

Rockland Electric Company Comments

BPU Docket No. QO21010085

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Proposed Rules dated June 3, 2024

Rockland Electric Company (“RECO” or the “Company”) fully supports the Board of Public Utilities’ (“Board”) efforts to modernize the State’s electric grid and congratulates the Board’s efforts to prepare this extensive revision of its interconnection rules. Updating the Board’s interconnection rules will facilitate the achievement of the State’s ambitious clean energy goals.

The Company acknowledges that some of the rule proposals incorporate suggestions provided by the New Jersey Electric Distribution Companies (“EDCs”) in 2023. However, the Board has not adopted one of the EDCs’ most important suggestions, that the Board convene a working group of stakeholders to assist in the revision of the Board’s interconnection rules. Such a working group would allow the Board to incorporate the knowledge and reflect the needs of both developers and the EDCs.

Unfortunately, several of the proposed interconnection rules do not reflect an understanding of the EDCs’ electrical power system, the interconnection process, and the process of developing hosting capacity maps. The following comments identify those misunderstandings and suggest workable alternatives.

The proposed interconnection rules also do not incorporate the EDCs’ suggestion to focus on implementing those processes and procedures that will provide an immediate and substantive benefit to stakeholders. In their previous comments, the EDCs cautioned that electric grid modernization proposals that involve the actions of other regulatory bodies (*e.g.*, the Federal Energy Regulatory Commission’s (“FERC”) implementation of Order No. 2222) or unresolved topics (*e.g.*, the aggregation of distributed energy resources (“DER”)) should be assigned to stakeholder working groups. Such groups can review the experience and best practices of other jurisdictions and develop a better understanding of current and near-term technologies. They also can consider the current system capabilities and future potential of each of the State’s four EDCs. Such a rigorous and studied approach will allow for the implementation of electric grid modernization in an organized, efficient, and cost-effective manner.

Similarly, the proposed interconnection rules require that the EDCs incorporate many additional functions in their hosting capacity maps. If the Board’s goal is to implement a common methodology for determining capacity and a consistent approach to the information, that goal is best achieved through a working group of stakeholders who can share their knowledge and needs.

The Company again urges the Board to convene a series of continuing stakeholder working groups to address the Board’s current interconnection rules, a common hosting map methodology, the implementation of Order No. 2222, and unresolved topics such as the aggregation of DERs.

The following are RECO’s General Observations regarding the proposed interconnection rules. RECO’s specific comments follow these General Observations.¹

GENERAL OBSERVATIONS

Use of IEEE 1547 and UL 1741 Standards and Definitions

The Company recommends that the draft interconnection rules refer to Institute of Electrical and Electronics Engineers (“IEEE”) 1547, UL 1741, and any other generally accepted national standards where available. Establishing different definitions for interconnections and equipment in New Jersey produces uncertainty, especially for those developers doing business in multiple states. These organizations have evaluated many processes and equipment, taking into account analyses, studies, and data from a wide variety of stakeholders. Incorporating these national standards into New Jersey’s rules will facilitate future changes and updates in technologies and processes without the need for specific review. Moreover, referencing these standards in general will allow for any updates to be incorporated organically and on a timely basis into New Jersey interconnection process. Incorporating rules enacted in another state, or incorporating rules that are not generally accepted national standards, would require specific review by the Board to evaluate the underlying analysis, particularly to determine whether that rule was enacted to address a state-specific concern.

Energy Storage

Energy storage offers the potential for multiple value streams to developers, the EDCs, the electric grid, and all customers. Use of energy storage to manage the grid peak can benefit multiple stakeholders and third parties, including customers. While the Company supports the deployment of energy storage, specific standards need to be developed regarding the features and use of energy storage, including mobile energy storage devices. The Company recommends that references to storage be removed from the proposed interconnection rules and studied separately by a stakeholder working group, including how storage impacts interconnection studies.

Non-Exporting Technology and Grid Flexibility Services

“Non-exporting technology” is defined as an electric device that is designed so that a customer-generator is a non-exporting system or that limits the amount of injection past the point of common coupling. Non-exporting technology should be a device designed to restrict export and conform with IEEE 1547 Standards and UL 1741 Standards. Linking qualifying technology to these nationwide standards, which are vetted and updated regularly, will provide clarity and certainty to developers, the EDCs, Board Staff, and other stakeholders.

¹ The Company also joins in the Comments submitted by the NJ Utilities Association (“NJUA”).

Grid flexibility services help to maintain distribution system reliability and safety, whether separately or as part of a DER aggregation. The proposed rules incorporate the use of grid flexibility services. It is premature to include these services in the interconnection rules prior to examining this topic fully, including potential compensation, in future working groups.

Tariffs

The Company agrees that development of standardized protocols governing the various studies, timelines, and related agreements will establish certainty and set reasonable expectations for developers and the EDCs. Such standardized protocols will help to streamline the interconnection process by advising developers at the outset of the requirements needed prior to undertaking a study. Inclusion of these standards and agreements on an EDC's website and/or Interconnection Online Application Platform is sufficient to provide notice to third parties.

Requiring their inclusion in EDC tariffs, however, will needlessly extend the timeline and increase the administrative burden on both the EDCs and the Board, for approval of the inevitable updates. Publication on the EDCs websites, rather than in their tariffs, is consistent with a collaborative process that may be undertaken prior to making any updates. For this reason, the EDCs removed the tariff filing requirement references in their markup of the draft Interconnection Rules. Moreover, to the extent that updates are minor or administrative in nature, requiring a tariff update may hinder the interconnection process with delays.

SPECIFIC COMMENTS – note that the proposed rules are set out as published so that the language in bold is the added language, and language in brackets is the deleted language.

14:8-5.1 Interconnection definitions

DER Aggregation

This definition states: "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 streams, on an aggregated basis, for the purposes of participating in either retail or wholesale markets.

Comment

The proposed regulations should not include DER aggregation because the PJM compliance filings on FERC Order 2222 are still pending at FERC. Certain complex topics, such as grid flexibility services, or the broadening of net energy metering to incorporate storage and non-Class I Renewables, all require further discussion, analysis, and evaluation by interested stakeholders. Given the unsettled nature of these topics or consideration in separate dockets, they currently are not ripe for inclusion in the Board's interconnection rules, as they require significant deliberation among the relevant parties.

EDC Grid Flexibility Services

This definition states: "EDC grid flexibility services" are control capabilities procured from a customer-generator, which may be compensated by the EDC, that help to maintain distribution system reliability and safety, whether separately or as part of a DER aggregation.

Comment

EDC Grid flexibility services should be deleted from the proposed interconnection regulations. This is an example of a complex topic that requires further discussion, analysis, and evaluation by interested stakeholders. It is not ripe for inclusion in the Board's interconnection rules as it requires significant deliberation among the relevant parties.

Enhanced PAVE process

The definition states: "Enhanced PAVE process" is a real-time meeting between an EDC and a prospective community solar facility or community energy system applicant in which the EDC reviews and walks through a PAVE report. The enhanced PAVE process is an optional addition to the normal PAVE process."

Comment

This definition is unclear. Specifically, it does not explain the difference between "enhanced PAVE process" and "the normal PAVE process." "PAVE" is a Pre-Application Verification/Evaluation process designed to provide a prospective Applicant or Customer-generator an opportunity to receive available information from the EDC prior to submitting a formal application.

Facilities study

This definition states: "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.

Comment

A facilities study does not determine a "timeline" for an upgrade. Rather, a facilities study determines the cost and the time required to build and install upgrades necessary to accommodate an interconnection request. A timeline of upgrades is not supplied until later in the interconnection process, and should not be created until the applicant pays for the Facilities Study. This definition should be replaced with the following definition:

"Facilities Study" means an engineering study conducted by the EDC to determine the required upgrades to the EDC's electrical power system, including the cost to build and install such upgrades as necessary to accommodate an interconnection request. The EDC may conduct a Facilities Study in combination with other required studies. Nothing in this chapter shall preclude a Facilities Study and a System Impact Study from being conducted together, or as one study.

Hosting Capacity Analysis

This definition states: "Hosting capacity analysis" means the methodology used to calculate, publish, and evaluate the ability to increase the available hosting capacity of a given circuit."

Comment

Hosting capacity is not "published." Therefore, the definition should delete "publish."

Interconnection Agreement

This definition adds the language in bold and states: "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."

Comment

The phrase, "whether the facility operates singly, or as part of a DER aggregation," should be deleted. The proposed regulations should not include references to DER aggregation because, as noted above, the PJM compliance filings on FERC Order 2222 are still pending at FERC. Also, the regulation of DER aggregation should be the subject of a working group of stakeholders and EDCs who can jointly develop the technology and the requirements for DER aggregation in New Jersey.

Non-exporting customer-generator facility

This definition states: "Non-exporting customer-generator facility" means a customer-generator facility that is designed to prevent or limit export of electricity past the point of common coupling from the customer-generator facility to the EDC's electrical power system."

Comment

This definition is unclear. If the definition intends to define a generating-facility that does not export, the definition should simply state:

Non-exporting customer-generator facility is a customer-generator facility that does not export electricity past the point of common coupling.

"Non-exporting technology

This definition states: "Non-exporting technology" means an electric device that is designed to ensure that a customer-generator facility is a non-exporting customer-generator facility or that limits the amount of injection past the point of common coupling."

Comment

Non-exporting technology should be a device designed to “restrict export” and conform with IEEE 1547 Standards and UL 1741 Standards. As noted above, linking qualifying technology to these nationwide standards, which are vetted and updated regularly, will provide clarity and certainty to developers, the EDCs, Board Staff, and other stakeholders.

Pre-application verification/evaluation process

This definition states: "Pre-application verification/evaluation process" or "PAVE process" means a 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, processing timeline, and other technical and procedural matters at the beginning of the interconnection process.”

Comment

The PAVE process provides information to the applicant that is available to the EDC at the time of the request. Whether the information is “actionable” is up to the applicant. This definition of PAVE requires more information from the EDC than may be available, and implies that the EDC should provide guidance to the applicant. The PAVE process is not intended to provide project design advice to the applicant, nor should the EDC provide such advice. Therefore, RECO recommends the following language:

PAVE is a Pre-Application Verification/Evaluation process designed to provide a prospective Applicant or Customer-generator an opportunity to receive available information from the EDC prior to submitting a formal application.

Solar permitting application software

This definition states: "Solar permitting application software" is a scalable software platform designed by a national lab or other entity designed to be deployed in a municipality or other local entity to significantly automate and compress solar/storage permit application and processing times. One example of solar permitting application software is the SolarAPP+, developed by the National Renewable Energy Laboratory.”

Comment

This software cannot be incorporated into the EDCs’ software because incorporation raises cyber security issues. However, it would be useful for the EDCs to be able to access the status of a developer’s permitting process at the municipality.

14:8-5.2 General interconnection provisions

(a)(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 two MW or less, as measured in alternating current;**

Comment

RECO agrees that measurements should be in alternating current (AC). All measurements at Levels 1, 2 and 3 should be in AC, including energy storage. The limiting element of the facility is the inverter, which is not studied in direct current (DC). A study of a facility in DC does not show what the facility is exporting to the electric grid.

(f) 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 pursuant to 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.

Comment

The proposed regulations should not include references to DER aggregation because the PJM compliance filings on FERC Order 2222 are still pending at FERC. Also, the regulation of DER aggregation should be the subject of a working group of stakeholders and Electric Distribution Companies (EDCs) who can jointly develop the technology and the requirements for DER aggregation in NJ.

(i) Prospective community solar facility or community energy system applicants shall have the right to request an enhanced PAVE process meeting to discuss the PAVE report prior to application filing, and the EDC shall grant such a request upon a prospective community solar facility or community energy system applicant's payment of the required fee.

Comment

As noted above, “enhanced PAVE process” is not defined clearly. The definitions do not make clear the difference between “normal PAVE process” and “enhanced PAVE process.”

(k) 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 the utilization of non-exporting technology that prevents the export of electricity past the point of common coupling, either in whole or in part, or by enrolling in a Board-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 documents such findings to the Board.

Comment

This Section requires modification. First, the reference to “Board approved EDC grid flexibility services program” should be removed. EDC grid flexibility services is an example of a complex topic that requires further discussion, analysis, and evaluation by interested stakeholders. It is

not ripe for inclusion in the Board's interconnection rules and requires significant deliberation among the relevant parties.

Also, the phrase "documents such findings to the Board," should be removed. First, it is unnecessary to bring to the Board every EDC decision not to permit net export capacity as the basis for the appropriate studies. The proposed regulations incorporate a dispute resolution system, and an applicant can dispute the EDC decision through the dispute resolution process. Further, the word "documents" is unclear. RECO recommends the following language:

In determining the appropriate interconnection level and performing the related studies, the EDC may allow an applicant to limit its ability to export power to the grid to less than its nameplate rating, including by utilizing non-exporting technology that is certified pursuant to N.J.A.C. 14:8-5.3. The net export capacity of the customer-generator facility or Facility shall form the basis for the appropriate studies, unless the EDC determines, that the Applicant's proposal would potentially harm the integrity of the EDC's electric power system and shall include such findings in the System Impact Study report.

(l) By (120 days of the Board's effective date of this rulemaking), each EDC shall make a compliance filing to allow existing customer-generator facilities to add an energy storage device and/or upgrade to a UL 1741-compliant smart inverter without additional study through the appropriate interconnection process on all circuits that can host greater distributed energy storage capacity.

Comment

The proposed regulation should be deleted. Allowing the addition of a storage device and/or upgrade to a UL 1741-compliance smart inverter without additional study puts the EDCs' distribution system at risk. If a battery is added to the facility studied, the utility may want to study the battery storage facility. Also, the size of the additional facility may require additional study. It is not correct to assume that if the generator is approved for "X" kW, that the storage device will not increase the generation capacity of the facility.

Also, the requirement of a compliance filing is inappropriate. A compliance filing is made to comply with a Board Order, and there is no Board Order at issue here.

(m)(2) Include standardized online forms for required applicant information, the 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, options for email and phone/text status change notifications, and other such administrative requirements that the Board may establish through Board order either following a joint EDC proposal or on its own initiative;

Comment

It is unclear what a "thermometer bar" is. Instead, this proposal should provide for "a visual milestone bar."

- (m)(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;**

Comment

Integrating a third-party platform into the utilities' software creates cyber security issues. Knowing the status of an applicant's permitting at a municipality is helpful, but that should not be accomplished by compromising the utilities' information technology ("IT") systems.

- (o) 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:**

- 1. Electric vehicle charging infrastructure, including any vehicle-to-grid bidirectional capabilities;**
- 2. Building electrification upgrades;**
- 3. Deployment of energy efficiency upgrades; or**
- 4. 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.**

Comment

This Section requires modification because it suggests that items 1-4 can be developed by a third party. The EDC cannot sufficiently verify such events in order to safeguard the safety and reliability of its electrical power system. RECO proposes the following language:

"Any Applicant or Customer-generator may request that the EDC review the impact of any significant anticipated changes in load associated with the Applicant installing any of the following contemporaneously with the Facility: (i) electric vehicle charging infrastructure, including any electric vehicle-to-grid bidirectional capabilities; (ii) building electrification upgrades; (iii) deployment of energy efficiency upgrades; or (iv) verifiable increases in load; The EDC may require the Applicant to delay energization or re-start the interconnection process if contemplated contemporaneous installations are not completed prior to the planned energization of the system."

- (p) 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 three business days after the missed deadline by email or another methodology 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.

Comment

This Section unnecessarily involves Board Staff in the interconnection process because it requires, at all times, that the EDC notify Board Staff if a deadline is missed and that the EDC continually update Board Staff. Further, all of the required notices and updates take time and resources from the EDC's processing of the application in situations where the applicant has not objected to an extension of time and the project is continuing to progress. This section also does not recognize that emergencies arise where notice of a missed deadline is not feasible. For these reasons, RECO recommends the following language:

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 through the CIAP, within three (3) business days, wherever feasible, after the missed deadline. 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 notify the Applicant through the CIAP and Board Staff in writing of any changes in an expected completion date for authorization to energize.

- (r) The applicant may request, in writing, the extension of a deadline established pursuant to this chapter. The requested extension may be for up to one-half of the time originally allotted (for example, a 10-business-day extension for a 20-business-day timeframe). The EDC shall not unreasonably refuse this request. If further deadline extensions are necessary, the applicant may request an extension through the CIAP portal or from the EDC's interconnection ombudsman, who shall grant the request, if it is reasonable, or otherwise, deny it...**

Comment

This Section does not address what happens if an applicant misses a deadline or fails to provide requested material within a deadline. In order to accomplish the Board's goals for interconnecting facilities and complete the timely interconnection of clean energy facilities, the Board must establish consequences for an applicant's failure to meet deadlines. Therefore, the Board should add to these proposed regulations the following:

If the Applicant does not meet or comply with the timelines or relevant extension provisions set forth in this chapter, the application shall expire, and the application removed from the interconnection queue.

- (r) By (120 days of the effective date of this rulemaking), each EDC shall file a compliance tariff that sets forth standardized protocols governing the conduct of system impact studies, facility studies, 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 N.J.A.C. 14:8-5.6, along with, and including...**

Comment

As explained in the General Comments above, this type of information should not be included in an EDC's tariff. A tariff filing does not provide the flexibility to incorporate changes in technology or industry standards, and once technology and standards are written into the EDC's tariff, a change in the industry standard or technology will require a filing with the Board. Once an EDC makes the tariff filing with the Board, the filing becomes a litigated matter subject to discovery and potential hearings.

Additionally, it should be recognized that until a final regulation is issued, the EDCs do not know what the interconnection requirements will be. Therefore, compliance necessarily will begin when the final regulations are adopted.

14:8-5.3 Certification of customer-generator interconnection equipment

General comment: RECO notes through this Section references are made to providing notice in writing and in email. Given that the regulations require that the EDCs develop a common interconnection agreement process ("CIAP") portal, duplicate notices are not necessary. The CIAP portals inform the Applicant about the status of the application and provide notices about the status of the application. Therefore, duplication of the information and notices provided by the CIAP portal is not necessary.

- (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 pursuant to 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] **at** (a) above.

Comment

The phrase "or alternative testing protocols permitted pursuant to this chapter" should be removed. It is not clear what alternative testing protocol in N.J.A.C. 14:8 this section is referencing, and any alternative testing should be specified clearly after review by relevant stakeholders.

The references in N.J.A.C. 14:8 to testing protocols are to "an OSHA-approved nationally recognized testing laboratory." The appropriate testing of interconnection equipment is critical to the safe and reliable operation of the EDCs' electrical power systems. All equipment testing should be performed by a nationally recognized testing laboratory.

If the interconnection equipment includes only the interface components (switchgear, inverters, **non-exporting technology**, or other interface devices), an [interconnection] 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 pursuant to this section**, the interconnection equipment shall be deemed certified and the EDC shall not require further design review, testing, or additional equipment.

Comment

As noted above, the phrase “or alternative testing protocols permitted pursuant to this chapter” should be removed, or the alternative testing protocol specified clearly after review by relevant stakeholders.

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

Comment

There is no reason to notify the applicant both in writing and through email. Duplicate notices simply create extra work and confusion. The applicant receives that information through the CIAP portal. RECO recommends the following language:

Within three (3) business days after receiving an application for level 1 interconnection review, the EDC shall provide electronic notice to the Applicant via the CIAP 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.

14:8-5.4 Level 1 interconnection review

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

Comment

As noted above, given that the regulations are requiring that the EDCs develop a CIAP portal, duplicate notices are not necessary. The CIAP portals inform the Applicant about the status of the application and provide notices about the status of the application, and therefore, duplication of the information and notices provided by the CIAP portal is not necessary. The language “in writing, through email and through the CIAP portal” should be revised to “through the CIAP

portal."

- (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, [an applicant may resubmit the application under the level 2 or level 3 interconnection review procedure, as appropriate.] **the EDC shall provide direct evidence of which screens were failed and why. In response, an applicant may either...**

Comment

The phrase "direct evidence" should be deleted because it reflects a misunderstanding of what it means when an Applicant fails a screen. The EDC reviews an application for compliance with engineering standards. The review is not a legal process where parties are offering proof of their positions. RECO recommends the following language:

The EDC shall provide support for and explanation of why the EDC denied the application.

- (p)(1) Resubmit an amended level 1 application for expedited review with appropriate mitigation measures that either reduce the customer-generator facility's capacity or restrict its ability to export past the point of common coupling through the addition of non-exporting technology. The EDC shall also allow an applicant to address a failed screen by adding energy storage or increasing its proposed load, provided that such mitigation measures are paired with non-exporting technology and/or a reduction in the customer-generator facility's capacity...**

Comment

The phrase "expedited review" should be removed. It is not defined, and there is no reason why the review of an applicant's submittal of mitigation measures would be faster, or should be faster, than the review of the initial application.

Additionally, this Section incorrectly states that an applicant can mitigate by adding energy storage or increasing its proposed load. Neither adding energy storage or increasing load necessarily mitigates a screen failure, and this phrase should be removed. RECO's recommended language is as follows:

Resubmit an amended level 1 application for review with appropriate mitigation measures that may include:

- a. Reduction in capacity or export capability; or*
- b. Restrict export past the Point of common coupling through an addition of a non-exporting technology.*

14:8-5.5 Level 2 interconnection review

(a)(2) The facility has a capacity of two megawatts or less, as measured in direct current;

Comment

All measurements at Levels 1, 2 and 3 should be in alternating current (AC), including energy storage. The limiting element of the facility is the inverter, which is not studied in direct current (DC). A study of a facility in DC does not show what the facility is exporting to the electric grid.

(o) Within 15 business days after the EDC notifies the applicant that the application is complete [under] **pursuant to** (n) above, the EDC shall notify the applicant [by e-mail or in writing] **through the CIAP portal and by email** of one of the determinations at (o)1 through 4 below, as applicable. During the 15 business days provided [under] **pursuant to** 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:

Comment

As noted above, given that the regulations require that the EDCs develop a CIAP portal, duplicate notices are not necessary. The CIAP portals inform the Applicant about the status of the application and provide notices about the status of the application, and therefore, duplication of the information and notices provided by the CIAP portal is not necessary. The language “in writing, through email and through the CIAP portal” should be revised to “through the CIAP portal.”

(o)(3)(ii) [If the customer-generator notifies the EDC that the customer-generator consents to pay for the review and/or modifications, the] **Within 15 business days after the EDC offers to perform additional review and/or modifications, 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[; and], or within a longer period 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; ...**

Comment

This Section mistakenly misapplies the term “modifications” by suggesting that the EDC makes modifications. Instead, the reference to modifications is to the “minor modifications” in Section (o)(3)(i), which says that the EDC may “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 Section therefore should begin, “Within 15 business days after the EDC

offers to perform the additional review referenced in in (o)(3)(i)...” It is the customer-generator that makes the modifications, not the EDC.

Also, the phrase, “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 application process,” should be revised. This language does not make clear that the applicant is removed from the interconnection queue. RECO recommends the following language:

If such deposits or payments are not made, the EDC may remove the Applicant from the Interconnection queue and require the Applicant that failed to make the payment to restart the interconnection process.

14:8-5.6 Level 3 interconnection review

(a)(1) Are greater than two MW, as measured in direct current.

Comment

All measurements at Levels 2 and 3 should be in alternating current (AC), including energy storage. The limiting element of the facility is the inverter, which is not studied in direct current (DC). A study of a facility in DC does not show what the facility is exporting to the electric grid.

14:8-5.10 Pre-Application Verification/Evaluation (PAVE) process

(C)(3) Available hosting capacity (MW) of the substation/area bus or bank and circuit, which is the total capacity less the sum of existing and queued generating nameplate capacity, accounting for all load served by existing and queued generators. In calculating available hosting capacity and how much of it a potential customer-generator facility may utilize, the EDC shall account for non-exporting technology, including non-exporting technology used in combination with increased on-site load or an energy storage device, that limits or will limit the maximum amount of power a customer-generator facility can export to less than its nameplate capacity rating...

Comment

The calculation of hosting capacity depends on the characteristics of each EDC’s electrical power system. If the Board requires a common methodology of calculating hosting capacity, a working group of stakeholders should convene to determine what common factors should be included in the calculation.

Also, this section proposes a conflicting definition of hosting capacity. In the proposed definitions, the proposed regulations define hosting capacity as follows:

"Hosting capacity" means the amount of aggregate generation capacity that can be accommodated on the electrical power system, or a specific electrical power system circuit, without requiring distribution system upgrades.

Therefore, language that conflicts with the definition of hosting capacity should be deleted.

14:8-5.11 Hosting capacity maps

- (a) By (120 days of the effective date of this rulemaking), each EDC shall make a tariff filing to implement a common hosting capacity mapping process to aid applicants. Hosting capacity maps shall indicate locations on each EDC's distribution system with spare capacity and locations which are likely to require additional upgrades if a customer-generator facility interconnects there.**

Comment

As the EDCs have previously advised Board Staff, this type of information should not be included in an EDC's tariff. A tariff filing does not provide the flexibility to incorporate changes in technology or industry standards, and once technology and standards are written into the EDC's tariff, a change in the industry standard or technology will require a filing at the Board. Once an EDC makes a tariff filing at the Board, the filing becomes a litigated matter subject to discovery and potential hearings.

Additionally, it should be recognized that until a final regulation is issued, the EDCs do not know what the hosting capacity requirements will be. Therefore, compliance necessarily will begin when the final regulations are adopted.

As noted above, if the Board requires a common methodology of calculating hosting capacity, a working group of stakeholders should convene to determine what common factors should be included in the calculation. Further, the hosting capacity map indicates where additional upgrades are *less* likely. Therefore, the phrase "which are likely to require additional upgrades," is inaccurate.

- (b) An EDC shall post distribution system hosting capacity maps on its website, update them at least once every quarter, and include both circuit and substation level data in the maps. The available hosting capacity values for each circuit shall be calculated using common methodology and presented in a consistent manner across all EDCs' websites. An EDC shall post a written summary of all significant changes to hosting capacity maps on its website and simultaneously distribute them to a subscriber email listserv at least once every quarter. Each EDC shall clearly label its maps with detailed legends explaining what the data means and ensure its map legends use a nomenclature common to all EDCs.**

Comment

Hosting capacity maps do not need to be calculated using a common methodology, as long as the presentation is consistent among the EDCs. If the Board requires a common methodology of calculating hosting capacity, a working group of stakeholders should convene to determine what common factors should be included in the calculation.

The following language in this Section is unclear: "An EDC shall post a written summary of all significant changes to hosting capacity maps on its website and simultaneously distribute them to a subscriber email listserv at least once every quarter." If this language requires that the EDC

summarize changes in capacity every quarter, it is an unnecessary use of resources and time that does not supply useful information. By the time an engineer completes the summary, new data is entered into the capacity calculation, which makes any summary of changes obsolete when the writing is finalized.

(c) To the greatest extent permitted pursuant to the North American Electric Reliability Council standards, applicable Federal and State laws, rules, and regulations, and internal EDC physical and cybersecurity policies, all hosting capacity maps shall be integrated with GIS systems, visually present all system data for substations, feeders, and related distribution assets, and allow potential applicants to easily determine, based on an entered street address, the following information:

(1) Whether the nearby distribution circuit(s) are closed, have limited available surplus capacity, or are fully open to interconnecting additional generation;

Comment

The phrase “fully open” should be deleted. It is not defined, and no interconnection point is “fully open.”

(2) A recommended and maximum amount of additional export-capable generating capacity, defined as the maximum amount of power customer-generator facilities can export, after accounting for any non-exporting technology, that can be accommodated on each nearby open circuit without violating any reliability criteria, including, but not limited to, thermal, steady- state voltage, voltage fluctuation, and voltage protection criteria;

Comment

This Section should be deleted. The EDC does not supply recommendations to potential applicants. Regulated utilities should not be in the business of giving engineering design advice to third parties, which is what this section proposes. The hosting capacity map simply shows the status of the system at a snapshot in time.

(5) A range of budgetary cost estimates for anticipated upgrades required to make additional hosting capacity available, based on high-level estimates (for example, ± 25 percent);

Comment

This Section should be deleted. The cost of upgrades is part of the interconnection process. Also, the addition of a “range of budgetary cost estimates” to the hosting capacity maps will not provide significant value given that they are high level estimates. Estimates of upgrades for an EDC’s entire electric system are difficult and an added administrative responsibility. Such estimates may lead developers and DER owners to make significant business decisions based on incomplete information.

(6) Uniform load on a circuit segment...

Comment

“Uniform load” is not an engineering term and its meaning is unclear.

(8) Identification of potentially limiting equipment requiring a system upgrade on the hosting capacity maps (for example, voltage controllers, protective relays, communication systems, conductor ampacity, etc.)...

Comment

This requirement should be deleted because such limitations are determined during the interconnection process.

CONCLUSION

The Company requests that the Board revise the proposed Interconnection Rules consistent with the comments above.