

**Chapter 324: SMALL GENERATOR INTERCONNECTION PROCEDURES**

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**SUMMARY:** This Chapter establishes procedures for small generator interconnections to utility systems.

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**Chapter 324: SMALL GENERATOR INTERCONNECTION PROCEDURES**

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**§ 1. SCOPE**

This Chapter establishes procedures and requirements related to generators that are subject to Commission jurisdiction that are seeking to interconnect to a Transmission and Distribution (T&D) Utility's Distribution System (which, as defined below, includes the T&D Utility's transmission and distribution systems). Each T&D Utility and Applicant shall follow the review procedures set forth in this Chapter for the level applicable to the generating facility to be interconnected.

A.

**§ 2. DEFINITIONS**

The following words and terms, when used in this Chapter, shall have the following meanings, unless the context clearly indicates otherwise.

- A. **Aggregated Generation.** "Aggregated Generation" means, as of the date of the Applicant's application, the following ICGF projects, in addition to the project proposed by the Applicant, that are or would be interconnected to the Radial Distribution Circuit: (i) all existing projects that are in-service; and (ii) all ICGFs that have paid the T&D Utility for 100% of interconnection-related costs attributable to it, including costs for studies, distribution facilities, system upgrades, metering, and other items which the ICGF has cost responsibility.
- B. **Allocated Capacity.** "Allocated Capacity" means existing aggregate generation capacity in megawatts (MW) interconnected to a substation/area bus, bank or circuit (i.e., amount of generation online).
- C. **Applicant.** "Applicant" means a person who has filed an application to interconnect a generating facility to a T&D Utility System
- D. **Area Network.** "Area Network" means a type of T&D Utility System served by multiple transformers interconnected in an electrical network circuit generally used in large, densely populated metropolitan areas in order to provide high reliability of service and having the same definition as the term "secondary grid network" as defined in IEEE standard 1547.
- E. **Business Day.** "Business Day" means any day except a Saturday, Sunday, a Federal Reserve Bank Holiday, or a holiday recognized by the State of Maine. A Business Day shall open at 8:00 a.m. and close at 5:00 p.m. Eastern Prevailing Time.

- F. **Certified Generator.** "Certified Generator" means an Interconnection Customer whose ICGF complies with the IEEE 1547 and UL 1741 standards.
- G. **Circuit Protection and Coordination Study.** "Circuit Protection and Coordination Study" means an analysis to ensure that any fault currents resulting from a short-circuit do not exceed the interruptive rating of protective equipment. The study ensures the coordination of protective devices for proper sequencing of tripping.
- H. **Commercially Reasonable Efforts.** "Commercially Reasonable Efforts" means, with respect to an action required to be attempted or taken under this Chapter, efforts that are timely and consistent with Good Utility Practice and are otherwise substantially equivalent to those a party would use to protect its own interests.
- I. **Commissioning Test.** "Commissioning Test" means a test performed during the commissioning of all or part of an ICGF to do one or more of the following: (a) verify specific aspects of its performance; (b) calibrate its instrumentation; or (c) establish instrument or protective function set points.
- J. **Competitive Electricity Provider.** "Competitive Electricity Provider" or "CEP" means a marketer, broker, aggregator, and any entity selling electricity to the public at retail who is licensed pursuant to Chapter 305 of the PUC's rules. This term does not include T&D Utilities, as defined herein.
- K. **Company.** "Company" means a T&D Utility.
- L. **Contingent Upgrades.** "Contingent Upgrades" shall mean (i) proposed Interconnection Facilities or Distribution Upgrades that are required to accommodate an earlier-queued Interconnection Request or (ii) modifications planned or proposed by the T&D Utility, where (i) or (ii) are dependent upon the Interconnection request's costs, timing, and study findings and if delayed or not built, could cause a need for restudies of the Interconnection Request or a reassessment of the cost, timing, or extent of Interconnection Facilities and/or Distribution Upgrades.
- M. **Customer.** "Customer" means any entity interconnected to the utility Company system for the purpose of receiving or exporting electric power from or to the T&D Distribution System.
- N. **Distribution Upgrades.** "Distribution Upgrades" means the additions, modifications, and upgrades to the Interconnecting T&D Utility's Distribution System at or beyond the Point of Common Coupling to accommodate interconnection of the ICGF. Distribution Upgrades do not include Interconnection Facilities.

- O. **Equipment Package.** "Equipment Package" means a group of components connecting an electric generator with a T&D Utility's Distribution System, and includes all interface equipment including switchgear, inverters or other interface devices. An Equipment Package may include an integrated generator or electric source.
- P. **Facilities Study.** "Facilities Study" is an analysis, performed at election of the Applicant, of the Substantial System Modifications necessary to interconnect the Interconnection Customer Generator Facility. A Facilities Study report (1) shall provide a description, estimated cost of, and schedule for required facilities to interconnect the ICGF to T & D Distribution System and (2) shall address the short circuit, instability, and power flow issues identified in the Impact Study.
- Q. **Feasibility Study.** "Feasibility Study" means a preliminary evaluation of the system impact and cost of interconnecting the ICGF to the T&D Utility's system.
- R. **FERC.** "FERC" means the U.S. Federal Energy Regulatory Commission.
- S. **Fault Current.** "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.
- T. **Generating Capacity.** "Generating Capacity" is the nameplate rating of the generator to be interconnected. When the generator is a Direct Current (DC) generator, the Generating Capacity will be the measured based on the Alternating Current (AC) ratings of the inverters proposed by the Interconnection Customer.
- U. **Good Utility Practice.** "Good Utility Practice" means 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 judgement 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 includes all acceptable practices, methods, or acts generally accepted in the New England region.
- V. **IEEE.** "IEEE" means the "Institute of Electrical and Electronic Engineers."
- W. **IEEE Standards.** "IEEE standards" means the standards published by the Institute of Electrical and Electronic Engineers, available at [www.ieee.org](http://www.ieee.org).

- X. **Impact on System Operation.** "Impact on System Operation" is any disruption or deterioration of service to T&D Utility's customers, or damage to T&D Utility's system caused by operating the ICGF that is documented in the course of an Impact Study.
- Y. **Impact Study.** "Impact Study" means the engineering study conducted by the T&D Utility to determine the scope of the required modifications to the T&D Utility's System and/or the ICGF to accommodate the requested interconnection.
- Z. **In-Kind Modification.** "In-Kind Modification" means a change to any of (1) the Interconnection Customer side DC equipment, (2) the inverters that does not increase the kW and kVA export capacity (and resulting in no change to the AC export capability, voltage profile, or utility equipment thermal ratings), (3) relays/reclosers that do not alter trip settings, (4) transformer changes that do not alter the MVA rating, primary voltage, or primary winding, (5) equivalent change to AC fuses, or (6) equivalent change to the grounding configuration.
- AA. **Interconnection Agreement.** "Interconnection Agreement" means an agreement between an entity and a T&D Utility which governs the connection of the ICGF to the T&D Utility's system, as well as the ongoing operation of the ICGF after it is connected to the system. An Interconnection Agreement shall adhere to the standard form agreement approved by the PUC and posted on the PUC's website, unless modifications are approved pursuant to this Chapter.
- BB. **Interconnection Customer.** "Interconnection Customer" mean any entity interconnected to the T&D Distribution System for the purpose of receiving or exporting electric power to or from the T&D Distribution System.
- CC. **Interconnection Customer Generator Facility.** "Interconnection Customer-Generator Facility", or "ICGF" means the equipment used by an Interconnection Customer to generate, manage and monitor electricity. An Interconnection Customer Generator Facility typically includes an electric generator and/or an Equipment Package, as defined herein.
- DD. **Interconnection Facilities.** "Interconnection Facilities" means facilities and equipment that are necessary to physically and electrically interconnect the ICGF to the T&D Distribution System. Interconnection Facilities shall not include Distribution Upgrades.
- EE. **Interconnection Request.** "Interconnection Request" means the request of an Applicant to interconnect an ICGF to the T&D Distribution System.
- FF. **Level 1.** "Level 1" means certified, inverter-based facilities that: (a) pass the applicable screens; and (b) have a power rating of twenty-five kilowatts (25 kW) or less on Radial or Spot Network systems. For Level 1 facilities the T&D Utility and Applicant shall follow the procedures set forth in § 9.

- GG. **Level 2.** "Level 2" means certified generating facilities that: (a) pass the applicable specified screens; (b) do not qualify for Level 1; and (c) have a power rating of two megawatts or less (2MW) or less. For Level 2 facilities the T&D Utility and Applicant shall follow the procedures set forth in § 10.
- HH. **Level 3.** "Level 3" means certified generating facilities that: (a) pass the applicable screens; (b) do not qualify for Level 1 or Level 2; (d) have a power rating of ten megawatts (10MW) or less; and (e) do not export power to the T&D Distribution System. For Level 3 facilities the T&D Utility and Applicant shall follow the procedures set forth in § 11.
- II. **Level 4.** "Level 4" means all generating facilities that do not qualify for Level 1, Level 2 or Level 3. For Level 4 facilities the T&D Utility and Applicant shall follow the procedures set forth in § 12.
- JJ. **Licensed Professional Engineer.** "Licensed Professional Engineer" means a professional engineer licensed to practice in Maine
- KK. **Load Flow Study.** "Load Flow Study" is an analysis to determine if system voltages remain within specified limits under normal or emergency operating conditions, and whether equipment such as transformers and conductors are thermally overloaded.
- LL. **Maine Public Utilities Commission.** "Maine Public Utilities Commission" or "PUC" means the state regulatory authority over T&D Utilities or any successor agency.
- MM. **Minor System Modifications.** "Minor System Modifications" include activities such, but not limited to, as changing the fuse in a fuse holder cut-out, upgrading a transformer, changing out a pole, upgrading the line, changing the settings on a circuit recloser and other activities that usually entail less than thirty-two (32) hours of work and less than thirty thousand dollars (\$30,000) in materials. This definition applies to all Levels. Interconnection Facilities do not constitute Minor System Modifications.
- NN. **Parties.** "Parties" means a T& D Utility, Applicant, Interconnection Customer or other entity (i) involved in a process or (ii) signatory to an agreement in accordance with this Chapter.
- OO. **Point of Common Coupling.** "Point of Common Coupling" means the point in the interconnection of a ICGF with a T&D Utility's system at which the harmonic limits are applied and shall have the same meaning as in IEEE Standard 1547.
- PP. **Pre-Application Report.** "Pre-Application Report" is a report that may be requested by potential applicants developing projects of 500 kW in size and

greater. The report provides Applicants information about system conditions at a proposed Point of Common Coupling.

- QQ. **Queue.** "Queue" means a list depicting the current status of requests for the interconnection of new or uprated (increased capacity) generating facilities.
- RR. **Queue Position.** "Queue position" means the order for the purposes of interconnection study and cost allocation. Queue Position is established based on the date of receipt of a completed application.
- SS. **Radial Distribution Circuit.** "Radial Distribution Circuit" means a portion of the T&D Distribution System consisting of one primary circuit extending from a single substation or transmission supply point arranged such that the primary circuit serves an ICGF in a particular local area.
- TT. **Short-Circuit Study.** "Short-Circuit Study" is an analysis of an electrical system that determines the magnitude of the currents that flow during an electrical fault.
- UU. **Site Control.** "Site Control" means (1) ownership of, a leasehold interest in, or a right to develop a site for the purpose of constructing the ICGF; (2) an option to purchase or acquire an easement, a license or a leasehold interest in the site for the purpose of constructing the ICGF with an initial term of at least 12 months from the date of the Application submission to the T&D Utility; (3) an exclusivity or other business relationship between the Interconnection Customer and the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for the purpose of constructing the ICGF; or (4) filed applications for required permits to site the Facility on federal or State property. Site Control shall not include letters of intent or, with the exception of (4), other arrangements that are not binding on the entity having the right to sell, lease, or grant the Interconnection Customer the right to possess or occupy a site for the purpose of constructing the ICGF.
- VV. **Spot Network.** "Spot Network" means a type of 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 to a small group of Customers and has the same meaning as the term is used in IEEE standard 1547.
- WW. **Stability Study.** "Stability Study" is an analysis to identify any instability or inadequately damped response to system disturbances resulting from the interconnection.
- XX. **Substantial System Modifications.** "Substantial System Modifications" are electric system modifications required to accommodate the proposed interconnection which exceed Minor System Modifications.



- YY. **T&D Distribution System.** "T&D Distribution System" is the interconnecting T&D Utility's transmission and distribution facilities and equipment used to transmit and distribute electricity.
- ZZ. **Transmission and Distribution Utility.** "Transmission and Distribution Utility" or "T&D Utility" means a person, its lessees, trustees, receivers or trustees appointed by a court, owning, controlling, operating or managing a transmission and distribution plant for compensation within the State.
- AAA. **UL.** "UL" means Underwriters Laboratories, which has established standards available at <http://ulstandardsinfont.com/> that relate to components of ICGF.
- BBB. **Voltage Collapse Study.** "Voltage Collapse Study" is part of the load flow study. It is typically when the model does not converge and results are not available as there is no solution.
- CCC. **Witness Test.** "Witness Test" shall mean the T&D Utility's option to witness the Commissioning Test per IEEE Standard 1547.

### § 3. COST RESPONSIBILITY

- A. **Interconnection Facilities.** An Interconnection Customer shall be responsible for (1) the actual construction cost of its Interconnection Facilities, as may be adjusted for Contingent Upgrades pursuant to § 12(F), and (2) all expenses, including overheads, associated with owning, operating, maintaining, repairing and replacing its Interconnection Facilities.
- B. **Distribution Upgrades.** The Interconnection Customer shall be responsible for (1) the actual construction cost of its Distribution Upgrades, as may be adjusted for Contingent Upgrades pursuant to § 12(F), and (2) all incremental expenses incurred to operate and maintain (O&M) the Distribution Upgrades. In determining what O&M expenses are incremental, the T&D Utility shall include an offset for the O&M expenses that the utility would otherwise incur on the existing facilities. Specific O&M charges will be established by Commission Order for each T&D Utility.

### § 4. STANDARD FORMS

- A. **Applications and Agreements.** Standard forms adopted by order of the Maine Public Utilities Commission shall be used for all interconnection applications, Interconnection Agreements, and feasibility, impact and facilities study agreements unless modified in accordance with this section. These standard forms will be available from the T&D Utility and posted on the Commission's website at [www.maine.gov/mpuc](http://www.maine.gov/mpuc). The approval of standard forms is delegated to the Director of Electric and Gas Utility Industries. If an Interconnection Customer or

T&D Utility wishes to use an application or agreement that deviates from the standard form, the Interconnection Customer or T&D Utility shall submit the application or agreement to the Commission for approval. Approval of any deviation from the standard form is delegated to the Director of Electric and Gas Utility Industries.

**B. Interconnection Application.** Each T&D Utility shall allow applications to be submitted electronically and shall accept electronic signatures. The application form must include the following information and the standard form shall be designed to meet this purpose:

1. Basic information regarding the Applicant
2. Information regarding the type, size, location and other relevant specifications of the ICGF;
3. Information regarding the entity that will install the ICGF;
4. Certifications and agreements regarding utility access by the T&D Utility to the property on which the ICGF will be located, or documentation of Site Control for a Level 4 application;
5. Identification of the Licensed Professional Engineer that reviewed and approved the design of the Interconnection Customer- Generator facility, if applicable;
6. Other similar information as needed to determine the compliance of the Applicant with this Chapter.

## **§ 5. STANDARDS FOR THE CERTIFICATION OF GENERATORS AND INTERCONNECTION EQUIPMENT**

**A.** In order to qualify as "certified" for any interconnection procedures, generators shall comply with the following codes and standards:

1. IEEE 1547 Standard for Interconnecting Distributed Resources with Electric Power Systems; and
2. UL 1741 Inverters, Converters and Controllers for Use in Independent Power Systems.

**B.** Interconnection equipment shall be considered "certified" for interconnected operation if the equipment has been tested and listed by a nationally recognized testing and certification laboratory (NRTL) for continuous interactive operation with a utility grid and meets the definition for certification under FERC Order 2006.

- C. Project Designs for Level 2, Level 3 and Level 4 generators greater than 50 kW shall be reviewed and approved by a Licensed Professional Engineer.

## **§ 6. PRE-APPLICATION REPORT**

### **A. Pre-Application Report Request**

1. A potential Applicant may request a Pre-Application Report from the T&D Utility. The request shall include:
  - a. The potential Applicant's contact information (name, address, phone and email);
  - b. A proposed Point of Common Coupling. The proposed Point of Common Coupling shall be defined by latitude and longitude, site map, street address, utility equipment number (e.g., pole number), meter number, account number or some combination of the above sufficient to clearly identify the location of the Point of Common Coupling;
  - c. Generation technology and fuel type and size in kW; and
  - d. A \$300 non-refundable processing fee.
2. In requesting a Pre-Application Report, a potential Applicant understands that:
  - a. The existence of available capacity in no way implies that an interconnection up to this level may be completed without impacts due to the many variables studied as part of the interconnection review process.
  - b. The distribution system is dynamic and subject to change.
  - c. Data provided in the Pre-Application Report may become outdated and not useful at the time of submission of the complete interconnection request.

### **B. Pre-Application Report**

Within fifteen (15) Business Days of receipt of a completed Pre-Application Report Request, the T&D Utility shall provide a Pre-Application Report. The Pre-Application Report shall include the following information, if available:

1. Total Capacity (MW) of substation/area bus or bank and circuit likely available at the proposed site.
2. Allocated Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
3. Queued Capacity (MW) of substation/area bus or bank and circuit likely to serve proposed site.
4. Available Capacity (MW) of substation/area bus or bank and circuit most likely to serve proposed site.
5. Whether the proposed generating facility is located on an Area, Spot or Radial Network.
6. Substation nominal distribution voltage or transmission nominal voltage if applicable.
7. Nominal distribution circuit voltage at the proposed site.
8. Approximate circuit distance between the proposed site and the substation.
9. Relevant line section(s) peak load estimate, and minimum load data, when available.
10. Number of protective devices and number of voltage regulating devices between the proposed site and the substation/area.
11. Whether or not three-phase power is available at the site and/or distance from three-phase service.
12. Limiting conductor rating from proposed Point of Common Coupling to distribution substation.
13. Existing or known constraints such as, but not limited to, electrical dependencies at the proposed Point of Common Coupling, short circuit interrupting capacity issues, power quality or stability issues on the circuit, capacity constraints, or secondary networks.

The Pre-Application Report need only include existing data or information available to the T&D Utility without conducting studies or analyses. A Pre-Application Report request does not obligate the utility to conduct a study or other analysis of the proposed project in the event that data is not available. If the T&D Utility cannot complete all of a Pre-Application Report due to lack of available data, the utility will provide the potential Applicant with a Pre-Application Report

that includes the information that is available and identify the information that is unavailable.

In complying with this Section, the utility shall in good faith provide Pre-Application Report data that represents the best available information at the time of the reporting.

## § 7. GENERAL TECHNICAL SCREENING CRITERIA

- A. For interconnection of a proposed generator to a Radial Distribution Circuit, the Aggregated Generation shall not exceed fifteen percent (15%) of the line section's annual peak load as most recently measured or calculated at the substation. A line section is that portion of a distribution system connected to a Customer bounded by automatic sectionalizing devices or the end of the distribution line.
- B. The Aggregated Generation on the distribution circuit, shall not contribute more than ten percent (10%) to the distribution circuit's maximum fault current at the point on the high-voltage (primary) level nearest the proposed Point of Common Coupling.
- C. The Aggregated Generation on the distribution circuit, shall not cause any Customer equipment on the system or distribution protective devices and equipment (including but not limited to substation breakers, fuse cutouts, and line reclosers), to exceed ninety percent (90%) of the short circuit interrupting capability. The proposed ICGF may not interconnect to a circuit that already exceeds ninety percent (90%) of the short circuit interrupting capability.
- D. The proposed ICGF is interconnected to the T&D Utility System as shown in the table below:

Primary Distribution Line Configuration	Interconnection to Primary Distribution Line
Three-phase, three-wire	If a three-phase or single-phase generator, interconnection must be phase-to-phase
Three-phase, four-wire	If a three-phase (effectively grounded) or single-phase generator, interconnection must be line-to-neutral

- E. If the proposed ICGF is to be interconnected on a single-phase shared secondary, then the capacity of the Aggregated Generation on the shared secondary shall not exceed twenty kilovolt-amperes (20 kVA).
- F. If the proposed ICGF is single-phase and is to be interconnected on a transformer center tap neutral of a 240-volt service, its addition shall not create an imbalance between the two sides of the 240-volt service of more than twenty percent (20%) of nameplate rating of the service transformer.

- G. The Aggregated Generation interconnected to the distribution low-voltage side of the substation transformer feeding the distribution circuit where the generator proposes to interconnect shall not exceed ten megawatts (10 MW) in an area where there are known or posted transient stability limitations to generating units located in the general electrical vicinity (e.g., three or four transmission voltage level busses from the Point of Common Coupling).
- H. The proposed ICGF's Point of Common Coupling will not be on a transmission line unless the Interconnection Request falls under an authorized exemption under Schedule 23 of the ISO-NE Small Generator Interconnection Procedures.

#### **§ 8. SPECIAL SCREENING CRITERIA FOR INTERCONNECTION TO DISTRIBUTION NETWORKS**

The screening criteria required by this Section shall be in addition to the screening criteria required by § 7 of this Chapter.

- A. For interconnection of a proposed ICGF to a Spot Network circuit where the generator or Aggregated Generation exceeds five percent (5%) of the Spot Network's maximum load, the generator must utilize a protective scheme including reverse power relays or a comparable function that will ensure that its current flow will not affect the network protective devices.
- B. For interconnection of a proposed ICGF that utilizes inverter-based protective functions to an Area Network, the Aggregated Generation of exporting generators interconnected on the load side of network protective devices shall not exceed the lesser of ten percent (10%) of the minimum annual load on the network or five hundred kilowatts (500 kW). For a photovoltaic facility without batteries, the ten percent (10%) minimum shall be determined as a function of the minimum load occurring during an off-peak daylight period.
- C. For interconnection of an ICGF to an Area Network that does not utilize inverter-based protective functions or for inverter-based generators that do not meet the requirements of § 8(B) above, the generator must utilize reverse power relays or other protection devices and/or methods that ensure that no export of power from the Interconnection Customer's site, including any inadvertent export (e.g. under fault conditions) that could adversely affect protective devices on the network circuit.

#### **§ 9. LEVEL 1 SCREENING CRITERIA AND PROCESS: INVERTER-BASED GENERATORS NOT GREATER THAN 25 KW**

- A. **Interconnection Application.** An Applicant shall submit an Interconnection application indicating which certified interconnection equipment the Applicant intends to use. Within five (5) Business Days after receipt, the T&D Utility shall acknowledge to the Applicant receipt of the application and notify the Applicant

whether the Interconnection Application is complete, and, if it is not, the T&D Utility shall provide to the Applicant a written list detailing all information that must be provided to complete the application. Within five (5) Business Days after receipt, the T&D Utility shall acknowledge to the Applicant receipt of the application and notify the Applicant that the application is complete or incomplete. If the application is incomplete, the T&D Utility shall provide notice to the Applicant that the application is incomplete and a written list detailing all information that must be provided to complete the application. The Applicant will have ten (10) Business Days after receipt of the list to submit the required information, or to request an extension of time to provide such information. If the Applicant does not comply with this deadline, the application will be deemed withdrawn. An Applicant may include with its application an executed Standard Form Level 1 Interconnection Agreement.

- B. **Applicable Screens.** A facility must pass screens §§ 7(A), 7(E), and 7(I). For interconnections to distribution networks, proposed facilities must also pass screen § 8(A).
- C. **Time to Process Under Screens.** Within ten (10) Business Days after the T&D Utility sends notice to the Applicant that the application is complete, the T&D notify the Applicant whether the ICGF meets all the applicable screens above.
- D. **Screens Failure.** If the ICGF fails one or more of the applicable screens, then the T&D Utility shall provide the Applicant with (1) detailed information on the reason or reasons for failure; (2) the utility's definition of the line section and identification of the automatic sectionalizing device that bounds the line section; (3) aggregated generation on the line section; and (4) a good faith estimate of the costs of additional review in accordance with §9(H). Within five (5) days of such notification, the Applicant may request the application continue to be processed under additional review under Level 2, Level 3, or Level 4..

Notwithstanding a failure of one or more screens, including such failures with or without any Minor System Modifications, the utility, at its sole option, may approve the interconnection provided such approval is consistent with safety, reliability, and power quality, and provided that the Applicant pays all interconnection costs.

- E. **Approval.** The T&D Utility shall send an executable Interconnection Agreement within five (5) Business Days after notifying the Applicant that all the applicable screens have been met.
- F. **Execution of Agreement.** An Applicant that receives an Interconnection Agreement pursuant to this Section shall execute the agreement and return it to the T&D Utility no later than thirty (30) Business days from receiving the Interconnection Agreement (unless the T&D Utility waives this requirement). The Applicant shall indicate the anticipated start date for operation of the ICGF. The

Applicant shall not delay the return of an executed Interconnection Agreement more than ninety (90) days beyond the date shown in the original applicant for initial operations except by mutual agreement between the T&D Utility and the Applicant.

- G. **Default Approval.** If a T&D Utility does not notify a Level 1 Applicant in writing or by e-mail whether the interconnection is approved or denied within twenty (20) Business Days after the receipt of an application, the interconnection shall be deemed approved. The twenty (20) Business Days shall begin on the date that the T&D Utility sends the written notice that the application is received.
- H. **Additional Review.** If an ICGF has failed to meet one or more of the Level 1 screens, but additional review may enable the T&D Utility to determine that, with Minor System Modifications, the ICGF can be interconnected consistent with safety, reliability, and power quality pursuant to § 9(D), the T&D Utility shall offer to perform additional review to determine whether Minor System Modifications would enable the interconnection to be made consistent with safety, reliability, and power quality. The T&D Utility shall undertake the additional review only after the Applicant pays for the additional study. Within ten (10) Business Days of receipt of payment for the additional study, the T&D Utility shall provide to the Applicant a non-binding, good faith estimate of the costs of the upgrades.
- I. **Application Fee.** The fee for Level 1 Interconnection applications is \$100.

**§ 10. LEVEL 2 SCREENING CRITERIA AND PROCESS: GENERATORS NOT GREATER THAN 2MW**

- A. **Interconnection Application.** The Applicant shall submit an Interconnection Application indicating which certified interconnection equipment the Applicant intends to use. Within five (5) Business Days after receipt, the T&D Utility shall acknowledge receipt of the application and notify the Applicant whether the application is complete. If the application is incomplete, the T&D Utility shall provide notice to the Applicant that the application is incomplete and a written list detailing all information that must be provided to complete the application. The Applicant shall have ten (10) Business Days after receipt of the list to submit the listed information, or to request an extension of time to provide such information. If the Applicant does not do so, the application shall be deemed withdrawn.
- B. **Applicable Screens.** A facility must pass screens § 7(A) through § 7(H). Interconnections to distribution networks must pass applicable screens under Section § 8.
- C. **Time to Process Under Screens.** Within fifteen (15) Business Days after the T&D Utility sends notice to the Applicant that the Interconnection Application is



complete, the T&D Utility shall notify the Applicant whether the ICGF meets all the applicable screens in § 10(B) above.

- D. **Screens Failure.** If the ICGF fails one or more of the applicable screens, then the T&D Utility shall provide notice to the Applicant with (1) detailed information on the reason or reasons for failure; (2) the utility's definition of the line section and identification of the automatic sectionalizing device that bounds the line section; (3) aggregated generation on the line section; and (4) a good faith estimate of the costs of additional review in accordance with § 10(H). Within five (5) Business Days of such notice, the Applicant may request the application continue to be processed under additional review under § 10(H), Level 3 or Level 4.

Notwithstanding a failure of one or more screens, including such failures with or without any Minor System Modifications, the utility, at its sole option, may approve the interconnection provided such approval is consistent with safety, reliability, and power quality, and provided that the Applicant pays all interconnection costs.

- E. **Approval.** Within five (5) Business Days of notifying an Applicant that its ICGF meets all of the applicable screens above or is otherwise approved by the T&D Utility, the T&D Utility shall send an executable Interconnection Agreement to the Applicant.
- F. **Execution of Interconnection Agreement.** An Applicant that receives an Interconnection Agreement pursuant to this Section shall execute the Interconnection Agreement and return it to the T&D Utility no more than thirty (30) business days from being sent the Interconnection Agreement. The Applicant shall not delay the return of an executed Interconnection Agreement more than ninety (90) days beyond the date shown in the original application for initial operations except by mutual agreement between the T & D Utility and the Applicant.
- G. **Witness Testing.** A T&D Utility may require witnessing of the Commissioning Test. If witnessing of the Commissioning Test is required, this shall be stated in the Interconnection Agreement.
- H. **Additional Review.** If an ICGF has failed to meet one or more of the Level 2 screens, but additional review may enable the T&D Utility to determine that, with Minor System Modifications, the ICGF can be interconnected consistent with safety, reliability, and power quality pursuant to § 10(E), the T&D Utility shall offer to perform additional review to determine whether Minor System Modifications would enable the interconnection to be made consistent with safety, reliability, and power quality. The T&D Utility shall undertake the additional review only after the Applicant pays for the additional study. Within ten (10) Business Days of receipt of payment for the additional study, the T&D Utility

shall provide to the Applicant a non-binding, good faith estimate of the costs of the upgrades.

- I. **Application Fee.** The fee for Level 2 interconnection applications is one-hundred dollars (\$100) plus two dollars per kW (\$2/kW) of generator capacity.

**§ 11. LEVEL 3 SCREENING CRITERIA AND PROCESS: NON-EXPORTING GENERATORS NOT GREATER THAN 10 MW**

- A. **Interconnection Application.** The Applicant shall submit a completed Interconnection Application indicating which certified interconnection equipment the Applicant intends to use. Within five (5) Business Days of receipt, the T&D Utility shall notify the whether the application is complete. If the application is incomplete, the T&D Utility shall provide notice to the Applicant that the application is incomplete and a written list detailing all information that must be provided to complete the application. The Applicant will have ten (10) Business Days after receipt of the list to submit the listed information, or to request an extension of time to provide such information. Otherwise, the application will be deemed withdrawn.
- B. **Applicable Screens.** A facility must pass screens in § 7. Interconnections to distribution networks must pass applicable screens under § 8. In addition, a Customer-Generator must use reverse power relays or otherwise ensure no export to the T & D Distribution System.
- C. **Time to Process Under Screens.** Within seventeen (17) Business Days after the utility sends notice to the Applicant that the application is complete, the T&D Utility shall notify the Applicant whether the ICGF meets all the applicable screens in § 11(B).
- D. **Screens Failure.** If the ICGF fails one or more of the applicable screens, then the T&D utility shall provide the Applicant with (1) detailed information on the reason or reasons for failure; (2) the utility's definition of the line section and identification of the automatic sectionalizing device that bounds the line section; (3) aggregated generation on the line section; and (4) a good faith estimate of the costs of additional review in accordance with §11(H). The Applicant may request the application continue to be processed under Level 4 within five (5) days of receiving notice of failure. Otherwise, the application will be deemed denied.

Notwithstanding a failure of one or more screens, including such failures with or without any Minor System Modifications, the utility, at its sole option, may approve the interconnection provided such approval is consistent with safety, reliability, and power quality, and provided that the Applicant pays all interconnection costs.

- E. **Approval.** If a facility meets all the applicable screens above or is otherwise approved by the T&D Utility, within five (5) Business Days after notifying the Applicant that all the applicable screens have been met the utility shall send an executable Interconnection Agreement.
- F. **Execution of Interconnection Agreement.** An Applicant that receives an Interconnection Agreement under this Section shall execute the Interconnection Agreement and return it to the T&D Utility no more than thirty (30) business days from being sent the Interconnection Agreement. The Applicant shall not delay the return of an executed Interconnection Agreement more than ninety (90) days beyond the date shown in the original application for initial operations except by mutual agreement between the T&D Utility and the Applicant.
- G. **Witness Testing.** A T&D Utility may require witnessing of the Commissioning Test. If witnessing of the Commissioning Test is required, this shall be stated in the Interconnection Agreement.
- H. **Additional Review.** If an ICGF has failed to meet one or more of the Level 3 screens, but additional review may enable the T&D Utility to determine that, with Minor System Modifications, the ICGF can be interconnected consistent with safety, reliability, and power quality pursuant to Section 11(D), the T&D Utility shall offer to perform additional review to determine whether Minor System Modifications would enable the interconnection to be made consistent with safety, reliability, and power quality. The T&D Utility shall undertake the additional review only after the Applicant pays for the additional study. Within ten (10) Business Days of receipt of payment for the additional study, the T&D utility shall provide to the Applicant a non-binding, good faith estimate of the costs of the upgrades.
- I. **Application Fee.** The fee for Level 3 interconnection applications is one-hundred dollars (\$100) plus three dollars per kW (\$3.00/kW) of generator capacity.

**§ 12. LEVEL 4 SCREENING CRITERIA AND PROCESS: ALL GENERATORS NOT SUBJECT TO FERC JURISDICTION**

- A. **Interconnection Application.** The Applicant shall submit a standard application form for Level 4 interconnection. An application for a Level 4 interconnection must include documentation of Site Control for the Facility. Acceptable documentation of Site Control shall include copies of executed agreements (which may be redacted for commercially sensitive information) or recorded memoranda thereof.
1. **Site Control Transition.** Applicants with an Interconnection Request for a Level 4 interconnection deemed to have been complete before or on December 11, 2019 must submit documentation of Site Control to the T&D Utility within thirty (30) calendar days of such Commission order.

The T&D Utility shall evaluate the documentation of Site Control and notify the Applicant within ten (10) Business Days of receipt that the documentation of Site Control has been accepted or rejected. If the T&D Utility rejects the documentation of Site Control, then the Applicant shall have one opportunity to submit additional documentation of Site Control within five (5) Business Days of receiving notice of the T&D Utility's rejection. If the Applicant fails to submit documentation of Site Control as required by this paragraph, then its applicable Interconnection Request shall be deemed withdrawn and will lose its Queue Position. If the T&D Utility does not notify the Applicant within (10) Business Days of receipt that the documentation of Site Control has been accepted or rejected, or prior to commencement of the Impact Study the T&D Utility discovers that the documentation provided did not demonstrate Site Control, then the T&D Utility shall notify the Applicant, and the Applicant shall have five (5) Business Days from receipt of such notice to provide documentation of Site Control.

- B. **Acknowledgement of Receipt.** The T&D Utility shall acknowledge to the Applicant receipt of the Interconnection Application within five (5) Business Days of receipt of the Interconnection application, and application fee, or within five (5) Business Days from the date of transfer from the simplified or expedited interconnection procedures.
- C. **Notification of Completeness.** The T&D Utility shall evaluate the application and notify the Applicant within ten (10) Business Days of receipt that the application is complete or incomplete, including with respect to the required Site Control written documentation. If the application is incomplete, the T & D Utility's notice to the Applicant that the application is incomplete shall include a written list detailing all information that must be provided to complete the application. The Applicant shall provide all of the required information to complete the application within ten (10) Business Days from receipt of the T & D Utility notice, with limited exceptions for system models that the Applicant will use Commercially Reasonable Efforts to obtain from the manufacturer. In no event shall the Applicant take longer than fifteen (15) Business Days from receipt of the T&D Utility notice to provide all information required by the T&D Utility. Within three (3) Business Days of the final deadline for completion of the application, the T&D Utility shall provide notice to the Applicant as to whether or not the application is complete; and if the application is complete, the T & D Utility will assign a queue position based on the date of completed application.
- D. **Queue Position.** The Queue Position of each Interconnection Request will be used to determine the order of interconnection review in those circumstances where one pending interconnection application could affect the analysis of other pending interconnection applications as well as any cost responsibility for the facilities necessary to accommodate the generator interconnection. Queue Position is based on the date of receipt of a completed application. If the

Applicant has failed to meet the timelines described below under §§ 12 (C), (E), (I), (J), (L), (O), (Q), and (R), or the Applicant has not responded to T&D Utility written communications for three (3) consecutive months, the T&D Utility will notify Applicant of impending loss of Queue Position. Ten (10) Business Days after this notice, the T&D Utility will remove the Applicant from the Queue if the Applicant does not cure the failure to meet such timelines. An Applicant is considered inactive if the Applicant has ceased communication with the T&D Utility and is not actively working on interconnection requirements.

1. **Allowed Modifications to Interconnection Requests.** The following modifications are allowed to an Interconnection Request without loss of Queue Position:
  - a. Prior to the commencement of the Feasibility Study under § 12(I) below, a decrease in the MW (AC) nameplate capacity of the ICGF;
  - b. Prior to the commencement of the Impact Study under § 12(J) below, an Applicant may consolidate the capacity of multiple Interconnection Requests for multiple ICGFs if the following conditions are met: (i) the ICGFs share common ownership and (ii) the ICGFs have directly dependent Queue Positions;
  - c. At any time, an In-Kind Modification to the technical parameters associated with the ICGF's technology, that does not increase the AC export capability of the ICGF; and
  - d. At or within fifteen (15) Business Days after the meeting between Applicant and T&D Utility to review results of either the Feasibility Study under § 12(I) below or the Impact Study under § 12(L) below, a one-time modification of the interconnection configuration, including an In-Kind Modification, that does not increase the AC export capability of the ICGF, as a result of information from the interconnection study process (including a decrease in the MW (AC) nameplate capacity of the ICGF) or due to non-interconnection circumstances beyond the Applicant's control (including reductions due to permitting requirements or wetlands considerations). If electing this modification, the Applicant shall provide a modified electrical one-line diagram and site plan within fifteen (15) Business Days of the meeting to review Feasibility Study or Impact Study results, and the T & D Utility shall notify the Applicant within ten (10) Business Days of receipt of the modified electrical one-line diagram and site plan if any additional information is needed. If additional information is needed or document corrections are required, the Applicant shall provide the required information or corrections within ten (10)

Business Days from receipt of the T & D Utility notice, with limited exceptions for system models that the Applicant will use Commercially Reasonable Efforts to obtain from the manufacturer.

The actual costs to T&D Utility for any necessary re-studies as a result of a modification described in subparagraphs (a)-(d) above shall be paid by Applicant. Such restudies should be limited to the impacts of the modification and shall be billed to the Applicant at cost and not for work previously completed. The T&D Utility shall use Commercially Reasonable Efforts to limit the scope of such re-studies to what is necessary. The timeframes for any re-studies and for any payments associated with any re-studies shall be the same number of days as the timeframes and deadlines for the initial studies set forth in § 12 (thereby extending the time periods and deadlines to accommodate re-studies). If an Applicant elects to consolidate Facilities pursuant to subparagraph (b) above, then the allowed modifications under subparagraphs (c) and (d) above shall be allowed with respect to the consolidated Facilities. Termination of any Interconnection Requests consolidated under subparagraph (b) shall be included in the Applicant's allowed one-time modification in subparagraph (d) above without requiring termination of all consolidated Interconnection Requests, and the Applicant may modify the consolidated Interconnection Request(s) at the same time.

- E. **Initial Review and Scoping Meeting.** The T&D Utility will conduct an initial review that includes a scoping meeting/discussion with the Applicant (if necessary) within ten (10) Business Days of sending notice that an Interconnection Application is complete unless (i) otherwise agreed to by the Parties in writing (but in no event shall they agreed to extend the scoping meeting more than twenty (20) Business Days of sending such notice) or (ii) waived in writing by mutual agreement between the Applicant and T&D Utility. If the scoping meeting/discussion does not occur within this ten (10) Business Day period, unless (i) due to the fault or delay of the T&D Utility, (ii) otherwise agreed in writing as stated above, or (iii) due to waiver by mutual agreement, the ICGF will be moved to the end of the Queue. At the scoping meeting the T&D Utility will provide pertinent information such as: the available Fault Current at the proposed location, the existing peak loading on the lines in the general vicinity of the proposed generator, Contingent Upgrades in the general vicinity of the ICGF triggered by earlier-queued Interconnection Requests and known by the T&D Utility at the time of the scoping meeting/discussion, and the configuration of the distribution lines at the proposed Point of Common Coupling. By mutual agreement of the Parties, the Feasibility Study, Impact Study or Facilities Study may be waived

Upon conclusion of the scoping meeting/discussion, or mutual agreement between the Applicant and the T&D Utility to waive the scoping meeting, Applicant shall have ten (10) Business Days to determine which study it wants to proceed with and submit any Application corrections requested by the T & D Utility.

Upon selection of the applicable study, the T & D Utility shall have five (5) Business Days to issue the study agreement and request any final information applicable to the type of study selected, and fifteen (15) Business Days to provide a cost estimate for the study.

Upon receipt of both the applicable study agreement and the cost estimate for the study, the Applicant shall have ten (10) Business Days to return the signed study agreement, study deposit, and requested information to the T & D Utility with limited exceptions for system models that the Applicant will use Commercially Reasonable Efforts to obtain from the manufacturer.

- F. **Contingent Upgrades.** The T&D Utility shall identify Contingent Upgrades at the scoping meeting/discussion if available, and otherwise before the execution of the Interconnection Agreement. Contingent Upgrades that are identified during the evaluation of the Interconnection Request shall be documented in the Impact Study report (if applicable) and the Interconnection Agreement. The T&D Utility shall also provide, upon request of the Applicant, the estimated Interconnection Facility and/or Distribution Upgrades costs and estimated construction schedule for each Contingent Upgrade when this information becomes available.
- G. **Cost Sharing.** The T & D Utility may collect payments for Contingent Upgrades in advance of expenditures for Contingent Upgrades. The Interconnection Customer shall only be responsible for paying for that portion of the interconnection costs resulting solely from the Interconnection Facilities or Distribution Upgrades required to allow for safe, reliable parallel operation of the ICGF with the T&D Distribution System; provided, however, the T&D Utility may only charge an Interconnection Customer for the Interconnection Facilities or Distribution Upgrades specifically necessary for and directly related to the ICGF. Such upgrades may include transformers, distance for express feeders, reconductoring upgrades, and similar upgrades. To the extent that later-queued ICGFs benefit from Contingent Upgrades (i) that were paid for by earlier-queued Interconnection Customers and (ii) for which the good faith estimate of costs is in excess of \$200,000, the T&D Utility will identify a prorated portion of the cost responsibility in each Interconnection Agreement for later-queued Interconnection Customers. If the Generating Capacity of the ICGF is less than 250 kilowatts, the Applicant may elect in writing to not participate in cost sharing. The T&D Utility will assess a prorated portion of the costs to each Interconnection Customer benefitting from the Contingent Upgrade and credit earlier-queued Customers once projects lower in the queue become operational (that is, payments are firm only when projects are operational), except in instances where the ICGF's Generating Capacity is less than 250 kilowatts and the Interconnection Customer has elected in writing not to participate in cost sharing. The share of the costs paid by Interconnection Customers shall be calculated by the T&D Utility as the ratio of the total upgrade cost to the total AC watts that the Contingent Upgrade serves. The ratio shall also include the ratio of distance utilized by an ICGF to the total distance of the upgrade,

where the Contingent Upgrade is reconductoring or a line extension. Assessments of prorated costs for Contingent Upgrades shall occur until the earlier of (i) ten years from the Effective Date of the earliest affected Interconnection Customer's Interconnection Agreement, (ii) the prorated amount of cost sharing is \$100,000 or less for each affected Interconnection Customer or (iii) until the capacity of Contingent Upgrade is used up. The T&D Utility shall administer the allocation process and track the payments among contributing projects. The T&D Utilities are authorized to collect from Applicants a fee based on actual administrative costs of T&D Utility for processing such cost sharing reimbursement.

When an Applicant withdraws or abandons an Interconnection Request, the T&D Utility may reconcile administrative expenses incurred for cost sharing at cost. When an Applicant withdraws or abandons an earlier-queued Interconnection Request subject to a Contingent Upgrade, an Applicant with a later-queued Interconnection Request may request a restudy to potentially avoid paying for Contingent Upgrades upon which the withdrawn or abandoned Interconnection Request was dependent. Such restudy may affect the timing of studies for Interconnection Requests queued behind the restudied Interconnection Request. T&D Utility shall use Commercially Reasonable Efforts to minimize the restudy time.

The following assumptions and principles apply to cost:

- Interconnection Requests will be studied in a quasi-sequential manner, i.e., each Interconnection Request is studied after the previous Interconnection Request has been studied. Contingent Upgrades, when identified by an Impact Study or Facilities Study, will be recorded and tracked by the T&D Utility.
- T&D Utility will provide information on Contingent Upgrade costs, and the estimated share and allocation by Queue Position as such information becomes known (at scoping meeting/discussion if available, and during the study process at the latest).
- The T&D Utility shall provide the above information to all dependent Interconnection Requests in the Queue behind the Interconnection Request that triggered the Contingent Upgrade(s) at the scoping meeting/discussion (if available) and when a dependent Interconnection Request in the Queue withdraws, is abandoned, or becomes operational.
- Contingent Upgrade costs will be recorded at the time of the first Impact Study or Facilities Study, whichever is earlier, for future cost sharing purposes.

H. **Feasibility Study.** The Feasibility Study shall provide a preliminary review of short circuit currents, including contribution from the proposed ICGF, and coordination and potential overloading of distribution circuit protection devices. Provided there are no violations in the Feasibility Study, the Parties may waive



the Impact Study and the T&D Utility shall send an executable Interconnection Agreement to the Applicant pursuant to Section 12(R).

- I. **Feasibility Study Completion.** The T&D Utility shall have twenty-five (25) Business Days to complete the Feasibility Study and request a meeting to discuss results.

The T&D Utility and Applicant shall meet within ten (10) Business Days of the T&D Utility's completion of the Feasibility Study to discuss the Feasibility Study results, unless such a meeting is waived in writing by the Applicant. The study results meeting will include representatives of the Applicant and T&D Utility planning engineers to discuss any system modifications required to interconnect the ICGF. When feasibility analysis identifies Substantial System Modifications, the T&D Utility will notify the Applicant and share the assumptions and technical thresholds that trigger such upgrades or facilities. A one-time modification to the ICGF is permitted in accordance with § 12(D)(1)(d).

The Applicant may request at the study results meeting that the T&D Utility provide additional information from the Feasibility Study that is readily available to the T&D Utility but not reflected in the Feasibility Study report. The T&D Utility shall respond to all requests for information within five (5) Business Days of the study results meeting. Within fifteen (15) Business Days after the results meeting the Applicant must state its intent to proceed with the Interconnection Agreement (if applicable), Impact Study, or request a one-time modification to the ICGF permitted in accordance with § 12(D)(1)(d).

- J. **Impact Study.**

If the Applicant states its intent to proceed with the Impact Study, the T&D Utility shall provide an Impact Study Agreement within five (5) Business Days of receipt of Applicant's notification, the Feasibility Study results meeting (if applicable), or the completion of the Feasibility Study if applicable and the results meeting has been waived. The T&D Utility shall provide a cost estimate for the Impact Study within fifteen (15) Business Days of the Applicant stating its intent to proceed with the Impact Study. Where the proposed interconnection may affect electric transmission or distribution systems other than that of the T&D Utility where the interconnection is proposed or may have a significant effect on the stability, reliability, or operating characteristics of the T&D Utility's transmission facilities, the transmission facilities of another transmission owner, or the system of another ISO-NE market participant, the T&D Utility shall notify the Applicant that a review process must be initiated by filing a generator notification or other applicable form with the applicable RTO or other transmission provider in accordance with RTO or FERC rules. Applicant shall have ten (10) Business Days from receiving the Impact Study Agreement and cost estimates to return the executed Impact Study Agreement, study deposit and requested information to the

Utility, with limited exceptions for system models that the Applicant will use Commercially Reasonable Efforts to obtain from the manufacturer.

If no Impact Study is required and the Applicant states its intent to proceed with the Interconnection Agreement, the T&D Utility shall have ten (10) Business Days to issue an Interconnection Agreement. If the Generating Capacity of the ICGF is less than 250 kilowatts and the Applicant has elected not to participate in cost sharing, the Applicant must notify the T&D Utility prior to requesting an Interconnection Agreement.

- K. **Description of Impact Studies.** Each T&D Utility shall include in its Terms and Conditions a description of the elements of an impact study it would typically undertake pursuant to this section, including:

1. Load-Flow Study
2. Short-Circuit Study
3. Circuit Protection and Coordination Study
4. Impact on System Operation
5. Stability Study (and the conditions that would justify including this element in the Impact Study)
6. Voltage-Collapse Study (and the conditions that would justify including this element in the Impact Study).

- L. **Start of Impact Study.** Once the Applicant executes the Impact Study Agreement and pays to T&D Utility the deposit contained therein, the T&D Utility shall complete the Impact Study within forty-five (45) Business Days, or within thirty (30) Business Days if a Feasibility Study was previously completed for the ICGF. When impact analysis identifies Substantial System Modifications the T&D Utility will notify the Applicant and share the assumptions and technical thresholds that trigger such upgrades and facilities. A modification to the ICGF to mitigate the need for system modifications is permitted under § 12(D)(1)(d). The T&D Utility and Applicant shall meet within ten (10) Business Days of the completion of the Impact Study to discuss study results. The study results meeting will include representatives of the Applicant and T&D Utility planning engineers to discuss any system modifications required to interconnect the ICGF. The T&D Utility shall respond to all requests for information within five (5) Business Days. Within fifteen (15) Business Days after the results meeting the Applicant must state its intent to proceed with an Interconnection Agreement (if applicable), Facilities Study, or request modifications to the ICGF permitted under § 12(D)(1)(d) in order to mitigate the need for system modifications. If the Applicant states its intent to proceed with the Interconnection Agreement, the

T&D utility shall have ten (10) Business Days to issue an Interconnection Agreement.

- M. **Minor System Modifications.** If upon completion of the Impact Study, the T&D Utility determines that the system modifications required to accommodate the proposed interconnection are Minor System Modifications, the Impact Study shall identify the scope and cost of the modifications as defined in the Impact Study results and no Facilities Study shall be required. If no Facilities Study is required, the T&D Utility shall send an executable Interconnection Agreement to the Applicant pursuant to §12(L).

Notwithstanding the results of the Impact Study, including such failures with or without any Minor System Modifications, the utility, at its sole option, may approve the interconnection provided such approval is consistent with safety, reliability, and power quality, and provided that the Applicant pays all interconnection costs.

- N. **Substantial System Modifications.** If the T&D Utility determines through the Impact Study that the system modifications to its system are substantial, the results of the Impact Study shall notify the Applicant in the Impact Study and include a good faith estimate of the cost of the system modifications, which the T&D Utility should endeavor to estimate with +/- 25%. The T&D Utility will also include, to the extent known, the good faith cost estimate and schedule of Contingent Upgrades. The detailed system modifications, and more accurate costs of the modifications necessary to interconnect the ICGF shall be identified in the Facilities Study to be completed by the T&D Utility.
- O. **Facilities Study Agreement.** If elected by the Applicant, a Facilities Study Agreement, with a good faith estimate of the cost of completing the Facilities Study, shall be provided to the Applicant for the Applicant's approval within ten (10) Business Days. The Applicant shall return the executed Facilities Study Agreement, the deposit, and the required information to complete the Facilities Study, with limited exceptions for system models that the Applicant will use Commercially Reasonable Efforts to obtain from the manufacturer, within ten (10) Business Days of receiving the Facilities Study Agreement.
- P. **Start of Facilities Study.** Once the Applicant executes the Facilities Study Agreement and pays the deposit pursuant to the terms thereof, the T&D Utility shall conduct the Facilities Study within forty-five (45) Business Days
- Q. **Notice of Facilities Study Completion.** The T&D Utility and Applicant shall meet within ten (10) Business Days of the completion of the Facilities Study to discuss study results. The study results meeting will include representatives of the Applicant and T&D Utility planning engineers to discuss any system modifications required to interconnect the ICGF. The T&D Utility shall respond to all requests for information within five (5) Business Days. Within fifteen (15)

Business Days after the results meeting the Applicant must state its intent to proceed with an Interconnection Agreement or request modifications to the ICGF permitted under § 12(D)(1)(d) in order to mitigate the need for system modifications. If the Applicant states its intent to proceed with the Interconnection Agreement, the T&D utility shall have ten (10) Business Days to issue an Interconnection Agreement.

- R. **Execution of Interconnection Agreement.** Within twenty (20) days from the receipt of an Interconnection Agreement above, the Applicant shall execute and return the Interconnection Agreement. The T&D Utility shall have ten (10) Business Days to sign the Agreement and share a fully executed copy with the Applicant.
- S. **Installation Milestones.** The facilities study shall indicate the milestones for completion of the Interconnection Customer's installation of its ICGF and the T&D Utility completion of any electric system modifications, and the milestones from the facilities study (if any) shall be incorporated into the Interconnection Agreement. Good faith estimates of construction timelines shall be provided in the Interconnection Agreement.
- T. **Payment of System Modifications.** Except as provided below with respect to a payment schedule, the Applicant shall have ninety (90) Business Days from the execution of the Interconnection Agreement to pay twenty-five percent (25%) of the quoted costs for any required Distribution Upgrades and Interconnection Facilities. The Applicant shall have ninety (90) Business Days from the date of the initial 25% payment to pay the 75% balance of the quoted costs for any required Distribution Upgrades, unless the T&D Utility has not yet provided the Applicant with a detailed design and construction schedule, in which case the 75% balance payment shall be due thirty (30) Business Days after the T&D Utility provides a detailed design and construction schedule. Notwithstanding this paragraph (T), if the quoted costs of the Distribution Upgrades and Interconnection Facilities exceeds \$500,000, the T&D Utility will provide a payment schedule to Applicant attached as a schedule in the Interconnection Agreement, which will expand the schedule for making payments to coincide with design, procurement, or construction to be completed by T&D Utility. Following the payment for the balance of Distribution Upgrades, the T & D Utility shall construct the designed Distribution Upgrades as described in the design phase and consistent with any provided construction schedule.

Payments will be adjusted and refunded to the Applicant in accordance with § 13(J) Cost Reconciliation) and § 13(I) (Cancellation of Interconnection Agreement).

- U. **Generator Inspection and Witness Testing.** After completion of construction of an ICGF, and before it may be operated, the T&D Utility shall Witness Test the ICGF for compliance with requirements and attends any required commissioning

tests pursuant to IEEE Standard 1547. Prior to such Witness Test, the Applicant shall arrange for inspection of the completed ICGF by the local electrical wiring inspector, or other authority having jurisdiction, and this person shall sign the Certificate of Completion. Such Witness Test will be performed within fifteen (15) Business Days of the Applicant's notification to the T&D Utility that it is ready for such tests and receipt of the signed Certificate of Completion by the T&D Utility. If the T&D Utility has elected not to witness the Commissioning Tests, the Applicant shall provide a written notification within five (5) Business Days of completion of the Commissioning Tests certifying that the ICGF has been installed and tested in compliance with the T&D Utility-accepted design, IEEE 1547 and the equipment manufacturer's instructions.

V. **Notification of Approved Operation.** Provided any required Commissioning Tests are satisfactory, the T&D Utility shall issue to the Applicant a formal letter of acceptance of the ICGF for interconnection. No ICGF may commence operation before receiving this Notification of Approved Operation.

W. **Notification of Changes to Initial Operations Date.** The Interconnection Customer shall notify the T&D Utility if there is any anticipated change in the proposed date of initial interconnected operations of the ICGF.

X. **Application and Other Fees.** A Level 4 interconnection application fee shall be \$3,000, as well as charges for actual time spent on the interconnection study. In addition, there shall be a \$500 fee for changes to the interconnection application after receipt of notice of completeness under § 12(C) above. The application fee and change fee shall be considered non-refundable and surrendered by the Applicant in the event of application withdrawal by the Applicant or cancellation by the Utility.

Y. **Queue Publication.** Each investor-owned T&D Utility shall publish a report on its website at least twice each calendar month with the following information about each Level 4 Interconnection Request in its Queue;

1. Queue position
2. Any dependencies,
3. Contingent Upgrades
4. Municipality where Facility is located
5. Substation name
6. Fuel type
7. Project status

8. Circuit name
9. Date application request submitted
10. Estimated commercial operations date
11. Facility capacity
12. Feasibility Study – start and completion dates
13. Impact Study – start and completion dates
14. Facility Study – start and completion dates
15. Interconnection Agreement – completion date
16. 25% Payment – completion date

**§ 13. GENERAL PROVISIONS AND REQUIREMENTS AFTER INTERCONNECTION APPROVAL**

- A. **Construction and Zoning Costs.** The Applicant is responsible for all aspects of siting, permitting, construction, and anything else needed by its ICGF.
- B. **Commissioning Test.** An Interconnection Customer must conduct Commissioning Test pursuant to IEEE Standard 1547 and manufacturer requirements.
- C. **Designated T&D Utility Employee.** To assist Applicants in the interconnection process, the T&D Utility shall designate an employee or office from which information about the application can be readily obtained. Upon request, the T&D Utility shall provide the Applicant with all relevant forms, documents and technical requirements for filing a complete application for interconnection of generators and, if requested, the T&D Utility shall meet with the Applicant prior to submission of an Application within a reasonable time that is mutually agreeable to both parties.
- D. **Engineering Rate.** Authorized hourly rate for engineering review under additional review or Level 4 shall be one hundred dollars (\$100) per hour for resources internal to the T&D Utility and at cost for resources external to the T&D Utility.
- E. **No Additional Tests, Controls, or Insurance.** If an ICGF complies with all applicable standards in §5 of this Chapter, the facility shall be presumed to

comply with the technical requirements of this rule. In such a case, the T&D Utility shall not require an Applicant to install additional controls (including but not limited to a utility accessible disconnect switch), to perform or pay for additional tests, or to purchase additional liability insurance (other than as set forth herein) in order to obtain approval to interconnect except as agreed to by the Applicant.

- F. **Liability Insurance.** The Interconnection Customer and the T&D Utility shall comply with all applicable insurance requirements imposed by the State of Maine. If insurance is required by the State of Maine or by the T&D Utility as provided for below then all such policies shall be maintained with an insurance company that is authorized to do business in the State of Maine. A T&D Utility may require an Applicant to purchase insurance covering T&D Utility damages in the following amounts:

1. For non-inverter-based Generating Facilities:

Generating Capacity greater than 5 MW: \$3,000,000.

Generating Capacity greater than 2 MW up to and including 5 MW:  
\$2,000,000.

Generating Capacity greater than 500 kW up to and including 2 MW:  
\$1,000,000.

Generating Capacity greater than 50 kW up to and including 500 kW:  
\$500,000.

Generating Capacity less than or equal to 50 kW: no insurance required.

2. For inverter-based Generating Facilities:

Generating Capacity greater than 5 MW: \$2,000,000.

Generating Capacity greater than 2 MW up to and including 5 MW:  
\$1,000,000.

Generating Capacity less than or equal to 1 MW: no insurance required.

- G. **Additional Equipment at T&D Utility Expense.** Additional protection equipment not included with the Certified Generator or interconnection Equipment Package may be required at the T&D Utility's discretion as long as (i) the performance or facilities of the ICGF is not negatively impacted in any way and the Applicant is not charged for such additional equipment.

- H. **Metering and Monitoring.** For Interconnection Customers that will be participating in Net Energy Billing or Procurements pursuant to Chapter 313 or Chapter 312 of the MPUC Rules, the metering provisions of the applicable rule shall apply to the customer's ICGF. For all other Interconnecting Customers, the required metering and monitoring shall be established by the T&D Utility's Terms and Conditions or the Interconnection Agreement.
- I. **Cancellation of Interconnection Agreements.** The Interconnection Agreement applicable to Level 1, 2, 3, and 4 Interconnection Requests may be cancelled under any of the following conditions. The cancellation shall relieve the parties of their liabilities and obligations as of the date of termination (except for then-pending and accrued owed amounts), including future financial obligations; provided, that an Interconnection Customer that terminates an Interconnection Agreement prior to the ICGC becoming operational is not eligible for a reimbursement through cost sharing. The Interconnection Customer shall be responsible for costs incurred by the T&D Utility prior to termination, as calculated during cost reconciliation under § 13(J) below.
- The parties agree in writing to terminate the Interconnection Agreement;
  - The Interconnection Customer may terminate the Interconnection Agreement by providing twenty (20) Business Days' written notice to the T&D Utility.
  - The T & D Utility may terminate the Interconnection Agreement if the Interconnection Customer either: 1) fails to energize the ICGF within 12 months of the Notification of Approved Operation, unless due to the fault or delay of the T&D Utility or RTO; or (2) permanently abandons the ICGF. Failure to operate the ICGF for any consecutive 12-month period after the Notification of Approved Operation shall constitute permanent abandonment unless agreed to in writing between the Parties.
- J. **Cost Reconciliation.** Within sixty (60) Business Days after issuance of the later of (i) T & D Utility's formal Notice of Approved Operation, or (ii) submittal of final as-built drawings to the T & D Utility, the T & D Utility shall prepare and submit to the Applicant a final reconciliation statement of its actual costs less any Payment of System Modifications made by the Applicant, with a detailed breakdown of costs for review by the Applicant. The detail of the breakdown should match the Distribution Upgrades identified in any detailed design provided by the T&D Utility. Also, when an ICGF dependent on a Contingent Upgrade becomes operational, the T & D Utility shall prepare and submit to all operational Interconnected Customers that depend on that Contingent Upgrade a final reconciliation statement of the proportional costs with a detailed statement of the operational ICGFs dependent on the Contingent Upgrade, their characteristics that determined their portion of the Contingent Upgrade and the reimbursement amount. Within twenty (20) Business Days after delivery of the reconciliation statement, the T&D Utility will send the Applicant an invoice that states any



balance due from Applicant or overpayment to be reimbursed by the T & D Utility. The Applicant may dispute the reconciliation calculation pursuant to the dispute resolution process in § 15. If the T&D Utility's final reconciliation invoice states a balance due from the Applicant, the Applicant shall pay any undisputed amount within thirty (30) Business Days of receipt of the final reconciliation invoice. Failure to pay undisputed amounts will give the T&D Utility the right to disconnect the ICGF. If the T&D Utility's final reconciliation invoice states a reimbursement for overpayment to be paid by the T & D Utility, the T&D Utility shall pay any undisputed reimbursement amount to the Applicant within thirty (30) Business Days of issuing the final reconciliation invoice.

- K. **Limited Testing Requirements.** Once an interconnection has been approved under this rule, the T&D Utility shall not require further testing except for the following:
1. For Levels 2 and 3 ICGFs, an annual test in which the facility is disconnected from the T&D Utility's system to ensure that the generator stops delivering power to the grid, and any manufacturer- recommended testing. T D Utility shall be given reasonable advanced notice of such testing, and T&D Utility shall have the right to witness such testing.
  2. For Level 4, all interconnection-related protective functions and associated batteries shall be periodically tested by the Applicant at intervals specified by the manufacturer, stem integrator, or authority that has jurisdiction over the interconnection. Periodic test reports or a log for inspection shall be maintained. T&D Utility shall have the right to access all testing reports or logs.
- L. **Right to Inspect and Disconnect.** A T&D Utility shall have the right to inspect an ICGF facility before and after interconnection approval is granted, at reasonable hours and with reasonable prior notice provided to the Applicant. If the T D Utility discovers that the ICGF is not in compliance with the requirements of IEEE Standard 1547 or UL 1741, and the requirements of this Chapter, and such non-compliance adversely affects the safety or reliability of the electric system, the T&D Utility may require disconnection of the ICGF until it complies with all applicable requirements. If non-compliance with the applicable standard or standards is due to modification by the Applicant that is not a result of requirements of the interconnection process, then the costs of the inspection by the T&D shall be borne by the Applicant. If non-compliance is the result of an Applicant interconnecting to the T&D's system without having received approval for the interconnection through the process described in this Chapter, the T&D Utility may require disconnection of the ICGF and all costs related to the inspection and the disconnection shall be borne by the Customer.

## § 14. PENALTIES

The Commission may assess financial penalties on a T&D Utility consistent with the maximum penalties included in 35-A M.R.S. § 1508-A for failure to comply with the required timelines listed in this Chapter=.

A. Reporting Requirements

1. **Annual Report.** The T&D Utility shall submit an annual report by March 1 providing information on annual compliance with timelines for completion of studies pursuant to this Chapter for all projects, on a project-by-project basis and on an aggregated basis, that signed Interconnection Agreements in the prior calendar year.
2. **Quarterly Report.** The T&D Utility shall submit quarterly reports by April 1, July 1, October 1, January 1, providing information on compliance with timelines for completion of studies pursuant to this Chapter, on a project-by-project basis, for all projects that signed Interconnection Agreements in the prior quarter.
3. **Annual Report for Construction Timelines.** As part of the annual report submitted pursuant to §14(A)(1), the T&D Utility shall also provide, for all projects that completed construction in the prior calendar year, a comparison in the aggregate of the total number of days it took to complete construction and the number of days provided in the construction schedules.

§ 15. DISPUTE RESOLUTION

Disputes arising between the T&D Utility and the Applicant or the Interconnection Customer regarding any matter governed by this Chapter may be resolved by the Parties or brought to the Maine Public Utilities Commission for resolution as provided below.

- A. **Good Faith Negotiation.** The Party seeking dispute resolution will commence the process by sending a written request in writing to the other Party. Within five (5) Business Days of receipt of such notice (unless agreed otherwise in writing by the Parties), an officer or executive of each of the Parties with sufficient authority to bind the respective Party shall negotiate in good faith to resolve the dispute. If such negotiations do not resolve the dispute within eight (8) calendar days of commencing, either Party may proceed to § 15(B) below upon providing written notice to the other Party.
- B. **Informal Dispute Resolution.** Within ten (10) Business Days after written notice to Commission Staff from a Party describing a dispute and its position, the other Party(-ies) shall provide a description of the dispute and its position. Within twenty (20) Business Days of all Parties' written submissions, Commission Staff will schedule a meeting with the Parties for informal mediation and resolution of the dispute. The Parties may mutually agree to meet multiple times with Staff for

further informal dispute resolution. If either Party or the Staff elects to end the informal dispute resolution by delivering written notice, the Parties may proceed to § 15(C) below.

- C. **Maine Public Utilities Commission Resolution.** If the processes set forth in § 15(A) and (B) do not resolve the dispute, then either Party may send written notice to the Maine Public Utilities Commission staff requesting an adjudicatory proceeding, on an expedited schedule if possible, to resolve the dispute in accordance with Chapter 110 of the Commission's Rules of Practice and Procedure.

## § 16. WAIVER OR EXEMPTION

Upon the request of any person subject to this Chapter or upon its own motion, the Commission may, for good cause, waive any requirement of this Chapter that is not required by statute. The waiver may not be inconsistent with the purposes of this Chapter or Title 35-A. The Commission, the Director of the Electric and Gas Division, or the presiding officer assigned to a proceeding related to this Chapter may grant the waiver.

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**BASIS STATEMENT:** The factual and policy basis for this rule is set forth in the Commission's Order Amending Rule and Statement of Factual and Policy Basis, Docket No. 2021-00167, issued on December 21, 2021. Copies of this Statement and Order have been filed with this rule at the Office of the Secretary of State. Copies may also be obtained from the Administrative Director, Public Utilities Commission, 18 State House Station, Augusta, Maine 04333-0018.

**STATUTORY AUTHORITY:** ~~35-A.M.R.S. §§ 104, 111, 3482.~~

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on 11/4/22. It was filed with the Secretary of State on 11/3/22 and became effective on 11/8/22 (filing \_\_\_\_\_).

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on January 19, 2010. It was filed with the Secretary of State on January 21, 2010 and became effective on January 26, 2010 (filing 2009-219).

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on August 30, 2013. It was filed with the Secretary of State on September 5, 2013 and became effective on September 10, 2013 (filing 2013-218).

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on April 2, 2018. It was filed with the Secretary of State on April 3, 2018 and became effective on April 8, 2018 (filing 2018-049).

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on December 10, 2019. It was filed with the Secretary of State on December 11, 2019 and became effective on December 11, 2019 (emergency filing 2019-230).

**EFFECTIVE DATE:** This rule was approved as to form and legality by the Attorney General on March 9, 2020. It was filed with the Secretary of State on March 10, 2020 and became effective on March 15, 2020 (filing 2020-050).