

05/25/2022

Subject: New Generation Units Operating During the Start-Up Testing Phase

Statement: To ensure accurate system representation, new generating units operating during their testing phase should provide the NYISO with all necessary metering, control, communication, and protective relay data. Additionally, new units must be registered with the NYISO so they can be properly modeled in the MIS. During testing these Generators must be offered in the real-time market to be scheduled and the NYISO must be notified of any deviations from schedules.

Details:**Background**

This Technical Bulletin describes procedures for new generating units to operate in testing mode prior to commercial operation.

Registration/Data Coordination/ Modeling for New Generation Units

New generating units must complete the NYISO Registration Packet for NYISO Customers. Section BB of the NYISO Registration Packet must be submitted at least 60 days prior to intended start-up testing to ensure proper modeling in the MIS and NYISO Operations systems. Data is coordinated and modeled by the NYISO on the basis of the information provided in this Section. A completed Section BB contains the following information:

- Generator size
- Minimum loading level of the Generator
- Operating restrictions
- VAR Capability of all Generators (both leading and lagging)
- NYS Transmission System delivery point and voltage level
- Whether or not the unit will provide Installed Capacity (ICAP)
- Indication of unit's intention to offer reserves and regulation.

All generating units are required to have Phase II (digital) metering. Generating Units that have a capability of 500 MW or greater and Intermittent Power Resources that have a capability of 200 MW or greater are also required to have Phase I (analog) metering. Each generating unit shall indicate its net MW output, connection point, and type of generator to determine whether the generating unit is required to have Phase I metering. Suppliers should contact NYISO Customer Relations to coordinate a unit's net MW output. For more information on communication requirements, see Section 3 of the NYISO Control Center Requirements Manual.

Prerequisites for Testing

New resources must have real-time communication and revenue grade metering in place before start-up testing can begin. End to end communications testing with the resource must have been conducted prior to scheduling any aspects of start-up testing. Coordination of this test should be scheduled with the NYISO and communicated using the customer_registration@nyiso.com email address.

Operating, Scheduling, and Bidding New Generation Units During Pre-Commercial Testing

Various plant systems are tested prior to the commercial operation of a new generating facility. During these tests, there are occasions when the new Generator is connected to the grid and produces electrical energy. Offers submitted by Generators during this testing phase are generally for the Real-Time market. Such Generators are not precluded from participation in the DAM during testing, but should be aware that the inability to follow a DAM schedule will result in charges or payments for balancing energy.

Initially, new generating units must notify the TO and to NYISO Scheduling at least 30 days prior to initial connection to the grid. A contact list containing the phone numbers of the generator's operators must be included with the notification.

During each week of pre-commercial operations, the new Generator shall advise the NYISO Operations of the estimated schedule for the following week. This schedule shall include starts/stops, hours to be connected, estimated MW outputs, estimated MWs delivered, estimated power factor delivered, testing being performed, and whether any trip testing is planned or any other activities which may affect the system stability. This information shall be updated if it changes.

Prior to connecting to the grid, a new generating unit must submit its proposed schedule, via email, to NYISO Scheduling, by 14:00 on the day before the operating day. The NYISO Scheduler will, in turn, forward the schedule to the NYISO Operations' Generation Desk. The final schedule will be mutually acceptable to the NYISO and the new generator. Units may change their real-time offers, to correspond to these agreed upon schedules, up to 75 minutes before the operating hour.

During daily pre-commercial operations, the generating unit must inform NYISO Operations, via the TO, of any anticipated starts, failures to start, trips, substantial change in output, or testing which may impact the system. The procedures for notifying the NYISO and Transmission Owners of generator outages are outlined in Sections 3.2.1, 3.2.4 and 5.3 of the Outage Scheduler Manual.

In order to receive payment for such energy, the Generator must have an accepted real-time offer in the NYISO Market Information System. To assure that an offer is accepted, the generator should submit an offer that is representative of their desired schedule. This process is described in more detail in Section 4.2.4 of the Day-Ahead Scheduling Manual. Units that over-generate during pre-commercial testing will be paid according to the procedures described in the Accounting and Billing Manual.

Units must inform the NYISO, via the TO, if they will deviate ± 50 MWs from their hourly schedule. Off-dispatch units should inform the NYISO so the unit can be derated and properly reflected in the schedule. During all phases of operation, units must respond, as dictated by good utility practice, to directives from the TO or the NYISO.

Scheduling MVars for New Generation Units

Units that are considering selling voltage to the NYISO may wish to conduct MVar testing during the start-up phase. For further information, see Section 3 in the Ancillary Services Manual.

DMNC Testing

To become eligible to sell capacity in the NY Control Area new units must first perform DMNC testing and provide the NYISO with the necessary test reports or production data.

Section 6.7.5 of the Transmission and Dispatching Operations Manual explains how to Schedule and Report Generator Dependable Maximum Net Generating Capability (DMNC) Tests. Section 11 of the ICAP Automated Market User's Guide and section 4.2 of the NYISO Installed Capacity Manual define how to submit DMNC test data. The requirements for qualifying and maintaining a unit as an Installed Capacity Supplier are outlined in Section 4.0 of the ICAP Manual.

Coordination and scheduling of all aspects of the startup-testing phase should be communicated with the NYISO using the customer_registration@nyiso.com email. During all stages of the testing phase, units may contact NYISO Operations 24 hours a day at (518) 356-6028 for operational issues only.

Curtailement Testing – Intermittent Power Resources (IPR)

To participate in the NYISO-administered Energy market, IPRs that rely on wind or solar energy for their fuel must offer their output as dispatchable (down-only), thus they are expected to be able to reduce their output at the request of the NYISO or response to market basepoint signals. Prior to the resource commissioning the lesser of 20 MWs of injection capability or their plant's total nameplate MW capability, an IPR must demonstrate that it can receive and respond to a curtailment basepoint signal. The NYISO initiates the curtailment test and must observe the resource reducing its output to or below the curtailment level.

Manual link:

<https://www.nyiso.com/manuals-tech-bulletins-user-guides>

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This Technical Bulletin is not currently expected to be incorporated into a NYISO Manual/User Guide.