

32.2 Fast Track Process

32.2.1 Applicability

The Fast Track Process is available to an Interconnection Customer proposing to interconnect its Small Generating Facility with a Connecting Transmission Owner's Distribution System if the Small Generating Facility's capacity does not exceed the size limits identified in the table below. Small Generating Facilities below these limits are eligible for review under the Fast Track Process. However, eligibility for the Fast Track Process is distinct from the Fast Track Process itself, and eligibility does not imply or indicate that a Small Generating Facility will pass the Fast Track Process screens in Section 32.2.2.1 below or the supplemental review screens in Section 32.2.4.4 below.

Eligibility for the Fast Track Process is determined based upon the generator type, the size of the generator, voltage of the line and the location of and type of line at the Point of Interconnection. All Small Generating Facilities connecting to lines greater than 69 kilovolt (kV) are ineligible for the Fast Track Process regardless of size. All synchronous and induction machines must be no larger than 2 MW to be eligible for the Fast Track Process, regardless of location. For certified inverter-based systems, the size limit varies according to the voltage of the line at the proposed Point of Interconnection. Certified inverter-based Small Generating Facilities located within 2.5 electrical circuit miles of a substation and on a mainline (as defined in the table below) are eligible for the Fast Track Process under the higher thresholds according to the table below. In addition to the size threshold, the Interconnection Customer's proposed Small Generating Facility must meet the codes, standards, and certification requirements of Appendices 3 and 4 of these procedures, or the NYISO, in consultation with the Connecting

Transmission Owner, has to have reviewed the design or tested the proposed Small Generating Facility and is satisfied that it is safe to operate.

Fast Track Eligibility for Inverter-Based Systems		
Line Voltage	Fast Track Eligibility Regardless of Location	Fast Track Eligibility on a Mainline ¹ and ≤ 2.5 Electrical Circuit Miles from Substation ²
< 5 kV	≤ 500 kW	≤ 500 kW
≥ 5 kV and < 15 kV	≤ 2 MW	≤ 3 MW
≥ 15 kV and < 30 kV	≤ 3 MW	≤ 4 MW
≥ 30 kV and ≤ 69 kV	≤ 4 MW	≤ 5 MW

32.2.2 Initial Review

Within 15 Business Days after the NYISO notifies the Interconnection Customer it has received a complete Interconnection Request, the NYISO, in consultation with the Connecting Transmission Owner, shall perform an initial review using the screens set forth below, shall notify the Interconnection Customer of the results, and include with the notification copies of the analysis and data underlying the determinations under the screens.

32.2.2.1 Screens

32.2.2.1.1 The proposed Small Generating Facility's Point of Interconnection must be on a portion of the Connecting Transmission Owner's Distribution System.

¹ For purposes of this table, a mainline is the three-phase backbone of a circuit. It will typically constitute lines with wire sizes of 4/0 American wire gauge, 336.4 kcmil, 397.5 kcmil, 477 kcmil and 795 kcmil.

² An Interconnection Customer can determine this information about its proposed interconnection location in advance by requesting a pre-application report pursuant to Section 32.1.2.

- 32.2.2.1.2 For interconnection of a proposed Small Generating Facility to a radial distribution circuit, the aggregated generation, including the proposed Small Generating Facility, on the circuit shall not exceed 15% of the line section annual peak load as most recently measured at the substation. A line section is that portion of a Connecting Transmission Owner's electric system connected to a customer bounded by automatic sectionalizing devices or the end of the distribution line.
- 32.2.2.1.3. For interconnection of a proposed Small Generating Facility to the load side of spot network protectors, the proposed Small Generating Facility must utilize an inverter-based equipment package and, together with the aggregated other inverter-based generation, shall not exceed the smaller of 5% of a spot network's maximum load or 50 kW.³
- 32.2.2.1.4. The proposed Small Generating Facility, in aggregation with other generation on the distribution circuit, shall not contribute more than 10% to the distribution circuit's maximum fault current at the point on the high voltage (primary) level nearest the proposed point of change of ownership.
- 32.2.2.1.5. The proposed Small Generating Facility, in aggregate with other generation on the distribution circuit, shall not cause any distribution protective devices and equipment (including, but not limited to, substation breakers, fuse cutouts, and line reclosers), or Interconnection Customer equipment on the system to exceed 87.5% of the short circuit interrupting capability; nor shall the

³ A spot network is a type of Distribution System found within modern commercial buildings to provide high reliability of service to a single customer. (Standard Handbook for Electrical Engineers, 11th edition, Donald Fink, McGraw Hill Book Company)

interconnection be proposed for a circuit that already exceeds 87.5% of the short circuit interrupting capability.

32.2.2.1.6. Using the table below, determine the type of interconnection to a primary distribution line. This screen includes a review of the type of electrical service provided to the Interconnecting Customer, including line configuration and the transformer connection to limit the potential for creating over-voltages on the Connecting Transmission Owner's electric power system due to a loss of ground during the operating time of any anti-islanding function.

Primary Distribution Line Type	Type of Interconnection to Primary Distribution Line	Result/Criteria
Three-phase, three wire	3-phase or single phase, phase-to-phase	Pass screen
Three-phase, four wire	Effectively-grounded 3 phase or Single-phase, line-to-neutral	Pass screen

32.2.2.1.7 If the proposed Small Generating Facility is to be interconnected on single-phase shared secondary, the aggregate generation capacity on the shared secondary, including the proposed Small Generating Facility, shall not exceed 20 kW.

32.2.2.1.8 If the proposed Small Generating Facility is single-phase and is to be interconnected on a 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 20% of the nameplate rating of the service transformer.

32.2.2.1.9 The Small Generating Facility, in aggregate with other generation interconnected to the transmission side of a substation transformer feeding the circuit where the Small Generating Facility proposes to interconnect shall not

exceed 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 busses from the point of interconnection).

32.2.2.1.10 No construction of facilities by the Connecting Transmission Owner on its own system shall be required to accommodate the Small Generating Facility.

32.2.2.2 If the proposed interconnection passes the screens, the Interconnection Request shall be approved and the NYISO will provide the Interconnection Customer and the Connecting Transmission Owner an executable interconnection agreement within five Business Days after the determination.

32.2.2.3 If the proposed interconnection fails the screens, but the NYISO, in consultation with the Connecting Transmission Owner, determines that the Small Generating Facility may nevertheless be interconnected consistent with safety, reliability, and power quality standards, the NYISO shall provide the Interconnection Customer and the Connecting Transmission Owner an executable interconnection agreement within five Business Days after the determination. To the extent appropriate, the NYISO shall notify any Affected System or Connecting Transmission Owner prior to the determination to allow for potential input by the Affected System or Connecting Transmission Owner. For purposes of this section, Affected System may include the portions of the New York State Transmission System that may be potentially affected.

32.2.2.4 If the proposed interconnection fails the screens, but the NYISO, in consultation with the Connecting Transmission Owner, does not or cannot determine from the initial review that the Small Generating Facility may

nevertheless be interconnected consistent with safety, reliability, and power quality standards unless the Interconnection Customer is willing to consider Minor Modifications or further study, the NYISO shall provide the Interconnection Customer with the opportunity to attend a customer options meeting.

32.2.3 Customer Options Meeting

If the NYISO, in consultation with the Connecting Transmission Owner, determines the Interconnection Request cannot be approved without: (1) Minor Modifications at minimal cost, (2) a supplemental study or other additional studies or actions, or (3) incurring significant cost to address safety, reliability, or power quality problems, the NYISO shall notify the Interconnection Customer of that determination within five Business Days after the determination and provide copies of all data and analyses underlying its conclusion. Within ten Business Days of the NYISO's determination, the NYISO shall offer to convene a customer options meeting with the Interconnection Customer and the Connecting Transmission Owner to review possible Interconnection Customer facility modifications or the screen analysis and related results, to determine, in consultation with the Connecting Transmission Owner, what further steps are needed to permit the Small Generating Facility to be connected safely and reliably. At the time of notification of the NYISO's determination, or at the customer options meeting:

32.2.3.1 The Connecting Transmission Owner shall offer to perform facility modifications or Minor Modifications to the Connecting Transmission Owner's electric system (*e.g.*, changing meters, fuses, relay settings) and provide a non-binding good faith estimate of the limited cost to make such modifications to the

Connecting Transmission Owner's electric system. If the Interconnection Customer agrees to pay for the modifications to the Connecting Transmission Owner's electric system, the NYISO will provide the Interconnection Customer and the Connecting Transmission Owner with an executable interconnection agreement within ten Business Days of the customer options meeting; or

32.2.3.2 The NYISO shall offer to perform a supplemental review in accordance with Section 32.2.4 and provide a non-binding good faith estimate of the costs of such review; or

32.2.3.3 The NYISO shall offer to continue evaluating the Interconnection Request under the Section 3 Study Process.

32.2.4 Supplemental Review

32.2.4.1 To accept the offer of a supplemental review, the Interconnection Customer shall agree in writing and submit a deposit to the NYISO for the estimated costs of the supplemental review in the amount of the good faith estimate of the costs of such review by the NYISO, in consultation with the Connecting Transmission Owner, both within 15 Business Days of the offer. If the written agreement and deposit have not been received by the NYISO within that timeframe, the Interconnection Request shall continue to be evaluated under the Section 32.3 Study Process unless it is withdrawn by the Interconnection Customer.

32.2.4.2 The Interconnection Customer may specify the order in which the NYISO, in consultation with the Connecting Transmission Owner, will complete the screens in Section 32.2.4.4.

32.2.4.3 The Interconnection Customer shall be responsible for the NYISO's and the Connecting Transmission Owner's actual costs for the supplemental review conducted by the NYISO. The Interconnection Customer must pay any review costs that exceed the deposit within 20 Business Days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the NYISO will return such excess within 20 Business Days of the invoice without interest.

32.2.4.4 Within 30 Business Days following receipt of the deposit for a supplemental review, the NYISO, in consultation with the Connecting Transmission Owner, shall: (1) perform a supplemental review using the screens set forth below; (2) notify in writing the Interconnection Customer of the results; and (3) include with the notification copies of the analysis and data underlying the NYISO's and Connecting Transmission Owner's determination under the screens. Unless the Interconnection Customer provided instructions for how to respond to the failure of any of the supplemental review screens below at the time the Interconnection Customer accepted the offer of supplemental review, the NYISO shall notify the Interconnection Customer following the failure of any of the screens, or if it is unable to perform the screen in Section 32.2.4.4.1, within two Business Days of making such determination to obtain the Interconnection Customer's permission to: (1) continue evaluating the proposed interconnection under this Section 32.2.4.4; (2) terminate the supplemental review and continue evaluating the Small Generating Facility under Section 32.3; or (3) terminate the supplemental review upon withdrawal of the Interconnection Request by the Interconnection Customer.

32.2.4.4.1 Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed Small Generating Facility) are available, can be calculated, can be estimated from existing data, or determined from a power flow model, the aggregate generating facility capacity on the line section is less than 100% of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed Small Generating Facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the NYISO, in consultation with the CTO, shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under Section 32.2.4.4.

32.2.4.4.1.1 The type of generation used by the proposed Small Generating Facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of this screen. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (*i.e.*, 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other generation uses absolute minimum load.

32.2.4.4.1.2 When this screen is being applied to a Small Generating Facility that serves some station service load, only the net injection into the Connecting Transmission Owner's electric system will be considered as part of the aggregate generation.

32.2.4.4.1.3 The NYISO, in consultation with the Connecting Transmission Owner will not consider as part of the aggregate generation for purposes of this screen generating facility capacity known to be already reflected in the minimum load data.

32.2.4.4.2 Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuations is within acceptable limits as defined by Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

32.2.4.4.3 Safety and Reliability Screen: The location of the proposed Small Generating Facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the Study Process. The NYISO, in consultation with the Connecting Transmission Owner, shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

32.2.4.4.3.1 Whether the line section has significant minimum loading levels dominated by a small number of customers (*e.g.*, several large commercial customers).

32.2.4.4.3.2 Whether the loading along the line section is uniform or even.

- 32.2.4.4.3.3 Whether the proposed Small Generating Facility is located in close proximity to the substation (*i.e.*, less than 2.5 electrical circuit miles), and whether the line section from the substation to the Point of Interconnection is a mainline rated for normal and emergency ampacity.
- 32.2.4.4.3.4 Whether the proposed Small Generating Facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.
- 32.2.4.4.3.5 Whether operational flexibility is reduced by the proposed Small Generating Facility, such that transfer of the line section(s) of the Small Generating Facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.
- 32.2.4.4.3.6 Whether the proposed Small Generating Facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.
- 32.2.4.5 If the proposed interconnection passes the supplemental screens in Sections 32.2.4.4.1, 32.2.4.4.2, and 32.2.4.4.3 above, the Interconnection Request shall be approved and the NYISO will provide the Interconnection Customer and the Connecting Transmission Owner with an executable interconnection agreement with the timeframes established in Sections 32.2.4.5.1 and 32.2.4.5.2 below. If the proposed interconnection fails any of the supplemental review screens and the Interconnection Customer does not withdraw its Interconnection

Request, it shall continue to be evaluated under the Section 32.3 Study Process consistent with Section 32.2.4.5.3 below.

32.2.4.5.1 If the proposed interconnection passes the supplemental screens in Sections 32.2.4.4.1, 32.2.4.4.2, and 32.2.4.4.3 above and does not require construction of facilities by the Connecting Transmission Owner on its own system, the interconnection agreement shall be provided within ten Business Days after the notification of the supplemental review results.

32.2.4.5.2 If interconnection facilities or Minor Modifications to the Connecting Transmission Owner's system are required for the proposed interconnection to pass the supplemental screens in Sections 32.2.4.4.1, 32.2.4.4.2, and 32.2.4.4.3 above, and the Interconnection Customer agrees to pay for the modifications to the Connecting Transmission Owner's electric system, the interconnection agreement, along with a non-binding good faith estimate for the interconnection facilities and/or Minor Modifications, shall be provided to the Interconnection Customer within 15 Business Days after receiving written notification of the supplemental review results.

32.2.4.5.3 If the proposed interconnection would require more than interconnection facilities or Minor Modifications to the Connecting Transmission Owner's system to pass the supplemental screens in Sections 32.2.4.4.1, 32.2.4.4.2, and 32.2.4.4.3 above, the NYISO shall notify the Interconnection Customer, at the same time it notifies the Interconnection Customer with the supplemental review results, that the Interconnection Request shall be evaluated under the Section 32.3 Study

Process unless the Interconnection Customer withdraws its Small Generating
Facility.