

4. INSTALLED CAPACITY REQUIREMENTS APPLICABLE TO INSTALLED CAPACITY SUPPLIERS

4.1 Overview

Resources must follow certain procedures and provide pertinent information to the NYISO in order to qualify as Installed Capacity Suppliers. The requirements necessary to qualify as an Installed Capacity Supplier can be found in Sections 4.2 and 4.3 below, and include Demonstrated Maximum Net Capability (DMNC) testing and maintenance schedule reporting.

After completing the procedures listed above, Resources that have qualified as Installed Capacity Suppliers must fulfill certain requirements provided by the NYISO in order to retain all of the privileges to which an Installed Capacity Supplier is entitled. These requirements are provided in detail in Sections 4.4 through 4.8 below. The requirements include reporting Operating Data; planned maintenance and forced outage notification requirements; the Installed Capacity certification requirements; and bidding, scheduling, and notification responsibilities.

Certain Installed Capacity Suppliers must fulfill alternative or additional requirements provided by the NYISO in addition to or in place of the requirements found in Sections 4.2 through 4.8. These alternative or additional requirements can be found in Sections 4.9 through 4.13. Each of these sections addresses a different individual Resource.

Installed Capacity Suppliers that fail to fulfill the requirements detailed in Sections 4.4 through 4.13 are subject to sanctions, as provided in Section 5.12.12 of the **NYISO Services Tariff**. Details regarding these sanctions may be found in Section 6.1 of this Manual.

Resources may be physically located in the NYCA, or in an External Control Area that meets the recall and Curtailment requirements and the locational limitations specified in Section 2.7 of this Manual.

4.2 DMNC Test Procedures (Section 5.12.8 NYISO Services Tariff)

All Installed Capacity Suppliers must perform DMNC tests each Capability Period in which they have supplied Unforced Capacity and in accordance with the procedures described below (unless exempt in accordance with the provisions of Section 4.4.3 of this Manual), and provide the NYISO with the required documentation of those tests. Alternatively, Installed Capacity Suppliers, with the exception of new Resources, may use historical production data for the immediately preceding like Capability Period, no more than 12 months old, in lieu of DMNC test data. A DMNC test result or historical production data constitute a valid DMNC value for purpose of establishing a Resource's Installed Capacity value.

Data must be submitted in an acceptable format or it will be rejected. The 30-day verification clock starts with a determination that the data has been deemed complete. Until the Unforced Capacity automation system goes live, the Installed Capacity Supplier will be notified if its submission has been deemed complete within five (5) business days of that submission. After automation system goes live, submissions that are deemed to be complete will be so indicated in the automation application within five (5) business days of original submissions. Within five (5) business days of an incomplete submission, the Market Monitoring Unit will contact the submitting Installed Capacity Supplier.

Upon determination that the information that has been provided is complete, the NYISO will verify the DMNC value for Installed Capacity Suppliers within 30 days of submission, if such submission has been deemed complete at least 45 days prior to the data submission deadline as noted below. Submissions deemed complete less than 45 days before the DMNC submission deadline will be processed within 45 days of such submission.

If the NYISO accepts the Installed Capacity Supplier's submission, the submitted DMNC value will be valid for the subsequent like Capability Period, and at the request of the Installed Capacity Supplier, will serve as the valid DMNC value for the balance of the current Capability Period.

If the NYISO disagrees with the submitted DMNC value, the Installed Capacity Supplier may:

- a) re-test if there is time within the current DMNC Test Period, or
- b) accept the NYISO determined DMNC value and resubmit it, or
- c) request an audit.

If the Installed Capacity Supplier requests an audit, the NYISO will work with the Installed Capacity Supplier to schedule the audit. If the audit results reveal that the Installed Capacity Supplier DMNC value is correct, the DMNC value submitted by the Installed Capacity Supplier will remain in place. If the audit reveals that the NYISO value is correct, the NYISO will replace the Installed Capacity Supplier's DMNC value with the DMNC value established through the audit and the Installed Capacity Supplier will be subject to penalties, if applicable.

An Installed Capacity Supplier offering to supply Unforced Capacity as a System Resource must submit DMNC test data, or historical production data, for each Generator that it seeks to aggregate. Final DMNC Test results must be transmitted to the NYISO no later than sixty (60) days following the end of the test period.

4.2.1 DMNC Test Periods

The DMNC Test Period for the Summer Capability Period is June 1st through September 15th and for the Winter Capability Period is November 1st through April 15th. All generating Resources must test using usual and customer industry practices in operating configurations and using fuel mixes expected to be used during summer or winter peak Load conditions, as applicable. The results shall be adjusted to appropriate ambient

conditions using the procedures noted in this Section 4.2 and more fully described in Attachment D

New Resources may qualify as Installed Capacity Suppliers at any time during a Capability Year based on the results of an appropriate demonstration test, production data, or Special Case Resource (SCR) commitment. New generating Resources must temperature-adjust the results of the appropriate demonstration test or production data, using the procedures noted in Attachment D to this Manual.

To qualify as Installed Capacity Suppliers in any Installed Capacity auction administered by the ISO, new Resources shall submit to the NYISO the results of an appropriate demonstration test, production data or SCR commitment prescribed by this Manual by 5:00 PM at least seven (7) calendar days before the administration of the relevant auction. For example, if the NYISO administers the auction on a Thursday, new Resources shall submit appropriate demonstration test, production data, or SCR commitment by 5:00 PM on the Thursday preceding the auction.

In addition to the submission of the results of an appropriate demonstration test or production data required by the previous paragraph, new generating Resources that want to participate in ~~NY~~NYISO-administered auctions shall submit to the NYISO a notification letter if they do not already have, and will require, a point ID to participate in the NYISO market. The notification letter shall state the intention of the Resource to seek qualification as an Installed Capacity Supplier, and include the Resource's name, location, and other information as the NYISO may reasonably request. This letter does not oblige a Resource to qualify as an ICAP Supplier; it allows the NYISO to prepare and be able to accommodate a Resource should that Resource request qualification and submit appropriate demonstration test or production data shortly before an auction. A Resource shall submit the notification letter to the NYISO by the first business day of the month in which it wishes to qualify as an Installed Capacity Supplier.

To qualify Installed Capacity for a Bilateral Transaction or for a self-supplying LSE, new Resources shall submit to the NYISO the results of an appropriate demonstration test, production data or SCR commitment prescribed by this Manual by 5:00 PM at least seven (7) calendar days before the day LSEs must certify that they have procured sufficient Installed Capacity for the following Obligation Procurement Period (in this paragraph, the "Certification Day"). For example, if the Certification Day is a Thursday, new Resources shall submit appropriate demonstration test, production data or SCR commitment results by 5:00 PM on the Thursday preceding the Certification Day.

Existing Resources that have increased Capacity due to changes in their generating equipment may demonstrate the DMNC of the incremental Capacity for and within a Capability Period by following the procedures described above for new Generators.

**NYISO INSTALLED CAPACITY MANUAL - Draft Proposed Changes for
10/26/2005 ICAP WG Meeting**

The NYISO's Market Monitoring Unit will verify the DMNC test data submitted by Suppliers against NYISO billing information and will notify the Supplier that the DMNC value as calculated from the test data is valid.

4.2.2 Resource Specific Test Conditions

The Resources listed below must meet the applicable DMNC test conditions specified below and in Attachment D in order to be qualified as Installed Capacity Suppliers. Resources must also report DMNC test results to the NYISO. As used in this Section 4.2.2, DMNC shall mean the power delivered to the transmission system, net of station service Load necessary to deliver that power as described in Section 4.2.3.

Fossil Fuel and Nuclear Stations

Valid DMNCs for fossil fuel or nuclear steam units are determined by the following:

- (a) The unit's sustained maximum net output averaged over a four (4) consecutive hour period
- (b) For common-header turbine-generators, the DMNC is determined on a group basis. Each such turbine-generator is assigned a rating by distributing the combined Capacity among them.
- (c) The sum of the DMNC of individual turbine-generators in a generating station cannot be greater than the DMNC of the whole station.

Valid DMNCs for hydro units are determined by the following:

- (a) The sustained net output averaged over a four (4) consecutive hour period using average stream flow and/or storage conditions within machine discharge Capacity.
- (b) For a multi-unit hydro station, the DMNC is determined as a group and each hydro unit in such a station is assigned a rating by distributing the combined station DMNC among them.
- (c) The sum of the DMNC of individual units in a multi-unit hydro station cannot be greater than the DMNC of the whole station.

Internal Combustion Units and Combustion Turbines

Valid DMNCs for internal combustion units and combustion turbines are determined by the following:

- (a) The sustained maximum net output for a one (1) hour period.
- (b) The unit's winter DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's winter peak during the previous four (4) Winter Capability Periods.

- (c) The unit's summer DMNC is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's summer peak during the previous four (4) Summer Capability Periods.

Combined Cycle Stations

Valid DMNCs for combined cycle stations are determined by the following:

- (a) The sustained maximum net output over four (4) consecutive hours.
- (b) A combined cycle station's winter DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's winter peak during the previous four (4) Winter Capability Periods.
- (c) A combined cycle station's summer DMNC rating is determined on the basis of the average ambient and cooling system temperature experienced at the time of the Transmission District's summer peak during the previous four (4) Summer Capability Periods.

Intermittent, Energy Limited, Other Stations

The DMNC value of Intermittent Resources will be based on the nameplate capacity of the units in each station, wind farm or solar array. Valid DMNCs for other units are determined by the following:

- (a) The sustained maximum net output averaged over a four (4) consecutive hour period.
- (b) For a multi-unit station, the DMNC is determined as a group and each unit in such a station is assigned a rating by distributing the combined station DMNC among them.
- (c) The sum of the DMNCs of individual units in a multi-unit station cannot be greater than the DMNC of the whole station. ~~Valid DMNCs for Intermittent Power Resources may also be determined by the Intermittent Power Resources' unit's nameplate rating provided, however, that the NYISO shall have the authority to review Intermittent Power Resources' production data.~~

4.2.3 Treatment of Station Service Load

In general, the DMNC rating for a Resource is the amount of power delivered to the transmission grid. The DMNC rating should reflect a reduction in gross output of the Resource for station service Load. In most cases, this determination is straightforward

because the Resource is connected to the Transmission System, and the amount of power provided to the Transmission System reflects the station service Load reduction.

In other cases, a portion of the station service Load may be provided from sources other than the Resource. In these cases, separate measurements must be made of the station service Load and subtracted from the Resource's gross output measured at the generator leads at the time of the DMNC test.

In the event of disagreement concerning the station service Load for facilities that fall into the later category, the relevant Transmission Owners will provide to the NYISO any information available to it, which relates to the configuration of the Resource and its station service Load. If the disagreement concerning the station service Load is not resolved by the additional information the Transmission Owners provide, the NYISO Expedited Dispute Resolution Procedures (as set forth in Section 5.16 of the NYISO Services Tariff) shall be used to determine the station service Load in dispute.

4.2.4 Required DMNC Generating Capability Test Data

An entity that wants to establish a DMNC rating for its Resources must report the test results for each of its Resources to the NYISO. ~~The test reports include:~~

- ~~1. Kilowatt hour meter readings from the tests to verify net output. Reproduced copies of actual log sheets are preferred where possible.~~
- ~~2. For internal combustion units, combustion turbine units, and combined cycle units, a curve of net capability vs. ambient and cooling systems temperatures, with the test result noted on the graph.~~
- ~~3. For steam units, test conditions as listed below (see also Attachment D):~~
 - ~~▪ Over pressure~~
 - ~~▪ Top feed water heater O/S.~~

4.3 Maintenance Scheduling Requirements (Section 5.12.3 NYISO Services Tariff)

All Resources intending to supply Unforced Capacity to the NYCA must comply with the following procedures, unless specific exceptions are noted below.

1. Submit a confidential notification to the NYISO of proposed outage schedules for the next two (2) calendar years by September 1st of the current calendar year.
2. If Operating Reserve deficiencies are projected to occur in certain weeks for the upcoming calendar year, based upon the ISO's reliability assessment, Resources may be requested to voluntarily reschedule planned maintenance.

3. The NYISO will provide the Resource with alternative acceptable times for the rescheduled maintenance.
4. If the Resource is a Generator that qualifies as an Installed Capacity Supplier that does not voluntarily re-schedule its planned maintenance within the alternative acceptable times provided by the NYISO, the NYISO will invoke mandatory re-scheduling using the procedures prescribed in the *NYISO Outage Scheduling Manual*.
5. A Resource that did not qualify as an Installed Capacity Supplier prior to the Obligation Procurement Period and that intends to be an Installed Capacity Supplier within the Obligation Procurement Period must provide the NYISO with its proposed outage schedule for the current Capability Year and the following two (2) calendar years, no later than the first day of the month preceding the month in which it intends to supply Unforced Capacity, so that it may be subject to the voluntary and mandatory rescheduling procedures described above.

An Installed Capacity Supplier that refuses the NYISO's forced rescheduling of its proposed outages shall not qualify as an Installed Capacity Supplier for that unit for any month during which it schedules or conducts an outage.

~~4.3.1 Interruptible Load Resources~~

~~Interruptible Load Resources must comply with the following procedures.~~

- ~~1. Notify the NYISO at least thirty days prior to the beginning of an Obligation Procurement Period of scheduled maintenance that would reduce their ability to interrupt during the upcoming Obligation Procurement Period.~~
- ~~2. Notify the NYISO of any major equipment that is out of service and therefore cannot be interrupted because it is already off, and notify the NYISO when the equipment is coming back on.~~
- ~~3. Provide the NYISO with a written commitment that any scheduled maintenance that would reduce their ability to interrupt without reducing Load will only be conducted from November 1st through March 31st of any calendar year.~~

~~Interruptible Load Resources that are Special Case Resources as defined in Section 4.12 of this Manual are not subject to the requirements of this Section 4.3.1.~~

4.3.24.3.1 External System Resources

The NYISO and the External Control Area in which the External System Resource is located will coordinate the maintenance schedules for the interconnections that link these Resources to the NYCA. External System Resources are not subject to the voluntary and mandatory re-scheduling procedures described above.

4.3.34.3.2 Special Case Resources (Section 4.12 of this Manual)

Special Case Resources are not subject to maintenance scheduling requirements. However, a Special Case Resource must report a change of status that would affect its ability to provide Capacity to the NYISO.

4.4 Operating Data Reporting Requirements (Section 5.12.5 NYISO Services Tariff)

Installed Capacity Suppliers shall submit Operating Data to the NYISO every month in accordance with the following subsections. Further details are included in Attachment K to this Manual, at the NERC-GADS website (<http://www.nerc.com/~gads/>) and in the NERC Data Reporting Instructions at <http://www.nerc.co/~filez/dri.html>. The completeness, accuracy, and validity of the performance data sent to the NYISO is the responsibility of the

Resource making such data submission. Installed Capacity Suppliers that do not comply with the following subsections shall be subject to the sanctions provided in Section 5.12.12 of the **NYISO Services Tariff**.

When an Installed Capacity Supplier (the “Seller”) sells Unforced Capacity to another Installed Capacity Supplier (the “Purchaser”), such as an Installed Capacity Marketer, the Seller and the Purchaser may designate the Purchaser as the entity responsible for fulfilling the obligations and requirements set forth in Section 4.4 of this Manual. Such designation shall be made in writing to the NYISO at least five (5) calendar days before the date by which any of the relevant obligations or requirements must be fulfilled.

If no designation is made to the NYISO, the Seller shall be responsible for fulfilling all the obligations and requirements set forth in this Section 4.4 of this Manual. The Purchasers that are designated pursuant to the preceding paragraph shall be subject to the sanctions provided in Section 5.12.12 of the **NYISO Services Tariff** as if they were a Seller.

4.4.1 Generators

By the 20th day of each month, Generators shall submit to the NYISO Generating Availability Data System (GADS) Data or data equivalent to GADS Data pertaining to the previous month. For example, Generators shall submit by May 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April 2001. Generators shall submit GADS Data or data equivalent to GADS Data in accordance with the ~~82-character~~ fixed format provided in Attachment K of this Manual.

4.4.2 System Resources

By the 20th day of each month, System Resources shall submit to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, System Resources shall submit by May 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April 2001. System Resources shall submit GADS Data or data equivalent to GADS Data in accordance with the ~~82-character~~ fixed format provided in Attachment K of this Manual.

4.4.3 Control Area System Resources

By the 20th day of each month, Control Area System Resources or the purchasers of Unforced Capacity from those Resources shall submit to the NYISO CARL Data pertaining to the previous month. For example, Control Area System Resources shall submit by October 20, 2001 CARL Data pertaining to their operations during the month of September 2001.

CARL Data submitted on a monthly basis shall cover (1) the prior month and (2) each individual hour during that month in which the Control Area System Resource was unable to supply the Energy associated with the Installed Capacity Equivalent of the

Unforced Capacity it supplied to the NYCA. CARL Data submitted for a Control Area System Resource providing Installed Capacity from Control Area *c* shall consist of actual data and include the following information for each hour identified above and for each month:

1. The maximum actual total generating Capacity in Control Area *c*;
2. The actual External firm Capacity purchases by Control Area *c*, other than purchases from Resources in the NYCA;
3. The actual amount of load management (i.e., interruptible load) in Control Area *c*;
4. The actual peak Load for Control Area *c*, including system losses;
5. The actual External firm Capacity sales by Control Area *c*, other than firm capacity sales to the NYCA;
6. Actual losses, up to the border of the NYCA, that were incurred on transactions corresponding to sales of Unforced Capacity by that Control Area System Resource outside Control Area *c*;
7. The amount of generating Capacity in Control Area *c* that is actually unavailable due to planned maintenance;
8. The amount of generating Capacity in Control Area *c* that was actually unavailable due to forced outages; and
9. The amount of operating reserve that was actually available for Control Area *c*.

Forty-five (45) days prior to any Capability Period, Control Area System Resources shall submit forecasted CARL Data for items (1) through (8) above for each month of the following Capability Period. Control Area System Resources shall submit data for items (9) and (10) for each month within 20 days of the conclusion of each month.

During each Capability Period, a Control Area System Resources may submit revised forecasts of items (1) through (8) above for each month of that Capability Period. These forecasts may be revised to reflect changes in the allocation of planning reserve among the months of that Capability Period resulting from the amount of Installed Capacity actually sold by that Control Area System Resource earlier in the Capability Period. Such forecasts must be submitted by 25 days before a month if they are to be used to determine the amount of CARL Data for the whole Capability Period in light of the External firm Capacity engaged in the previous months.

4.4.4 Energy Limited Resources

By the 20th day of each month, Energy Limited Resources shall submit to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, Energy Limited Resources shall submit by May 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April 2001. Energy Limited Resources shall submit GADS Data or data equivalent to GADS Data in accordance with the ~~82-character~~ fixed format provided in Attachment K of this Manual.

4.4.5 Interruptible Load Resources

~~Subject to Sections 4.4.7 of this Manual, Interruptible Load Resources shall submit documentation for each operation using the form provided in Attachment K.~~

~~By the 20th day of each month, Interruptible Load Resources shall submit to the NYISO data in the format shown in Attachment K for each interruption. For example, they shall submit by May 20, data corresponding to their operations during the month of April 2001.~~

4.4.64.4.5 Intermittent Power Resources

Intermittent Power Resources shall submit to the NYISO data pertaining to their net dependable Capacity, actual generation, maintenance hours, planned hours, periods hours, and other information as may be reasonably requested by the NYISO such as the location and name of the Intermittent Power Resource. Intermittent Power Resources shall submit production data pertaining to the previous month on the 20th day of each month and in accordance with ~~the 82-character fixed format provided in Attachment K of this Manual~~[to be provided]. For example, Intermittent Power Resources shall submit by May 20, 2001 data pertaining to their operations during the month of April 2001.

Unforced Capacity from an Intermittent Power Resource for the summer capability period shall be the average production during the hours between 14:00 and 18:00 for the months of June, July and August during the immediately previous like Capability Period. Unforced capacity from an Intermittent Power Resource for the winter capability period shall be the average production during the hours between 16:00 and 20:00 for the months December, January, and February during the immediately previous like Capability Period.

[Format for reporting data will be covered in Attachment K and the UCAP Calculation will be included in a new Section in Attachment J.]

4.4.74.4.6 Special Case Resources (Section 4.12 of this Manual)

Special Case Resources shall submit documentation to the NYISO, each time they are called upon to operate, in the form of the Special Case Resource Workbook posted on the ICAP Auctions/Products page of the NYISO website under the applicable capability Period~~Figure 2 provided in Attachment K.~~

4.4.7.14.4.6.1 Special Case Resources that are Interruptible Load Resources

Special Case Resources that were requested to reduce Load in any month shall submit to the NYISO by the later of the 20th day of the following month or 45 days data using the Special Case Resource Workbook posted on the ICAP Auctions/Products page of the NYISO website under the applicable Capability Period in the format shown in Figure 2 of Attachment K for each requested ~~interruption~~activation. For example, Special Case Resources shall submit by May 20, 2001, or 45 days after activation, their data pertaining to the month of April 2001 if they were called upon to reduce Load in April 2001.

4.4.7.24.4.6.2 Special Case Resources that are Generators

Special Case Resources that are Generators, and were requested to operate in any month shall submit to the NYISO by the later of the 20th day of the following month or 45 days data using the Special Case Resource Workbook posted on the ICAP Auctions/Products page of the NYISO website under the applicable Capability Period~~in the format shown in Figure 2 of Attachment K~~ for each requested ~~activation~~operating period. For example, Special Case Resources that are Generators shall submit by May 20, 2001, or 45 days after activation their data pertaining to the month of April 2001 if they were called upon to operate in April 2001.

4.4.84.4.7 Municipally-Owned Generation

By the 20th day of each month, municipally-owned generation shall submit to the NYISO data equivalent to GADS Data pertaining to the previous month. For example, municipally-owned generation shall submit by May 20, 2001 data equivalent to GADS Data pertaining to their operations during the month of April 2001. Municipally-owned generation shall submit data in accordance with the form provided in Attachment K of this Manual, GADS, or Special Case Resource reporting, as appropriate.

4.4.94.4.8 Resources Capable of Supplying Unforced Capacity in New York

This subsection applies to Resources that (1) have not previously been in operation in the NYCA, (2) are not subject to the requirements of Subsection 4.4.1 through Subsection 4.4.8 of this Manual, and (3) want to supply Unforced Capacity to the NYCA in the future.

By the tenth (10th) day of the month, preceding the month when a Resource wants to supply Unforced Capacity to the NYCA, the Resource shall submit to the NYISO the

appropriate Operating Data pertaining to its operations over the previous 12 months, if it was in operation. A Resource that wants to continue to supply Unforced Capacity in the NYCA immediately thereafter shall submit, by the 20th day of each month, the appropriate Operating Data.

For example, a Resource that wants to supply Unforced Capacity during the month of July shall submit by June 10 Operating Data pertaining to the previous June to May, inclusively. Thereafter, the Resource shall submit Operating Data in accordance with Subsections 4.4.1 through 4.4.8 of this Manual, as applicable.

4.4.104.4.9 Resources not in Operation for the past 12 months

A Resource that was not in operation for the past 12 months and that wants to qualify as an Installed Capacity Supplier shall submit monthly Operating Data to the NYISO no later than one (1) month after that Resource commenced commercial operation, in accordance with Subsections 4.4.1 through 4.4.8 of this Manual, as applicable.

4.4.114.4.10 Temporary Interruption in Availability

If a Generator in an otherwise operational state at the time of notice (that is, not otherwise forced out) does not sell or certify its Unforced Capacity (UCAP) on a temporary basis (i.e., elects not to participate in the UCAP Market or is not successful in selling its UCAP at auction or in a bilateral transaction), such interruption in availability of UCAP shall be taken on a monthly basis and may be treated for purposes of calculating the Equivalent Forced Outage Rate on Demand (EFOR_d) for that unit as a maintenance outage with prior notification to the NYISO. If the Generator elects to bid the unit into the NYISO energy markets during such period, all such service hours and forced outage hours shall be included in the computation of the unit's EFOR_d, but periods where the unit is not selected may be reported as Reserve Shutdown Hours, as defined in Attachment J.

4.5 Calculation of the Amount of Unforced Capacity each Resource may Supply to the NYCA (Section 5.12.6(a) NYISO Services Tariff)

The NYISO will calculate the amount of Unforced Capacity that Resources are qualified to supply to the NYCA. The Unforced Capacity methodology estimates the probability that a Resource is available to serve Load, taking into account forced outages. To evaluate this probability, the NYISO will use the Operating Data submitted by each Resource in accordance with Section 4.4 of this Manual, and the mathematical formulae included in Attachment J of this Manual. For each Capability Period, the NYISO will base the amount of Unforced Capacity a Resource is qualified to supply on the average EFOR_d value of the six (6) most recent 12-month rolling ~~average~~ EFOR_ds for that Resource. Such EFOR_d value will

remain in effect for the entire Capability Period, except in cases when historical GADS data corrections or revisions are submitted. The six (6) most recent 12- month rolling **average** EFORds shall be for the same interval used to determine the Minimum Installed Capacity Requirement to Minimum Unforced Capacity Requirement translation, as noted in Sections 2.5 and 2.6 of this Manual.

4.6 Operating Data Default Value and Exception for Certain Equipment Failures (Section 5.12.6(b) and (c) NYISO Services Tariff)

4.6.1 Default Value

In its calculation of the amount of Unforced Capacity that each Resource is qualified to supply to the NYCA and notwithstanding the provisions of Section 4.5 of this Manual, the NYISO will deem a Resource to be completely forced out during each month for which this Resource has not submitted its Operating Data in accordance with Section 4.4 of this Manual. Pursuant to Section 5.12.12 of the **NYISO Services Tariff**, Resources that do not comply with Section 4.4 of this Manual also are subject to information submission requirements sanctions.

Resources who are deemed to be completely forced out during any month may submit new Operating Data to the NYISO at any time. The format and substance of the new Operating Data shall comply with the requirements set forth in Sections 4.4.1 through 4.4.8, as applicable. Within ten (10) calendar days of receipt of new Operating Data that comply with such requirements, the NYISO shall use this new Operating Data to recalculate the amount of Unforced Capacity that such Resources may supply to the NYCA.

Upon a showing of extraordinary circumstances, the NYISO retains the discretion to accept at any time Operating Data which have not been submitted in a timely manner, or which do not fully conform with Section 4.4 of this Manual.

4.6.2 Exception for Certain Equipment Failures

When a Generator, Special Case Resource, Energy Limited Resource, System Resource, or Control Area System Resource is forced into an outage by an equipment failure that involves equipment located on the electric network beyond the step-up transformer, and including such step-up transformer, the NYISO shall not treat the outage as a forced outage for purposes of calculating the amount of Unforced Capacity such Installed Capacity Suppliers are qualified to supply in the NYCA. This exception is not limited to equipment failures that occur on the New York State electrical network and extends to equipment failures that occur on electrical networks operated by External Control Areas.

For purposes of EFOR_d, a Generator, special Case Resource, Energy Limited Resource, System Resource, or Control Area System Resource will report a generator outage caused by an equipment failure that involves equipment located on the electric network beyond the step-up transformer, and including such step-up transformer as a forced outage with a cause code of 9300.

If an outage occurs on the transmission system beyond the generator step-up transformer, and including such step-up transformer, at a time when a Generator has not placed its unit on a maintenance outage, such interruption in availability shall be treated for purposes of calculating the unit's EFOR_d rating as a reserve shutdown. If an outage occurs on the transmission system beyond the generator step-up transformer, and including such step-up transformer, at a time when a Generator is on a maintenance outage, such interruption in availability shall be treated for purposes of calculating the unit's EFOR_d rating as a maintenance outage. In the event that service resumes on the transmission system but the unit categorized as being on a reserve shutdown is not able to perform, the unit shall be charged with a forced outage from the time that the transmission outage ended until the time it resumes operations (the "post transmission outage period"); provided however, that if the unit had been scheduled to take a maintenance outage during the post transmission outage period, the unit shall be charged with a Forced Outage, as defined in Attachment J, until the scheduled start date of its maintenance outage, at which time it will be charged with a maintenance outage until the end of its scheduled maintenance period. Pratico reviewing

4.7 Monthly Installed Capacity Supplier Certification Forms

Each Installed Capacity Supplier must certify its Unforced Capacity to the NYISO no later than the deadline for monthly certification as provided in the detailed timeline that can be found by selecting the link provided: (<http://www.nyiso.com/public/products/icap/index.jsp>), demonstrating that the Unforced Capacity it is supplying is not already committed to meet the Minimum Installed Capacity Requirement of an External Control Area.

In addition, each Installed Capacity Supplier that has been de-rated (i.e., has had an amount of Unforced Capacity it is authorized to supply in the NYCA reduced by the NYISO in accordance with section 4.5 of this Manual) shall demonstrate in its monthly certification that it has procured sufficient additional Unforced Capacity to cover any shortage, due to such de-rating, of Unforced Capacity it has previously committed to supply in the following month or go into the ICAP Spot Market Auction.

In the case where an Installed Capacity Supplier has sold UCAP and subsequently sells those UCAP assets on a date prior to the expiration of the UCAP sale, the responsibility for certifying the sold UCAP remains with the Installed Capacity Supplier that initially sold the UCAP. It is the responsibility of the selling Installed Capacity Supplier to either (1) arrange a bilateral agreement with the new owner of the UCAP assets to cover this requirement or (2)

purchase the requirement through another bilateral transaction or through the NYNYISO-administered auctions.

If a bilateral transaction is certified by an Installed Capacity Supplier, but is not confirmed by the second party to the transaction, the bilateral transaction submitted by the Installed Capacity Supplier remains unconfirmed at the close of the certification period. The UCAP associated with the unconfirmed bilateral transaction sale remains with the Installed Capacity Supplier that submitted the bilateral transaction for certification.

4.8 Bidding, Scheduling, and Notification Requirements (Section 5.12.7 NYISO Services Tariff)

On any day for which it supplies Unforced Capacity, each Installed Capacity Supplier (except as noted below) must schedule or Bid into the Day-Ahead Market, or declare to be unavailable an amount of Energy that is not less than the Installed Capacity Equivalent of the amount of Unforced Capacity it is supplying to the NYCA from each Resource that it uses to supply Unforced Capacity. Planned or Maintenance outages must be scheduled in advance of any Day-Ahead bidding. Any declared or unavailable Energy/Capacity not previously scheduled out of service must be reported as a Forced Outage or Forced Derating in accordance with the operating data reporting requirements in Section 4.4 and Attachment K of this Manual.

Each Installed Capacity Supplier providing Unforced Capacity must designate the entity that will be responsible for complying with these bidding, scheduling, and notification requirements.

4.8.1 Generators and System Resources

For every hour of any day for which Generators and System Resources supply Unforced Capacity, they must provide the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA through a combination of scheduling or Bidding in the Day-Ahead Market, or in accordance with the notification procedure below. See the *NYISO's Day-Ahead Scheduling Manual* and *Market Participants User Guide* for scheduling and bidding procedures.

For any hour of any day that the Installed Capacity Supplier cannot provide the full amount of Energy associated with its Installed Capacity Equivalent, due to maintenance or forced outage, the supplier must notify the NYISO Operations department.

4.8.2 Energy Limited Resources

Energy Limited Resources that are Installed Capacity Suppliers must be able to provide the Installed Capacity Equivalent of the amount of Unforced Capacity they are supplying to the NYCA for a minimum of four (4) hours each day. Energy Limited Resources must Bid or schedule in the Day-Ahead Market each day in such a way as to enable the

NYISO to schedule them for the period in which they are capable of providing the Energy. An Energy Limited Resource must also provide the NYISO with information concerning that Energy Limited Resource's upper operating limit, designating its desired operating level. Once the Energy Limited Resource has provided four (4) hours of Energy equivalent to its Installed Capacity commitment, the NYISO will not call on it to provide additional Energy, absent an emergency. In the case of an emergency, the NYISO may request an Energy Limited Resource for assistance, recognizing that the Energy Limited Resource may not be capable of responding. [TB 75 and 76 need to be folded in here and/or elsewhere]

~~4.8.3 Interruptible Load Resources~~

~~Interruptible Load Resources that are Installed Capacity Suppliers must supply the NYISO with Energy and/or Operating Reserve Bids in the Day-Ahead Market indicating the price at which they are willing to be interrupted. This applies only to Interruptible Loads that are not Special Case Resources.~~

4.8.44.8.3 Existing Municipally-Owned Generation

Existing municipally-owned generators that qualify as Installed Capacity Suppliers pursuant to Section 5.12.11(b) of the **NYISO Services Tariff** and Section 4.13 of this Manual are not required to Bid or schedule in the Day-Ahead Market.

4.8.54.8.4 Special Case Resources (Section 4.12 of this Manual)

Special Case Resources are not subject to daily bidding, scheduling, and notification requirements.

For every month in which a Special Case Resource supplies Unforced Capacity, the Responsible Interface Party ("RIP"), or its assignee, must offer to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity the Special Case Resource is supplying to the NYCA by submitting a Minimum Payment Nomination to the NYISO associated with such Unforced Capacity. This Minimum Payment Nomination will act as a strike price, allowing the NYISO to call on a specific amount of Special Case Resources to perform, based on price and NYCA zone, when faced with a Forecast Reserve Shortage. The Minimum Payment Nomination will remain in effect through the month and is not subject to change. Special Case Resource Minimum Payment Nomination submission procedures are detailed in Section 4.12.3.

A RIP, or its assignee, must notify the NYISO Planning and Operations departments of a change in status that would cause a Special Case Resource to not be able to provide the full amount of Load reduction associated with the Unforced Capacity it has supplied to the NYCA. See Sections 4.3.3 and 4.12.6 of this Manual.

4.8.64.8.5 Intermittent Power Resources

As set out in Section 5.12.11(d) of the **NYISO Services Tariff**, Intermittent Power Resources may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding and scheduling requirements set forth in Section 5.12.7 of the NYISO Services Tariff. To qualify as Installed Capacity Suppliers, Intermittent Power Resources shall comply with the notification requirement of Section 5.12.7 of the NYISO Services Tariff by scheduling planned outages in advance~~notifying the NYISO of outages~~.