

3.6.2 Test Procedure for Generators

Reactive Power capability tests are to be carried out under normal operating conditions. Extreme measures that might overstate a unit's reactive capability must be avoided. For example, measurements should be made with the unit operating with normal hydrogen pressure (or other normal coolant conditions).

Both leading and lagging MVAR are to be measured at the generator terminal (gross) and, if metered data is available, at the point of interconnection (net). If a generator's gross metered data does not reflect its ability to absorb MVARs from the power system, the net metered data at the point of interconnection may be submitted in addition to gross metered data to demonstrate the leading MVAR capability.

The lagging MVAR test must be performed at a net real power level of 90% (or greater) of,

- the generator's Dependable Maximum Net Capability (DMNC), that is in effect at the time of the test, for ICAP providers and non-ICAP providers with a valid DMNC test. The DMNC value that is tested to must correspond to the DMNC recorded in the Automated ICAP Market System.
- the generator's nameplate value for non-ICAP providers without a valid DMNC test.

~~The leading MVAR test should be performed at the generator's minimum MW level (consistent with a real power level typical for off-peak or light load conditions). For all generators except nuclear units and Fixed Block Units, the leading MVAR test must be performed at a net real power level of 25% to 75% of~~

- ~~▪ the generator's Dependable Maximum Net Capability (DMNC) that is in effect at the time of the test, for ICAP providers and non-ICAP providers with a valid DMNC test. The DMNC value that is tested to must correspond to the DMNC recorded in the Automated ICAP Market System.~~
- ~~▪ the generator's nameplate value for non-ICAP providers without a valid DMNC test.~~

~~For nuclear units and Fixed Block Units, the leading MVAR test must be performed at a net real power level of 90% or greater of~~

- ~~▪ the generator's Dependable Maximum Net Capability (DMNC) that is in effect at the time of the test, for ICAP providers and non-ICAP providers with a valid DMNC test. The DMNC value that is tested to must correspond to the DMNC recorded in the Automated ICAP Market System.~~
- ~~▪ the generator's nameplate value for non-ICAP providers without a valid DMNC test.~~

~~The real power level within the defined range that is chosen for both the lagging and leading MVAR tests shall be the exclusive decision of the generator.~~

The Transmission Owner is responsible for coordinating the test with the respective plant. Each Transmission Owner shall notify the NYISO at least one hour prior to

the initiation of generator MVAR testing. The NYISO in turn notifies any other affected Transmission Owners. Test procedures are set forth below:

1. The VSS Supplier must notify the NYISO and the Transmission Owner (TO), at least five (5) business days prior to the day that the test is to be performed if the Supplier is a generator sized 100 MW or larger. Other VSS Suppliers must also notify the NYISO and TO of their plan to test, but a five-day notification is not required, though it is encouraged. The following information must be included in the notification of intent to perform a Reactive Capability test:
 - VSS Supplier name (as listed in the NYISO MIS)
 - VSS Supplier point identifier (PTID – a five digit number)
 - Net operating capability of the unit (MW)
 - VSS Supplier operator company name
 - Transmission Owner area
 - Test requested (lagging or leading)
 - Date and time of the test start
 - Name and telephone number of the person requesting the test

A generator that is normally scheduled in the DAM and is operating within 100 MW of its normal operating capability may perform the MVAR test without the 5-day prior notification. If a generator's normal operating capability is less than 100 MW, the 5-day prior notification is also not required but is still recommended.

2. The NYISO will notify the VSS Supplier of the status of the request three (3) business days prior to the planned test date. It should be noted that test approvals are subject to a NYISO reliability review and the NYISO reserves the right to cancel or terminate the test at any time. The TO may also request that the NYISO cancel or terminate the test at any time should local reliability criteria be violated. The NYISO will document all approvals, cancellations, and terminations including the party responsible and reason for implementing the cancellation or termination.
3. On the day prior to the scheduled date of the Reactive Capability Test, generators with a normal MW operating capability of 100 MW or greater must bid energy into the Day-Ahead Market (DAM). The bid must be structured to ensure that the generator is scheduled at the appropriate MW level for the hours requested to perform the Reactive Capability Test. The VSS Supplier must notify the NYISO (notify NYISO Generation Scheduling at (518) 356-6050) by hour 14:00 of the prior business day that the unit has been scheduled in the DAM, and that the test will be conducted as scheduled. If the generator is not scheduled, then the Reactive Capability Test is cancelled. If the generator has a net operating capability of less than 100 MW or if the generator is a quick start unit that can be committed by the Real-Time Commitment (RTC), a DAM bid is not required. The VSS Supplier must still notify the NYISO and the TO, by hour 14:00 of the prior business day, of the intent to perform a Reactive Capability Test.

4. On the day of the scheduled Reactive Capability Test, the VSS Supplier, through the TO, must request permission from the NYISO System Operator to perform the test at least three (3) hours prior to the test start time. The generator must also bid energy into the Hour-Ahead Market (if not previously committed in the DAM) to ensure that the generator is scheduled at the appropriate MW level for the hours requested to perform the Reactive Capability Test. The NYISO System Operator will approve or deny the request, through the TO, at least two (2) hours prior to the scheduled test, allowing time for any desired Hour-Ahead Market bid adjustments. The NYISO will document all approvals, cancellations and terminations of the tests. The log will include the name of the party and reason for implementing the cancellation or termination.
5. Upon beginning the test, the VSS Supplier must notify the NYISO System Operator, through the TO, that the Reactive Capability Test has started.
6. The NYISO will log that the VSS Supplier is performing a Reactive Capability Test.
7. Upon completion of the test, the VSS Supplier must notify the NYISO System Operator, through the TO, that the test is complete. The NYISO will log the completion time and the name of the generator plant personnel reporting the test.