

Installed Capacity Manual

February 2017

purposes of this Section 4.3.3.5 and therefore this procedure cannot be used.

Note: Additional load kW and temperature values within the range of hours that corresponds with the Capability Period SCR Load Zone Peak Hours can be used to improve the fit of the trend line.

2. Calculating weather adjusted load kW for the current Capability Period

- 2.1. For each month from the current Capability Period for which the SCR Change of Status may need to be reported, record the date, hour, and load kW of the monthly peak within the range of hours that corresponds with the Capability Period SCR Load Zone Peak Hours.
- 2.2. For each monthly peak recorded in step 2.1, identify the day's maximum temperature at the weather station identified in step 1.1 using the load forecast weather data posted on the NYISO website.
- 2.3. For each monthly peak recorded in step 2.1, calculate the weather adjusted monthly peak load kW for the current Capability Period using the equation identified in step 1.4.2 and using the temperature identified in step 2.2. This weather adjusted monthly peak load kW represents the expected load value on that day's temperature if the load responded to weather similarly to the previous year.
- 2.4. If the actual peak load kW for a month is greater than or equal to 90% of the weather adjusted monthly peak load kW as calculated in step 2.3, then the reduction in the SCR's total load in that month shall be deemed to be attributable to weather for purposes of this Section 4.3.3.5 and, therefore, shall not constitute a SCR Change of Status.
- 2.5. If the actual peak load kW for a month is lower than 90% of the weather adjusted monthly peak load kW as calculated in step 2.3, then the reduction in the SCR's total load in that month shall not be deemed to be attributable to weather for purposes of this Section 4.3.3.5, and may be required to be reported as a SCR Change of Status to that extent that such reduction meets the requirements of a SCR Change of Status as defined in Section 2.19 of the *NYISO Services Tariff*.

If the RIP uses the above procedure to determine SCR load changes attributable to weather, the RIP shall retain records supporting the information, and provide the information to the NYISO upon request.

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 applicable to generating Resources are included in [Attachment K](#) to this *ICAP Manual*, at the NERC-GADS Web site <http://www.nerc.com/page.php?cid=4|43> and in the NERC Data Reporting Instructions at <http://www.nerc.com/page.php?cid=4|43|45>. The NYISO collects a subset of the data covered by the NERC Data Reporting Instructions and is focused principally on outage types. For example, an exception to the NERC Data Reporting Instructions is covered in

Section [4.6.2](#) of this *ICAP Manual*. The completeness, accuracy, and validity of the performance data sent to the NYISO are 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* (available from the NYISO Web site at the following URL: http://www.nyiso.com/public/documents/tariffs/market_services.jsp).

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 *ICAP Manual*. Such designation shall be made in writing and received by the NYISO no later than 5:00:00 P.M. on the seventh (7th) calendar day 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 *ICAP 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* (available from the NYISO Web site at http://www.nyiso.com/public/documents/tariffs/market_services.jsp) as if they were a Seller.

4.4.1 Generators

Generators shall report to the NYISO Generating Availability Data System (GADS) Data or data equivalent to GADS Data pertaining to the previous month, which must be received no later than the 20th day of each month. For example, Generators shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April. Generators shall submit GADS Data or data equivalent to GADS Data in accordance with [Attachment K](#) of this *ICAP Manual*.

4.4.2 System Resources

System Resources shall provide to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month, which must be received no later than the 20th day of each month. For example, System Resources shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations during the month of April. System Resources shall submit GADS Data or data equivalent to GADS Data in accordance with [Attachment K](#) of this *ICAP Manual*.

4.4.3 Control Area System Resources

Control Area System Resources or the purchasers of Unforced Capacity from those Resources shall report to the NYISO CARL (Control Area Resource and Load) Data pertaining to the previous month, so that it is received by the NYISO no later than the 20th day of each month. For example, Control Area System Resources shall report to the

NYISO, so that it is received by the NYISO on or before October 20, CARL Data pertaining to their operations during the month of September.

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.

Control Area System Resources shall report forecasted CARL Data for items (1) through (7) above for each month of the following Capability Period, so that it is received by the NYISO no later than forty-five (45) days prior to the first day of each Capability Period. Control Area System Resources shall report data for items (8) and (9) for each month for the NYISO's receipt no later than 20 days before 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 received on or before the 25th day 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 and Capacity Limited Resources

Energy and Capacity Limited Resources shall report to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month, so that it is received by the NYISO no later than the 20th day of each month. For example, Energy and Capacity Limited Resources shall report to the NYISO, which must be received by the NYISO on or before May 20, GADS Data or data equivalent to GADS Data pertaining to their operations

during the month of April. Energy and Capacity Limited Resources shall submit GADS Data or data equivalent to GADS Data in accordance with [Attachment K](#) of this *ICAP Manual*.

4.4.5 (This Section intentionally left blank)

4.4.6 Intermittent Power Resources

Intermittent Power Resources shall report to the NYISO data pertaining to their net dependable Capacity, actual generation, maintenance outage hours, planned outage hours, and other information as may be reasonably requested by the NYISO, such as the location and name of the Intermittent Power Resource, so that such data and information is received by the NYISO no later than the 20th day of each month. Intermittent Power Resources shall report actual operating data pertaining to the previous month on or before the 20th day of each month and in accordance with [Attachment K](#) of this *ICAP Manual*. For example, data from Intermittent Power Resources shall be received on or before May 20 pertaining to their operations during the month of April.

4.4.7 Special Case Resources (Section 4.12 of this *ICAP Manual*)

RIPs shall report the performance data of each individual SCR directly into the DRIS, as specified in Section 4.12.4.8, each time the SCR is called upon to operate, using an import file formatted as specified in the *NYISO Demand Response Information System User's Guide* (available from the NYISO Web site at http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp).

4.4.7.1 Reporting of SCR Operating Data

The NYISO will treat the SCR-specific operating data that is received by the NYISO as confidential Transmission System Information and shall provide copies of such resource-specific (disaggregated) operating data to the transmission function of the Transmission Owner in whose transmission district the SCR is located in accordance with Section 4.0 of the NYISO's Code of Conduct (Attachment F to the *NYISO OATT*).

4.4.8 Municipally Owned Generation

Municipally owned generation shall report to the NYISO GADS Data or data equivalent to GADS Data pertaining to the previous month so that it is received by the NYISO no later than the 20th day of each month. For example, municipally owned generation shall report to the NYISO, which must be received by the NYISO on or before May 20, data equivalent to GADS Data pertaining to their operations during the month of April.

4.4.9 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 *ICAP Manual*, and (3) want to supply Unforced Capacity to the NYCA in the future.

No later than the tenth (10th) day of the month preceding the month when a Resource wants to supply Unforced Capacity to the NYCA, the NYISO must receive from a Resource the appropriate Operating Data pertaining to its operations over the previous 17 months, if it was in operation. A Resource that wants to continue to supply Unforced Capacity in the NYCA immediately thereafter shall report the appropriate Operating Data, and such data must be received by the NYISO on or before 5:00:00 P.M. on the twentieth (20th) day of each month.

For example, a Resource that wants to supply Unforced Capacity during the month of July 2008, must report to the NYISO Operating Data pertaining to January 2007 to May 2008, inclusively, so that the NYISO receives such data on or before 5:00:00 P.M. on June 10. Thereafter, the NYISO must receive the Resource's Operating Data in accordance with Subsections [4.4.1](#) through [4.4.8](#) of this *ICAP Manual*, as applicable.

If an Installed Capacity Supplier intends to request rights to import Installed Capacity from a neighboring control area (as defined by and in accordance with this *ICAP Manual*, "Import Rights") in accordance with this *ICAP Manual*, the NYISO must receive the results of an appropriate demonstration test of the Resource (i.e., DMNC test data) and Operating Data pertaining to its operations covering at least the previous 17 months, if it was in operation, as prescribed by this *ICAP Manual*, and in the above paragraph, no later than 5:00:00 P.M. at least seven (7) business days before such Import Rights are to be requested.

4.4.10 Resources not in Operation for the Past 17 Months

A Resource that is required to report GADS Data or data equivalent to GADS Data that was not in operation for the past 17 months and that wants to qualify as an Installed Capacity Supplier shall report monthly Operating Data so that the NYISO receives it no later than 5:00:00 P.M. on thirtieth (30th) day after that Resource commenced commercial operation, in accordance with Subsections [4.4.1](#) through [4.4.8](#) of this *ICAP Manual*, as applicable.

4.4.11 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 Demand Forced Outage Rate (EFORD) 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 EFORD, but periods where the unit is not selected may be reported as Reserve Shutdown Hours, as defined in [Attachment J](#).

4.4.12 Generating Units that are Retired, Mothballed, in Inactive Reserves or in a Forced Outage or ICAP Ineligible Forced Outage

With the effective date of Section 5.18 of the Services Tariff, the NYISO Services Tariff defines five outage states; Inactive Reserve (IR), Mothballed (MB) or Retired (RU), ICAP Ineligible Forced Outage and Forced Outage. The outage states of Inactive Reserves, Mothball and Retired are considered to be "Inactive states". A Resource that is a Generator that is in an Inactive state or in an ICAP Ineligible Forced Outage is not qualified to participate in the NYISO Installed Capacity Market. A Market Participant that has a Generator defined to be in an Inactive state, ICAP Ineligible Forced Outage or Forced Outage state shall be required to comply with all requirements detailed in Section 5.18 of the NYISO Services Tariff as of the effective date of those requirements including, for purposes of this Manual, reporting requirements.

A Generator beginning a Forced Outage on or after the effective date of Section 5.18 of the Services Tariff shall have its Forced Outage expire on the last day of the month which contains the 180th day of its Forced Outage unless the Generator has Commenced Repair in accordance with Section 5.18 of the Services Tariff. Generators that have Commenced Repair may remain in the ICAP market in a Forced Outage state provided the repairs have not ceased or been unreasonably delayed. The Forced Outage of a Generator that Commenced Repair shall terminate on the last day of the month containing the date that the repairs ceased or were unreasonably delayed and the Generator shall be placed in an ICAP Ineligible Forced Outage.

A Generator whose Forced Outage has expired or been terminated shall be placed in an ICAP Ineligible Forced Outage on the day following the day its Forced Outage expired or was terminated.

A unit in an ICAP Ineligible Forced Outage shall report its status as a Forced Outage in its GADS Data submitted to the NYISO.

A Generator may voluntarily reclassify itself from a Forced Outage to an ICAP Ineligible Forced Outage if the Generator has been in a Forced Outage for at least sixty (60) days. Such Generator shall begin its ICAP Ineligible Forced Outage on the first day of the month following the month in which it voluntarily reclassified its outage.

A Generator in an ICAP Ineligible Forced Outage or in a Mothball Outage shall be Retired if either the CRIS rights for the unit have expired or if the unit has been in an ICAP Ineligible Forced Outage or Mothball Outage for 36 consecutive months in accordance with Section 5.18 of the NYISO Services Tariff unless the tolling provisions of Sections 5.18.2.3.2 or 5.18.3.3.2 apply. A Generator in an ICAP Ineligible Forced Outage or in a Mothball Outage that has qualified for and is in a tolling period pursuant to the provisions of Sections 5.18.2.3.2 or 5.18.3.3.2, respectively, shall be Retired on the earlier of i) 120 days from the date the outage would have otherwise expired or an ii) NYISO determination that the repairs have ceased or been unreasonably delayed.

A Generator in an Inactive Reserve state is unavailable for service for a limited period of time not to exceed six months for reasons that are not equipment related and that do not meet the criteria for classification of the Generator as in any other outage. This does not

include units that may be idle because of equipment failure or reserve shutdown. A unit that is unavailable for reasons that are equipment related should be on a forced, maintenance or planned outage and remain on that outage until the proper repairs are completed and the unit can operate. With the effective date of Section 5.18 of the Services Tariff, Generators in Inactive Reserves are ineligible to participate in the ISO Installed Capacity market.

4.4.13 Units that have taken substantial actions inconsistent with an intention to Operate

With the effective date of Section 5.18 of the Services Tariff, a unit that has taken substantial actions inconsistent with an intention to return the Generator to operations and the Energy market shall be in an ICAP Ineligible Forced Outage as of the day following the day such actions began. Substantial actions inconsistent with an intention to return the Generator to operations and the Energy market include dismantling or disabling essential equipment without an active replacement plan. ICAP ineligibility continues until the actions taken that were inconsistent with an intention to return the Generator to operations and the Energy market have ceased and the generator demonstrates it has returned to the market.

4.5 Calculation of the Amount of Unforced Capacity each Resource may Supply to the NYCA (Section 5.12.6.1 NYISO Services Tariff)

(a) Definitions

For purposes of Sections 4.5 and 4.5.1:

“Solar Farm” means a collection of solar installations with its electrical output metered at the interconnection with the NYCA Transmission System and which metering determines the Solar Farm’s delivery to the NYCA.

(b) Calculation Procedure

The NYISO will calculate the amount of Unforced Capacity that Resources are qualified to supply to the NYCA for each Capability Period. The Unforced Capacity methodology estimates the probability that a Resource will be available to serve Load, taking into account forced outages and forced deratings. To evaluate this probability, the NYISO will use the Operating Data submitted by each Resource in accordance with Section 4.4 of this *ICAP Manual*, and the mathematical formulae included in [Attachment J](#) of this *ICAP Manual*. The value (termed "CRIS-adjusted DMNC") used in determining the ICAP equivalent of the Unforced Capacity will be the smaller of the then currently-effective DMNC rating or the CRIS value, as applicable. Unforced Capacity values will remain in effect for the entire Capability Period, except in cases where corrections to historical data are necessary.

A Generator returning to the market after being in Inactive Reserves or before its Mothball Outage or ICAP Ineligible Forced Outage has expired that returns with modifications to its operating characteristics determined by the NYISO to be material, and which, therefore,