

40.25.1 APPENDIX 1 TO ATTACHMENT HH

INTERCONNECTION REQUEST

1. The undersigned Interconnection Customer submits this request to interconnect its Facility with the New York State Transmission System or Distribution System pursuant to the Standard Interconnection Procedures in the ISO OATT.
2. This Interconnection Request is for [insert project name]:_____

_____, which is

(check one of the following):

____ A proposed new Generating Facility

____ A proposed multi-unit Generating Facility

____ A proposed new BTM:NG Resource

____ A proposed new Cluster Study Transmission Project

____ A material modification to a proposed or existing facility (*e.g.*, an increase in the capacity of an existing facility beyond the permissible de minimis increases permitted under Section 40.2.3 of Attachment HH to the ISO OATT)

If capacity addition to an existing facility, please describe: _____

3. Is this Project mutually exclusive with another project proposed by the Interconnection Customer or its Affiliate in the current ongoing Small Generator Facilities Study, Class Year Study, or Cluster Study?

____ Yes

____ No

Indicate the Queue Position _____

If yes, is the Interconnection Customer submitting the Project as a Contingent Project in accordance with Section 40.5.4.1? ____ Yes ____ No

4. Does this Project have ongoing Optional Feasibility Study, System Impact Study, or System Reliability Impact Study?

____ Yes

____ No

Indicate the Queue Position _____

5. Will the Generating Facility be used for any of the following?

Net Metering? Yes ___ No___

To supply power other than to others through wholesale sales over the New York State?

Yes ___ No___

To participate in the wholesale market exclusively through a DER Aggregation?

Yes ___ No___

To Supply Power to a Host Load? Yes ___ No___

6. Legal Name of the Interconnection Customer (or, if an individual, individual's name) (must be a single individual or entity):

Name of Interconnection Customer : _____

Contact Person: _____

Title: _____

Address: _____

Email: _____

Telephone: _____

7. Address and coordinates of the proposed new Facility site (to the extent known) or, in the case of an existing Facility, the name and specific location of that existing facility:_____

8. Requested Point of Interconnection and coordinates of the proposed Point(s) of Interconnection:

POI (name of the substation name (specify PSSE bus number) or

transmission/distribution line name and number (specify from/to PSSE bus number and

circuit number)): _____

Coordinates of the POI (*i.e.*, Latitude and Longitude) : _____

Distances from the POI to the remote substations: _____

Nearby streets, roads, intersections: _____

9. MW nameplate rating: _____ at _____ degrees F (if temperature sensitive)

Requested Interconnection Service:

MW of requested ERIS at the POI (maximum summer or winter net MW, whichever is greater): _____

(NOTE: An Interconnection Customer may request ERIS below the Generating Facility Capability Generating Facilities and the full facility capacity for Cluster Study Transmission Projects subject to the requirements and limitations set forth in Section 40.5.6.2 of Attachment HH to the ISO OATT).

- If requesting ERIS for a multi-unit facility, specify the requested ERIS for each Generator: _____
- For temperature sensitive resources:

Maximum summer net (net MW at the POI) which can be achieved at 90 degrees F: _____

Maximum winter net (net MW at the POI) which can be achieved at 10 degrees F : _____

- MW of requested increase in ERIS of an existing facility, as calculated from the baseline ERIS (as defined in Section 40.2.3 of Attachment HH – for temperature-sensitive machines, provide the summer and winter MW vs. temperature curves for both gross MW and net MW corresponding to the requested net MW values provided above): _____

MW of requested CRIS at the POI: _____

- If requesting CRIS for a multi-unit facility, specify the requested CRIS for each Generator: _____
- For a Resource with Energy Duration Limitations that is requesting CRIS, indicate the maximum injection capability over the selected duration (*e.g.*, 10 MWh over 4 hours): _____

- If requesting a CRIS transfer, indicate the transferor PTID(s), MW amount and, for a multi-unit Generating Facility, the specific Generator from which and to which the transfer is proposed: _____

10. If a Cluster Study Transmission Project, which of the following forms of CRIS does the Interconnection Customer intend to request:

_____ Unforced Capacity Deliverability Rights

_____ External-to-Rest of State Deliverability Rights

11. General description of the proposed Project, including at a minimum the following:

- One set of metering is required for each generation connection to the new ring bus or existing Connecting Transmission Owner station. Number of generation connections: _____

- On the one-line diagram indicate the generation capacity attached at each metering location. (Maximum load on CT/PT) _____

- On the one-line diagram indicate the location of auxiliary power. (Minimum load on CT/PT) Amps _____

- Will an alternate source of auxiliary power be available during CT/PT maintenance?
_____ Yes _____ No

- Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?
_____ Yes _____ No

- Will a transfer bus on the generation side of the metering require that each meter set be designed for the total plant generation?
_____ Yes _____ No

(If yes, indicate on one-line diagram).

- What type of control system or PLC will be located at the Interconnection Customer Attachment Facilities?

- What protocol does the control system or PLC use?

- Provide the POI site plan layout, depicting the Facility, station, transmission line, and property line.

- Physical dimensions of the proposed interconnection station.

- Bus length from generation to interconnection station.

- Line length from interconnection station to Connecting Transmission Owner's transmission line.

- Type (overhead or underground) of line(s) from the proposed Facility to Point(s) of Interconnection.

- Number of line(s) from the proposed Facility to Point(s) of Interconnection.

- Number of conductors per phase of line(s) from the proposed Facility to Point(s) of Interconnection.

- Tower number observed in the field. (Painted on tower leg):

- Number of third-party easements required for transmission lines, if known:

12. Attach a conceptual breaker one-line diagram of the plant and station facilities. For staged projects, please indicate future generation, transmission circuits, etc.

The conceptual breaker one-line diagram is a representation of electrical components that are connecting into the NYSTS or Distribution System as applicable. This conceptual breaker one-line diagram should include, at a minimum:

- The Project name, and the Interconnection Customer name on the diagram;
- The facility address (specific location of the Facility);
- The number of inverters or generator units (type, nameplate rating MW and MVA), and configuration of the Facility;
- The Facility's electrical components (*i.e.*, generation, transformers (GSU, PSU, current transformer, and potential transformers), breakers, switches, cables/lines/feeders (including assumed numbers of conductors per phase), compensation, FACTs, auxiliary load, buses, etc.) as described in NYISO Reliability Analysis Data Manual;
- The capability and voltage levels of the electrical components, their connection to each other and to the New York State Transmission System or Distribution System;
- The Point of Interconnection (name of the substation name (specify the bus) or transmission/distribution line name and number); and
- References to other diagram sheets if there is more than one diagram sheet (*i.e.*, use references to indicate how the diagrams are interconnected).

Acronyms used in the conceptual breaker one-line diagram should follow ANSI Standard Device Numbers & Common Acronyms.

13. A workable Project power flow, short circuit, transient stability modeling data and supporting documentation (as set forth in Attachment A) must be provided with this Interconnection Request form.

14. Proposed Initial Backfeed Date (Month/Year): _____

Proposed Synchronization Date (Month/Year): _____

Proposed Commercial Operation Date (Month/Year): _____

15. \$10,000 non-refundable Application Fee must be submitted with this Interconnection Request form in accordance with Section 40.5.5.1.3 of Attachment HH.

16. A Study Deposit must be submitted with this Interconnection Request form pursuant to Section 40.5.5.1.4 of Attachment HH.

17. Evidence of Site Control as specified in the Section 40.5.5.1.5 of Attachment HH (check one):

- ☐ a. Is attached to this Interconnection Request, provides full Site Control for the following number of acres: _____, and includes an attestation in the form set forth in ISO Procedures from an officer of the company: (i) indicating the amount of acreage covered by the provided Site Control materials and (ii) that such acreage is consistent with the acreage and other parameters for the Facility's technology type set forth in ISO Procedures; or
- ☐ b. Is attached to this Interconnection Request and provides for Site Control for a new technology type not addressed in ISO Procedures or for less acreage than required for the Facility's technology type as set forth in ISO Procedures.

If b. is selected, Interconnection Customer must submit the following with this Interconnection Request in accordance with the requirements in Section 40.5.5.1.5 of Attachment HH:

(1) an attestation in the form set forth in ISO Procedures from an officer of the company sufficiently describing and explaining the special circumstances of the project that permits a different acreage amount for Site Control than the requirements in the ISO Procedures; and

(2) a licensed Professional Engineer (electrical or civil) signed and stamped site plan that depicts that the Site Control provided by the Interconnection Customer can support the proposed arrangement of its Facility.

- ☐ c. Interconnection Customer is providing a Site Control Deposit due to Regulatory Limitation.

If c. is selected, Interconnection Customer must provide the following with this Interconnection Request in accordance with the requirements in Section 40.5.5.1.5.1 of Attachment HH:

(1) a signed affidavit from an officer of the company indicating that Site Control is unobtainable due to Regulatory Limitations as such term is defined in ISO Procedures;

(2) documentation sufficiently describing and explaining the source and effects of such Regulatory Limitations, including a description of any conditions that must be met to satisfy the Regulatory Limitations and the anticipated time by which Interconnection Customer expects to satisfy the regulatory requirements, and

(3) a Site Control Deposit of \$10,000 per MW, subject to a minimum of \$500,000 and a maximum of \$2,000,000.

18. For an inverter-based resource that is greater than 20 MW, attach the form set forth in ISO Procedures concerning the attestations required by NYSRC Reliability Rule B.5_____

19. By submitting this Interconnection Request:

Interconnection Customer represents and warrants that the information and materials it provides with this Interconnection Request are accurate and complete as of the time of this submission.

Interconnection Customer acknowledges that it will be required to execute a Cluster Study Agreement with the NYISO, Connecting Transmission Owner, and any identified Affected Transmission Owner(s) or Affected System Owner(s) following the validation of this Interconnection Request.

Interconnection Customer acknowledges and agrees that it shall pay the study costs incurred under the requirements of the NYISO's Standard Interconnection Procedures in Attachment HH to the NYISO OATT and ISO Procedures in connection with this Interconnection Request, including any study costs that are incurred prior to the full execution of the Cluster Study Agreement for this Interconnection Request.

[This Interconnection Request to be signed by an officer of the Interconnection Customer or a person authorized to sign for the Interconnection Customer]

Signature: _____

Name (type or print): _____

Title: _____

Company: _____

Date: _____

DETAILED GENERATING FACILITY DATA
(Additional data may be required at subsequent stages of the Cluster Study Process)

1. Describe the composition of assets (including MW level) within the Generating Facility, including load reduction assets (*e.g.*, 50 MW wind facility, 20 MW Energy Storage Resource and a load reduction resource with a maximum of 1 MW of load reduction):
-

2. Maximum Injection Capability of entire Generating Facility over 1 hour:
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3. If the facility includes a Resource with Energy Duration Limitations, indicate the maximum injection capability for the entire Generating Facility over the selected duration (*e.g.*, 100 MW over 4 hours):
-

4. Provide the following information for each unit within the Generating Facility:

Resource/Fuel type:

___ Solar

___ Wind

___ Hydro

___ Hydro Type (*e.g.* Run-of-River):

___ Diesel

___ Natural Gas

___ Fuel Oil

___ Other (state type)

Generator Nameplate Rating: _____MW (Typical)

MVA _____ at °F _____ Voltage (kV) _____

Maximum Reactive Power at Rated Power Leading (MVAR): _____

Minimum Reactive Power at Rated Power Lagging (MVAR): _____

Customer-Site Load: _____MW

Existing load? Yes ___ No___

If existing load with metered load data, provide coincident Summer peak load:

If new load or existing load without metered load data, provide estimated coincident Summer peak load, together with supporting documentation for such estimated value:

Typical Reactive Load: _____MVAR

Generator manufacturer, model name & number: _____

Inverter manufacturer, model name, number, and version: _____

Nameplate Output Power Rating (for IBRs, at the inverter terminal)

Nameplate Output Power Rating in MW: (Summer) _____ (Winter) _____

Nameplate Output Power Rating in MVA: (Summer) _____ (Winter) _____

If solar, total number of solar panels in solar farm to be interconnected pursuant to this

Interconnection Request: _____

Inverter manufacturer, model name, number, and version: _____

If wind, total number of generators in wind farm to be interconnected pursuant to this

Interconnection Request: _____

Generator Height: Single phase _____ Three Phase _____

Wind Model Type: ___Type 1 ___ Type 2 ___ Type 3 ___ Type 4

If an Energy Storage Resource or a Resource with Energy Duration Limitations:

Inverter manufacturer, model name, number, and version: _____

Energy storage capability (MWh): _____

Minimum Duration for full discharge (i.e., injection) (Hours): _____

Minimum Duration for full charge (i.e., withdrawal) (Hours): _____

Maximum withdrawal from the system (i.e., when charging) (MW): _____

Maximum sustained hour injection in MW hours (calculated at the Minimum Duration for full discharge): _____

Primary frequency response operating range for electric storage resource: _____

Minimum State of Charge: _____ (%)

Maximum State of Charge: _____ (%)

5. Attach modeling data files:*

- Power Flow model _____
- Short circuit model _____
- Dynamic models _____

*PSSE files must be in .raw or .sav and .dyr format. ASPEN files must be in .olr format.

6. For a non-synchronous Generating Facility, Interconnection Customer shall provide: (1) a validated user-defined root mean squared (RMS) positive sequence dynamics model; (2) an appropriately parameterized generic library RMS positive sequence dynamics model, including model block diagram of the inverter control and plant control systems, as set forth in the ISO Procedures or a model otherwise approved by the Western Electricity Coordinating Council, that corresponds to Interconnection Customer's Generating Facility; and (3) if applicable, a validated electromagnetic transient model if the ISO performs an electromagnetic transient study as part of the interconnection study process. A user-defined model is a set of programming code created by equipment manufacturers or developers that captures the latest features of controllers that are mainly software based and represents the entities' control strategies but does not necessarily correspond to any generic library model. Interconnection Customer must also demonstrate that the model is validated by providing evidence that the equipment behavior is consistent with the model behavior (*e.g.*, an attestation from Interconnection Customer that the model accurately represents the entire Generating Facility; attestations from each equipment manufacturer that the user defined model accurately represents the component of the Generating Facility; or test data).

**ADDITIONAL INFORMATION REQUESTED FOR CLUSTER STUDY
TRANSMISSION PROJECTS**

Description of proposed project:

- a. General description of the equipment configuration and kV level:

-
-
- b. Transmission technology and manufacturer (*e.g.*, HVDC VSC):
-
-

**ADDITIONAL INFORMATION REQUESTED FOR FACILITIES
SEEKING ERIS BELOW FULL OUTPUT**

Describe any injection-limiting equipment if the facility is requesting ERIS below its full output:
