or
  - e. Where a comprehensive series of proactive upgrades would create economies of scale or that would create additional headroom that may not be immediately subscribed by Applicants currently in the EDC's interconnection queue.
- (c) For each identified PSUP upgrade, the EDC shall identify:
- i. The circuits that would be affected by the proposed upgrade;
  - ii. The cost of the proposed upgrade;
  - iii. The additional Hosting capacity that the proposed upgrade would create;
  - iv. Whether additional grid flexibility services would provide a cost-effective means of increasing Hosting capacity; and
  - v. The cost per kW of additional Hosting capacity under both a wires and non-wires alternative.
- (d) Each EDC will divide the cost of each PSUP upgrade by the amount of additional Hosting capacity created by the upgrade, and produce a \$/kW value. Any Applicant applying to interconnect to a circuit

with a proposed PSUP upgrade may request that the EDC accelerate construction of the approved PSUP upgrade, and fund the \$/kW value multiplied by the size of the proposed project, in kW.

## § 14:8-5.13 Dispute Resolution

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- (a) By January 1, 2024, each EDC shall make tariff filing to include a standardized dispute resolution process to govern disputes between the EDC and a Customer-generator. Disputes may involve, but are not limited to, issues with interconnection studies, cost estimates for necessary upgrades, queue priority, the development of the Interconnection agreement, billing or fees, or related matters.
- (b) An Applicant for interconnection may initiate the informal dispute resolution process by making a request through the CIAP portal or to the EDC's interconnection ombudsman. The parties shall make good faith efforts to resolve any dispute within 10 business days of the initiation of a dispute, including making subject matter experts available, or such longer time as the parties shall agree to in writing.
- (c) If the informal dispute process is unsuccessful, the disputing Party shall provide the other Party a written notice of dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought. The notice shall be submitted through the CIAP portal and sent to the non-disputing Party's email address, with a copy to the Board's interconnection ombudsman.
- (d) The Parties may request that the Board's interconnection ombudsperson help track and facilitate the efficient and fair resolution of any dispute.
- (e) The non-disputing Party shall acknowledge the notice within 3 business days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- (f) The non-disputing Party shall provide the disputing Party with all relevant regulatory and/or technical details and analysis regarding any EDC interconnection requirements under dispute within 10 business days of the date of the notice of dispute. Within 20 business days of the date of the notice of dispute, the Parties' authorized representatives shall meet and confer to try to resolve the dispute. The Parties shall operate in good faith and use best efforts to resolve the dispute.
- (g) If a resolution is not reached in 30 business days from the date of the notice of dispute (1) either Party may request to continue negotiations for an additional 20 business days, or (2) the dispute will be shared with the Board's interconnection ombudsperson; or (3) both Parties may by mutual agreement request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

- (h)** If no agreement is reached, the dispute shall proceed to the Board's formal complaint resolution process.
- (i)** At any time, either Party may file a complaint before the Board pursuant to its rules or exercise whatever rights and remedies it may have at equity or law.

REDLINE VERSION OF DRAFT INTERCONNECTION RULES  
(COMPARED AGAINST EXISTING NEW JERSEY ADMINISTRATIVE CODE)

PAGES R1-R50 FOLLOW



## **§ 14:8-4.2 Net metering definitions**

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The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:8-1.2.

"Annualized period" means a period of 12 consecutive monthly billing periods. A Customer-generator's first annualized period begins on the first day of any single monthly billing period, at the customer's choice. Each Customer-generator selects an annualized period under N.J.A.C. 14:8-4.3.

"Avoided cost of wholesale power" means the average locational marginal price of energy in the applicable utility's transmission zone. This cost can be obtained through the website maintained by PJM Interconnection at [www.pjm.com](http://www.pjm.com).

"Customer-generator" means an electricity customer that generates electricity on the customer's side of the meter, using a class I renewable energy source, that stores electricity, or that involves multiple sources of generation that includes a class I renewable energy source, whether separately or as part of an aggregated resource. The Board may deem a pair of entities acting together - that is, a net metering generator and a net metering customer - to constitute one Customer-generator for the purpose of net metering.

"Customer-generator facility" means the equipment used by a Customer-generator to generate, store, manage, and/or monitor electricity. A Customer-generator facility typically includes an electric generator, energy storage device, vehicle to grid device, and/or interconnection equipment that connects the Customer-generator facility directly to the customer, whether separately or as part of an aggregated resource.

"Net metering customer" means a customer that owns and/or operates electrical wires and/or equipment that is connected to the EDC's electric distribution system through a meter used for Net metering. The Net metering customer may or may not be the same entity as the Net metering generator, and may or may not be located on the same property as the Net metering generator.

"Net metering generator" means an entity that owns and/or operates a class I renewable energy generation facility, the electricity from which is delivered to a Net metering customer; provided that only the electricity produced by the class I renewable energy sources shall be eligible for Net metering treatment. The Net metering generator may or

may not be the same entity as the Net metering customer; and may or may not be located on the same property as the Net metering customer.

## **§ 14:8-5.1 Interconnection definitions**

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The following words and terms, when used in this subchapter, shall have the following meanings, unless the context clearly indicates otherwise. Additional definitions that apply to this subchapter can be found at N.J.A.C. 14:3-1.1 and 14:8-1.2.

“AGIR” or “Authority Governing Interconnect Requirements” means the agency that has authority for setting interconnection rules to the state-jurisdictional electric system, as set forth in IEEE 1547 Standard or subsequent standard as identified in a Board order. The term AGIR is functionally equivalent to the term “Relevant Electric Retail Regulatory Authority.”

"Applicant" means a person who has filed an application to interconnect a Customer-generator facility to an electric distribution system.

"Area network" means a type of electric distribution system served by multiple transformers interconnected in an electrical network circuit, which is generally used in large metropolitan areas that are densely populated, in order to provide high reliability of service. This term has the same meaning as the term "secondary grid network" as defined in IEEE 1547 Standard Section 4.1.4, which is incorporated herein by reference, or subsequent standard as identified in a Board order.

“Common Interconnection Agreement Process” or “CIAP” means a common EDC application that allows Customer-generators to apply for and manage the interconnection process electronically through a portal-based software application platform capable of tracking key information throughout the subsequent interconnection application process, documenting generation type and capacity, timelines, and incorporating schedule and budget for upgrade commitments and construction timelines.

“DER Aggregation” means a grouping of discrete interconnected Customer-generator facilities or behind the meter load modifying resources working as a combined or coordinated group for purposes of providing energy, grid services, or other value stream, on an aggregated basis, whether for the purposes of participating in retail or wholesale markets, including those established under Order No. 2222 or otherwise.

“EDC grid flexibility services” are control capabilities procured from a Customer-generator and compensated by the EDC that help to maintain distribution system reliability and safety, whether separately or as part of a DER aggregation. Volt VAR provided by smart inverters is one example.

"EIS" means an Expedited Impact Study designed to accelerate projects that have no electrical or cost impact on either other distribution circuits, adjacent circuits, or other Customer-generator projects that are seeking individual circuit capacity.

"Electrical power system" or "EPS" means a facility that delivers electric power to a load and has the same meaning as is assigned to this term in IEEE standard-1547 Standard, which is incorporated herein by reference, or subsequent standard as identified in a Board order. ~~As of June 4, 2012, IEEE standard 1547 defined EPS as a facility that delivers electric power to a load.~~

"Facilities Study" means a study that determines the cost and timeline associated with upgrading the EDC's electrical power system to safely and reliably accommodate a proposed Customer-generator facility.

"Fault current" means electrical current that flows through a circuit and is produced by an electrical fault, such as to ground, double-phase to ground, three-phase to ground, phase-to-phase and three-phase. A fault current is several times larger in magnitude than the current that normally flows through a circuit.

"Good utility practice" has the same meaning as assigned to this term in the Amended and Restated Operating Agreement of PJM Interconnection, which is incorporated herein by reference as amended and supplemented. The Operating Agreement can be obtained on the PJM Interconnection website at <https://agreements.pjm.com/oa/4534> ~~http://www.pjm.com/documents/downloads/agreements/oa.pdf,~~ or such subsequent standard as identified in a Board order. ~~As of October 23, 2008~~<sup>2022</sup>, the Operating Agreement defines this term as "any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. ~~Good Utility Practice~~ Good utility practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather is intended to include acceptable practices, methods, or acts generally accepted in the region, including those practices required by Federal Power Act Section 215(a)(4)."

"Hosting capacity" means the available power flow capacity on distribution system circuits that is used to determine incremental allowable interconnection of generator facilities. Hosting capacity may be a positive number, indicating that there is surplus power flow capability or zero, indicating that the circuit is closed to incremental generationer facilities.

"Hosting capacity Analysis" means the methodology used to calculate, publish and evaluate the ability to increase the available Hosting capacity of a given circuit.

"IEEE Standard-1547 Standard" means IEEE Standard-1547-2018~~2003~~ Standard, which was approved in 2018, amended in 2020, or any future updated version of the IEEE 1547 Standard as may be directed by Board order~~2003~~ and reaffirmed in 2008.

"IEEE Standards" means the standards published by the Institute of Electrical and Electronic Engineers, available at [www.ieee.org](http://www.ieee.org).

"Interconnection agreement" means an agreement between a Customer-generator and an EDC, which governs the connection of the Customer-generator facility to the electric distribution system, as well as the ongoing operation of the Customer-generator facility after it is connected to the system, whether the facility operates singly or as part of a DER aggregation. An interconnection agreement shall follow the standard form agreement developed by the Board and available from each EDC.

"Interconnection equipment" means a group of components connecting an electric generator with an electric distribution system and includes all interface equipment including switchgear, inverters or other interface devices. Interconnection equipment may include an integrated generator, storage device, or electric source.

"Interconnection Ombudsman" means a member of Board Staff designated to address interconnection issues and work with Applicants and EDCs to ensure a fair and transparent interconnection process.

"Line section" means that portion of an EDC's electric distribution system, which is connected to an interconnection customer and is bounded by automatic sectionalizing devices or the end of the distribution line.

"Non-exporting customer-generator" means a Customer-generator facility that is designed to ensure the one-way flow of electricity from the EDC's electrical power system to the Customer-generator that prevents or limits export of electricity past the Point of common coupling from the facility to the EDC's electrical power system.

"Non-exporting technology" means an electric device that is designed to ensure that a Customer-generator is a non-exporting system or that limits the amount of injection past the Point of common coupling.

"Order No. 2222" means any program adopted by PJM and approved by the Federal Energy Regulatory Commission designed to enable one or more Customer-generator to sell their electrical output into the wholesale market, either singly or as part of an aggregation of more than one Customer-generator facility.

“Party” or “Parties” means the Customer-generator, the EDC, or both.

“PAVE” is a Pre-Application Verification/Evaluation process designed to provide a prospective Customer-generator an opportunity to receive actionable feedback from the EDC about the technical aspects of an interconnection request, including electrical feasibility, timeline, and other technical and procedural matters at the beginning of the interconnection process.

“Point of common coupling” means the point in the power system at which the EDC and the customer interface occurs, which has the same meaning as assigned to this term in IEEE Standard 1547, or -any future updated version of the IEEE 1547 Standard as may be directed by Board order. The Point of common coupling and the point of interconnection are used synonymously. Section 3.0, which is incorporated herein by reference as amended and supplemented. IEEE standard 1547 can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org). As of June 4, 2012, IEEE standard 1547 Section 3.0 defined this term as “the point where a Local EPS is connected to an Area EPS.”

“Proactive System Upgrade Planning” or “PSUP” means an annual filing in which the EDC identifies targeted proactive circuit and system upgrades aimed at expanding opportunities for Customer-generator facilities to be interconnected in an efficient and expeditious manner.

“Rule 21” means the California Public Utilities Commission’s Electric Rule 21, which is a tariff that describes the interconnection, operating and metering requirements for generation facilities to be connected to an EDC’s distribution system. More information about Rule 21 is available at <https://www.cpuc.ca.gov/rule21>.

“Solar Permitting Application Software” is a scalable software platform designed by a national lab or other entity designed to be deployed at a municipality or other local entity to significantly automate and compress the solar/storage permit application and processing times. One example of Solar Permitting Application Software is the SolarAPP+, developed by the National Renewable Energy Laboratory.

- “Spot network” means a portion of an electric distribution system that uses two or more inter-tied transformers to supply an electrical network circuit, and has the same meaning as assigned to the term under IEEE Standard 1547-2018, or any future updated version of the IEEE 1547 Standard as may be directed by Board order. Section 4.1.4, (published July, 2003), which is incorporated herein by reference as amended and supplemented. IEEE standard 1547 can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org). As of June 4, 2012, IEEE Standard 1547 defined “spot\_network” as “a type of electric distribution system that uses two or more inter-tied transformers to supply an

~~electrical network circuit."~~ A Spot network is generally used to supply power to a single customer or a small group of customers.

"System impact study" means an engineering analysis of the probable impact of a Customer-generator facility on the safety and reliability of the EDC's electric distribution system.

## § 14:8-5.2 General interconnection provisions

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(a) Each EDC shall provide the following three review procedures for applications for interconnection of Customer-generator facilities:

1. Level 1: An EDC shall use this review procedure for ~~all~~ applications to connect inverter-based Customer-generator facilities which have a power rating of ~~40-25~~ kW or less, as measured in direct current, and which meet the certification requirements at N.J.A.C. 14:8-5.3. Level 1 interconnection review procedures are set forth at N.J.A.C. 14:8-5.4;
2. Level 2: An EDC shall use this review procedure for applications to connect Customer-generator facilities ~~with a power rating of two MW or less~~, which meet the certification requirements at N.J.A.C. 14:8-5.3 and that (i) are 2 MW or less, as measured in direct current; (ii) do not qualify for level 1 interconnection review procedures; or (iii) did not pass a level 1 process. Level 2 interconnection review procedures are set forth at N.J.A.C. 14:8-5.5; and
3. Level 3: An EDC shall use this review procedure for applications to connect Customer-generator facilities that (i) are greater than 2 MW, as measured in direct current; (ii) do not qualify for either the level 1 or level 2 interconnection review procedures; or (iii) did not pass a level 1 or level 2 process. Level 3 interconnection review procedures are set forth at N.J.A.C. 14:8-5.6.

(b) In determining the appropriate interconnection level and performing the related studies, the EDC shall allow a prospective generator to limit its ability to export power to the grid to less than its nameplate rating, including by utilizing non-exporting technology that prevents export of electricity past the Point of common coupling, either in whole or in part, or enrollment in an approved EDC grid flexibility services program. The net export capacity of the Customer-generator facility shall form the basis for the appropriate studies, unless the EDC determines, using good utility practice, that the Applicant's proposal would potentially harm the integrity of the EDC system, and shall document such findings to the Board.

(c) For Customer-generator facilities that involve either a stationary or mobile energy storage device, the EDC shall utilize the interconnection level based on the sum of (i) the nameplate power capacity of the energy storage device, as measured in MW of direct current, and (ii) the nameplate power capacity of any Customer-generator facility, in MW of direct current, subject to any export controls or non-exporting requirement, or enrollment in an approved EDC grid flexibility services program, that may be utilized as set



forth in subsection b. The load aspects of the storage device will be treated just like any other load, using the incremental net load for the customer.

(d) By January 1, 2024, each EDC shall make a compliance filing to allow existing Customer-generator facilities to upgrade to a UL 1741-compliant smart inverter without additional study, or add an energy storage device through the appropriate interconnection process.

(e) By June 1, 2023, each EDC shall establish a consistent, secure and auditable electronic interconnection application processing software platform that will provide a structured approach for data intake and notifications for all interconnection Levels, to be known as the Common Interconnection Agreement Process or CIAP. Each EDC's CIAP-compliant portal shall allow Applicants to apply for interconnection electronically through a web portal that maintains a consistent presentation and workflow to interconnection Applicants across EDC service territories. The cost of implementing the CIAP portal and related costs shall be recovered by each EDC as part of its base rates or through an approved Infrastructure Investment Program pursuant to N.J.A.C. 14:3-2A.2. Each CIAP shall, at a minimum:

1. Include a portal-based application form that requires the following types of information:
  - i. Basic information regarding the Customer-generator and the electricity supplier(s) involved;
  - ii. Information regarding the type and specifications of the Customer-generator facility;
  - iii. Information regarding the contractor who will install the Customer-generator facility;
  - iv. Certifications and agreements regarding utility access to the Customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, and receipt of basic information;
  - v. Include a check box to indicate whether the Applicant elects to pursue the PAVE process;  
and
  - vi. Other similar information as needed to determine the compliance of a particular Applicant with this chapter;
2. Include standardized online forms for required Applicant information, ability to save all work in progress for application completion at a later time, a visual "thermometer bar" indicator of progress through the full process, and option for email and phone/text status change notifications, and other

such administrative requirements as the EDCs may jointly propose or the Board shall establish via Order;

3. Integrate with a Solar Permitting Application Software platform, such as SolarAPP+ or other similar solar permitting tool selected and implemented jointly by the EDCs, and approved by the Board;

4. Document generation type and capacity, timelines, schedule and budget for upgrade commitments, when upgrade payments or deposits are due or have been paid, and construction timelines, and other comparable requirements that the EDCs may jointly propose or the Board shall establish via order;

5. Provide automatic email and online notifications to the Applicant with the goal of enforcing clearly defined tariff timelines, and reducing the turnaround time for missing data. The software should be designed to improve the accuracy and consistency of data entry and facilitate cross-department intake of application information and to identify missing data upon submission or as soon as practicable after submission to minimize the number of incomplete applications;

6. Enable each EDC to customize the forms while maintaining common data architecture and protocol structure across all EDCs;

7. Enable each EDC to provide key performance indicators regarding interconnection processing, including the number of applications with missing data, applications with complete information, and achieved timelines for all interconnection applications at all interconnection Levels.

8. Allow for a fully virtual interconnection process, including allowing for the upload of files and documents;

9. Include an Frequently Asked Questions (FAQ) webpage to provide guidance useful to interconnection customers engaging in the interconnection process that clearly presents context and instructions for interacting with the electronic application tracking system; and

10. Provide automated data feeds for all required reporting that is accessible by Board Staff, including capability of establishing dashboards or other data analysis tools, as may be established by Board order.

**(bf)** Each EDC shall designate an employee or office from which an ~~applicant~~ Applicant can obtain basic application forms and information through an informal process. On request, this employee or office shall provide all relevant forms, documents, and technical requirements for submittal of a complete application for interconnection review under this section, as well as specific information necessary to contact the EDC representatives assigned to review the application.

**(ge)** Upon request of the Applicant, the EDC shall meet with an ~~a~~ Applicant who qualifies for level 2 or level 3 interconnection review prior to the filing of an application for the purpose of conducting a PAVE review. The PAVE review shall follow the procedures as set forth at N.J.A.C. 14:8-5.10, to assist them the Applicant in preparing the application.

~~(d) An application for interconnection review shall be submitted on a standard form, available from the EDC. The application form will require the following types of information:~~

- ~~1. Basic information regarding the customer-generator and the electricity supplier(s) involved;~~
- ~~2. Information regarding the type and specifications of the customer-generator facility;~~
- ~~3. Information regarding the contractor who will install the customer-generator facility;~~
- ~~4. Certifications and agreements regarding utility access to the customer-generator's property, emergency procedures, liability, compliance with electrical codes, proper operation and maintenance, receipt of basic information; and~~
- ~~5. Other similar information as needed to determine the compliance of a particular applicant with this chapter.~~

**(eh)** An EDC shall not be responsible for the cost of determining the rating of equipment owned by a Customer-generator, or of equipment owned by other local customers.

**(fi)** An EDC shall not require a Customer-generator whose facility meets the criteria for interconnection approval under the level 1 or level 2 interconnection review procedure at N.J.A.C. 14:8-5.4 and 5.5 to install additional controls or external disconnect switches not included in the Interconnection equipment, to perform or pay for additional tests or to purchase additional liability insurance, except if agreed to by the ~~a~~ Applicant.

**(gj)** If the interconnection of a Customer-generator facility is subject to interconnection requirements of FERC or PJM, whether in compliance with rules governing DER aggregations under FERC's Order No. 2222 or otherwise, the provisions of this subchapter that apply to interconnection apply to that facility only to the extent that they do not conflict with the interconnection requirements of FERC or PJM.

**(hk)** Each EDC shall develop an interconnection dispute resolution process as set forth in N.J.A.C 14:5.15, to be included on the EDC FAQ webpages. As part of a dispute resolution process the EDCs should identify an ombudsman to handle customer interconnection complaints. ~~If an applicant-Applicant for interconnection~~ disagrees with an EDC's determination of fact or need regarding matters covered in this subchapter, or if any person has a complaint regarding matters covered in this subchapter, the ~~applicant~~ Applicant or other person may file an initial informal complaint with the Board's interconnection ombudsman under N.J.A.C. 14:1-5.13, or may file a formal petition with the Board under N.J.A.C. 14:1-5.

**(il)** Once a Customer-generator has met the ~~level 1 interconnection requirements of the relevant interconnection review~~ at N.J.A.C. 14: 8-5.4, or has met the level 2 interconnection requirements at N.J.A.C. 14: 8-5.5, the EDC shall notify the Customer-generator ~~in writing that the customer-generator is authorized to energize the customer-generator facility, as follows:~~

- ~~1. The EDC shall send the authorization through the CIAP-compliant automated portal and to the e-mail address on file, and to the U.S. Postal Service mailing address that is listed on the customer-generator's submitted interconnection application form,; and~~
- ~~2. The EDC shall not condition the authorization to energize on the EDC's replacement of the customer-generator's meter.~~

**(jm)** The ~~applicant-Applicant~~ shall not operate the Customer-generator facility until the EDC's application and inspection process is completed. Unauthorized system interconnection and operation will result in no payment for excess generation credits.

**(n)** Any Applicant may request that the EDC take into account any significant anticipated changes in load associated with contemporaneous installation of the Customer-generator facility and any of the following: (i) electric vehicle charging infrastructure, including any vehicle-to-grid bidirectional capabilities; (ii) building electrification upgrades; (iii) deployment of energy efficiency upgrades; or (iv) verifiable increases in load; which the EDC shall not unreasonably refuse to consider. The EDC may require the Applicant to delay

energization or re-start the interconnection process if the contemplated contemporaneous changes are not completed prior to the planned energization of the system.

(o) Each EDC, on an annual basis, shall make a Proactive System Upgrade Planning filing in which the EDC identifies targeted proactive circuit and system upgrades aimed at expanding opportunities for Customer-generator facilities and detail the costs and benefits of the proposed upgrades, as set forth at N.J.A.C. 14:8-5.15.

(p) An EDC shall allow entities with Interconnection agreements to participate in a DER aggregation without further review; provided that a DER aggregator will provide the EDC 10 business days' written notice before initiating a DER aggregation of: (i) more than 10 MW in total size; (ii) involving multiple customers of greater than 1 MW (as measured at any single retail meter); or (iii) any proposed modification to a DER aggregation in (i) or (ii) that results in a greater than 50 percent change in aggregation size or adds new individual customers at any single retail meter of 1 MW or greater. The EDC shall have 10 business days after receiving a DER request to either approve the proposed DER aggregation or issue a formal letter of objection, which shall be provided to Board Staff and the DER aggregator, identifying with specificity concerns about the proposed aggregation and how it may adversely affect system reliability, along with possible alternative means of mitigating the concern. If the EDC issues such a letter, the parties shall engage in the dispute resolution provisions set forth in N.J.A.C. § 14:8-5.1-6. No notice shall be required before a DER aggregation may remove customers from an aggregation.

(q) In administering the deadlines in this chapter, the EDC shall make reasonable efforts to meet all established timelines. If the EDC cannot meet a timeline, the EDC shall notify the Applicant and Board Staff in writing within 3 business days after the missed deadline via methodology as established by Board order. The notification shall explain the reason for the EDC's failure to meet the deadline and provide an estimate of when the step will be completed. The EDC shall keep the Applicant and Board Staff updated of any changes in the expected completion date.

(r) The Applicant may request in writing the extension of a timeline established in this chapter. The requested extension may be for up to one-half of the time originally allotted (e.g., a 10 business day extension for a 20 business day timeframe). The EDC shall not unreasonably refuse this request. If further timeline extensions are necessary, the Applicant may request an extension through the CIAP portal or from

the EDC's interconnection ombudsperson, who shall grant the request, if it is reasonable, or otherwise, deny it, within 3 business days and reflect the decision in the CIAP portal and via email.

(s) In conducting studies pursuant to this chapter, each EDC shall plan its system to allow for reverse power flow through substations where minor changes to the substation's control system allow for such flows in a safe and reliable manner and shall prioritize upgrading such control systems in response to interconnection applications that would benefit from such reverse flows.

### **§ 14:8-5.3 Certification of ~~customer-generator~~Customer-generator interconnection equipment**

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(a) In order to qualify for the level 1 and the level 2 interconnection review procedures described at N.J.A.C. 14:8-5.4 and 5.5, a ~~customer-generator~~Customer-generator's interconnection equipment shall have been tested and listed by an OSHA-approved nationally recognized testing laboratory for continuous interactive operation with an electric distribution system, except as provided herein, in accordance with the following standards, as applicable:

1. IEEE 1547-2018, Standard for Interconnecting Distributed Resources with Electric Power Systems (published July 200318, amended April 2020), or any future updated version of the IEEE 1547 Standard as may be directed by Board order, which is incorporated herein by reference, as amended or supplemented. ~~IEEE Standard-1547 Standard~~ can be obtained through the IEEE website at [www.ieee.org](http://www.ieee.org); and
2. UL 1741-Supplement SA or SB -Inverters, Converters, and Controllers for Use in Independent Power Systems (September 2021~~November 2005~~) or any future updated version of the UL1741 Standard as may be directed by Board order, which is incorporated herein by reference as amended or supplemented. UL 1741 can be obtained through the Underwriters Laboratories website at [www.ul.com](http://www.ul.com); and
3. Equipment for which UL 1741 certification does not currently exist, but approved for operation under California's Rule 21 process, including through the interim testing protocols set forth for Non-exporting AC/DC converter technology or other Non-exporting technology, and incorporated herein by reference.  
Such facilities will be treated as "certified" for the purposes of this chapter. -

(b) Interconnection equipment shall be considered certified for interconnected operation if it has been submitted by a manufacturer to an OSHA-approved nationally recognized testing laboratory or alternative testing protocols permitted under this chapter, and has been tested and listed by the laboratory for continuous interactive operation with an electric distribution system in compliance with the applicable codes and standards listed in (a) above.

(c) If the Interconnection equipment has been tested and listed in accordance with this section as an integrated package, which includes a generator or other electric source, the ~~i~~Interconnection equipment shall be deemed certified and the EDC shall not require further design review, testing or additional equipment.

(d) If the ~~i~~Interconnection equipment includes only the interface components (switchgear, inverters, or other Non-exporting technology or other interface devices), an ~~interconnection applicant~~ Applicant shall show that the generator or other electric source being utilized with the Interconnection equipment is compatible with the ~~i~~Interconnection equipment and consistent with the testing and listing specified for the equipment. If the generator or electric source being utilized with the Interconnection equipment is consistent with the testing and listing performed by the OSHA-approved nationally recognized testing laboratory or alternative testing protocols permitted under this rule, the Interconnection equipment shall be deemed certified and the EDC shall not require further design review, testing or additional equipment.



## **§ 14:8-5.4 Level 1 interconnection review**

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(a) Each EDC shall adopt a level 1 interconnection review procedure. The EDC shall use the level 1 review procedure only for an application to interconnect a Customer-generator facility that meets all of the following criteria:

1. The facility is inverter-based and has smart inverter capability;
2. The facility has a capacity of 40-25 kW or less; and
3. The facility has been certified in accordance with N.J.A.C. 14:8-5.3.

(b) For a Customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 1 interconnection review procedure upon payment of a fee, not to exceed \$100 or other value established by Board order, if all of the applicable requirements at (c) through (g) below are met. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the Line section to which the Customer-generator facility will interconnect, including the capacity of the Customer-generator facility, shall not contribute more than 10 percent to the distribution circuit's maximum ~~f~~Fault current at the point on the high voltage (primary) level that is nearest the proposed ~~p~~Point of common coupling.

(d) A ~~customer-generator~~Customer-generator facility's does not qualify for interconnection under Level 1 if the ~~p~~Point of common coupling is ~~shall not be~~ on a transmission line, a ~~s~~Spot network, or an ~~area network~~Area network; provided that the EDC will use good utility practice to allow interconnection of a Customer-generator facility to such facilities where feasible.

(e) If a Customer-generator facility is to be connected to a radial Line section, the aggregate generation capacity connected to the circuit, including that of the Customer-generator facility, shall not exceed 105 percent (~~4~~25 percent for solar electric generation) of the circuit's total annual peak load, as most recently measured at the substation.

(f) If a Customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity connected to the shared secondary, including the Customer-generator facility, shall not exceed 20-30 kilovolt-amperes (kVA).

(g) If a single-phase Customer-generator facility is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the Customer-generator facility shall not create an imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.

(h) An ~~applicant~~ Applicant shall submit an Interconnection Application/Agreement Form for level 1 interconnection review through the CIAP portal. The standard form is available from the EDC, and includes a Part 1 (Terms and Conditions) and a Part 2 (Certificate of Completion).

(i) Within three business days after receiving an application for level 1 interconnection review, the EDC shall provide ~~written or e-mail~~ notice to the ~~applicant~~ Applicant via email and through the CIAP portal that it received the application and whether the application is complete. If the application is incomplete, the written notice shall include a list of all of the information needed to complete the application.

(j) Within 10 business days after the EDC notifies the ~~applicant~~ Applicant that the application is complete under (i) above, the EDC shall notify the ~~applicant~~ Applicant that:

1. The Customer-generator facility meets all of the criteria at (c) through (g) above that apply to the facility, and the interconnection will be finally approved upon completion of the process set forth at (k) through ~~(-o)~~ below;

2. That the Customer-generator facility is proposing to connect to a Spot network or an Area network, and the EDC requires additional time to determine whether the interconnection is technically feasible;

or

~~23.~~ The Customer-generator facility has failed to pass ~~meet~~ one or more of the applicable ~~criteria~~ screens at (c) through (g) above, and the interconnection application is denied, subject to the resubmittal options set forth in section (p) below.

(k) If the EDC notifies the Customer-generator under (j)1 above that the facility will be approved, the EDC shall, within three business days after sending the notice under (j)1 above, do both of the following:

1. Notify the ~~applicant~~ Applicant through the CIAP portal and by e-mail or other writing of whether an EDC inspection of the Customer-generator facility is required prior to energizing the facility; or that the EDC waives inspection; and

2. Return to the ~~applicant~~ Applicant Part 1 of the original application, signed by the appropriate EDC representative.

(l) Once an ~~applicant~~ Applicant receives Part 1 of the application with the EDC signature in accordance with (k) above, and has installed and interconnected the Customer-generator facility, the ~~applicant~~ Applicant shall obtain approval of the facility by the appropriate construction official, as defined at N.J.A.C. 5:23-4.1.

(m) The Customer-generator shall submit documentation of the construction official's successful inspections and permit closing approval to the EDC, along with a copy of Part 2 of the application, signed by the Customer-generator.

(n) If inspection of the Customer-generator facility was waived under (k)1 above, the EDC shall, within five business days after receiving the submittal required under (m) above, notify the customer-generator of authorization to energize the facility. The notice to the Customer-generator shall be provided ~~in the format required under N.J.A.C. 14:8-5.2(i).~~ through the CIAP portal.

(o) If inspection of the Customer-generator facility was not waived under (k)1 above, the following process shall apply:

1. The Customer-generator shall submit the construction official's approval and signed Part 2 as required at (m) above, and inform the EDC that the Customer-generator facility is ready for EDC inspection;

2. Within five business days after the Customer-generator notifies the EDC under ~~(-o)1~~ above that the facility is ready for inspection, the EDC shall offer the Customer-generator two or more available four-hour inspection appointments (for example, February 4th from noon to 4:00 P.M. or February 6th from 10:00 A.M. to 2:00 P.M.);

3. The appointments offered under ~~(-o)2~~ above shall be no later than 10 business days after the EDC offers the appointments (that is, within 13 business days after the Customer-generator submittal under (m) above);

4. The Customer-generator shall notify the EDC which of the offered inspection times the Customer-generator prefers, or shall arrange another time by mutual agreement with the EDC;

5. Within five business days after successful completion of the EDC inspection, the EDC shall notify the Customer-generator that it is authorized to energize the facility. ~~The notice shall be provided in the format required under N.J.A.C. 14:8-5.2(i); and~~ through the CIAP portal and by email; and

6. The ~~applicant~~ Applicant shall not begin operating the Customer-generator facility until after the inspection and testing is completed.

(p) If an application for level 1 interconnection review is denied because it does not meet one or more of the applicable requirements in this section, the EDC shall provide tangible evidence of which screens were failed and why. In response, an applicant ~~Applicant~~ may either:

1. Resubmit an amended Level 1 application for expedited review with appropriate mitigation measures that may include:

- a. The addition of energy storage or increase in proposed load which would limit export; or
- b. Reduction in generation or export capability; or
- c. Prevent or limit injections onto the grid through addition of a Non-exporting technologies or other comparable means; or
- d. Participation in an EDC grid flexibility service program that uses smart inverter or other functionality to utilize reactive power or predictive analytics to enable the interconnection of more resources that would otherwise be permitted.

2. Resubmit the application under the level 2 or level 3 interconnection review procedure, as appropriate.

## § 14:8-5.5 Level 2 interconnection review

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(a) Each EDC shall adopt a level 2 interconnection review procedure. The EDC shall use the level 2 interconnection review procedure for an application to interconnect a Customer-generator facility that meets both of the following criteria:

1. The facility has a capacity of two megawatts, as measured in direct current, or less; and
2. The facility has been certified in accordance with N.J.A.C. 14:8-5.3.

(b) For a Customer-generator facility described at (a) above, the EDC shall approve interconnection under the level 2 interconnection review procedure if the Customer-generator facility passes meets all of the applicable screening requirements at (c) through (–) below ~~are met~~. An EDC shall not impose additional requirements not specifically authorized under this section.

(c) The aggregate generation capacity on the Lline section to which the ~~customer-generator~~ Customer-generator facility will interconnect, including the capacity of the ~~customer-generator~~ Customer-generator facility, shall not cause any distribution protective equipment (including, but not limited to, substation breakers, fuse cutouts and line reclosers) or customer equipment on the electric distribution system, to exceed 9590 percent of the short circuit interrupting capability of the equipment. In addition, a ~~customer-generator~~ Customer-generator facility shall not be connected to a circuit that already exceeds 9095 percent of the short circuit interrupting capability, prior to interconnection of the facility.

(d) If there are posted transient stability limits to generating units located in the general electrical vicinity of the proposed ~~p~~Point of common coupling (for example, within three or four transmission voltage level busses), the aggregate generation capacity (including the ~~customer-generator~~ Customer-generator facility) connected to the distribution low voltage side of the substation transformer feeding the Lline section containing the ~~p~~Point of common coupling shall not exceed 10 MW.

(e) The aggregate generation capacity connected to the Lline section, including the ~~customer-generator~~ Customer-generator facility, shall not contribute more than 10 percent to the Lline section's maximum ~~f~~Fault current at the point on the high voltage (primary) level nearest the proposed point of common coupling.

(f) If a ~~customer-generator~~ Customer-generator facility is to be connected to a radial Lline section, the aggregate generation capacity connected to the electric distribution system by non-EDC sources, including

the ~~customer-generator~~Customer-generator facility, shall not exceed ~~40-15~~ percent (or ~~45-25~~ percent for solar electric generation) of the total circuit annual peak load. For the purposes of this subsection, annual peak load shall be based on measurements taken over the 12 months prior to the submittal of the application, measured at the substation nearest to the ~~customer-generator~~Customer-generator facility.

**(g)** If a ~~customer-generator~~Customer-generator facility is to be connected to three-phase, three wire primary EDC distribution lines, a three-phase or single-phase generator shall be connected phase-to-phase.

**(h)** If a ~~customer-generator~~Customer-generator facility is to be connected to three-phase, four wire primary EDC distribution lines, a three-phase or single phase generator shall be connected line-to-neutral and shall be effectively grounded.

**(i)** If a ~~customer-generator~~Customer-generator facility is to be connected to a single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the ~~customer-generator~~Customer-generator facility, shall not exceed ~~20-30~~ kilovolt-amps (kVA).

**(j)** If a ~~customer-generator~~Customer-generator facility is single-phase and is to be connected to a transformer center tap neutral of a 240 volt service, the addition of the ~~customer-generator~~Customer-generator facility shall not create an imbalance between the two sides of the 240 volt service, which is greater than 20 percent of the nameplate rating of the service transformer.

**(k)** A ~~customer-generator~~Customer-generator facility's ~~p~~Point of common coupling shall not be on a transmission line.

**(l)** If a ~~customer-generator~~Customer-generator facility's proposed ~~p~~Point of common coupling is on a ~~s~~Spot or ~~area network~~Area network, the interconnection shall meet all of the following requirements that apply, in addition to the requirements in (c) through (k) above:

1. For a ~~customer-generator~~Customer-generator facility that will be connected to a ~~s~~Spot network circuit, the aggregate generation capacity connected to that ~~s~~Spot network from ~~customer-generator~~Customer-generator facilities, including the ~~customer-generator~~Customer-generator facility, shall not exceed ~~five-10~~ percent of the ~~s~~Spot network's maximum load; provided that the EDC will use good utility practice to allow interconnection of a Customer-generator facility to such facilities at higher percentages where technically feasible and if solar energy Customer-generator facilities are used exclusively, only the anticipated daytime minimum load shall be considered;

2. For a ~~customer-generator~~Customer-generator facility that utilizes inverter based protective functions, which will be connected to an ~~area network~~Area network, the ~~customer-generator~~Customer-generator facility, combined with other exporting ~~customer-generator~~Customer-generator facilities on the load side of network protective devices, shall not exceed ~~4500~~ percent of the minimum annual load on the network, or 500 kW, whichever is less, or a future standard proposed by IEEE and approved by the Board via order; provided that the EDC will use Good utility practice to allow interconnection of a Customer-generator facility to such facilities at higher percentages where technically feasible, and if solar energy Customer-generator facilities are used exclusively, only the anticipated daytime minimum load shall be considered. For the purposes of this paragraph, the percent of minimum load for solar electric generation ~~customer-generator~~Customer-generator facility shall be calculated based on the minimum load occurring during an off-peak daylight period; and/or

3. For a ~~customer-generator~~Customer-generator facility that will be connected to a ~~sSpot or an area network~~Area network that does not utilize inverter based protective functions, or for an inverter based ~~customer-generator~~Customer-generator facility that does not meet the requirements of (–)1 or 2 above, the ~~customer-generator~~Customer-generator facility shall have the option to utilize Non-exporting technology, reverse power relays or other protection devices that ensure no export of power from the ~~customer-generator~~Customer-generator facility, including inadvertent export (under fault conditions) that could adversely affect protective devices on the network.

(m) An ~~applicant~~Applicant shall submit an Interconnection Application/Agreement Form for level 2 interconnection review through the CIAP portal. The standard form ~~is~~shall be available from the EDC's CIAP portal, and includes a Part 1 (Terms and Conditions) and a Part 2 (Certificate of Completion). The Applicant may request that the EDC provide a PAVE report prior to or after the submission of an initial application.

(n) Within three business days after receiving an application for level 2 interconnection review, the EDC shall provide notice through the CIAP portal and ~~written or via e-mail notice~~ to the ~~applicant~~Applicant that it received the application and whether the application is complete. If the application is incomplete, the ~~written~~ notice shall include a list of all of the information needed to complete the application. Within 10 business days of receiving a complete application and the requisite fee, the EDC shall offer a PAVE report to any Customer-generator of over 500 kW seeking to participate in the PAVE process, as set forth in N.J.A.C. 14:8-5.10. Following receipt of the PAVE report, the Customer-generator may elect to make changes to its application without incurring additional expense.

(o) Within 15 business days after the EDC notifies the ~~applicant~~ Applicant that the application is complete under (n) above, the EDC shall notify the ~~applicant~~ Applicant through the CIAP portal and by e-mail ~~or in writing~~ of one of the determinations at ~~(-o)~~1 through 4 below, as applicable. During the 15 business days provided under this subsection, the EDC may, at its own expense, conduct any studies or tests it deems necessary to evaluate the proposed interconnection and arrive at one of the following determinations:

1. The ~~customer-generator~~ Customer-generator facility ~~meets~~ passes the applicable screening requirements in (c) through ~~(-l)~~ above. In this case, the EDC shall:

i. Notify the ~~applicant~~ Applicant, through the CIAP portal and by e-mail ~~or other writing~~, that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below; and

ii. Within three business days after the notice in ~~(-o)~~1i above, the EDC shall return to the ~~applicant~~ Applicant Part 1 of the original application through the CIAP portal, ~~signed~~ approved by the appropriate EDC representative;

2. The ~~customer-generator~~ Customer-generator facility has failed to meet one or more of the applicable screening requirements at (c) through ~~(-l)~~ above, but the EDC has nevertheless determined that the ~~customer-generator~~ Customer-generator facility can be interconnected consistent with safety, reliability and power quality. In this case, the EDC shall:

i. Notify the ~~applicant~~ Applicant through the CIAP portal and by e-mail ~~or other writing~~ that the interconnection will be finally approved upon completion of the process set forth at (p) through (r) below; and

ii. Within five business days after the notice in ~~(-o)~~2i above, the EDC shall return to the ~~applicant~~ Applicant Part 1 of the original application through the CIAP portal, signed by the appropriate EDC representative;

3. The ~~customer-generator~~ Customer-generator facility has failed to ~~meet~~ one or more of the applicable screening requirements at (c) through ~~(-l)~~ above, but the initial review indicates that additional review may enable the EDC to determine that the ~~customer-generator~~ Customer-generator facility can be interconnected consistent with safety, reliability and power quality. In such a case, the EDC shall via the CIAP portal:

i. Notify the ~~customer-generator~~ Customer-generator of which screening requirements were not met, and offer to perform, additional review to determine whether minor modifications to the electric



distribution system (for example, changing meters, fuses or relay settings) would enable the interconnection to be made consistent with safety, reliability and power quality. The EDC notice shall provide to the ~~applicant~~ Applicant a nonbinding, good faith estimate of the costs of such additional review, and/or such minor modifications, at the +25%/-25% level, as well as the expected timeline for the additional analysis;

ii. Within 15 business days ~~If the customer-generator~~ Customer-generator shall notify ~~ies~~ the EDC ~~that if the customer-generator~~ Customer-generator consents to pay for the review and/or modifications, ~~+~~ The EDC shall undertake the review and/or modifications within 15 business days after this notice from the ~~customer-generator~~ Customer-generator, or longer period as agreed to by the Customer-generator and the EDC in writing. Any required payments for the additional review shall be received within 30 days after invoicing. If such deposits or payments are not made, the EDC may make the interconnection capacity available to other potential Customer-generators and may require the Applicant to re-start the interconnection process; and

iii. Within 15 business days after the review or modifications are complete, the EDC shall return to the ~~customer-generator~~ Customer-generator Part 1 of the original application, signed by the appropriate EDC representative through the CIAP portal; or

4. The ~~customer-generator~~ Customer-generator facility has failed one or more of the applicable screening criteria ~~to meet one or more of the applicable requirements~~ at (c) through (-/) above, and the initial review indicates that additional review would not enable the EDC to determine that the ~~customer-generator~~ Customer-generator facility could be interconnected consistent with safety, reliability and power quality. In such a case, the EDC shall:

i. ~~Notify the~~ Customer-generator through the CIAP portal that its facility has failed one more screening criteria and shall:

i. in writing that the interconnection application has been denied; and

ii. Provide a written explanation of the reason(s) for the denial, including which screens were failed and why;

ii. provide a list of additional information and/or modifications to the ~~customer-generator~~ Customer-generator's facility that, which would allow the project to be required in order to obtain an approval under level 2 interconnection procedures;

iii. provide guidance to the Customer-generator on submission of an amended Level 2 application with appropriate mitigation measures that may include:

- a. Reduction in the size of the proposed Customer-generator facility that would allow the EDC to interconnect the facility;
- b. Addition of energy storage or active demand management that would allow the EDC to interconnect the facility;
- c. Elimination of injections onto the grid through addition of Non-exporting technology, power relays, or other comparable means;
- d. Participation in an EDC grid flexibility services program that uses smart inverter or other functionality to utilize reactive power or predictive analytics to enable the interconnection of more resources that would otherwise be permitted; or

iv. Allow the Customer-generator to resubmit the application under the level 3 interconnection review procedure.

**(p)** Once a ~~customer-generator~~Customer-generator receives Part 1 of the application with the EDC signature in accordance with ~~(–o)~~1, 2 or 3 above, and has installed and interconnected the ~~customer-generator~~Customer-generator facility to the EDC's distribution system, the ~~customer-generator~~Customer-generator shall obtain approval of the facility from the appropriate construction official, as defined at N.J.A.C. 5:23-1.4.

**(q)** At least 10 business days prior to starting operation of the ~~customer-generator~~Customer-generator facility (unless the EDC does not require 10 days notice), the ~~customer-generator~~Customer-generator shall through the CIAP portal:

1. Provide the EDC with documentation that the interconnection has been approved by the appropriate construction official;
2. Submit Part 2 of the application, signed by the ~~customer-generator~~Customer-generator; and
3. Indicate to the EDC the anticipated start date for operation of the ~~customer-generator~~Customer-generator facility.

(r) The EDC may require an EDC inspection of a ~~customer-generator~~Customer-generator facility prior to operation, and may require and arrange for witness of commissioning tests as set forth in IEEE ~~Standard 1547\_ (published July 2003)~~ in accordance with the following:

1. The ~~customer-generator~~Customer-generator shall submit the construction official's approval and the signed Part 2 under (q) above and inform the EDC that the ~~customer-generator~~Customer-generator facility is ready for EDC inspection;
2. Within five business days after the ~~customer-generator~~Customer-generator informs the EDC under (r)1 above that the ~~customer-generator~~Customer-generator facility is ready for inspection, the EDC shall notify the ~~customer-generator~~Customer-generator of three or more available four-hour inspection appointments (for example, February 4th from noon to 4:00 P.M., February 6th from 10:00 A.M. to 2:00 P.M., or February 7th from 1:00 P.M. to 5:00 P.M.);
3. The appointments offered under (r)2 above shall be no later than 15 business days after the EDC offers the appointments, (that is, within 20 business days after the ~~customer-generator~~Customer-generator submittal under (r)1 above);
4. The ~~customer-generator~~Customer-generator shall notify the EDC which of the offered inspection appointments the ~~customer-generator~~Customer-generator prefers or shall arrange another time by mutual agreement with the EDC;
5. Within five business days after successful completion of the EDC inspection, the EDC shall notify the ~~customer-generator~~Customer-generator that it is authorized to energize the facility. The notice shall be provided in the format required under N.J.A.C. 14:8-5.2(i); and
6. The ~~applicant~~Applicant shall not begin operating the ~~customer-generator~~Customer-generator facility until after the inspection and testing is completed. ~~(s) If an application for level 2 interconnection review fails to meet the requirements as described at (o)3 or 4 above, or is denied because it does not meet one or more of the requirements in this section, the applicant may resubmit the application under the level 3 interconnection review procedure.~~

## **§ 14:8-5.6 Level 3 interconnection review**

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(a) Each EDC shall by January 1, 2024, adopt a common set of level 3 interconnection review screens. procedure. The EDC shall use the level 3 review procedure. An EDC shall use the Level 3 review procedure for applications to connect Customer-generator facilities that: (i) are greater than 2 MW, as measured in direct current; (ii) do not qualify for either the level 1 or level 2 interconnection review procedures; or (iii) did not pass for an application to interconnect a customer-generator facility that does not qualify for the level 1 or level 2 interconnection review procedures set forth at N.J.A.C. 14:8-5.4 and 5.5.

(b) Within 15 business days after receiving an application for Level 3 interconnection review, the EDC shall provide notice through the CIAP portal and via e-mail to the Applicant that it received the application and whether the application is complete. If the application is incomplete, the notice shall include a list of all of the information needed to complete the application.

(c) An application fee not to exceed \$100 plus \$10 per kW of the nameplate rating up to a maximum of \$2,000 shall accompany any application and an application shall not be deemed complete until the application fee is received. The application fee is in addition to charges for actual time spent on analyzing the proposed interconnection. Costs for EDC studies and facilities necessary to accommodate the Applicant's proposed Customer-generator facility shall be the responsibility of the Applicant.

(d) The Applicant may request that the EDC provide a PAVE report prior to or after the submission of an initial application. If no PAVE report is requested prior to submission of an application, within 10 business days of receiving a complete application and the requisite fee, the EDC shall offer a PAVE report to any Customer-generator seeking to participate in the PAVE process, as set forth in N.J.A.C. 14:8-5.10. Following receipt of the PAVE report, the Customer-generator may elect to make changes to its application without incurring additional expense.

(de) Within 30 days of a completed application and the PAVE report being provided to the Customer-generator, the EDC shall conduct an initial review that includes a scoping meeting with the Applicant. The scoping meeting shall take place in person, by telephone, or electronically by a means mutually agreeable to the parties. The EDC shall conduct an initial review of the application and shall offer the applicant an opportunity to meet with EDC staff to discuss the application. At the scoping meeting, the EDC shall provide and additional pertinent information to the applicant. Applicant that was not already provided as part of the

PAVE report, including items, such as the available ~~f~~Fault current at the proposed interconnection location, the existing peak loading on the lines in the general vicinity of the ~~customer-generator~~Customer-generator facility, and the configuration of the distribution lines at the proposed ~~p~~Point of common coupling. By mutual agreement of the parties, the scoping meeting or System impact study may be waived in writing.

**(ef)** Within 5 business days of the completion of the scoping meeting (or five business days after the EDC receives a completed application if the scoping meeting is waived), ~~T~~the EDC shall provide a draft ~~n~~sSystem impact study agreement to the Applicant, which shall include a good faith cost estimate of the cost and time for an impact study to be performed by the EDC. The Applicant shall execute the impact study agreement within 10 business days, along with any deposit required by the EDC; provided that the Applicant may request that the EDC hold the draft agreement in abeyance for up to 60 calendar days to allow for negotiation of the scope of the System impact study or to engage in dispute resolution procedures as specified in N.J.A.C. 14:8-5.15.

**(dfg)** A System ~~n~~n impact study is an engineering analysis of the probable impact of a ~~customer-generator~~Customer-generator facility on the safety and reliability of the EDC's electric distribution system. An impact study shall be conducted in accordance with ~~good utility practice~~Good utility practice, as defined at N.J.A.C. 14:8-5.1 and shall:

1. Detail the impacts to the electric distribution system that would result if the ~~customer-generator~~Customer-generator facility were interconnected without modifications to either the ~~customer-generator~~Customer-generator facility or to the electric distribution system;
2. Identify any modifications to the EDC's electric distribution system that would be necessary to accommodate the proposed interconnection; and
3. Focus on power flows and utility protective devices, including control requirements.

**(egh)** By January 1, 2024, each EDC shall in a compliance tariff provide standardized protocols governing the conduct of System impact study, facility study, related agreements, and a pro forma Interconnection agreement, as well a detailed description of the various elements of a System impact study it would typically undertake pursuant to this Section, along with, including:

1. Load-Flow Study;
2. Short-Circuit Study;
3. Circuit Protection and Coordination Study;
4. Impact on system operation of the electric distribution system;
5. Stability Study (and the conditions that would justify including this element in the System impact study);
6. Voltage-Collapse Study (and the conditions that would justify including this element in the System impact study); and
7. Additional elements, if approved in writing by Board staff prior to the System impact study.

(fhi) Once an Applicant delivers to the EDC an executed System impact study agreement and payment in accordance with that agreement, the EDC shall conduct the System impact study. The System impact study shall be completed within thirty business days of the Applicant's delivery of the executed System impact study Agreement; provided that if system upgrades are required, the EDC may elect to extend the study process by an additional 20 business days. The System impact study provided to the Applicant shall include a description of the EDC's analysis, conclusions, and the reasoning supporting those conclusions.

(gij) If the EDC determines that system upgrades are required to accommodate the proposed Customer-generator facility, are not substantial, the System impact study will identify the scope and cost of the modifications defined in the System impact study results, and no Facilities study shall be required. Modifications are considered not substantial if: (i) the total cost is below \$200,000, or such other value as the Board shall establish by order, or (ii) the EDC in its reasonable judgement determines the modifications are not substantial.

(hjk) If the EDC determines that necessary modifications to the electrical power system are substantial, the results of the System impact study will include an estimate of the cost of a Facilities study and an estimate of the modification costs and timeline. The detailed costs of any electrical power system modifications necessary to interconnect the Applicant's proposed Customer-generator facility will be identified in a Facilities study to be completed by the EDC.

~~(ikl)~~ If the Parties do not waive the Facilities study, within 5 business days of the completion of the System impact study, the EDC shall provide a Facilities study Agreement, which shall include a good faith estimate of the cost and time to undertake the Facilities study.

~~(jlm)~~ Once the Applicant executes the Facilities study Agreement and pays the EDC pursuant to the terms of that agreement, the EDC shall conduct the Facilities study. The Facilities study shall include a detailed list of necessary electrical power system upgrades and an itemized cost estimate, breaking out equipment, labor, operation and maintenance and other costs, including overheads, for completing such upgrades, which may not be exceeded by 125 percent if actual upgrades are completed. The Facilities study shall also indicate the milestones for completion of the Applicant's installation of its Customer-generator facility and the EDC's completion of any electrical power system modifications, and the milestones from the Facilities study (if any) shall be incorporated into the Interconnection agreement. The Facilities study shall be completed within 45 business days of the Applicant's delivery of the executed Facilities study agreement and receipt of any necessary deposits. If the Applicant fails to execute the Facilities study agreement or make the required deposits within 60 business days after receipt of the Facilities study agreement from the EDC, the EDC may make the interconnection capacity available to other potential Customer-generators and may require the Applicant to re-start the interconnection process.

~~(dn)~~ If the proposed interconnection may affect electric transmission or delivery systems, other than that controlled by the EDC, operators of these other systems may require additional studies to determine the potential impact of the interconnection on these systems. If such additional studies are required, the EDC shall coordinate the studies and shall use best efforts to complete those studies within 60 business days of being notified of the need of an affected system study, but shall not be responsible for their timing. The applicant-Applicant shall be responsible for the costs of any such additional studies required by another affected system. Such studies shall be conducted only after the applicant-Applicant has provided written authorization to the EDC.

~~(e)~~ After the applicant has executed the impact study agreement and has paid the EDC the amount of the good faith estimate required under (c) above, the EDC shall conduct the impact study and shall notify the applicant of the results as follows:

~~1. If the impact study indicates that only insubstantial modifications to the EDC's electric distribution system are necessary to accommodate the proposed interconnection, the EDC shall send the applicant an interconnection agreement that details the scope of the necessary modifications and an estimate of their cost; or~~

~~2. If the impact study indicates that substantial modifications to the EDC's electric distribution system are necessary to accommodate the proposed interconnection, the EDC shall provide an estimate of the cost of the modifications, which shall be accurate to within plus or minus 25 percent. In addition, the EDC shall offer to conduct a facilities study at the applicant's expense, which will identify the types and cost of equipment needed to safely interconnect the applicant's customer-generator facility.~~

~~(f) If an applicant requests a facilities study under (e)2 above, the EDC shall provide a facilities study agreement. The facilities study agreement shall describe the work to be undertaken in the facilities study and shall include a good faith estimate of the cost to the applicant for completion of the study. Upon the execution by the applicant of the facilities study agreement, the EDC shall conduct a facilities study, which shall identify the facilities necessary to safely interconnect the customer-generator facility with the EDC's electric distribution system, the cost of those facilities, and the time required to build and install those facilities.~~

~~(g) Within 5 business days of the completion of the last study, Upon completion of a facilities study~~Facilities study, the EDC shall provide the applicant Applicant with the results of the study and an executable Part I ~~Interconnection~~ agreement. The Interconnection agreement shall list the conditions and facilities necessary for the ~~customer-generator~~Customer-generator facility to safely interconnect with the EDC's electric distribution system, ~~the cost of those facilities, and the estimated time required to build and install those facilities.~~ incorporate the milestones (if any) from the Facilities study, and include an itemized quote, including overheads, for any required electrical power system modifications, subject to the cost limit set by the Facilities study cost estimate.

~~(h) Within 40 business days of the receipt of an Interconnection Agreement, the Applicant shall execute and return the Interconnection Agreement and notify the EDC of the anticipated date on which the customer-generator~~Customer-generator facility expects to reach commercial operations. Unless the EDC agrees to a later date or requires more time for necessary modifications to its electrical power system, the



Applicant shall identify an anticipated start date that is within 36 months of the Applicant's execution of the Interconnection Agreement. However, the Parties may mutually agree to an extension of this time if needed, which shall not be unreasonably withheld. The Applicant shall notify the EDC in writing or through the CIAP portal if there is any change in the anticipated start date of interconnected operations of the Customer-generator's facility.

~~(hg)~~ The EDC shall bill the Applicant for the design, engineering, construction, and procurement costs of the EDC provided interconnection facilities and upgrades on a monthly basis, or as otherwise agreed by the Parties. The Customer-generator shall pay each bill within 30 calendar days of receipt, or as otherwise agreed by the Parties and memorialized in writing. If the applicant wishes to interconnect, it shall execute the interconnection agreement, provide a deposit of not more than 50 percent of the cost of the facilities identified in the facilities study, complete installation of the customer-generator facility, and agree to pay the EDC the amount required for the facilities needed to interconnect as identified in the facilities study. At least 20 calendar days prior to the commencement of the design, procurement, installation, or construction of a discrete portion of any EDC facilities or upgrades, the Applicant shall provide the EDC with a deposit equal to 50 percent of the cost estimated for its interconnection facilities prior to its beginning design of such facilities.

~~(ir)~~ Within 60 calendar days of completing the construction and installation of the modifications to the EDC's system, the EDC shall provide the Applicant with a final accounting report of any difference between (1) the actual cost incurred to complete the construction and installation and the budget estimate provided to Applicant in the Interconnection agreement; and (2) the Applicant's previous deposit and aggregate payments to the EDC for such modifications. The EDC shall provide a written explanation for any actual cost exceeding a budget estimate by 25 percent or more. If the Applicant's cost responsibility exceeds its previous deposit and aggregate payments, the EDC shall invoice the Applicant for the amount due and the Applicant shall make payment to the EDC within 30 calendar days. If the Applicant's previous deposit and aggregate payments exceed its cost responsibility, the EDC shall refund to the Applicant an amount equal to the difference within 30 business days of the final accounting report.

~~(is)~~ Within 45-10 business days after notice from the aApplicant that the customer-generatorCustomer-generator facility has been installed, the EDC shall inspect the customer-generatorCustomer-generator facility and shall arrange to witness any required commissioning tests pursuant to required under-IEEE

~~Standard-1547 Standard.~~ The EDC and the applicant-Applicant shall select a date by mutual agreement for the EDC to witness commissioning tests. For systems greater than 10 MW, IEEE 1547 Standard may be used as guidance. If the Customer-generator facility passes the inspection, the EDC shall provide written notice of the results within 3 business days. If a Customer-generator facility initially fails an inspection, the EDC shall offer to redo the inspection at the Applicant's expense at a time mutually agreeable to the Parties within 30 business days of the Customer-generator requesting a retest. If the EDC determines that the Customer-generator facility fails the inspection, it must provide a written explanation detailing the reasons and any standards violated.

~~(jst)~~ Provided that the customer-generator-Customer-generator facility passes any required commissioning tests satisfactorily, the EDC shall notify the applicant-Applicant in writing, within three business days after the tests, of one of the following:

1. The interconnection is approved and the customer-generator-Customer-generator facility may begin operation; or
2. The facilities-Facilities study-Facilities study-~~Study~~ identified necessary construction that has not been completed, the date upon which the construction will be completed and the date when the customer-generator-Customer-generator facility may begin operation. The EDC shall promptly notice the Customer-generator through the CIAP portal of any changes in the construction schedule.

~~(k) If the commissioning tests are not satisfactory, the customer generator shall repair or replace the unsatisfactory equipment and reschedule a commissioning test pursuant to (i) above.~~

~~(l) Each EDC shall include in any tariff or published procedures for level 3 interconnection review each element of an impact study, including a description of the review the EDC will undertake for each element. An impact study shall include the following elements, as applicable:~~

~~1. A load flow study;~~

~~2. A short-circuit study;~~

~~3. A circuit protection and coordination study;~~

~~4. The impact on the operation of the electric distribution system;~~

~~5. A stability study (and the conditions that would justify including this element in the impact study);~~

~~6. A voltage collapse study (and the conditions that would justify including this element in the impact study); and~~

~~7. Additional elements, if approved in writing by Board staff prior to the impact study.~~

## § 14:8-5.7 Interconnection fees

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(a) An EDC or supplier/provider shall ~~not charge an application fee, not to exceed \$100 or other value established by Board order, an application or other fee to an applicant~~ Applicant that requests level 1 interconnection review. ~~However, if an application for level 1 interconnection review is denied because it does not meet the requirements for level 1 interconnection review and the applicant resubmits the application under another review procedure in accordance with N.J.A.C. 14:8-5.4(p), the EDC may impose a fee for the resubmitted application, consistent with this section.~~

(b) For a level 2 interconnection review, the EDC may charge fees of up to \$ 50.00 plus \$ 1.00 per kilowatt of the ~~customer-generator~~ Customer-generator facility's capacity, plus the cost of any minor modifications to the electric distribution system or additional review, if required under N.J.A.C. 14:8-5.5( ~~e~~)3 or 4, or such other value established by Board order. Costs for such minor modifications or additional review shall be based on EDC estimates and shall be subject to case-by-case review by the Board or its designee. Costs for engineering work done as part of any additional review shall not exceed \$ 100.00 per hour.

(c) For a level 3 interconnection review, the EDC may charge fees ~~of up to~~ not to exceed \$100 plus \$10 per kW of nameplate rating and an application shall not be deemed complete until the application fee is received, \$ 100.00 plus \$ 2.00 per kilowatt of the customer-generator facility's capacity, as well as charges for actual time spent on any impact and/or facilities studies required under N.J.A.C. 14:8-5.6. Costs for engineering work done as part of an ~~impact~~ System impact study or facilities ~~Facilities study~~ Facilities study study shall not exceed \$ 100.00 per hour. If the EDC must install facilities in order to accommodate the interconnection of the ~~customer-generator~~ Customer-generator facility, the cost of such facilities shall be the responsibility of the ~~applicant~~ Applicant.

(d) An EDC shall not charge any fee or other charge for connecting to the EDC's equipment or for operation of a ~~customer-generator~~ Customer-generator facility for the purposes of net metering, except for the fees provided for under this subchapter.

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

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(a) Once a net metering interconnection has been approved under this subchapter, the EDC shall not require a ~~customer-generator~~Customer-generator to test or perform maintenance on its facility except for the following:

1. An annual test in which the ~~customer-generator~~Customer-generator's facility is disconnected from the electric distribution company's equipment to ensure that the facility stops delivering power to the grid;
2. Any manufacturer-recommended testing or maintenance; and
3. Any post-installation testing necessary to ensure compliance with IEEE 1547 Standard or to ensure safety.

(b) When a ~~customer-generator~~Customer-generator facility approved through a level 2 or level 3 review undergoes maintenance or testing in accordance with the requirements of this subchapter, the ~~customer-generator~~Customer-generator shall retain written records documenting the maintenance and the results of testing for three calendar years. No recordkeeping is required for maintenance or testing performed on a ~~customer-generator~~Customer-generator facility approved through a level 1 review.

(c) An EDC shall have the right to inspect a ~~customer-generator~~Customer-generator's facility after interconnection approval is granted, at reasonable hours and with reasonable prior notice to the ~~customer-generator~~Customer-generator. If the EDC discovers that the ~~customer-generator~~Customer-generator's facility is not in compliance with the requirements of this subchapter, and the noncompliance adversely affects the safety or reliability of the electric distribution system, the EDC may require the ~~customer-generator~~Customer-generator to disconnect the ~~customer-generator~~Customer-generator facility until compliance is achieved.

## **§ 14:8-5.9 Interconnection reporting requirements for EDCs**

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(a) Each EDC with one or more ~~customer-generator~~Customer-generators connected to its distribution system shall (1) track key performance indicators on the EDC's website, updated no less than on a monthly basis; (2) maintain an interconnection queue that includes all level 2 and level 3 interconnection requests currently pending before the EDC, at a level of detail that reasonably preserves customer confidentiality; (3) conduct a customer satisfaction surveys and provide those results on its website and to the Board; and (4) submit two interconnection reports to the Board on a quarterly basis per year, one covering January 1 through June 30 and one covering July 1 through December 31. The EDC shall submit the reports by the first day of each quarter, August 1 and February 1, respectively.

(b) The EDC shall submit ~~the any interconnection~~ reports to the Board secretary in a docket as specified by the Secretary.

~~In addition, the EDC may, at its discretion, submit a paper copy of the reports by hand delivery or regular mail to the Secretary, Board of Public Utilities, 44 South Clinton Avenue, 9th Floor, PO Box 350, Trenton, New Jersey 08625-0350. The EDC may, at its discretion, submit the interconnection report together with the net metering report required under N.J.A.C. 14:8-4.5.~~ (c) Each report shall contain the following information regarding ~~customer-generator~~Customer-generator facilities that interconnected with the EDC's distribution system or attempted to interconnect for the first time during the reporting period, listed by type of renewable energy technology including the following key performance indicators, as may be adjusted by Board order, for each interconnection level, based on the nameplate capacity of the Customer-generator facility:

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1. 4. The number and generating capacity of Customer-generators that applied for interconnection;
2. The number and generating capacity of Customer-generators that successfully interconnected;
3. The number and generating capacity of Customer-generators that dropped out at each stage of the process;

4. The number of applications submitted with missing information, not automatically addressed as part of the CIAP process;
  5. Number, generating capacity, and type for all PAVE processes undertaken;
  6. Number, generating capacity and type of Customer-generator applications processed within the timelines established by this chapter;
  7. Length of time each Customer-generator waited for system impact and facilities studies;
  8. Number, generating capacity and type of Customer-generator applications not processed within the timelines established by this chapter and for delayed processing, how long did it take to complete processing the application and the reasons for the delay;
  9. A complete list of all distribution upgrades undertaken, the geographic distribution of those upgrades, the cost of each upgrade, how long the upgrades took, whether the upgrades were completed on time, and if not, when they were completed and why they were delayed;
  10. The number and generating capacity of Customer-generators of each technology type, broken out by class I eligible technology, energy storage, fuel cell, electric vehicle-to-grid projects, and hybrid systems involving multiple behind-the-meter technologies;
  11. Data on quantity, capacity, type and processing times for DER Aggregations requests;
  12. Data on the number of times formal or informal dispute resolution was requested, the timeline for resolution, whether the Board's interconnection ombudsman was involved, and how each dispute was resolved; and
  13. A statement for whether the EDC believes it has the resources and capabilities to continue to be able to continue timely processing interconnection applications, as well as a trend analysis that assesses the EDC's capability to continue timely processing interconnection applications if the volume of applications increases.
- ~~2. The estimated total rated generating capacity of all customer-generator facilities that interconnected; and~~
- ~~3. The total cumulative number of customer-generators that interconnected between June 15, 2001 and the end of the reporting period, including the customer-generators in (c)1 above. (d) The information required under (c) above shall be listed by type of class I renewable energy, as set forth at N.J.A.C. 14:8-2.5(b), as follows:~~

~~1. Solar PV technology;~~

~~2. Wind technology;~~

~~3. Biomass; or~~

~~4. A renewable energy technology not listed at (d)1 through 3 above. In such a case, the report shall include a description of the renewable energy technology.~~

(d) Each EDC shall also include in a separate annual report the information on their ability to interconnect additional resources on their systems. At a minimum the report shall include:

1. A report with diagrams of which Line sections have additional Hosting capacity for additional interconnections;

2. Reports and diagrams that shows the constrained Line sections that cannot handle additional interconnections;

3. A Data Validation summary report that confirms the quality and accuracy of the underlying distribution system model data and the Hosting capacity analysis representation.

4. An explanation of how the EDC determined (e.g., methodology) whether Line sections have headroom or are constrained;

5. Identify areas where they are considering system upgrades to support additional interconnections within the 12 months following the filing, whether through a PSUP or otherwise;

6. Projected forward capacity growth on the distribution system circuits and where and what possible upgrades will be needed to support the projected amount;

(7) The report shall also contain a summary description of:

a. Observed patterns of delays with root cause explanation

b. Where in the application life cycle delays are most common; and

c. Average deviation on time to completion of the interconnection request (by Levels).

(e) Transparent public queue reporting:



1. Each EDC shall maintain a current summary status, presented in a common graphical format, updated no less than monthly, of all active interconnection showing the following performance metrics:

a. Active interconnections in each Level 1, 2 and 3:

i. New applications (numeric quantity and MW capacity) received during reporting period;

ii. Total (numeric quantity and MW capacity) currently active;

iii. Total (numeric quantity and MW capacity) by percent approved during reporting period;

and

iv. Total (quantity and MW capacity) by percent approved from Year to Date.

(f) Each EDC shall provide the full results of all annual testing performed on legacy interconnected customer/generators, segmented by Levels 2 and 3, under 14:8-5.8(a)(1) which shall include:

1. Number and Percentage of total interconnected systems that were tested;

2. Number and percentage of waivers that were granted for exemption from testing; and

3. Number and percentage of total interconnected systems that failed testing and required remediation.

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

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**(a)** A Pre-Application Verification/Evaluation (PAVE) process shall be offered by each EDC for any qualified Level 2 or Level 3 projects upon payment of a \$300 fee, or such alternative fee as the Board shall establish by order.

**(b)** Within 10 business days of the interconnection customer providing a complete PAVE request, the EDC shall provide the following information about relevant parts of its distribution system through the CIAP portal to the Applicant in support of an informed and timely decision regarding the interconnection of a proposed project, which shall include the following items, as they may be modified by Board order:

1. Total capacity (MW) of substation/area bus or bank and circuit;
2. Aggregate queued Generating Capacity (MW) proposing to interconnect to the substation/area bus or bank and circuit;
3. Available capacity (MW) of the substation/area bus or bank and circuit, which is the total capacity less the sum of existing and queued Generating Capacity, accounting for all load served by existing and queued generators. Note: Generators may remove available capacity in excess of their Generating Capacity if they serve on-site load and utilize export controls which limit the their Generating Capacity to less than their nameplate rating.
4. Whether the proposed Generating Facility is located on an Area, Spot or radial network.
5. Substation nominal distribution voltage or transmission nominal voltage if applicable.
6. Nominal distribution circuit voltage at the proposed site.
7. Approximate circuit distance between the proposed site and the substation.
8. Relevant Line section(s) and substation actual or estimated peak load and minimum load data, when available.
9. Number and rating of protective devices and number and type of voltage regulating devices between the proposed site and the substation/area.
10. Whether or not three-phase power is available at the site and/or distance from three-phase service.
11. Limiting conductor rating from proposed Point of Interconnection to distribution substation.

12. Based on proposed Point of Interconnection, existing or known constraints such as, but not limited to, electrical dependencies at that location, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

13. Any other information that the EDC deems relevant to the Applicant.

(c) Within 10 business days, or at a time mutually agreeable to the parties, of providing the potential interconnection customer with a PAVE Report, the EDC shall offer a meeting to review the findings.

(d) In preparing a PAVE Report, the EDC need only include pre-existing data and a PAVE request does not obligate the EDC to conduct a study or other analysis of the proposed project in the event that data is not available. If the EDC cannot complete all or some of a PAVE Report due to lack of available data, the EDC will provide the potential Applicant with a Report that includes the information that is available and identify any information that is unavailable. The EDC shall, in good faith, provide PAVE Report data that represents the best available information at the time of reporting.

(e) An FAQ page shall be provided by each EDC that clearly presents context and instructions for the PAVE process. At a minimum, the following shall be provided:

1. Clearly stated purpose and intention of the PAVE Process;
2. Specific criteria for allowing application to utilize the PAVE process (including an easy to use screening/configurator tool that can take basic parameters in as data field entries);
3. Any fee schedules, terms, and conditions associated with the PAVE process;
4. Simplified case studies that illustrate successful handling and outcome of PAVE Applicants;  
and
5. A designated contact point (email and phone) for handling more detailed questions or issue resolutions.

(f) In requesting a PAVE report, a potential Applicant understands that:

1. The existence of "available capacity" does not imply that an interconnection up to this level may be completed without impacts because there are many variables studied as part of the interconnection review process.
2. The distribution system is dynamic and subject to change, and that the results of the PAVE Report do not represent binding interconnection cost allocations.
3. Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete Application.



## **§ 14:8-5.11 Hosting Capacity Maps**

- (a)** By January 1, 2024, each EDC shall make a tariff filing to include a common Hosting capacity mapping process to aid Customer-generators. Hosting capacity maps shall indicate locations on the distribution with spare capacity and which locations are likely to require additional upgrades.
- (b)** Distribution system Hosting capacity maps shall be updated on no less than a quarterly basis and shall include data at both the circuit and substation level. The Hosting capacity values for each circuit shall be calculated using common methodology and presented in a consistent manner across all EDCs. All significant changes shall be summarized and communicated coincidentally to update via posting to the EDC's website and subscriber email list serv. Each EDC shall clearly label their maps with detailed legends explaining what the data means, and adopt a shared lexicon to label their maps.
- (c)** All Hosting capacity maps shall be integrated with GIS systems, visually present all system data for substations, feeders, and related distribution assets, and allow prospective Applicants to easily determine, based on entered street address, the following information:
1. Whether the nearby distribution circuit(s) are closed (red indication), have limited available surplus (orange) or open (green indication) to interconnecting additional generation;
  2. A recommended and maximum capacity additional generation that could be accommodated on each nearby open circuits;
  3. A quantified indication of interest level from other projects (and their aggregate capacity) along the same circuit;
  4. A built-in function enabling users to filter sites based on available capacity above a certain threshold;
  5. A range of budgetary cost estimates for anticipated required upgrades that would make additional Hosting capacity available, based on high-level estimates (e.g., +/- 25%);
  6. Uniform load on a circuit segment;
  7. Preliminary information on the circuit segment and whether it has a known transient/dynamic stability limitation, if a transmission ground fault overvoltage is possible, if a proposed facility has any transmission interdependencies, and if all islanding conditions are met based on the utility's screening policies;

8. Require identification of potentially limiting equipment requiring a system upgrade on the Hosting capacity maps (e.g., voltage controllers, protective relays, communication systems, conductor ampacity, etc.); and
  9. For each feeder, the load Hosting capacity and with both the normal generation, energy storage capacity, and PV generation labeled individually.
- (d)** Each EDC shall ensure that the Hosting capacity process includes a documented process for validating models, publishing the Hosting capacity, and allow for customer feedback collection and compilation
- (e)** Each Hosting capacity map shall include data on both a static grid (the amount of generation that can be integrated without violating one of the four criteria in thermal, steady-state voltage, voltage fluctuation, and protection) and operational flexibility (for evaluating whether the construction of a DER project would limit the EDC's ability to reconfigure circuits in the case of an emergency fault or other event.)

## **§ 14:8-5.12 Proactive System Upgrade Planning**

- (a)** Each EDC shall make a Proactive System Upgrade Planning (PSUP) filing on January 1 of each even numbered year, starting on January 1, 2024. The PSUP shall identify congested areas on each EDC system that are significantly limiting the ability to interconnect new resources to the EDC's distribution system and identify proposed upgrades that would proactively alleviate those constraints.
- (b)** In preparing a list of PSUP upgrades, each EDC shall focus on proposed upgrades to facilities that would:
- a. Affect multiple interconnection Applicants or open areas where the EDC reasonably anticipates significant growth in interconnection applications;
  - b. Identify upgrades that would result in a 20 percent or more cost savings over the expected costs of addressing multiple interconnections serially;
  - c. Significantly reduce the expected interconnection timeline;
  - d. Upgrade facilities costing over \$2 million that are unlikely to be funded on a participant-funded basis; or
  - e. Where a comprehensive series of proactive upgrades would create economies of scale or that would create additional headroom that may not be immediately subscribed by Applicants currently in the EDC's interconnection queue.
- (c)** For each identified PSUP upgrade, the EDC shall identify:
- i. The circuits that would be affected by the proposed upgrade;
  - ii. The cost of the proposed upgrade;
  - iii. The additional Hosting capacity that the proposed upgrade would create;
  - iv. Whether additional grid flexibility services would provide a cost-effective means of increasing Hosting capacity; and
  - v. The cost per kW of additional Hosting capacity under both a wires and non-wires alternative.
- (d)** Each EDC will divide the cost of each PSUP upgrade by the amount of additional Hosting capacity created by the upgrade, and produce a \$/kW value. Any Applicant applying to interconnect to a circuit with a proposed PSUP upgrade may request that the EDC accelerate construction of the approved PSUP upgrade, and fund the \$/kW value multiplied by the size of the proposed project, in kW.





## **§ 14:8-5.13 Dispute Resolution**

- (a)** By January 1, 2024, each EDC shall make tariff filing to include a standardized dispute resolution process to govern disputes between the EDC and a Customer-generator. Disputes may involve, but are not limited to, issues with interconnection studies, cost estimates for necessary upgrades, queue priority, the development of the interconnection agreement, billing or fees, or related matters.
- (b)** An Applicant for interconnection may initiate the informal dispute resolution process by making a request through the CIAP portal or to the EDC's interconnection ombudsman. The parties shall make a good faith efforts to resolve any dispute within 10 business days of the initiation of a dispute, including making subject matter experts available, or such longer time as the parties shall agree to in writing.
- (c)** If the informal dispute process is unsuccessful, the disputing Party shall provide the other Party a written notice of dispute containing the relevant known facts pertaining to the dispute, the specific dispute and the relief sought. The notice shall be submitted through the CIAP portal and sent to the non-disputing Party's email address, with a copy to the Board's interconnection ombudsman.
- (d)** The Parties may request that the Board's interconnection ombudsperson help track and facilitate the efficient and fair resolution of any dispute.
- (e)** The non-disputing Party shall acknowledge the notice within 3 business days of its receipt and identify a representative with the authority to make decisions for the non-disputing Party with respect to the dispute.
- (f)** The non-disputing Party shall provide the disputing Party with all relevant regulatory and/or technical details and analysis regarding any EDC interconnection requirements under dispute within 10 business days of the date of the notice of dispute. Within 20 business days of the date of the notice of dispute, the Parties' authorized representatives shall meet and confer to try to resolve the dispute. The Parties shall operate in good faith and use best efforts to resolve the dispute
- (g)** If a resolution is not reached in 30 business days from the date of the notice of dispute (1) either Party may request to continue negotiations for an additional 20 business days, or (2) the dispute will be shared with the Board's interconnection ombudsperson; or (3) both Parties may by mutual agreement request mediation from an outside third-party mediator with costs to be shared equally between the Parties.

(h) If no agreement is reached, the dispute shall proceed to the Board's formal complaint resolution process.

(i) At any time, either Party may file a complaint before the Board pursuant to its rules or exercise whatever rights and remedies it may have at equity or law.