

NYISO Installed Capacity Manual

Draft Section 4

ICAP REQUIREMENTS APPLICABLE TO INSTALLED CAPACITY SUPPLIERS

- Additions to the current ICAP Manual Section 4 are double underlined, like this.
- Deletions to the current ICAP Manual Section 4 are struck through, ~~like this~~.
- Notes for the Working Group's consideration are in brackets, double underlined, and highlighted, like this.

Prepared for the November 16, 2000 ICAPWG Meeting

Section 4

INSTALLED CAPACITY ~~Marketers~~ REQUIREMENTS APPLICABLE TO INSTALLED CAPACITY SUPPLIERS

Generators, System Resources, Control Area System Resources, Energy Limited Resources, Interruptible Load Resources, Intermittent Power Resources, Special Case Resources, ~~Energy Limited Resources and System Resources~~ (including Special Case Resources that are Distributed Generators and Special Case Resources that are Interruptible Load Resources), and Municipally-Owned Generation may be qualified as Installed Capacity Suppliers if they meet the NYISO's ISO's requirements. Installed Capacity Marketers may also sell Unforced Capacity in the New York Control Area as Installed Capacity Supplier if they meet the ISO's requirements.

Generators and ~~System Resources, and Control Area~~ System Resources may be physically located in the NYCA, or in an External Control Area which meets the recall and curtailment procedures and the locational limitations specified in Section 2.5 of this ~~manual~~ Manual.

Section 4 contains:

- An overview of the NYISO's ISO's requirements applicable to ICAP Installed Capacity Suppliers.
- The procedures applicable to entities belonging to one of the aforementioned categories of ~~resource~~ Resources in order for those ~~resources~~ Resources to be qualified as an ICAP Installed Capacity Supplier.
- The bidding ~~and~~, scheduling and notification procedures that must be followed by ICAP Installed Capacity Suppliers.
- The sanctions that the NYISO ISO may assess if an ICAP Installed Capacity Supplier does not abide by the Services Tariff or the procedures contained in this ~~manual~~ Manual.
- A summary of required actions.

Appendix J of this Manual contains additional significant details regarding the implementation of New York's Unforced Capacity methodology. Appendix [X] of this Manual provides forms that Resources shall use to submit information required by this Section of the Manual. NYISO Staff will add a new appendix to the ICAP Manual. It will include the various forms such as the form to be used by Resources to submit GADS Data and data equivalent to GADS Data. This draft Section

4 ICAP Manual will refer to this appendix as “Appendix [X]”. The NYISO welcomes comments on this addition.

The *ISO Services Tariff* reference for this section of the ~~manual~~ Manual is Section 5.12.

4.1 Overview

The requirements that must be met for a ~~resource~~ Resource to qualify as an ICAP Installed Capacity Supplier are generally stated below. Detailed requirements and procedures applicable to specific categories of ~~resources~~ Resources are contained later in this Section.

If When required, an ICAP Installed Capacity Supplier must:

- Provide the ~~NYISO~~ ISO with the name and location of any ~~Generator, Interruptible Load Resource or System Resource that it controls~~ Resources that it controls.
- ~~Provide the NYISO with all required documentation~~

~~Comply with the reporting requirements contained in this manual~~ Perform DMNC tests and inform the ISO of the results of such tests, provide the ISO with historical operating data, or provide the ISO with CARL Data and probability of loss of load data.

- Abide by the maintenance coordination procedures for Generators contained in ~~Inform the NYISO~~ Outage Scheduling Manual.
- Inform the ISO of the expected return date from any outages.
- Provide documentation to the ~~NYISO~~ ISO that it has not sold the same ICAP Unforced Capacity to more than one entity at a time ~~Comply with scheduling and bidding requirements~~

4.2

- Comply with scheduling, bidding and notification requirements.
- Provide the ISO, on a monthly basis, with Operating Data.
- Comply with the reporting requirements contained in this Manual.
- Provide the ISO with all required documentation.

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4.2 Unforced Capacity (Sections 5.12.5 and 5.12.6 ISO Services Tariff)

New York uses an Unforced Capacity (“UCAP”) methodology to determine the amount of Unforced Capacity each Resource is qualified to sell in the New York market. The Unforced Capacity methodology estimates the probability a Resource is available to serve Load, accounting for Planned, Maintenance and Forced Outages, and whether the Resource is available during New York’s peak periods.

Attachment J to this Manual contains the equations that the ISO will use to derive the Unforced Capacity ratings of Generators, System Resources, Energy Limited Resources, Interruptible Load Resources, Intermittent Power Resources, Special Case Resources, and Municipally-Owned Generation, and the amount of Unforced Capacity that Control Area System Resources are qualified to supply.

4.2.1 Operating Data Reporting Requirements (Section 5.12.5 ISO Services Tariff)

Installed Capacity Suppliers shall submit Operating Data to the ISO every month in accordance with the following subsections. 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 Services Tariff.

4.2.1.1 Generators

Generators shall submit to the ISO GADS Data or data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Generators shall have submitted by December 20, 2000 their GADS Data or equivalent GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Generators shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, Generators shall submit by January 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.2 System Resources

System Resources shall submit to the ISO GADS Data or data equivalent to GADS

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Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, System Resources shall have submitted by December 20, 2000 their GADS Data or equivalent GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Generators shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, System Resources shall submit by January 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.3 Control Area System Resources

Control Area System Resources shall submit to the ISO CARL Data and actual system failure occurrences data in accordance with Section 4.8 of this Manual. CARL Data and actual system failure occurrences data shall include all the data required in Section 4.8 of this Manual to determine the amount of Unforced Capacity that each Control Area System Resource is qualified to sell in the NYCA.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Control Area System Resources shall have submitted by December 20, 2000 their CARL Data and actual system failure occurrences data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Control Area System Resources shall submit by the twentieth day of each month CARL Data and actual system failure occurrences data pertaining to the previous month. For example, System Resources shall submit by January 20, 2001 CARL Data and actual system failure occurrences data pertaining to their operations during the month of December 2000.

4.2.1.4 Energy Limited Resources

Energy Limited Resources shall submit to the ISO GADS Data or data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Energy Limited Resources shall have submitted by

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December 20, 2000 their GADS Data or data equivalent to GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Energy Limited Resources shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, Energy Limited Resources shall submit by January 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.5 Interruptible Load Resources

Subject to Section 4.2.1.8 of this Manual, Interruptible Load Resources shall submit to the ISO GADS Data or data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Interruptible Load Resources shall have submitted by December 20, 2000 their GADS Data or data equivalent to GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Interruptible Load Resources shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, Interruptible Load Resources shall submit by January 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.6 Intermittent Power Resources

Intermittent Power Resources shall submit to the ISO data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Intermittent Power Resources shall have submitted by December 20, 2000 their data equivalent to GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Intermittent Power Resources shall submit by the twentieth day of each month data equivalent to GADS Data pertaining to the previous month. For example, Intermittent Power Resources shall submit by January 20, 2001 data equivalent to GADS Data pertaining to their operations during

the month of December 2000.

4.2.1.7 Special Case Resources

Subject to Sections 4.2.1.8 and 4.2.1.9, Special Case Resources shall submit to the ISO GADS Data or data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Special Case Resources shall have submitted by December 20, 2000 their GADS Data or equivalent GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Special Case Resources shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month. For example, Special Case Resources shall submit by January 20, 2001 GADS Data or data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.8 Special Case Resources that also are Interruptible Load Resources

[The ISO will include language here on the basis of the equations developed in Appendix J.]

4.2.1.9 Special Case Resources that also are Distributed Generators

[The ISO will include language here on the basis of the equations developed in Appendix J.]

4.2.1.10 Municipally-Owned Generation

Intermittent Power Resources shall submit to the ISO data equivalent to GADS Data in accordance with the 82-character fixed format provided in Attachment [X] of this Manual.

To allow the implementation of a permanent Installed Capacity market design by the 2001 Summer Capability Period, Intermittent Power Resources shall have submitted by December 20, 2000 their data equivalent to GADS Data pertaining to the months of January to November 2000.

From the month of December 2000 forward, Intermittent Power Resources shall

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submit by the twentieth day of each month data equivalent to GADS Data pertaining to the previous month. For example, Intermittent Power Resources shall submit by January 20, 2001 data equivalent to GADS Data pertaining to their operations during the month of December 2000.

4.2.1.11 Resources Capable of Selling Unforced Capacity in New York

This subsection 4.2.1.11 applies only to Resources which (1) are in operation in the NYCA as of January 1, 2000, (2) are not subject to the requirements of subsection 4.2.1.1 to subsection 4.2.1.10 of this Manual, and (3) want to sell Unforced Capacity in the NYCA beginning in the Summer 2001 Capability Period.

By the tenth day of month preceding the month when they want to sell Unforced Capacity to the NYCA, such Resources shall submit to the ISO GADS Data or data equivalent to GADS data pertaining to their operations over the last 12 previous months. Such Resources that want to continue to sell Unforced Capacity in the NYCA immediately thereafter shall submit by the twentieth day of each month GADS Data or data equivalent to GADS Data pertaining to the previous month, so as to allow the ISO to keep current a rolling average of Operating Data.

For example, such Resources that want to sell Unforced Capacity during the month of July 2001 shall submit by June 10, 2001 GADS Data or data equivalent to GADS Data pertaining to the months of June 2000 to May 2001, inclusively. If such Resources want to continue selling Unforced Capacity in the NYCA during August 2001, it shall submit by July 20, 2001 GADS Data or data equivalent to GADS Data pertaining to the month of July 2001.

4.2.1.12 Resources not in Operation as of January 1, 2000

Beginning with the Summer 2001 Capability Period, a Resource that want to qualify as Installed Capacity Supplier, but that began operation after January 1, 2000, shall submit monthly Operating Data to the ISO no later than one month after that Resource commenced commercial operation, and in accordance with subsections 4.2.1.1 to 4.2.1.11 of this Manual as applicable.

4.2.2 Unforced Capacity Calculation Procedures (Section 5.12.6(a) ISO Services Tariff)

Every Capability Year and every month thereafter, the ISO shall calculate the amount of Unforced Capacity that each Installed Capacity Supplier is qualified to sell in the NYCA.

4.2.2.1 Generators, Special Case Resources, Energy Limited Resources, and System Resource

[The following two paragraphs were provided by Mike Cadwalader and adapted by the ISO.]

The amount of Unforced Capacity that each Generator, Interruptible Load Resource, Special Case Resource, Energy Limited Resource, and System Resource is authorized to sell in the NYCA shall be based on the ISO calculations of individual EFOR_D. The EFOR_D shall be calculated on the basis of a twelve-month rolling average of Operating Data, using the formulae set forth in Attachment J to this Manual, based on data beginning 14 months before the current month and ending 3 months before the current month (e.g., the EFOR_D for a Resource that is applicable to the month of September 2001 would be based on data covering the period from July 2000 through June 2001).

Subject to Section 4.2.3 of this Manual, the amount of Unforced Capacity that each such Resource is permitted to supply in the current month shall be calculated by subtracting the EFOR_D for that Resource that is applicable to that month from one, and multiplying the resulting difference by the applicable DMNC rating for that Resource. The DMNC that is applicable to the month for which Unforced Capacity is being sold shall be either the Summer DMNC rating or the Winter DMNC rating (using the month that is three months prior to the current month) for that Resource.

4.2.2.2 Control Area System Resources

The ISO shall calculate the amount of Unforced Capacity a Control Area System Resource is qualified to supply in accordance with Section 4.8 of this Manual.

4.2.2.3 Interruptible Load Resources,

[The ISO will include language here on the basis of the equations developed in Appendix J.]

4.2.2.4 Intermittent Power Resources

To calculate the Unforced Capacity for an Intermittent Power Resource, the historical Capacity factor shall be increased to reflect the Capacity factor for all hours the Resource is not out for Maintenance or Planned Outages. [Section provided by Steve McDonald of PG&E and adapted by the ISO. See also Section 2.77a and 5.12.11(c) of the Tariff.]

4.2.2.5 Municipally-Owned Generations

The ISO shall calculate the amount of Unforced Capacity that each Municipally-Owned Generation is qualified to sell in the NYCA on the basis of the data equivalent to GADS Data submitted by each Municipally-Owned Generation.

4.2.2.6 Mitigated In-City Generators

[The NYISO is currently considering whether the amount of Unforced Capacity, which Mitigated In-City Generators that are required to bid every six (6) months are qualified to sell in the NYCA, may change monthly.]

4.2.2.4 Resources Not in Operation on January 1, 2000

The ISO will calculate UCAP rating for Resources not in operation on January 1, 2000, by using a weighted average of (a) NERC class average availability data (by fuel type and size) for the months prior to actual operation and (b) Operational Data for the months of actual operation.

4.2.3 Impact of a Resource's Failure to Submit Operating Data on Unforced Capacity Calculations (Section 5.12.6(b) ISO Services Tariff)

In its calculation of the Unforced Capacity an Installed Capacity Supplier is qualified to sell, the ISO shall use a default EFOR_D equal to one (1.0) or Availability rate of zero (0) for every month for which such Installed Capacity Supplier has not submitted its Operating Data in accordance with Section 4.2.1 of this Manual.

Installed Capacity Suppliers that were awarded a default EFOR_D equal to one (1.0) or Availability rate of zero (0) for any month may submit new Operating Data to the ISO at anytime. When it compiles a new rolling average of Operating Data, the ISO shall replace the default EFOR_D equal to one (1.0) or Availability rate of zero (0) for the relevant month with such new EFOR_D or Availability rate calculated on the basis of the new Operating Data submitted in accordance with Section 4.2.1 of this Manual.

Upon a showing of extraordinary circumstances, the ISO 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 4.2.1 of this Manual.

4.2.4 Exception to the Calculation of Unforced Capacity for Certain Equipment Failures (Section 5.12.6(b) ISO Services Tariff)

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When an Installed Capacity Supplier is forced into an outage by an equipment failure that involves equipment located on the high voltage side of the electric network beyond the step-up transformer, and including such step-up transformer, the outage will not be counted for purposes of calculating that Installed Capacity Supplier's Equivalent Forced Outage Demand Rate or historical capacity factor. When an Installed Capacity Supplier is forced into an outage by an equipment failure that involves equipment located on the low voltage side of the electric network between the step-up transformer and the Resource, the outage will be treated as a Forced Outage or Partial Outage, as applicable, for purposes of calculating that Resource's Equivalent Demand Forced Outage Rate.

4.3 DMNC Test Procedures

~~Potential ICAP Suppliers must~~ Generators, System Resources, Energy Limited Resources, Intermittent Power Resources, Special Case Resources and Municipally-Owned Generation that want to qualify as Installed Capacity Suppliers shall perform DMNC tests in accordance with the procedures described below ~~(unless exempt in accordance with the provisions of Section 4.6 of this manual), and provide the NYISO, and provide the ISO~~ with the required documentation of those tests. Alternatively, potential ICAP Installed Capacity Suppliers, with the exception of new Generators, may use historical production data for the immediately preceding like Capability Period, no more than twelve months old, in lieu of DMNC test data. For a summer period, the historical production data must have been recorded between June 1 and September 15; for a winter period, the data must have been recorded between November 1 and April 15.

~~Installed Capacity Suppliers offering to sell ICAP as a System Resource~~ offering Unforced Capacity from Generators internal to the New York Control Area must submit DMNC test data, or historical production data, for each Generator that it seeks to aggregate.

Interruptible Load Resources and Control Area System Resources do not need to conduct DMNC tests and submit their results to the ISO. Interruptible Load Resources must provide evidence of a one hour disconnection period less than one year old and comply with other requirements in accordance with Sections 4.2.2.3 and 4.9 of this Manual. Control Area System Resources shall submit Operating Data in accordance with Section 4.8 of this Manual.

~~4.3.1-~~

~~4.2.1~~ DMNC Test Periods

The DMNC Test Period for the Summer Capability Period is June 1 through September 15.
The DMNC Test Period for the Winter Capability Period is November 1 through April 15.

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~~The NYISO Services Tariff allows DMNC tests to be performed between March 1, 2000 and March 24, 2000 for any Generator whose 1999 Summer DMNC was derated from its 1998 Summer DMNC. Based on the temperature adjusted results of this test, such a Generator may be authorized to sell up to the level it demonstrated in 1998 for the Summer 2000 Capability Period. An Installed Capacity Supplier's DMNC test results must be temperature adjusted and provided to the NYISO's Scheduling Department by March 24, 2000 in order to qualify for the Summer 2000 Capability Period ICAP auction scheduled for March 31, 2000.~~

~~DMNC test may also be performed between September 1 and September 24, 2000 for any Generator whose 1999 2000 Winter DMNC rating was derated from its 1998 1999 Winter DMNC rating. Based on the temperature adjusted results of this test, such a Generator may be authorized to sell up to the level it demonstrated in 1998 1999 for the Winter 2000 2001 Capability Period. An Installed Capacity Supplier's DMNC test results must be temperature adjusted and provided to the NYISO's Scheduling Department by September 24, 2000 to qualify for the Winter 2000 2001 Capability ICAP auction scheduled for September 30, 2000.~~

~~New Generators may be qualified at any time during the Summer 2000 Capability Period based on the results of an appropriate demonstration test or production data. New Generators may temperature adjust the results of the appropriate demonstration DMNC test or production data, using the procedures noted on the DMNC test results forms (Attachment D to this manual) if the test is conducted prior to the Summer 2000 Capability Period DMNC Test Period. In order to qualify as an ICAP supplier and submission of required Operating Data adjusted to the average ambient conditions for any month within the Summer Capability Period, new Generators must submit the four hour demonstration test results by the tenth day of the month preceding the month in which they intend to sell ICAP. In order to qualify as an ICAP supplier prior to the Summer 2000 Capability period auction, a new Generator must submit the appropriate demonstration test or production data results by March 24, 2000.~~

~~Existing Generators and the Winter Capability Period.~~

~~Existing Resources that have increased capacity Capacity may demonstrate the DMNC of the incremental capacity for and within the Summer 2000 Capability Period incremental Capacity at any time by following the procedures described in the paragraph above for new Generators.~~

~~Generators that qualify to sell ICAP during the Summer 2000 Capability Period through tests conducted prior to June 1, 2000 pursuant to the preceding three paragraphs this section will~~

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~~be required to verify the claimed DMNC rating by performing an additional test during the Summer 2000 test period. Appendix D to this Manual provides information on the weather conditions prevailing at the time of the year for which the temperature-adjusted DMNC tests shall be adjusted to.~~

~~Generators that qualify to sell ICAP during the Summer 2000 Capability Period through tests conducted between March 1 and April 15, 2000 may use those test results to qualify for the Winter 2000 Capability Period~~

~~Generators that qualify to sell ICAP during the Winter 2000-2001 Capability Period through tests conducted prior to October 1, 2000 pursuant to this section will be required to verify the claimed DMNC rating by performing an additional test during the Winter 2000-2001 test period.~~

~~Generators that qualify to sell ICAP during the Winter 2000-2001 Capability Period through tests conducted between September 1 and September 24 may use those test to qualify for the Summer 2001 Capability Period.~~

~~4.2.2 4.3.2 Resource Specific Test Conditions~~

The ~~resources~~ Resources listed below must meet the applicable DMNC test conditions specified below in order to be qualified as ~~ICAP~~ Installed Capacity Suppliers.

Fossil Fuel and Nuclear Stations

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

- a. The ~~unit's~~ unit's sustained maximum net output averaged over a four 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.

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Hydro Stations

Valid DMNCs for hydro units where GADS Data is being submitted are determined by the following:

- a. The sustained maximum net output averaged over a four consecutive hour period using average stream flow (during the months of July and August for the Summer Capability Period and January and February for the Winter Capability Period) 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 hour ~~period.~~ period.b.
Such a 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 Winter Capability Periods.
- b. ~~Such a unit's winter~~ c. Such a unit'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 winter peak~~ District's summer peaks during the previous four ~~Winter~~ Summer Capability Periods.

~~**c. Such a 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 peaks during the previous four Summer Capability Periods.**~~

Combined Cycle Stations

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

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Subject to Revision**

- a. The sustained maximum net output over four consecutive ~~hours.~~ 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 peaks during the previous four Winter Capability Periods.~~
- ~~b. A combined cycle station's winter~~ 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~~ District's ~~winter~~ summer peaks during the previous four ~~Winter~~ Summer Capability Periods.

~~*e. 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 peaks during the previous four Summer Capability Periods.*~~

4.2.3 4.3.3 Treatment of Station Service Load

In general, the DMNC rating for a Generator is the amount of power delivered to the transmission grid net of station service load. The DMNC rating ~~should~~ shall reflect a reduction in gross output of the Generator for station service load.

~~In most cases, this determination is straightforward because the Generator is connected to the transmission grid, and the amount of power provided to the grid reflects the station service load reduction.~~

~~In other cases, a~~ A portion of the station service load ~~may be~~ is provided from sources other than the Generator. In these cases, separate measurements must be made of the station service load and subtracted from the ~~Generator's~~ Generator's gross output as measured 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~~ parties will provide to the ~~NYISO~~ ISO any information available to it which relates to the configuration of the Generator and its station service load. Disputes will be resolved by the ISO in accordance with the dispute resolution specified in Section 5.16 of the ISO Tariff.

4.3.4 4.2.4 Required DMNC Generating Capability Test Data

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An entity that wants to establish a DMNC rating for its ~~resources~~ Resources must complete and report the test results for each of its ~~resources by~~ Resources by completing and sending the form provided in ~~Attachment D~~ Appendix [X] of this Manual to the ~~NYISO~~ ISO. The test reports shall include:

- a. Kilowatt-hour meter readings from the tests to verify net output. Reproduced copies of actual log sheets are preferred where possible.
- b. 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.
- c. For steam units, test conditions as listed below (see also Attachment A):
 - ≥ Over pressure
 - ≥ Top feed water heater O/S
- d. ~~Notes explaining the reason for any failure to achieve claimed DMNC, and intended date and means of correcting the deficiency or re-rating the unit capacity. For hydro units, [the NYISO Staff is considering what needs to be included in the test reports for hydro units].~~
- e. 4.3 For other units, [the NYISO Staff is considering what needs to be included in the test reports for other units].

4.4 Maintenance Scheduling Requirements

[The terminology used in this Section may change as the NYISO Staff is currently examining various definitions adopted by the NERC. However, it is understood that the amount of UCAP an ICAP Supplier may sell in the NYCA will be a function of that Supplier's Forced Outages. The issue resides in the distinction between "Maintenance Outages" and "Forced Outage." The NYISO will present to the ICAPWG a proposal on this issue at the November 16 ICAPWG Meeting.]

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

- Submit a confidential notification to the NYISO of proposed outage schedules for the next three calendar years by July 1st of the current calendar year. The deadline for submission of proposed outages schedules for the 2000-2001 Capability Year is February 29, 2000. ISO of proposed Maintenance Outages and Planned Outages schedules for the following two calendar years by [July 1st] of each calendar year in accordance with the ISO Outage Scheduling Manual. This requirement applies to all Resources within the NYCA that have executed the ISO Services Tariff. [The NYISO will conform the Outage Scheduling Manual and Technical Bulletin #44.]

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- If Operating Reserve deficiencies are projected to occur in certain weeks for the upcoming calendar year, based upon the NYISO's ISO's reliability assessment, ~~resources~~ the ISO may be requested request Resources to voluntarily reschedule ~~planned maintenance~~ Planned Outages.
- The NYISO ISO will provide the ~~resource~~ Resource subject to reschedule with alternative acceptable times for the rescheduled maintenance work.
- If the ~~resource~~ Resource subject to reschedule is a Generator and an ICAP Installed Capacity Supplier, ~~and that~~ does not voluntarily re-schedule its ~~planned maintenance~~ Planned Outage within the alternative acceptable times provided by the NYISO, ISO, the NYISO ISO will invoke mandatory re-scheduling using the procedures in Section 2.1 of the NYISO ISO Outage Scheduling Manual.
- Installed Capacity Suppliers that comply with a re-scheduling request shall be allowed to sell Unforced Capacity in every month of a Capability Period.
- Installed Capacity Suppliers that do not comply with voluntary re-scheduling request shall not be allowed to sell Unforced Capacity during any month where it schedules a Maintenance Outage or Planned Outage.
- A Resource ~~A resource~~ that did not qualify as an ICAP Installed Capacity Supplier prior to the ~~Obligation Procurement~~ Capability Period and that intends to be an ICAP Installed Capacity Supplier ~~within the~~ in any Obligation Procurement Period must provide the NYISO ISO with its proposed ~~outage~~ Maintenance Outage and Planned Outage schedule for the current ~~Capability Year~~ year and the following ~~two~~ calendar ~~years~~ year, no later than the first day of the month preceding the month in which it intends to supply ICAP Unforced Capacity, so that it may be subject to the voluntary and mandatory re-scheduling procedures described above. If the first day of the month preceding the month in which the ~~resource~~ Resource intends to supply ICAP Installed Capacity is after July 31st, the ~~resource~~ Resource must also provide ~~outage~~ Maintenance Outage and Planned Outage schedules for the next ~~three~~ two Capability Years.

4.3.1. 4.4.1 Interruptible Load Resources

Interruptible Load Resources must comply with the following ~~procedures~~ requirements:

- Notify the NYISO ISO at least thirty (30) days prior to the beginning of ~~an Obligation Procurement~~ each Capability Period of ~~scheduled maintenance~~ any Planned Outages that would reduce their ability to interrupt during the upcoming ~~Obligation Procurement~~ Capability Period.
- Provide the NYISO ISO at least thirty (30) days prior to the beginning of each Capability Period with a written commitment that any ~~scheduled maintenance~~ Planned

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

~~Outages that would reduce their ability to interrupt without reducing Load will only be conducted from November 1st through March 31st of any calendar year. not be scheduled during the months of January, February, June, July, August and September.~~

[The NYISO would like to submit his proposed modification for the consideration of the ICAPWG. The NYISO welcomes any comments.]

~~4.3.2 External System Resources~~ **4.4.2 External Resources**

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

~~4.3.3~~ **4.4.3 Special Case Resources**

Special Case Resources are ~~not subject to maintenance scheduling requirements.~~ subject to the following requirements.

- 4.4 Notify the ISO at least thirty (30) days prior to the beginning of each Capability Period of Planed Outages that would reduce their ability to interrupt during the upcoming Capability Period.
- Provide the ISO at least thirty (30) days prior to the beginning of each Capability Period with a written commitment that any Planned Outage that would reduce their ability to operate will not be conducted during the months of January, February, June, July, August and September. [The NYISO would like to submit his proposed modification for the consideration of the ICAPWG. The NYISO welcomes any comments.]

4.5 Bidding, Scheduling, and Notification Requirements

On any day for which it has sold ~~ICAP, each ICAP~~ Unforced Capacity, each Installed Capacity Supplier (except as noted below) must schedule, bid or declare to be unavailable an amount of Energy that is not less than the ~~amount of ICAP~~ Energy equivalent of the Unforced Capacity it sold from a particular ~~resource~~ Resource, rounded down to the nearest whole MW.

Each Generator, Interruptible Load Resource, Energy Limited Resource ~~and~~ System Resource, and Control Area System Resource providing ~~ICAP~~ Unforced Capacity must designate the entity that will be responsible for complying with these bidding, scheduling and notification requirements.

~~4.4.1~~ **4.5.1 Generators and System Resources, and Control Area System Resources**

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

For every hour of any day for which Generators ~~or~~, System Resources, or Control Area System Resources sell ~~ICAP~~, Unforced Capacity, they ~~must~~ shall make the amount of ~~energy~~ Energy associated with its ~~ICAP~~ Unforced Capacity commitment available to the NYCA through a combination of scheduling or bidding in the Day ~~Ahead Market~~ Ahead Energy and Reserve Markets, or in accordance with the notification procedure below. See the ~~NYISO's~~ ISO's Day-Ahead Scheduling Manual and Market Participants User Guide for scheduling and bidding procedures.

In addition, for every hour of any day for which Generators, System Resources, or External Control Area System Resources sell Unforced Capacity, they must respond to the ISO's request for a Supplement Resource Evaluation. Failure to comply with this requirement is subject to the sanctions provided in Section 5.12.12(b) of the Services Tariff.

For any hour of any day that the ~~supplier~~ Supplier cannot provide the full amount of ~~energy~~ Energy associated with its ~~ICAP~~ Installed Capacity commitment, due to a ~~maintenance or forced outage~~, the ~~supplier~~ Maintenance or Forced Outage, the ~~Installed Supplier~~ Installed Supplier must notify the ~~NYISO~~ ISO Operations department.

4.5.2 Generators, System Resources, and Control Area System Resources Located in the NYCA

In addition to the requirement listed above in Section 4.5.1 of this Manual, when Generators, System Resources, and Control Area System Resources located in the NYCA elect make the amount of Energy associated with their Unforced Capacity commitment available to the NYCA through bidding in the Day-Ahead Energy Market, they shall also bid in the 10 Minute Non-Spinning Reserve Markets.

4.5.3 4.4.2 Energy Limited Resources

Energy Limited Resources that are ~~ICAP~~ Installed Capacity suppliers must be able to provide the Energy equivalent of their claimed ~~ICAP for~~ Unforced Capacity for a minimum of four (4) hours each day. Energy Limited Resources must bid or schedule in the Day-Ahead Market for twenty-four (24) hours each day in such a way as to enable the ~~NYISO~~ ISO to schedule them for the period in which they are capable of providing the ~~energy~~ Energy.

An Energy Limited Resource must also provide the ~~NYISO~~ ISO with information concerning the hours during which it will be recharging or replacing depleted ~~resources~~. Resources. Once the ~~resource~~ Resource has provided four hours of ~~Energy equivalent~~ ICAP, the ~~NYISO will not call on~~ Installed Capacity Equivalent, the ISO will not require further commitment from an Energy Limited Resource during its recharge hours, except but may request assistance in the ease event of an emergency.

4.4.3 4.5.4 Interruptible Load Resources

Interruptible Load Resources that are ICAP Installed Capacity Suppliers must supply the NYISO ISO with Energy and/or Operating Reserve bids in the Day-Ahead Market indicating the price at which they are willing to be interrupted.

4.4.4 Existing Municipally-Owned Generation

~~Resources that qualify as Existing Municipally-Owned Generation ICAP Suppliers pursuant to section 5.12.8(b) of the ISO Services Tariff and section 4.8.8 of this manual are not required to bid or schedule in the Day Ahead Market.~~

4.4.5 4.5.5 External Transactions and Recall Procedures

ISO will provide additional details as soon as possible and before the next ICAPWG.

~~A Resource~~ A resource that is not fully scheduled in the Day-Ahead Market may use the unscheduled Energy associated with its ICAP Installed Capacity commitment to NYCA load for an External Transaction, provided that the Energy is recallable at any time by the NYISO: ISO through its SRE process.

~~An ICAP Supplier that has entered into External Transactions must provide the NYISO with recall bids that specify the price at which the ISO may recall the Energy associated with the Supplier's ICAP commitment to the NYCA. If the ICAP Supplier is located External to the NYCA, then the ICAP Supplier or its designated agent must provide the NYISO with a recall bid at the time that the ICAP Supplier schedules a transaction with a load external to the NYCA.~~ 4.5.6 Intermittent Power Resources

~~The first External Transaction to be recalled will be the one with the most economic bid price evaluated in accordance with the BME and SRE logic and considering transmission and reliability issues. An ICAP Supplier whose Energy has been recalled will be paid the higher of its recall bid or the real-time LBMP at the relevant external Proxy Generator Bus.~~ Intermittent Power Resources are not subject to bidding, scheduling and notification requirements. They shall run in the real-time LBMP Market.

~~Recall bids will not be used to set the LBMP.~~

~~4.4.6~~ 4.5.6 *Special Case Resources*

Special Case Resources are not subject to ~~Bidding, Scheduling and Notification Requirements.~~ bidding, scheduling and notification Requirements. They must comply, however, with the requirements of Section 4.10 of this Manual.

4.5 External Suppliers ~~4.5.7~~ Existing Municipally-Owned Generation

~~4.5.1 Curtailments~~ Resources that qualify as Existing Municipally-Owned Generation Installed Capacity Suppliers pursuant to section 5.12.11(b) of the ISO Services Tariff and Section 4.11 of this Manual are not subject to the requirements of Section 4.5 of this Manual, but they are required to provide sufficient Operating Data to substantiate their Unforced Capacity.

4.6 External Suppliers

4.6.1 Curtailment and Recall Requirements

External Generators, External System Resources, and External Control Area System Resources and entities purchasing from them may qualify as ~~ICAP~~ Installed Capacity Suppliers if:

- ~~They~~ they comply with the information requirements in section 4.5.2 and thereby demonstrate that the ~~energy~~ Energy associated with the ~~ICAP~~ Unforced Capacity sold to the NYCA is deliverable to the NYCA;—

and

- ~~The~~ the External Control Area in which the ~~resource~~ Resource is located or the External Control Area System Resource demonstrates that it either :
 - (a) ~~Will~~ will not recall or curtail the Energy associated with the ~~ICAP~~ Unforced Capacity sale to satisfy its own Control Area Loads, or

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

(b) ~~Will~~ will afford NYCA Load the same curtailment priority that it affords its own Control Area Load.

4.5.2 4.6.2 Information Requirements requirements

The ~~NYISO~~ ISO requires the following information from ~~resources~~ Resources External to the NYCA that wish to qualify as ICAP Installed Capacity Suppliers, and for ~~resources~~ Resources relied upon in ICAP Installed Capacity contracts that have been assigned Grandfathered External Rights.

1. ~~4~~ Name and location of Generators.
2. ~~2~~ Documentation which satisfies the general requirements for DMNC determination ~~Determination in section 4.2 of this manual.~~
3. ~~Documentation which satisfies the Maintenance Scheduling Requirements in section 4.3 of this manual.~~ Manual.
3. ~~4~~ Monthly submission of Operating Data in accordance with Section 4.2.1 of this Manual.
4. Documentation which satisfies the Maintenance Scheduling Requirements in section 4.4 of this Manual
5. Expected return dates from all full ~~or~~ and partial outages
6. ~~5~~ Certification that ICAP the Unforced Capacity sold to the NYCA has not been sold elsewhere.
7. ~~6~~ Verification that it has made all arrangements required by its Control Area to ensure that the Energy associated with the ~~resources' ICAP sale to the NYCA~~ Unforced Capacity sold to NYCA Load Serving Entities will be delivered to the NYCA. For example, if the ~~resource~~ Resource is located in the PJM Control Area, it must demonstrate that it has agreed to make any congestion payments that may be incurred in order to deliver Energy to the ~~New York~~ NYCA border.

4.5.3 4.6.3 Allocation of ICAP Installed Capacity Rights for External ICAP Installed Capacity Supply

The ~~NYISO~~ ISO establishes the maximum amount of ICAP Unforced Capacity that can be provided to the NYCA by ~~resources~~ Resources located in each neighboring Control Area according to the procedures contained in section 2.6 of this ~~manual~~ Manual. Once this amount has been determined for each neighboring Control Area, the allocation among ~~NYISO customers~~ ISO Customers of rights to ~~external ICAP~~ External Installed Capacity supply is done ~~according to~~ in accordance with the following procedures.

4.6.3.1 Grandfathered External Installed Capacity Rights

Details concerning grandfathered rights are provided in Attachment E to this ~~manual.~~

Manual.

4.6.3.2 Other Allocations

After accounting for grandfathered ~~external ICAP~~ External Installed Capacity rights, the ~~NYISO ISO~~ ISO will allocate the remaining rights for ~~external ICAP~~ External Installed Capacity supply on a first-come, first-serve basis. ~~External ICAP~~ Installed Capacity rights may ultimately only be used by LSEs located within the NYCA, but any ~~NYISO ISO~~ ISO Customers may submit a request for ~~external ICAP~~ External Installed Capacity rights. ~~External ICAP~~ Installed Capacity rights granted under the provisions of this section shall only be for the duration of the ~~Summer 2000~~ upcoming Capability Period, and shall not assume the status of grandfathered ~~External ICAP~~ Installed Capacity rights in future Capability Periods.

Initial requests for ~~External ICAP~~ External Installed Capacity rights may be sent to the ~~NYISO ISO~~ ISO during the following time period:

- ~~Beginning beginning~~ beginning at 8:00 ~~AM:01~~ AM EST seven (7) business days prior to the ~~Obligation Procurement~~ Capability Period ~~strip(strip)~~ auction,
- ~~Ending ending~~ ending at 5: ~~17:00:00~~ 17:00:00 PM EST three (3) business days prior to this same auction.

Each request must contain the following information:

- 1) ~~1)~~ 1) Documentation of a bilateral agreement, without reference to pricing terms, between the requesting entity and either
 - (a) a load within the NYCA or
 - (b) a previously qualified ~~External~~ External Installed Capacity Supplier; ~~ICAP supplier;~~
- 2) ~~2)~~ 2) The identity of the ~~NYISO ISO~~ ISO Customer making the request;
- 3) ~~3)~~ 3) The identity of the ~~External ICAP~~ External Installed Capacity Supplier;
- 4) ~~4)~~ 4) The name and location of the ~~Resource;~~ Resource;

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

- 5) The Control Area in which the ~~resource~~ Resource for which the ICAP Installed Capacity Supplier seeks rights is located;
- 6) ~~6)~~ 6) The MW amount requested to support the ICAP Unforced Capacity sale to the NYCA from the ~~resource~~ Resource designated in (4) above;
- 7) ~~7)~~ 7) The time period, in blocks of whole months, for which the rights are requested;
- 8) ~~8)~~ 8) E-mail address of the requesting party to which a response will be made.

The information listed above must be provided as a "~~Request~~"**Request for External ICAP Rights**" **Installed Capacity Rights**" to the NYISO's ISO's Manager of Resource Reliability via facsimile to the following number: 518-356-6208.

If the ~~NYISO~~ ISO determines, by ~~5: 17:00:00 PM~~ 5: 17:00:00 PM EST on the day following receipt of an initial request (provided that this day falls during the time period for initial requests specified above) that the information provided in the request is incomplete or inadequate, the ~~NYISO~~ ISO will immediately notify the requesting party. The requesting party may resubmit its information to the ~~NYISO~~ ISO no later than 24 hours after the expiration of the time period for initial requests.

Only complete requests submitted within the time periods specified above will be evaluated by the ~~NYISO~~ ISO. The date and time stamp provided by the FAX machine will determine the priority for the evaluation of requests. If a request is resubmitted during the specified time period, for any reason, the latest time stamp will determine the priority.

The ~~NYISO~~ ISO will notify the requesting party if its request has been accepted or rejected, with reasons for rejection, by ~~5: 17:00:00 PM~~ 5: 17:00:00 PM EST on the day following receipt of a complete request. A rejection may be based on either or both of the following:

- Incomplete or inadequate information
- Fully subscribed External ICAP Installed Capacity rights

By ~~5: 17:00:00 PM~~ 5: 17:00:00 PM EST on the day following receipt of an accepted request, the requesting entity must provide the ~~NYISO~~ ISO with all documentation and information necessary to qualify an ~~external resource as an ICAP~~ External Resource as an Installed Capacity Supplier, in accordance with the procedures contained in this ~~manual~~ Manual. By ~~5: 17:00:00 PM~~ 5: 17:00:00 PM EST two (2) business days

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

prior to the Obligation Procurement Period strip auction, an LSE that has procured an External ~~ICAP~~ Installed Capacity right must provide the ~~NYISO~~ ISO with the information and documents described in numbers 1, 4 and 5 above. The information described in this paragraph should be forwarded as a "~~Certification~~"Certification of External ~~ICAP Rights~~" Installed Capacity Rights" to the ~~NYISO~~ ISO Manager, Resource Reliability by facsimile to 518-356-6208. The ~~NYISO~~ ISO will verify this data with the External Control Area to ensure that there is no double counting.

By ~~5: 17:00:00 PM~~ EST two (2) business days prior to the pre-Obligation Procurement Period Monthly Auctions, all ~~external-ICAP~~ External Installed Capacity rights should be matched between a load in the NYCA and an ~~external~~ ICAP External Installed Capacity Supplier. ~~ICAP~~ Unforced Capacity supplied by External ~~ICAP~~ Installed Capacity Suppliers that have claimed External ~~ICAP~~ Installed Capacity rights, but have not entered into bilateral arrangements with an LSE serving NYCA load by that time, will be offered for sale into those Auctions at a price of \$0/MW. (The Supplier will be paid the market-clearing price determined in those Auctions for the control area in which it is located for that ~~ICAP~~ Installed Capacity.) Similarly, if the ~~NYISO~~ ISO has not received certification from an LSE which demonstrates that the rights it has secured are matched with a qualified ~~external-ICAP~~ External Installed Capacity Supplier, that LSE will relinquish those rights. All purchasers of ~~ICAP~~ Unforced Capacity that is located in an External Control Area in an ISO-administered ~~Auction~~ auction shall receive the ~~external-ICAP~~ External Installed Capacity rights necessary in order to permit that ~~ICAP~~ Unforced Capacity to count towards the ~~ICAP~~ Installed Capacity requirements of an LSE; consequently, in order to ensure that there are sufficient ~~external-ICAP~~ External Installed Capacity rights available, the ~~NYISO~~ ISO shall limit the number of MW of ~~ICAP~~ Unforced Capacity that can be purchased in any External Control Area in those auctions. In each Obligation Procurement Period Auction, the ~~NYISO~~ ISO shall limit the number of MW of ~~ICAP~~ Unforced Capacity that can be purchased in any External Control Area to the number of MW of ~~ICAP~~ Unforced Capacity that can be provided by ~~ICAP~~ Installed Capacity Suppliers located in that Control Area, as determined in Section 2.6 of this ~~manual~~ Manual, less all external ~~ICAP~~ Installed Capacity rights that have been requested for that External Control Area under the provisions of this section.

In the Obligation Procurement Period monthly auctions held before and during the Obligation Procurement Period, the ~~NYISO~~ ISO shall limit the number of MW of ~~ICAP~~ Installed Capacity that can be purchased in any External Control Area to the number of MW of ~~ICAP~~ Installed Capacity that can be provided by ~~ICAP~~ Installed Capacity Suppliers located in that Control Area, less the number of MW of ~~ICAP~~ Installed Capacity purchased in that External Control Area for that month in

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

preceding Auctions, less all external ICAP Installed Capacity rights for that Control Area that have been used to support bilateral transactions for the sale of ICAP Installed Capacity for that month from ICAP Installed Capacity Suppliers in that Control Area to loads in the NYCA.

The ~~NYISO~~ ISO will reduce External ICAP Installed Capacity rights eligible to be traded in the Obligation Procurement Period strip auction based on the allocations made according to the above procedures.

If External ICAP Installed Capacity rights are not fully subscribed after the Obligation Procurement Period strip auction has concluded, the ~~NYISO~~ ISO will open another period of first-come, first-serve allocations prior to each monthly auction for which External ICAP Installed Capacity rights remain. The procedures specified above will govern any monthly first-come, first-serve allocations. The period for requesting these rights will open at 8:00 ~~a.m.~~ :01 EST on the fifth business day prior to the auction and will close at 5: ~~17:00:00 p.m.~~ EST on the third business day prior to the auction.

4.6 4.7 System Resources

A System Resource is defined as a portfolio of Installed Capacity provided by ~~Generators~~ Resources located in a single ISO-defined Locality, the remainder of the NYCA, or any single External Control Area, that is owned by or under the control of a single entity, which is not the operator of the Control Area where such Resources are located, and that is made available, in whole or in part, to the ~~NYISO~~ ISO. System Resources may be External or Internal to the NYCA.

The System Resource must be in ~~an area~~ a Control Area that either (a) will not recall or curtail transactions from the ~~resource~~ Resource to satisfy its own Control Area Load, or (b) will afford the NYCA Load the same curtailment priority that it affords its own Control Area Load

4.6.1 4.7.1 Permissible Aggregations

For the purposes of aggregating System Resources, there are seven defined areas in which ICAP Installed Capacity Suppliers may reside. These are:

1. ~~1~~ New York City Zone
2. ~~2~~ Long Island Zone
3. ~~3~~ All other NYCA Zones

and the neighboring Control Areas operated by:

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

4. ~~4.~~ PJM
- 5.
- ~~5.~~ ISO-NE
6. ~~6.~~ Hydro Quebec
7. ~~7.~~ Ontario IEMO

Resources located in ISO-NE and the Ontario IEMO Control Areas may not qualify as ICAP Installed Capacity Suppliers, since these Control Areas do not currently meet the NYISO's ISO's recall or curtailment requirements for ICAP Suppliers.

Installed Capacity Suppliers.

[The following paragraph was modified at the suggestion of Mike Cadwalader.] Within the other five areas a single entity may aggregate its Generators into a portfolio for the purposes of entering into System Resource ICAP Unforced Capacity transactions, so long as all the Generators included in the portfolio reside within the same area. ~~With the exception of System Resource ICAP transactions from the Hydro Quebec Control Area, any~~ Any entity that wishes to make System Resource sales must provide the required DMNC test data for each of Generator in the portfolio to the NYISO. The ICAP Generator in its portfolio to the ISO, unless that entity can re-dispatch Resources under its control located within an External Control Area to maintain a pre-determined interchange schedule between that Control Area and the NYCA. The Installed Capacity associated with an External Grandfathered Right may not be aggregated with other resources Resources as a System Resource.

For example, an owner may operate Generators in PJM and the Long Island Zone. The Generators in PJM may be aggregated or the Generators in the Long Island Zone may be aggregated. Generators in PJM and the Long Island Zone may not be combined with each other.

4.6.2 4.7.2 External System Resources

Not Owned by Operators of Control Areas

~~The NYISO~~ The ISO requires the following information for each ~~resource~~ Resource aggregated as an External System Resource ~~that is not owned by the operator of a Control Area.~~ The entity aggregating the ~~resources~~ Resources is responsible for supplying the information.

1. ~~4.~~ Name and location of each Resource included in the System Resource's portfolio generators

- 2.
2. Documentation that satisfies the General Requirements for DMNC Determination specified in ~~Section 4.2 of this manual.~~ section 4.3 of this Manual.
3. ~~3~~ Monthly submission of Operating Data.
4. Documentation that satisfies the Maintenance Scheduling Requirements specified in ~~Section 4.3~~ section 4.4 of this ~~Manual~~ manual.
- 4.
5. Expected return date of any Resource from full or partial outages.
6. ~~5.~~ Certification that ~~ICAP~~ the Unforced Capacity sold to the NYCA has not been sold elsewhere.

4.6.3 External System Resources Owned by Operators of Control Areas 4.8 Control Area System Resources

~~External System Resources that are owned by the operators of a Control Area must provide the following information in order for the sellers of ICAP from those resources to be considered ICAP Suppliers by the NYISO. This data must be received by the NYISO forty five days prior to the start of the upcoming Capability Period. This data must be provided on a monthly basis for each month of the upcoming Capability Period. If the amount of ICAP they have available to supply to New York is less than that amount that they have sold to NY, the Control Area will be deemed to be deficient. [Hydro Quebec submitted the modifications to the following two subsections.]~~

1. Available capacity 4.8.1 CARL Data and Actual System Failures Occurrences Data

Control Area System Resources or sellers of Unforced Capacity from those Resources shall provide specific data, which shall be defined as “CARL Data,” to the ISO to qualify as Installed Capacity Suppliers. CARL Data shall include data as follows:

1. Available Capacity (CAP) that does not reflect adjustments for External firm capacity Capacity purchases or sales, outages and maintenance (in MW);
2. External firm Capacity purchases, other than purchases from New York (EP) (in MW);
3. Summer peak Load (SPL) (in MW);
4. Winter peak Load (WPL) (in MW);
5. External firm Capacity

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

- ~~2. External firm capacity purchases (EP)~~
3. Peak Load (PL)
- ~~4. External firm capacity sales other than sales to New York (EF) (in MW);~~ 5-
6. Planned maintenance (PM) (in MW); ~~6. Historical average forced outages (FO)~~
7. ~~7. Historical average Forced Outages (FO) (rate in decimal form);~~
8. Average Forced Outage Rate of the Resources included in the portfolio operated by the Control Area System Resource (AFO) (rate in decimal form); and
9. Operating reserve (OR) (in MW).
10. Planning reserve (PR) – corresponds to the required reserves necessary to meet the NERC Resource Adequacy Criteria of 1 day in 10 years

Forty-five (45) days prior to any Capability Period, Control Area System Resources shall submit forecasted CARL Data for the following Capability Periods.

In accordance with Section 4.2.1.3 of this Manual and Section 5.12.5(c) of the Services Tariff, Control Area System Resources shall submit CARL Data and actual system failure occurrences data to the ISO every twentieth of the month following the month for which the data has been collected except for the period from December to March which is treated as a whole

If the amount of Unforced Capacity they have available to supply to New York is less than that amount that they have sold to the NYCA, a Control Area System Resource will be deemed to be deficient.

4.8.2 Determination of Amount of ICAP Unforced Capacity that may May be Sold

The ~~NYISO~~ ISO will perform the following calculation for each month of the Capability Period for an ~~External System Resource that is a Control Area. The amount of ICAP which the External System Resource that is a Control Area may sell~~ to determine the amount of Unforced Capacity a Control Area System is qualified to sell in the NYCA.

For winter peaking Control Area Resources, the following equations shall be used for Summer and Winter Capability Periods.

For the Summer Capability Period as well as for the individual months of November and April within the Winter Capability Period, this amount shall not exceed for all months, or any month, within the Capability of that Period may not exceed the minimum monthly value derived from the following formula

~~By the twentieth (20th) day after the end of each month of the Capability Period, the External System Resource will provide to the NYISO, at the time of the monthly peak Load, actual values for items 2 through 7 above. The NYISO will compare actual values to forecast values and may de-rate future monthly forecast ICAP calculations based on this comparison.~~

4.7 Metered Interruptible Loads

~~The following procedures apply to Interruptible Loads that are metered by the NYISO.~~

~~These resources must:~~

$$\underline{UCAP = (CAP + EP - SPL - EF - PM - FO - OR)}$$

~~For the months of December to March, which shall be treated as a whole for the purpose of ICAP calculations, this amount shall not exceed for all months, the value derived from the following formula:~~

$$\underline{UCAP = (CAP + EP - WPL - EF - - PR) \cdot (1 - AFO)}$$

[In their comments sent to the NYISO Staff, HQ included following note: "The Planning Reserves concept includes short term reserves and the System Mean outage. It is established at a level consistent with the NPCC criteria of 1 day in 10 years Loss of Load Probability".]

4.9 Interruptible Load Resources

Interruptible Load Resources shall comply with the following requirements:

- Interruptible Load Resources shall bid into the Day-Ahead Market as price cap bid Load. ~~These resources will~~ They shall be scheduled based on their bids and Day-Ahead prices.
- In real-time, ~~these resources~~ Interruptible Load Resources shall determine whether, and at what level, to purchase ~~energy~~ Energy or to interrupt through ~~its~~ their bids into the Hour-Ahead market.

**Blacklined November 13, 2000 Discussion Draft prepared for the ICAPWG Review
Subject to Revision**

- If the Load chooses Interruptible Load Resources choose to purchase Energy, it will pay the LBMP for the difference between its scheduled Load and the Load for which it is purchasing.
- ~~These resources must~~ Interruptible Load Resources shall interrupt, if requested to do so by the NYISO ISO.

4.8 4.10 Special Case Resources

Special Case Resources that are Loads capable of being interrupted upon demand, and distributed generators, rated 100 kW or higher that are not visible to the NYISO's ISO's Market Information System. Special Case Resources may ~~only supply ICAP through bilateral contracts, and may not participate in NYISO-administered ICAP auction~~ participate in ISO-administered Installed Capacity Auctions provided that they aggregate to at least 1 MW and comply with the ISO notification requirements for Special Case Resources.

Capacity from Special Case Resources will be calculated as the pledged amount of Load that can be reduced from the ~~customer's~~ customer's metered demand increased by the Transmission District system loss factor. A Special Case Resource is not required to be an Energy customer of the LSE that has contracted for the ~~resource's ICAP.~~ Resource's Installed Capacity.

4.8.1 Distributed Generators – General Requirements

~~*Resources that run in parallel with the system must provide historical operating data. Except for those with environmental or operational limitations, these resources must perform a four-hour test of pledged output, and provide test results in the format specified by the NYISO, or provide historical operating data. Resources that have environmental or operational limitations may qualify by performing a two-hour test or by providing historical operating data. If the resource consumes auxiliary power from the system, its auxiliary demand must be netted out of its maximum output.*~~

~~*These resources may qualify in the same manner and during the same test periods as "new Generators." Please refer to sections 4.2.1 and 4.2.3 of this manual.*~~

~~*The amount of ICAP that may be sold shall be the lesser of the pledged output test, or the total Load at the site of the distributed generator.*~~

~~*These resources must meet the qualifications and comply with the procedures described below. LSEs claiming capacity from these resources must comply with the requirements and procedures described below.*~~

~~4.8.2 Loads Capable of Interruption Upon Demand~~ ~~4.10.1 Special Case Resources that also are Interruptible Load Resources – General Requirements~~

These ~~resources~~ Resources must conduct a one-hour sustained disconnect test and provide test results in the format specified by the ~~NYISO~~ ISO, or provide historical operating data. These ~~resources~~ Resources may qualify in the same manner and during the same test periods as ~~“new Generators.”~~ “new Generators.” Please refer to sections ~~4.2.1~~ 4.3.1 and ~~4.2.3~~ 4.3.3 of this ~~manual~~ Manual.

LSEs claiming capacity from these ~~resources~~ Resources must comply with the requirements and procedures described below.

~~4.10.2 Special Case Resources that also are Distributed Generators – General Requirements~~

Resources that run in parallel with the system must provide historical operating data to demonstrate their ability to operate for at least four (4) hours each day they are not scheduled out of service by the ISO. Except for those with environmental or operational limitations, these Resources must perform a four-hour test of pledged output, and provide test results in the format specified by the ISO, or provide historical operating data. Resources that have environmental or operational limitations may qualify by performing a two-hour test or by providing historical operating data. If the Resource consumes auxiliary power from the system, its auxiliary demand must be netted out of its maximum output.

These Resources may qualify in the same manner and during the same test periods as “new Generators.” Please refer to sections 4.3.1 and 4.3.3 of this Manual.

The amount of Installed Capacity that may be sold shall be the lesser of the pledged output test, or the total Load at the site of the distributed generator.

These Resources must meet the qualifications and comply with the procedures described below. LSEs claiming capacity from these Resources must comply with the requirements and procedures described below.

~~4.10.3~~ ~~4.8.3~~ Qualifications

The Special Case Resource must make Energy available, in amounts that correspond to the pledged capacity, by interrupting Load or transferring Load to a generator, within two hours of a notice provided by the ~~NYISO~~ ISO to the LSE, following a 24-hour notice. If the ~~resource~~ Resource is unable to provide full output within two hours due to operational

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constraints the LSE may petition the ~~NYISO~~ ISO for permission to provide maximum output from the ~~resource~~ Resource within a longer period. The ~~NYISO's~~ ISO's permission will not be unreasonably withheld. In granting permission the ISO will calculate the appropriate derated DMNC for use in determining the pledged capacity.

In the event the equipment relied upon by the ~~resource~~ Resource was in operation, or its Load was interrupted, at the time of the system or the Transmission District peaks upon which the ~~LSE's~~ LSE's capacity requirement is based, the ~~customer's~~ ICAP customer's Installed Capacity obligation will be increased by the amount of Load that was interrupted or transferred.

LSEs may claim Special Case Resource capacity from entities that are not their retail customers, provided that they provide notice of the capacity purchase to the LSE supplying the ~~entity's~~ entity's Energy.

Transmission Owners shall permit short periods of parallel operation for Load switching from the Transmission ~~Owner's~~ Owner's electrical system to distributed generation equipment claimed as Special Case Resource capacity if the LSE has supplied the Transmission Owner with a wiring and switching equipment diagram which meets the Transmission ~~Owner's~~ Owner's approval .

4.8.4 4.10.4 Notification Procedures

The ~~NYISO~~ ISO will provide 24 hour-ahead notification and two hour notice, as required under these procedures, to the LSE claiming Special Case Resources as capacity. The 24 hour-ahead notification will be provided after 11 ~~am~~:00:00 EST, day ahead, when the DAM closes. The ~~NYISO~~ ISO commits not to use 24 hour notification of potential need to operate indiscriminately but rather only when the DAM indicates serious shortages of supply for the next day.

The ~~NYISO~~ ISO shall provide notice no fewer than two hours ahead of required operation or interruption.

LSEs shall contact their Special Case Resources through whatever communication protocols are agreed to between the ~~resource~~ Resource suppliers and the LSE.

LSEs claiming special case ~~resources~~ Resources as capacity shall provide the ISO with LSE phone and Internet contact information that allows for 24x7 communication.

4.8.5 4.10.5 Capacity Adjustment Procedures

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Subject to Revision**

Special Case Resources that fail to respond to LSE notification by reaching maximum output within 2 hours following ~~NYISO~~ ISO – LSE notice or that fail to provide maximum output for the period required by the ~~NYISO~~ ISO, or four hours, whichever is less, will be considered forced out (for unserved hours) for purposes of calculating the capacity value of the Special Case Resource for the next Obligation Procurement Period.

Special Case Resource capacity that has successfully petitioned the ~~NYISO~~ ISO for permission to reach maximum output in more than two hours will be considered forced out in the amount of capacity not backed by Energy within two hours of the ISO-LSE notice.

Special Case Resource capacity that cannot operate for the full four hours when called for by the ISO, due to environmental permit limits or otherwise, shall be considered forced out for the hours it is unable to operate or is operated at reduced output.

4.8.6 4.10.6 LSE Requirements

LSEs claiming Special Case Resource capacity from their retail customers must certify that the Special Case Resource meets or has met the applicable General Requirements and Qualifications described in Section 4 of this ~~manual~~ Manual. LSEs claiming special case ~~resource~~ Resource capacity from entities that are not their retail customers must further provide the notification described in item number 4 of the Qualifications section of this document.

LSEs shall certify that Special Case Resources claimed as capacity are complying with these procedures by documenting reductions in Load, or Energy production, with interval meters readings for the six hour period following the 2 hour ~~NYISO~~ ISO notice. In the event that Energy made available from Special Case Resource capacity is a small percentage of the total metered load at the location of the special case ~~resource~~ Resource, such that it may not be clearly reflected by meter reads alone, the ISO will also accept operations logs to augment metered output to ensure accurate verification. The LSE or the Transmission Owner, as appropriate, shall retain all interval meter readings upon which it bases its certification of compliance, for a period of three years.

LSEs claiming capacity from Special Case Resources shall document operation of the ~~resource~~ Resource to the TO and the energy supplying LSE, if any.

LSEs claiming Special Case Resource capacity shall file with the ~~NYISO~~ ISO, the data necessary to document the source and amount of Special Case Resource capacity.

4.8.7 4.10.7 ISO Verification

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Subject to Revision**

The ~~NYISO~~ ISO retains the right to audit any records kept by the LSE, the Transmission Owner or the Special Case Resource which are used to support the ~~LSE's~~ LSE's certification of compliance with these procedures.

4.8.8 4.11 Existing Municipally Owned Generation-Owned Generation

For the Summer 2000 Capability Period and the 200-2001 Winter Obligation Procurement Period, a A municipal utility that owns generation in excess of its ~~ICAP~~ Installed Capacity requirement, net of any capacity provided by the New York Power Authority, may qualify to sell the excess capacity as ~~ICAP~~ Installed Capacity under the following conditions.

The municipal utility must:

- Provide the ~~NYISO~~ ISO with the physical operating parameters of the ~~generators.~~ Generators;
- Operate the generation at the ~~NYISO's~~ ISO's request; and
- ~~–~~Ensure that the energy provided by the generation is deliverable to the New York State Power System.

Only generation that was in service or under construction as of December 31, 1999 may qualify for the exemption from the Bidding, Scheduling and Notification requirements.

4.12 Filing and Submission Deadlines

The following section provides the filing and submission requirements established pursuant to Section 5 of the ISO Services Tariff.

4.12.1 Installed Capacity Supplier Qualification Requirements (Section 5.12.1 ISO Services Tariff)

Resources that want to qualify as Installed Capacity Suppliers in the NYCA shall perform DMNC tests and submit the results to the ISO, or provide to the ISO appropriate historical production data, in accordance with Section 4.3 of this Manual.

These Resources shall also provide Operating Data in accordance with Section 5.12.5 of the ISO Services Tariff.

The ISO shall inform each potential Installed Capacity Supplier that is required to submit DMNC Test data of its approved DMNC ratings for the Summer Capability Period no later than February 15th, and for the Winter Capability no later than August 15th.

4.12.2 Installed Capacity Supplier Maintenance Scheduling Requirements (Section

5.12.3 ISO Services Tariff)

All Installed Capacity Suppliers, except for Interruptible Load Resources, External Control Area System Resources, Control Area System Resources, and Special Case Resources, that intend to supply Installed Capacity to the NYCA shall submit a confidential notification to the ISO of their proposed Maintenance Outage schedules for the nearest following two calendar years no later than July 1st of the current calendar year.

A Supplier that intends to supply Unforced Capacity in a given month that did not qualify as an Installed Capacity Supplier prior to the beginning of the Capability Period must notify the ISO no later than the first day of the prior month.

A Supplier that wishes to participate in the Capability Period ISO-administered auction must submit completed certification forms demonstrating that their Unforced Capacity has not been committed to a Bilateral Transaction.

Interruptible Load Resources shall notify the ISO at least thirty (30) days prior to the beginning of a Capability Period of scheduled maintenance that would reduce their ability to interrupt. Interruptible Load Resources must also submit to the ISO, and, at the ISO's discretion, also submit to the local Transmission Owner, a written commitment that any scheduled maintenance that would reduce their ability to interrupt without reducing their Load a corresponding amount will only be conducted from November 1 through March 31.

4.12.3 Required Certification that Installed Capacity has not been Resold (Section 5.12.4 ISO Services Tariff)

Each Installed Capacity Supplier must submit the appropriate ISO certification form to the ISO no later than [the ISO will insert a date here], demonstrating that the Unforced Capacity it has sold has not also been sold to an External Control Area.

4.12.1.4 Operating Data Reporting Requirements (Section 5.12.5 ISO Services Tariff)

Resources that want to qualify as Installed Capacity Suppliers in the NYCA shall submit to the ISO Operating Data in accordance with Section 4.2.1 of this Manual.