

**Subject: Revisions to the Installed Capacity Manual, Manual 4, Version 6.24**

Manual revisions consistent with changes to the *NYISO Market Services Tariff* for the changes to the ICAP/SCR program in Docket No. ER14-39. This interim Technical Bulletin is being issued to provide direction to market participants on procedures during the period in which the tariff language becomes effective and the revisions to the ICAP Manual are completing the review through the shared governance process.

**Details:**

The changes to the *NYISO Market Services Tariff* for Docket No. ER14-39 will become effective on March 15, 2014. The tariff revisions will extend the range of hours used in determining the baseline demand reduction capabilities of a SCR (this baseline is referred to as the Average Coincident Load or “ACL”), significantly expand the circumstances when a RIP may enroll a SCR with an estimated baseline or “Provisional ACL”, allow for a qualified increase in load above the SCR’s ACL to be added to its baseline, clarify tariff provisions related to reporting qualified decreases in a SCR’s load that may require a downward adjustment to its ACL, clarify when installed capacity shortfall penalties and reporting sanctions may apply, and add new and revise existing defined terms related to these changes.

This technical bulletin is intended to bridge the time between the effective date of the tariff, the implementation of the changes to the Demand Response Information System (DRIS) and the acceptance of the ICAP Manual revisions through the shared governance process. The NYISO has presented the ICAP Manual revisions found in this technical bulletin at the joint Price Responsive Load and Installed Capacity working groups on February 19, 2014 February 28, 2014, ~~and~~ March 19, 2014 and April 1, 2014.

**Next Steps:**

The NYISO will retire this technical bulletin upon approval of the acceptance of the proposed revisions for Docket No. ER14-39 to the ICAP Manual.

**4.12 Special Case Resources (Sections 5.12.11, 5.12.12, and 5.14.2 NYISO Services Tariff)**

(SCRs) are Demand Side Resources whose Load is capable of being interrupted at the direction of the NYISO, and/or Demand Side Resources that have a Local Generator, which is not visible to the NYISO’s Market Information System and is rated 100 kW or higher, that can be operated to reduce Load from the NYS Transmission System and/or the distribution system at the direction of the NYISO. Small customer aggregations may also qualify as SCRs. The Unforced Capacity of a SCR corresponds to its pledged amount of Load reduction as adjusted by historical performance factors (i.e., test and event performance) and as increased by the Transmission District loss factor, as calculated in accordance with Section 4.12.2.1 of this *ICAP Manual*.

The purpose of this “Technical Bulletin” is to facilitate participation in the NYISO by communicating various NYISO concepts, techniques, and processes to Market Participants before they can be formally documented in a NYISO manual. The information contained in this bulletin is subject to change as a result of a revision to the ISO Tariffs or a subsequent filed tariff with the FERC.

#### 4.12.1 Claiming of Unforced Capacity and RIPs

The Unforced Capacity of a SCR except a New SCR in a Mitigated Capacity Zone (see Section 4.12.2 below) may be freely sold in Bilateral Transactions. However, such Unforced Capacity may not be claimed by an LSE towards satisfaction of its own LSE Unforced Capacity Obligation or be offered into an auction administered by the NYISO unless the SCR has enrolled with a RIP and been accepted by the NYISO. RIPs are Market Participants that are bound by the NYISO's tariffs and ISO Procedures, including the notification and other requirements applicable to RIPs under this Section Error! Reference source not found.4.12. RIPs shall be responsible for all forms of communication to and from the NYISO for purposes of Minimum Payment Nomination, notification, dispatch, validation, billing and verification of SCRs and the Unforced Capacity associated with SCRs.

#### 4.12.2 General Requirements

RIPs must comply with the rules applicable to SCRs are subject to rules set forth in the *NYISO Services Tariff* and ISO Procedures, including the obligation to meet the qualifications and comply with the procedures described below. ~~RIPs must comply with the rules applicable to SCRs.~~

A RIP must enroll a SCR with the NYISO in accordance with the schedule specified in the ICAP Event Calendar and DRIS Event Calendar, which can be found at the following location on the NYISO Web site:

[http://icap.nyiso.com/ucap/public/evt\\_calendar\\_display.do](http://icap.nyiso.com/ucap/public/evt_calendar_display.do)

In order to enroll SCRs, a RIP must use the Demand Response Information System (DRIS) to import the specified enrollment file.

The RIP must upload the enrollment file into the DRIS and for each SCR obtain an identification number from the NYISO and be accepted by the NYISO as an Installed Capacity Supplier before the enrollment is effective and the Unforced Capacity from the SCR can be claimed by an LSE towards its LSE Unforced Capacity Obligation or offered in an auction administered by the NYISO.

Upon the initial enrollment of a ~~Special Case Resource~~SCR, or at any time when an enrollment change is made, the RIP must include as part of the enrollment file uploaded to the DRIS the SCR Aggregation ID to which the SCR is assigned. A RIP may request, in the DRIS, new SCR Aggregation IDs in a specific Load Zone, during the New Aggregation ID Request Period in the ICAP Event Calendar and DRIS Event Calendar. Any request for a new SCR Aggregation ID must be approved by the NYISO.

Interval meters are required of all SCRs, unless the SCRs are part of a small customer aggregation. Such metering must satisfy all requirements of the Metering, Verification, Billing and Settlement Section of the *NYISO Emergency Demand Response Program Manual*, available from the NYISO Web site at

[http://www.nyiso.com/public/markets\\_operations/market\\_data/demand\\_response/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp).

The metering must also reflect the end-use nature of the SCR from the NYS Transmission System and/or distribution system in accordance with NYISO Technical Bulletin 201. Single metering of multiple end-use customers on primary, secondary, or tie-line feeders is prohibited.

The Unforced Capacity of SCRs may only be offered in auctions administered by the NYISO or be claimed by an LSE towards its LSE Unforced Capacity Obligation in whole increments of 100 kW in a Load Zone (e.g., 590 kW of Unforced Capacity would be rounded down to 500 kW). However, SCRs may be aggregated into an SCR Aggregation to satisfy this requirement, provided that each such SCR Aggregation is identified as a single block of Unforced Capacity. SCR Aggregations of this type may be used to meet the 100 kW block requirement.

#### **Assignment of Performance Factors**

The NYISO will assign performance factors as follows:

For a RIP enrolled in the ICAP/SCR program in the Prior Equivalent Capability Period, ~~its the RIP~~ performance factor for the current Capability Period shall be computed by the NYISO in accordance with Section 4.12.2.1.3 of this ICAP Manual.~~as the weighted average of the individual performance factors of all SCRs that were enrolled by the RIP in the Prior Equivalent Capability Period (“RIP performance factor”). When more than one RIP has enrolled an SCR in the Prior Equivalent Capability Period, the SCR’s performance will be included in the RIP performance factor of the RIP that enrolled the SCR last in the Prior Equivalent Capability Period.~~

For a RIP that ~~has did~~ not participated in the ICAP/SCR program in the Prior Equivalent Capability Period, the RIP<sup>2</sup>s shall be assigned the SCR program performance factor for the current Capability Period shall be computed by the NYISO in accordance with Section 4.12.2.1.4 of this ICAP Manual.~~as the weighted average of the individual performance factors of all SCRs that were enrolled in the ICAP/SCR program in the Prior Equivalent Capability Period (“SCR program performance factor”).~~

For ~~any~~ an individual SCR that was not enrolled in the ICAP/SCR program in either the Prior Equivalent Capability Period or the Capability Period preceding the Prior Equivalent Capability Period, the SCR shall be assigned the RIP performance factor of the RIP that enrolls the SCR in the current Capability Period.

The NYISO shall ~~calculate compute~~ a separate SCR Aggregation performance factor, in accordance with Section 4.12.2.1.5 of this ICAP Manual, that recognizes over-performance by one SCR to compensate for under-performance by another SCR in the same SCR Aggregation in the same hour. The minimum hourly performance of an individual SCR shall

be zero (0). SCRs may be transferred from one SCR Aggregation to another SCR Aggregation within a RIP's portfolio during the Aggregation Management period as specified in the ICAP Event Calendar and DRIS Event Calendar. Following the Aggregation Management period, the NYISO shall recalculate the SCR Aggregation performance factor for each SCR Aggregation. ~~The SCR Aggregation performance factor shall be calculated in accordance with Sections 4.12.2.1 and 4.12.2.2 of this ICAP Manual.~~

### **Small Customer Aggregations**

The NYISO will also allow participation by aggregations of small customers using alternative metering and performance measurement subject to the procedures and limitations set forth in the *NYISO Emergency Demand Response Program Manual* (available from the NYISO Web site at :

[http://www.nyiso.com/public/markets\\_operations/market\\_data/demand\\_response/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp), except that the total of all such aggregations for SCRs shall not exceed 100 MW. Each small customer aggregation will be reviewed by the NYISO staff and the Installed Capacity Working Group, and must be approved by at least four of the Chairs and Vice-Chairs of the Management Committee and the Business Issues Committee and the Chairs of the Installed Capacity Working Group and Price Responsive Load Working Group. The RIP shall report the performance of each small customer aggregation (each aggregation separate from any other aggregation and separate from resources not in the aggregation) directly into the DRIS, using an import file formatted as specified in the *NYISO DRIS User's Guide*. The RIP shall provide additional documentation to verify performance as requested by the NYISO.

### **New SCR in a Mitigated Capacity Zone**

A SCR that is enrolled must be accepted by the NYISO before the enrollment is effective. Once accepted, a SCR is a "New SCR in a Mitigated Capacity Zone" if it is enrolled in a Mitigated Capacity Zone, ~~as defined in Section 2.13 of the NYISO Services Tariff, A New SCR in a Mitigated Capacity Zone shall be subject to an Offer Floor, unless exempt (as described below), beginning with the month of its initial offer to supply Installed Capacity, and until its offers of Installed Capacity have been accepted in the ICAP Spot Market Auction at a price at or above its Offer Floor for a total of twelve (12), not necessarily consecutive, months. (a) from the date of the ICAP Spot Market Auction into which it is first offered, to the calendar date immediately preceding the date of the ICAP Spot Market Auction twelve (12) months after the initial ICAP Spot Market Auction into which the SCR was offered, and at any other time (b) beginning on the date of the ICAP Spot Market Auction into which it is offered if, prior to such ICAP Spot Market Auction, the SCR is not offered in (x) a Capacity market auction or (y) as a Resource in a Bilateral Transaction certified by both parties, provided it was an eligible Resource for such auction or Bilateral Transaction, at any point within the immediately preceding twelve (12) consecutive months, and at any time after being accepted by the NYISO as SCR.~~

New SCRs in a Mitigated Capacity Zone are eligible SCRs only in the ICAP Spot Market Auction; UCAP from a New SCR in a Mitigated Capacity Zone may not be used to cover

UCAP offered in a Capability Period Auction, Monthly Auction, or through a Bilateral Transaction. If a New SCR in a Mitigated Capacity Zone is included in UCAP certified for a Capability Period Auction or Monthly Auction sale, or through a Bilateral Transaction certified by both parties to the transaction, the amount of UCAP attributable to the New SCR in a Mitigated Capacity Zone will constitute a shortfall.

A New SCR in a Mitigated Capacity Zone, except New York City, shall be exempt from the Offer Floor if (a) it was enrolled with the NYISO as a SCR for any month within the Capability Year that includes March 31 in an ICAP Demand Curve Reset Filing Year in which the NYISO proposes a New Capacity Zone that includes the location of the New SCR in a Mitigated Capacity Zone (e.g., any month in the 2012/13 Capability Year, for SCRs in the New Capacity Zone that was proposed in the 2013 Demand Curve Reset Filing Year-) or (b) the NYISO projects that the ICAP Spot Market Auction price will exceed, the SCR's Offer Floor for the first twelve months that the SCR reasonably anticipated to offer to supply UCAP.

~~New SCRs in a Mitigated Capacity Zone are eligible SCRs only in the ICAP Spot Market Auction; UCAP from a New SCR in a Mitigated Capacity Zone may not be used to cover UCAP offered in a Capability Period Auction, Monthly Auction, or through a Bilateral Transaction. If a New SCR in a Mitigated Capacity Zone is included in UCAP certified for a Capability Period Auction or Monthly Auction sale, or through a Bilateral Transaction certified by both parties to the transaction, the amount of UCAP attributable to the New SCR in a Mitigated Capacity Zone will constitute a shortfall.~~

### **SCRs with Local Generators**

SCRs that participate with a Local Generator must enroll as either response type "B" or a response type "G" resources, as defined in the NYISO DRIS User's Guide, as required by the metering configuration of the SCR and the Local Generator. By enrolling a Special Case ResourceSCR that participates with a Local Generator, the RIP is certifying to the NYISO, on behalf of itself and the Special Case ResourceSCR, that the Special Case ResourceSCR has obtained all necessary regulatory approvals to sell energy at wholesale and meet applicable utility interconnection and delivery (including metering) requirements.

~~When enrolling a SCR that uses or intends to use a Local Generator to participate in the ICAP/SCR program and perform Load reductions when directed by the NYISO, RIPs are required to obtain an attestation from the SCR, using the form available on the NYISO website. The attestation from the SCR shall state that the SCR's participation in the program complies with all applicable federal, state, and local laws and regulatory requirements with respect to operation of the Local Generator used to reduce Load from the NYS Transmission System, and/or distribution system, during a demand response event or test for that Capability Period. RIPs shall provide the SCR's Local Generator Attestation Form to the NYISO upon request.~~

SCRs that use Local Generators that are operating to fully serve their Load do not qualify for participation in the ICAP/SCR program. A Local Generator that is normally operating to partially serve its Load may participate in the program with any additional generation that is available to operate at the direction of the NYISO in order to reduce the remaining Load being supplied from the NYS Transmission System and/or distribution system. In no instance shall a Local Generator participate in the ICAP/SCR program at a level that exceeds the SCR's applicable ACL baseline that was used for enrollment in the program.

A Special Case Resource that supplies Load reductions solely through the use of a Local Generator (whether or not operated in parallel with the NYCA) and that elects to measure such Load reductions by metering the output of such Local Generator in accordance with Sections 4.12.2.1 ~~and 4.12.2.2~~ of this *ICAP Manual* hereto shall report to the NYISO DMNC test data as part of its SCR enrollment in addition to other generator information requested in that enrollment. A SCR that supplies Load reductions solely through the use of a Local Generator and that elects to measure such Load reductions by metering the output of such Local Generator in accordance with Sections 4.12.2.1 ~~and 4.12.2.2~~ of this *ICAP Manual* must deduct from the output of such generator: (i) any auxiliary Load consumed by the generator and supplied from an external source; and (ii) any Load from a load bank used in conjunction with the generator when responding to NYISO dispatch under Section 4.12.4 of this *ICAP Manual*, such that only the amount of generation that reduces Load from the NYS Transmission System and/or distribution system during an event or test is reported as the performance of the SCR.

#### **4.12.2.1 ~~Calculation-Determination of ICAP, Performance Factors, UCAP, and Installed Capacity~~ ICAP Equivalent for Special Case Resources**

A RIP sells the load reduction capability associated with its SCRs as part of a SCR Aggregation. This section describes the procedures used for (1) translating the load reduction capability of a SCR to the ICAP value for the SCR, (2) determining the UCAP value of the SCR Aggregation to which a SCR is assigned, and (3) calculating performance factors for a SCR, SCR Aggregation, RIP, and for the ICAP/SCR program.

##### **4.12.2.1.1 SCR ICAP**

The ICAP of an individual SCR shall be computed as the applicable enrollment ACL minus the committed maximum demand multiplied by one plus the applicable transmission loss factor. The applicable transmission loss factor is determined, by the NYISO, according to the voltage service level of the SCR reported by the RIP on the SCR enrollment file imported into the DRIS for the Capability Period. The ICAP of an individual SCR is not dependent on the response type enrolled.

The precise formulation is as follows:



$$ICAP_{gm} = (ACL_{gm} - CMD_{gm}) \times (1 + TLF_{gv})$$

Where:

ICAP<sub>gm</sub><sup>Q</sup> = the Installed Capacity that Resource g is qualified to provide in month m;

ACL<sub>gm</sub> = the applicable enrollment ACL, for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;

CMD<sub>gm</sub> = the committed maximum demand for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;

TLF<sub>gv</sub> = the applicable transmission loss factor for Resource g, expressed in decimal form (i.e., a loss factor of 8% is equal to .08) at voltage level v. The applicable transmission loss factor shall be the loss factor reflected in the relevant TO's rate case and stored in the DRIS for deliveries of Energy at voltage level v by the relevant TO to the Resource g.

#### **4.12.2.1.2 SCR Performance Factors**

The SCR performance factor for the current Capability Period shall be computed as the performance of the SCR in mandatory events and tests from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period. This individual SCR performance factor shall be the result of the average of the SCR's adjusted hourly performance factors for each of the best four consecutive hours in all mandatory events and required one-hour tests. Each adjusted hourly performance factor is the lesser of the raw performance factor or one.

If the SCR was not enrolled in any Capability Period required to calculate the performance factor for the current Capability Period, the SCR shall be assigned the RIP performance factor.

#### **Performance Factor for a SCR with Load Curtailment**

When the SCR is enrolled with a response type of B or C, as defined in the *NYISO DRIS User's Guide*, the raw hourly performance factor is computed as the hourly capacity reduction of the SCR divided by the applicable ACL of the SCR less the committed maximum demand of the SCR. The hourly capacity reduction is equal to the applicable ACL of the SCR minus the metered Load for the event or test hour. The minimum hourly capacity reduction for an individual SCR shall be zero.

The precise formulation is as follows:

$$SCR PF_{BCg} = \frac{\sum_{h \in NLRH_{gbe}} \min \left( \frac{\max(ACL_{gh} - ML_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1 \right)}{NLRH_{gbe}}$$

**Where:**

SCR PF<sub>BCg</sub> = the performance factor of the Resource *g* with a response type B or C for the current Capability Period;

ACL<sub>gh</sub> = the enrollment Net ACL or the Verified ACL, for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported in the DRIS;

ML<sub>gh</sub> = the metered Load for Resource *g* for hour *h* from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

CMD<sub>gh</sub> = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported by the RIP in the enrollment file uploaded to DRIS;

NLRH<sub>gbe</sub> = the number of hours from the applicable Capability Period, up to four mandatory event plus any hour in which Resource *g* was required to reduce load by the NYISO as part of one or more performance tests called by the NYISO, in which Resource *g* was required to reduce load;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests, or the time at which Resource *g* began to serve as a SCR available to reduce load;

e = the most recent Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests.

**Performance Factor for a SCR enrolled with output from a Local Generator**

When the SCR is enrolled with a response type of G, as defined in the NYISO DRIS User's Guide, the raw hourly performance factor is computed as the hourly capacity reduction of the SCR for the event or test hour divided by the applicable ACL of the SCR less the committed maximum demand of the SCR. The hourly capacity reduction is equal to the metered Load for the event or test hour. The minimum hourly capacity reduction for an individual SCR shall be zero.

The precise formulation is as follows:



$$SCR PF_{Gg} = \frac{\sum_{h \in NLRH_{gbe}} \min \left( \frac{\max(ML_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1 \right)}{NLRH_{gbe}}$$

Where:

SCR PF<sub>Gg</sub> = the performance factor of the Resource *g* with a response type *G* for the current Capability Period;

ACL<sub>gh</sub> = the enrollment Net ACL or the Verified ACL, for Resource *g* applicable to hour *h* from the applicable Capability Period; using data reported in the DRIS;

ML<sub>gh</sub> = the metered output of the Local Generator for Resource *g* for hour *h* from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

CMD<sub>gh</sub> = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period, using data reported by the RIP in the enrollment file uploaded to DRIS;

NLRH<sub>gbe</sub> = the number of hours in which Resource *g* was required to reduce load during the applicable Capability Period, up to four per mandatory event plus any hour in which Resource *g* was required to reduce load by the ISO as part of one or more performance tests called by the ISO. ;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests.;

e = the Prior Equivalent Capability Period in which Resource *g* was enrolled and was obligated to respond to mandatory events and required tests.

4.12.2.1.3 RIP Performance Factor

The RIP performance factor for the current Capability Period shall be computed as the sum of the proportional declared value of all SCRs that were enrolled by the RIP in the Prior Equivalent Capability Period divided by the sum of the maximum declared value of all SCRs that were enrolled by the RIP in the Prior Equivalent Capability Period. The proportional declared value of an individual SCR is computed as the maximum declared value of the SCR from the Prior Equivalent Capability Period multiplied by the raw performance factor of the SCR for the current Capability Period. The maximum declared value of an individual SCR shall be set to the greatest declared value from the SCR enrollment in the Prior Equivalent Capability Period.

When more than one RIP has enrolled a SCR in the Prior Equivalent Capability Period, the SCR's performance will be included in the RIP performance factor of the RIP that enrolled the SCR last in the Prior Equivalent Capability Period.

The precise formulation is as follows:

$$RIP\ PF_r = \frac{ProportionalDV_{RIPSCRg}}{MaxDV_{RIPSCRg}}$$

**Where:**

RIP PF<sub>r</sub> = the performance factor of the RIP r for the current Capability Period;

ProportionalDV<sub>RIPSCRg</sub> = the sum of the maximum declared value of each Resource g enrolled by the RIP in the Prior Equivalent Capability Period multiplied by the corresponding raw performance factor that is not capped at 1.0 of the Resource g for the current Capability Period;

MaxDV<sub>RIPSCRg</sub> = the sum of the greatest declared value of each Resource g from its enrollment by the RIP in the Prior Equivalent Capability Period;

**4.12.2.1.4 ICAP/SCR Program Performance Factor**

The ICAP/SCR program performance factor for the current Capability Period shall be computed as the sum of the proportional declared value of all SCRs that were enrolled in the Prior Equivalent Capability Period divided by the sum of the maximum declared value of all SCRs that were enrolled in the Prior Equivalent Capability Period. The proportional declared value of an individual SCR is computed as the maximum declared value of the SCR from the Prior Equivalent Capability Period multiplied by the raw performance factor of the SCR for the current Capability Period. The maximum declared value of an individual SCR shall be set to the greatest declared value from the SCR enrollment in the Prior Equivalent Capability Period.

The precise formulation is as follows:

$$ICAP/SCR \text{ PROG PF} = \frac{\text{ProportionalDV}_{ALLSCRg}}{\text{MaxDV}_{ALLSCRg}}$$

**Where:**

ICAPSCR PROG PF = the performance factor of the ICAP/SCR program for the current Capability Period;

ProportionalDV<sub>ALLSCRg</sub> = the sum of the proportional declared values for each Resource g enrolled in the ICAP/SCR program in the Prior Equivalent Capability Period;

MaxDV<sub>ALLSCRg</sub> = the sum of the maximum declared value for each Resource g enrolled in the ICAP/SCR program in the Prior Equivalent Capability Period;

**4.12.2.1.5 SCR Aggregation Performance Factor**

The SCR Aggregation performance factor is calculated each month, after the close of Aggregation Management as specified in the ICAP Event Calendar and DRIS Event Calendar. The SCR Aggregation performance factor for the current Capability Period and auction month shall be determined using enrollment and hourly event and required test response data from all SCRs assigned to the SCR Aggregation from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period.

The SCR Aggregation performance factor shall be the result of the sum of the adjusted hourly performance factors for each SCR assigned to the SCR Aggregation during the best four hours in each mandatory event and required one-hour test from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period divided by the total number of hours in which each SCR in the SCR Aggregation was required to reduce load for mandatory events, up to a maximum of four hours per event, and required one-hour tests. Each adjusted hourly performance factor is the lesser of the raw performance factor or one.

If a SCR assigned to the SCR Aggregation for the current Capability Period was not enrolled in any Capability Period required to calculate the performance factor for the current Capability Period and auction month, the SCR will not be included in the calculation of the SCR Aggregation performance factor.

The precise formulation is as follows:

$$\text{Aggregation PF}_{am} = \left( \sum_{h \in \text{LRH}_{gbe}} \min \left( \frac{\max(ACL_{gh} - ML_{gh,0}, 0) + \max(ML_{gh,0}, 0)}{ACL_{gh} - CMD_{gh}} \right) \right) \frac{1}{NLRH_{abe}}$$

**Where:**

SCR Aggregation PF<sub>am</sub> = the performance factor of the SCR Aggregation *a*, as determined for month *m*;

LRH<sub>gbe</sub> = the set of hours (each an hour *h*) in the period beginning at time *b* and ending at time *e* in which Resource *g* was requested to reduce load;

ACL<sub>gh</sub> = the enrollment Net ACL or the Verified ACL, for Resource *g* applicable to hour *h*, using data reported in the DRIS *l*;

ML<sub>gh</sub> = the metered Load for Resource *g* for hour *h*, using data reported in the performance data file uploaded to DRIS;

CMD<sub>gh</sub> = the committed maximum demand for Resource *g* applicable to hour *h* from the applicable Capability Period(s), using data reported by the RIP in the enrollment file uploaded to DRIS;

NLRH<sub>abe</sub> = the number of hours in which Resource *g* was required to reduce load during the applicable Capability Period(s), up to four per mandatory event plus any hour in which Resource *g* was required to reduce load by the ISO as part of one or more performance tests called by the ISO ;

b = the Capability Period immediately preceding the Prior Equivalent Capability Period in which the SCR was enrolled and was obligated to respond to mandatory events and required tests ;

e = the most recent Prior Equivalent Capability Period in which the SCR was enrolled and was obligated to respond to mandatory events and required tests;

**4.12.2.1.6 SCR Contribution to SCR Aggregation UCAP**

For SCRs that have a SCR performance factor:

The UCAP contribution of the SCR to the SCR Aggregation UCAP shall be computed as the calculated ICAP for the SCR multiplied by the SCR Aggregation performance factor.

The precise formulation is as follows:

$$UCAPContr_{gm}^{SCR} = ICAP_{gm}^Q \times SCR\ Aggregation\ PF_{am}$$

Where:

UCAPContr<sub>gm</sub><sup>SCR</sup> = the Unforced Capacity that Resource g is qualified to provide in month m, as part of the SCR Aggregation;

ICAP<sub>gm</sub><sup>Q</sup> = the Installed Capacity that Resource g is qualified to provide in month ,; calculated in accordance with Section 4.12.2.1.1 of this ICAP Manual;

Aggregation PF<sub>am</sub> = the performance factor of the SCR Aggregation a as determined for the Capability Period and month m, calculated in accordance with Section 4.12.2.1.5 of this ICAP Manual;

For SCRs that have been assigned the performance factor of the RIP:

The UCAP contribution of the SCR to the SCR Aggregation UCAP shall be computed as the calculated ICAP for the SCR multiplied by the performance factor of the RIP.

The precise formulation is as follows:

$$UCAPContr_{gm}^{RIP} = ICAP_{gm}^Q \times RIP\ PF_g$$

Where:

UCAPContr<sub>gm</sub><sup>RIP</sup> = the Unforced Capacity that Resource g is qualified to provide in month m, as part of the SCR Aggregation;

ICAP<sub>gm</sub><sup>Q</sup> = the Installed Capacity that Resource g is qualified to provide in month m, calculated in accordance with Section 4.12.2.1.1 of this ICAP Manual;

RIP PF<sub>g</sub> = the performance factor of the RIP g, calculated in accordance with Section 4.12.2.1.3 or Section 4.12.2.1.4 of this ICAP Manual, as applicable;

#### **4.12.2.1.7 SCR Aggregation UCAP**

The SCR Aggregation UCAP, for the applicable auction month shall be computed as the sum of the UCAP contribution to the SCR Aggregation UCAP of each SCR in the SCR Aggregation using the SCR Aggregation performance factor plus the sum of the UCAP contribution to the SCR Aggregation UCAP of each SCR in the SCR Aggregation using the performance factor of the RIP.

The precise formulation is as follows:

$$UCAP^Q_{am} = \sum_{am} (UCAPContr_{gm}^{SCR}) + \sum_{am} (UCAPContr_{gm}^{RIP})$$

#### **Where:**

UCAP<sup>Q</sup><sub>am</sub> = the Unforced Capacity of that SCR Aggregation a is qualified to provide in month m;

UCAPContr<sup>SCR</sup><sub>gm</sub> = the Unforced Capacity that Resource g is qualified to provide in month m using the SCR Aggregation performance factor, as calculated in accordance with Section 4.12.2.1.6 of this ICAP Manual;

UCAPContr<sup>RIP</sup><sub>gm</sub> = the Unforced Capacity that Resource g is qualified to provide in month m using the performance factor for the RIP, as calculated in accordance with Section 4.12.2.1.6 of this ICAP Manual;

#### **4.12.2.1.8 SCR Installed Capacity Equivalent**

The Installed Capacity Equivalent (ICE) for a SCR, for the applicable auction month, shall equal the UCAP sales of the SCR for the auction month divided by the applicable performance factor (i.e. SCR Aggregation performance factor or performance factor for the RIP).

For SCRs included in the SCR Aggregation performance factor, the Installed Capacity Equivalent is equal to:

The precise formulation is as follows:



$$ICE_{gm}^{SCR} = UCAPContr_{gm}^{SCR} \div AggregationPF_{am}$$

Where:

$ICE_{gm}^{SCR}$  = the Installed Capacity Equivalent that Resource  $g$  is obligated to deliver in month  $m$ , at the direction of the NYISO;

$UCAPContr_{gm}^{SCR}$  = the Unforced Capacity sold by Resource  $g$  in month  $m$ , using the SCR Aggregation performance factor, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

$AggregationPF_{am}$  = the performance factor of the SCR Aggregation  $a$ , as determined for month  $m$ ;

For SCRs assigned the performance factor for the RIP, the Installed Capacity Equivalent is equal to:

The precise formulation is as follows:

$$ICE_{gm}^{RIP} = UCAPContr_{gm}^{SCR} \div RIP PF$$

Where:

$ICE_{gm}^{RIP}$  = the Installed Capacity Equivalent that Resource  $g$  is obligated to deliver in month  $m$ , at the direction of the NYISO;

$UCAPContr_{gm}^{SCR}$  = the Unforced Capacity sold by Resource  $g$  in month  $m$ , using the performance factor of the RIP, as calculated in accordance with Section 4.12.2.1.6 of this *ICAP Manual*;

$RIP PF_{am}$  = the performance factor of the RIP;

~~The amount of UCAP that can be provided by a Special Case Resource that provides capacity wholly or partially by means of non-generator based load reduction shall be calculated using the equations specified in subsection 4.12.2.1.1 when a Provisional ACL applies and subsection 4.12.2.1.2 for all other Special Case Resources that provide capacity wholly or partially by means of non-generator based load reduction. The amount of UCAP~~

~~that can be provided by a Special Case Resource that provides capacity solely by means of load reductions achieved through operation of one or more generators may be calculated using the equations specified in either subsection 4.12.2.1.2 or subsection 4.12.2.1.3. The amount of UCAP that can be provided by an SCR Aggregation of Special Case Resources shall be calculated using the equations specified in subsection 4.12.2.1.4.~~

~~The Installed Capacity Equivalent of Special Case Resources shall be as specified in subsection 4.12.2.2.~~

#### ~~4.12.2.1.1 Determining the Amount of UCAP for a Non-Generator Based Special Case Resource with a Provisional ACL~~

$$UCAP_{gm}^Q = (ACL_{gm}^P - CMD_{gm}) \times \frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{\max(ACL_{gh}^P - AMD_{gh}, 0)}{ACL_{gh}^P - CMD_{gh}}, 1\right)}{NLRH_{gbe}} \times (1 + TLF_{gv})$$

#### ~~Where:~~

- ~~UCAP<sub>gm</sub><sup>Q</sup> = the Unforced Capacity that Resource g is qualified to provide in month m;~~
- ~~ACL<sub>gm</sub><sup>P</sup> = the Provisional Average Coincident Load for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS; in accordance with Section 4.12.4 of this ICAP Manual;~~
- ~~CMD<sub>gm</sub> = the Contract Minimum Demand for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;~~
- ~~LRH<sub>gbe</sub> = the set of hours (each an hour h) in the period beginning at time b and ending at time e in which Resource g was requested to reduce load;~~
- ~~ACL<sub>gh</sub><sup>P</sup> = the Provisional Average Coincident Load for Resource g applicable to hour h, using data reported in the enrollment file uploaded to DRIS as of time e in accordance with Section 4.12.4 of this ICAP Manual;~~
- ~~AMD<sub>gh</sub> = the Average Minimum Demand for Resource g for hour h, using data using data reported in the performance data file uploaded to DRIS;~~
- ~~CMD<sub>gh</sub> = the Contract Minimum Demand for Resource g applicable to hour h, using data reported in the enrollment file uploaded to DRIS;~~
- ~~NLRH<sub>gbe</sub> = the number of hours during the period beginning at time b and ending at time e in which Resource g was required to reduce load (including any hour in which Resource g was required to reduce load by the ISO as part of a test);~~
- ~~b = the Capability Period prior to the Prior Equivalent Capability Period in which the performance factor is being computed, unless Resource g had not begun at that time to serve as a Special Case Resource available to reduce load, in which case b is the~~

earlier of time  $e$  or the time at which Resource  $g$  began to serve as a Special Case Resource available to reduce load;  
 $e$  = the Prior Equivalent Capability Period in which the performance factor is being computed; and  
 $TLF_{gv}$  = the applicable transmission loss factor for Resource  $g$ , expressed in decimal form (i.e. a loss factor of 8% is equal to .08). The applicable transmission loss factor shall be the loss factor for deliveries of Energy at voltage level  $v$  by the relevant TO to the retail customer where the Resource  $g$  is located as reflected in the TO's most recent rate case and stored in DRIS.

If  $NLRH_{gbe} = 0$ , then the calculation of  $UCAP_{gm}^Q$  shall be performed as though the value of

$$\frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{\max(ACL_{gh}^P - AMD_{gh}, 0)}{ACL_{gh}^P - CMD_{gh}}, 1\right)}{NLRH_{gbe}}$$

in the equation above were 1; provided, however, that if Resource  $g$  had not begun to serve as a Special Case Resource at time  $e$ , then the value of

$$\frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{\max(ACL_{gh}^P - AMD_{gh}, 0)}{ACL_{gh}^P - CMD_{gh}}, 1\right)}{NLRH_{gbe}}$$

in the equation above shall be set equal to an average historical performance factor calculated by the ISO for all Special Case Resources. Until such a calculation is performed and posted by the ISO, this factor shall equal 1.

4.12.2.1.2 Determining the Amount of UCAP for a Non-Generator Based Special Case Resource using the Average Coincident Load baseline

$$UCAP_{gm}^Q = (ACL_{gm} - CMD_{gm}) \times \frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{\max(ACL_{gh} - AMD_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1\right)}{NLRH_{gbe}} \times (1 + TLF_{gv})$$

Where:

$UCAP_{gm}^Q$  = the Unforced Capacity that Resource  $g$  is qualified to provide in month  $m$ ;

$ACL_{gm}$  = the Average Coincident Load for Resource  $g$  applicable to month  $m$ , using data reported in the enrollment file uploaded to DRIS; for month  $m$  in accordance with Section 4.12.4 of this ICAP Manual;

- ~~CMD<sub>gm</sub> = the Contract Minimum Demand for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;~~
- ~~LRH<sub>gbe</sub> = the set of hours (each an hour h) in the period beginning at time b and ending at time e in which Resource g was requested to reduce load;~~
- ~~ACL<sub>gh</sub> = the Average Coincident Load for Resource g applicable to hour h, using data reported in the enrollment file uploaded to DRIS as of time e;~~
- ~~AMD<sub>gh</sub> = the Average Minimum Demand for Resource g for hour h, using data reported in the performance data file uploaded to DRIS;~~
- ~~CMD<sub>gh</sub> = the Contract Minimum Demand for Resource g applicable to hour h, using data reported in the enrollment file uploaded to DRIS;~~
- ~~NLRH<sub>gbe</sub> = the number of hours during the period beginning at time b and ending at time e in which Resource g was required to reduce load (including any hour in which Resource g was required to reduce load by the ISO as part of a test);~~
- ~~b = the Capability Period prior to the Prior Equivalent Capability Period in which the performance factor is being computed, unless Resource g had not begun at that time to serve as a Special Case Resource available to reduce load, in which case b is the earlier of time e or the time at which Resource g began to serve as a Special Case Resource available to reduce load;~~
- ~~e = the Prior Equivalent Capability Period in which the performance factor is being computed; and~~
- ~~TLF<sub>gv</sub> = the applicable transmission loss factor for Resource g, expressed in decimal form (i.e. a loss factor of 8% is equal to .08). The applicable transmission loss factor shall be the loss factor for deliveries of Energy at voltage level v by the relevant TO to the retail customer where the Resource g is located as reflected in the TO's most recent rate case and stored in DRIS.~~

~~If NLRH<sub>gbe</sub> = 0, then the calculation of UCAP<sup>Q</sup><sub>gm</sub> shall be performed as though the value of~~

~~$$\frac{\sum_{h \in LRH_{gbe}} \min \left( \frac{\max(ACL_{gh} - AMD_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1 \right)}{NLRH_{gbe}}$$~~

~~in the equation above were 1; provided, however, that if Resource g had not begun to serve as a Special Case Resource at time e, then the value of~~

~~$$\frac{\sum_{h \in LRH_{gbe}} \min \left( \frac{\max(ACL_{gh} - AMD_{gh}, 0)}{ACL_{gh} - CMD_{gh}}, 1 \right)}{NLRH_{gbe}}$$~~

~~in the equation above shall be set equal to an average historical performance factor calculated by the ISO for all Special Case Resources. Until such a calculation is performed and posted by the ISO, this factor shall equal 1.~~

#### 4.12.2.1.3 Determining the Amount of UCAP for a Generator Based Special Case Resource

$$UCAP_{gm}^Q = \frac{DMNC_{gm} \times \sum_{h \in LRH_{gbe}} \min\left(\frac{AGO_{gh}}{CGO_{gh}}, 1\right)}{NLRH_{gbe}} \times (1 + TLF_{gv})$$

#### Where:

$UCAP_{gm}^Q$  = the Unforced Capacity that Resource  $g$  is qualified to provide in month  $m$ ;

$DMNC_{gm}$  = the total of DMNC ratings for all generators used to reduce load at Resource  $g$  which are applicable for month  $m$ , which shall be the most recent Summer DMNC ratings for the generators calculated in accordance with ISO procedures if month  $m$  is part of a Summer Capability Period, or the most recent Winter DMNC ratings for the generators calculated in accordance with ISO procedures if month  $m$  is part of a Winter Capability Period, as of the close of business on the last business day preceding the Monthly Installed Capacity Auction that is conducted during the month preceding month  $m$ ;

$LRH_{gbe}$  = the set of hours (each an hour  $h$ ) in the period beginning at time  $b$  and ending at time  $e$  in which Resource  $g$  was required to reduce load;

$NLRH_{gbe}$  = the number of hours during the period beginning at time  $b$  and ending at time  $e$  in which Resource  $g$  was required to operate in order to offset system load (including any hour in which Resource  $g$  was required to operate by the ISO as part of a test);

$AGO_{gh}$  = the average output of the generator(s) located at Resource  $g$  during an hour  $h$  using data reported in the performance data file uploaded to DRIS;

$CGO_{gh}$  = the Contracted Generator Output for the generator(s) located at Resource  $g$  applicable to an hour  $h$ , using data reported in the enrollment file uploaded to DRIS;

$b$  = the Capability Period prior to the Prior Equivalent Capability Period in which the performance factor is being computed, unless Resource  $g$  had not begun at that time to serve as a Special Case Resource available to reduce load, in which case  $b$  is the earlier of time  $e$  or the time at which Resource  $g$  began to serve as a Special Case Resource available to reduce load;

$e$  = the Prior Equivalent Capability Period in which the performance factor is being computed; and

$TLF_{gv}$  = the applicable transmission loss factor for Resource  $g$ , expressed in decimal form (i.e. a loss factor of 8% is equal to .08). The applicable transmission loss factor shall be the loss factor for deliveries of Energy at voltage level  $v$  by the relevant TO to the retail customer where the Resource  $g$  is located as reflected in the TO's most recent rate case and stored in DRIS.

If  $NLRH_{gbe} = 0$ , then the calculation of  $UCAP_{gm}^Q$  shall be performed as though the value of

$$\frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{AGO_{gh}}{CGO_{gh}}, 1\right)}{NLRH_{gbe}}$$

in the equation above were 1; provided, however, that if Resource  $g$  had not begun to serve

$$\frac{\sum_{h \in LRH_{gbe}} \min\left(\frac{AGO_{gh}}{CGO_{gh}}, 1\right)}{NLRH_{gbe}}$$

as a Special Case Resource at time  $e$ , then the value of  $NLRH_{gbe}$  in the equation above shall be set equal to an average historical performance factor calculated by the ISO for all Special Case Resources. Until such a calculation is performed and posted by the ISO, this factor shall equal 1.

#### 4.12.2.1.4 Determining the Amount of UGAP for an SCR Aggregation of Special Case Resources

$$UCAP_{am}^Q = \sum_{am} \left( (ACL_{gm}^* - CMD_{gm}) \times \frac{\min\left(\sum_{ah} \left( \sum_{h \in LRH_{gbe}} \left( \frac{\max(ACL_{gh}^* - AMD_{gh}, 0)}{ACL_{gh}^* - CMD_{gh}} \right) \times (1 + TLF_{gv}) \right), 1 \right)}{NLRH_{abe}} + \left( \sum_{am} (ACL_{ngm}^* - CMD_{ngm}) \right) \times PF_{RIP} \right)$$

**Where:**

$UCAP_{am}^Q$  = the Unforced Capacity that SCR Aggregation  $a$  is qualified to provide in month  $m$ ;

$ACL_{gm}^*$  = any form of the Average Coincident Load (including Provisional or Net ACL adjusted for Change of Status) for Resource  $g$  applicable to month  $m$ , using data reported in the enrollment file uploaded to DRIS; for month  $m$ , in accordance with Section 4.12.4 of this *ICAP Manual*;

$CMD_{gm}$  = the Contract Minimum Demand for Resource  $g$  applicable to month  $m$ , using data reported in the enrollment file uploaded to DRIS;

$LRH_{gbe}$  = the set of hours (each an hour  $h$ ) in the period beginning at time  $b$  and ending at time  $e$  in which Resource  $g$  was requested to reduce load;

$ACL_{gh}$  = the Average Coincident Load for Resource  $g$  applicable to hour  $h$ , using data reported in the enrollment file uploaded to DRIS as of time  $e$  in accordance with Section 4.12.4 of this *ICAP Manual*;



- ~~AMD<sub>gh</sub> = the Average Minimum Demand for Resource *g* for hour *h*, using data reported in the performance data file uploaded to DRIS;~~
- ~~CMD<sub>gh</sub> = the Contract Minimum Demand for Resource *g* applicable to hour *h*, using data reported in the enrollment file uploaded to DRIS;~~
- ~~NLRH<sub>abe</sub> = the number of hours during the period beginning at time *b* and ending at time *e* in which SCR Aggregation *a* was required to reduce load (including any hour in which SCR Aggregation *a* was required to reduce load by the ISO as part of a test);~~
- ~~*b* = the Capability Period prior to the Prior Equivalent Capability Period in which the performance factor is being computed, unless Resource *g* had not begun at that time to serve as a Special Case Resource available to reduce load, in which case *b* is the earlier of time *e* or the time at which Resource *g* began to serve as a Special Case Resource available to reduce load;~~
- ~~*e* = the Prior Equivalent Capability Period in which the performance factor is being computed;~~
- ~~TLF<sub>gv</sub> = the applicable transmission loss factor for Resource *g*, expressed in decimal form (i.e. a loss factor of 8% is equal to .08). The applicable transmission loss factor shall be the loss factor for deliveries of Energy at voltage level *v* by the relevant TO to the retail customer where the Resource *g* is located as reflected in the TO's most recent rate case and stored in DRIS;~~
- ~~ACL<sup>\*</sup><sub>ngm</sub> = any form of the Average Coincident Load (including Provisional or Net ACL adjusted for Change of Status) for a new Resource *g* with no performance history applicable to month *m*, using data reported in the enrollment file uploaded to DRIS; for month *m*, in accordance with Section 4.12.4 of this ICAP Manual;~~
- ~~CMD<sub>ngm</sub> = the Contract Minimum Demand for a new Resource *g* with no performance history applicable to month *m*, using data reported in the enrollment file uploaded to DRIS; and~~
- ~~PF<sub>RIP</sub> = the Performance Factor of Responsible Interface Party *RIP* applicable to the current Capability Period, using the RIP performance factor calculated in DRIS.~~

#### ~~4.12.2.2 — Determining the Installed Capacity Equivalent of the Amount of UCAP Supplied~~

##### ~~4.12.2.2.1 — ICE for a Non-Generator Based Special Case Resource with a Provisional AGL~~

~~The ICE of a Special Case Resource *g* that provides capacity wholly or partially by means of non-generator based load reduction shall be calculated as follows when a Provisional ACL is in effect:~~

$$~~ICE_{gm} = ACL_{gm}^P - CMD_{gm}~~$$

~~Where: —~~

~~ICE<sub>gm</sub> = the Installed Capacity Equivalent of the amount of Unforced Capacity that Resource *g* supplies in month *m*;~~

~~ACLP<sub>gm</sub> = the Provisional Average Coincident Load for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS, as calculated in accordance with Section 4.12.4 of this *ICAP Manual* above; and~~

~~CMD<sub>gm</sub> = the Contract Minimum Demand for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS.~~

#### ~~4.12.2.2.2 — ICE for a Non-Generator Based Special Case Resource using the Average Coincident Load baseline~~

~~The ICE of a Special Case Resource *g* that provides capacity wholly or partially by means of non-generator based load reduction shall be calculated as follows:~~

$$\text{ICE}_{gm} = \text{ACL}_{gm} - \text{CMD}_{gm}$$

~~Where: —~~

~~ICE<sub>gm</sub> = the Installed Capacity Equivalent of the amount of Unforced Capacity that Resource *g* supplies in month *m*;~~

~~ACL<sub>gm</sub> = the Average Coincident Load for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS, as calculated in Section 4.12.2.1.2 above; and~~

~~CMD<sub>gm</sub> = the Contract Minimum Demand for Resource *g* applicable to month *m*, using data reported in the enrollment file uploaded to DRIS.~~

#### ~~4.12.2.2.3 — ICE for a Generator Based Special Case Resource~~

~~The ICE of a Special Case Resource that provides capacity solely by means of load reductions achieved through operation of one or more generators shall be as follows:~~

$$\text{ICE}_{gm} = \text{CGO}_{gm}$$

~~Where: —~~

~~ICE<sub>gm</sub> = the Installed Capacity Equivalent of the amount of Unforced Capacity that Resource *g* supplies in month *m*; and~~

~~CGO<sub>gm</sub> = the Contracted Generator Output for the generator(s) located at Resource g applicable for month m, using data reported in the enrollment file uploaded to DRIS.~~

### 4.12.3 Minimum Payment Nomination Requirements

For each month in which a SCR supplies Unforced Capacity to the NYCA, the RIP must specify in the DRIS a Minimum Payment Nomination that will reflect the minimum guarantee price the SCR will be paid if called upon to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity it has supplied.

A Minimum Payment Nomination is specified by the RIP, in the DRIS, for each SCR Aggregation and applies to all individual SCRs within that SCR Aggregation. A SCR's Minimum Payment Nomination cannot exceed \$500/MWh. This Minimum Payment Nomination, or Energy curtailment payment designation, associated with a SCR's Unforced Capacity will not be entered in the Day-Ahead Market, but instead will serve as a strike price that the NYISO can use to prioritize which SCRs to call. Unlike a Generator or other Resource's Bid to supply Energy associated with Unforced Capacity, a SCR's Minimum Payment Nomination cannot be revised prior to Settlement in the Day-Ahead Market. A SCR's Minimum Payment Nomination is set for the entire month.

The Minimum Payment Nomination for a new SCR Aggregation ID must be specified by the RIP at the time of the SCR Aggregation ID request. The RIP may change the Minimum Payment Nomination for each auction month during the dates and times specified in the ICAP Event Calendar and DRIS Event Calendar for Strike Price Management.

SCR Minimum Payment Nominations will be used only when the NYISO Operations department determines the need to call on these SCRs in accordance with the NYISO Emergency Operations Manual. In the event the NYISO Operations department makes such a determination, the Minimum Payment Nominations placed for each SCR will allow the NYISO to call for Load reduction based on SCR zone location and price. As a result, the NYISO will be able to call less than the total pool of SCRs in the NYCA and in each NYCA zone.

As an example, the NYISO may determine that it needs a Demand Reduction response of 25 MW in Zone J. A total of 50 MW of SCRs located in Zone J is supplying Unforced Capacity. For this example, assume that each MW of SCR Capacity entered a different Minimum Payment Nomination, from \$0/MWh to \$500/MWh. In order to fulfill its need for 25 additional MW of reserves, the NYISO will call the 25 MW of SCRs in economic order based on their submitted Minimum Payment Nominations starting with the lowest values. See Section [4.12.74.12.8](#) for situations where multiple SCRs have placed the same top Minimum Payment Nomination called upon by the NYISO and the total MW offered at that price exceed the ISO's needs.

#### 4.12.4 Performance Obligations

A SCR must be capable of making Energy available (i.e., take action, in response to the NYISO direction, that causes a measurable and verifiable reduction of Load from the New York State Transmission System and/or distribution system during an event or test ~~is reported as the performance of the SCR~~), for a minimum four (4) hour block (except where environmental constraints that have been previously considered and approved by the NYISO require a shorter block), in amounts that correspond to the Installed Capacity Equivalent of the amount of Unforced Capacity it has been committed to supply for each month through the NYISO's Installed Capacity Market. The obligation to reduce Load shall commence at the top of the hour after the NYISO has provided the following notices:

- a. on the day before the SCR's performance may be required, the NYISO shall provide twenty-one (21) hour notice to the RIP, so long as notification is provided by 3:00 PM ET. If notice is provided to the RIP after 3:00 PM ET on the day before the SCR's performance may be required, then the NYISO shall instead provide twenty-four (24) hours notice;
- b. following the advance notice described in (a) above, on the operating day the NYISO shall provide at least two (2) hours notice to the RIP that the SCR's performance will be required. The SCR shall reduce its Load or transfer Load to a Local Generator (as appropriate) commencing at the top of the hour immediately after the two-hour notice period has expired. In the alternative, the NYISO may specify the hour at which the SCR shall commence performance of its obligation by reducing its Load or transferring Load to a Local Generator (as appropriate), so long as the start hour specified by the NYISO is at least two hours in the future.

~~If the SCR is unable to provide full output within the two (2) hour notice period due to operational constraints, the RIP may petition the NYISO in advance of enrollment of the SCR for permission to provide Load reduction from the SCR beginning with a longer notice period. While the ISO's permission will not be unreasonably withheld, a separate notice shall not be provided to such SCR. In granting permission, the NYISO will calculate the appropriate de-rating factor for use in determining the amount of Unforced Capacity that such SCR can provide in the future.~~

There shall be no relief from penalties or other obligations for failure to perform if the RIP was an Installed Capacity Supplier in any month within a Capability Period.

##### 4.12.4.1 Average Coincident Load

The ACL is the baseline Load used by the NYISO for measuring the amount of Load reduction that a SCR enrolled in the NYISO's ICAP/SCR program can provide during a specific Capability Period. An ACL is calculated by the NYISO for each SCR, except those SCRs that are eligible to enroll with a Provisional ACL, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*. An increase to the ACL may be reported in

accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* and Section 4.12.4.3.1 of this *ICAP Manual*. A decrease to the ACL is required to be reported in accordance with Section 5.12.11.1.3 of the *NYISO Services Tariff* and Sections 4.3.3 and 4.12.4.3.2 of this *ICAP Manual*.

The NYISO will post to its website, and import into the DRIS, the top 40 NYCA peak Load hours for the Prior Equivalent Capability Period for each Load Zone ninety (90) days prior to the beginning of the Capability Period for which the ACL will be in effect. RIPs shall only report metered hourly Load consumed by the SCR that is supplied by the NYS Transmission System and/or the distribution system when uploading metered data into the DRIS for calculating or verifying an ACL. Any Load supported by generation produced from a Local Generator, other behind-the-meter generator, or other supply resource located behind the SCR's meter operating during the Capability Period SCR Peak Load Zone Hours, may not be added to the metered Load values submitted. In instances where the metered Load captures both the energy provided from the NYS Transmission System and/or distribution system with the energy provided by a Local Generator, other behind-the-meter generator, or other supply resource located behind the SCR's meter, the total amount of supply from behind-the-meter sources shall be netted out of the metered Load data submitted to the NYISO for calculating or verifying an ACL.

If a RIP attempts to change the value of any hour used in the ACL calculation in a subsequent enrollment during the same Capability Period, the SCR's enrollment record will be set to a Pending status in the DRIS and must be approved by the NYISO before the SCR can be enrolled with a revised ACL.

#### **4.12.4.2 Provisional Average Coincident Load**

A RIP may enroll a SCR with a Provisional ACL in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff*. The RIP must report the meter installation date on the enrollment upload to the DRIS for each SCR being enrolled with a Provisional ACL. The meter installation date of the SCR must remain the same for the entire period in which the SCR is enrolled with a Provisional ACL with the same RIP.

A demand response resource enrolled in the Prior Equivalent Capability Period in the NYISO Emergency Demand Response Program (EDRP) is ineligible to enroll in the ICAP/SCR program with a Provisional ACL when being enrolled with the same RIP.

#### ***Determining Eligibility to Enroll A SCR with A Provisional ACL***

Beginning with the 2014 Summer Capability Period, a RIP may verify the eligibility of a SCR to enroll with a Provisional ACL during the time frame corresponding to the SCR enrollment period as specified in the ICAP Event Calendar and DRIS Event Calendar and using the Transmission Owner Account Number of the SCR and the Provisional ACL

Eligibility Import file through the DRIS. The Provisional ACL Eligibility Import will provide the RIP with one of the following results: (a) the SCR is eligible to enroll using a Provisional ACL and may be enrolled through the SCR enrollment process; (b) the SCR is ineligible to enroll using a Provisional ACL in accordance with Section 4.12.4.2.2 of this *ICAP Manual*.

All Provisional ACLs shall be subject to verification using the Verified ACL calculated in accordance with the verification process set forth in Section 5.12.11.1.2 of the *NYISO Services Tariff*. The RIP is responsible for uploading into the DRIS the interval billing meter data of the SCR for the Capability Period SCR Load Zone Peak Hours from the Capability Period in which the SCR was enrolled with a Provisional ACL, beginning with hours that fall between the meter installation date for the SCR enrolled with a Provisional ACL through the end of the Capability Period in which the SCR was enrolled with a Provisional ACL. Any Load supported by generation produced from a Local Generator, other behind-the-meter generator, or other supply source located behind the SCR's meter operating during the applicable Capability Period SCR Peak Load Zone Hours may not be included in the SCR's metered Load values reported for the verification of its Provisional ACL.

For a resource with a Provisional ACL, if twenty (20) or more Capability Period SCR Load Zone Peak Hours occur during the period between the meter installation date ~~for a resource with a Provisional ACL~~ and the end of the Capability Period, the NYISO shall calculate a Verified ACL from the Provisional ACL verification data as the average of the resource's highest twenty hourly loads taken from the relevant interval metered load dataset reported to the DRIS by the RIP.

For a resource with a Provisional ACL, if there are fewer than twenty (20) applicable Capability Period SCR Load Zone Peak Hours occurring during the period between the meter installation date ~~for a resource with a Provisional ACL~~ and the end of the Capability Period, the NYISO shall set the Verified ACL equal to the Provisional ACL from the SCR enrollment.

Failure by a RIP to report required interval data for the Provisional ACL verification process in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff* shall result in the Verified ACL being set to zero for the Capability Period in which the resource was enrolled with a Provisional ACL.

The Verified ACL will be used in the calculation of the SCR's performance factor, and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential deficiency charges.



In accordance with Section 5.14.2.3.1 of the *NYISO Services Tariff* SCRs enrolled with a Provisional ACL shall be subject to potential deficiency charges as a result of overstating the Provisional ACL and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under 5.14.2 as an Installed Capacity Supplier, including but not limited to those that may result from the invalid enrollment of the SCR, failure to timely report a Qualified Change of Status Condition, and the underperformance of the SCR in the RIP portfolio. Where a single SCR's participation in the ICAP/SCR program gives rise to more than one potential shortfall for a specific month, the ISO shall assess to the RIP the deficiency charge calculated using the greatest shortfall identified by the NYISO for that month.

Pursuant to Section 5.12.12.2 of the *NYISO Services Tariff* SCRs enrolled with a Provisional ACL ~~shall~~ may also be subject to potential sanctions ~~in accordance with Section 5.12.12.2 of the *NYISO Services Tariff*~~ for failure to report the metered Load data required for verification of the Provisional ACL. The SCR may also be subject to a financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

#### **4.12.4.2.1 Continued Use of a Provisional Average Coincident Load**

A SCR enrolled with a Provisional ACL may be enrolled with a Provisional ACL in subsequent Capability Periods in accordance with Section 5.12.11.1.2 of the *NYISO Services Tariff*.

The Provisional ACL may be applicable to a SCR for up to three (3) consecutive Capability Periods, when enrolled with the same RIP, beginning with the Capability Period in which the SCR is first enrolled with the RIP. If the SCR is enrolled by another RIP in a subsequent Capability Period and the SCR is still eligible to enroll with a Provisional ACL, the enrolling RIP is required to enter a meter installation date when enrolling the SCR.

A SCR enrolled with a Provisional ACL that reported metered Load data for twenty (20) or more of the Capability Period SCR Load Zone Peak Hours is not eligible to enroll with a Provisional ACL in the next equivalent Capability Period. When interval billing meter data from the Prior Equivalent Capability Period necessary to compute the ACL is available in the DRIS and a different RIP is enrolling the SCR in the next equivalent Capability Period the enrolling RIP may request that the NYISO use the existing interval billing meter data in accordance with Section 4.12.4.2.2 of this *ICAP Manual* for enrollment of the SCR. When no such interval billing meter data or insufficient data exists in the DRIS, the RIP enrolling the SCR in the next equivalent Capability Period is eligible to enroll the SCR with a Provisional ACL.

#### **4.12.4.2.2 Request for SCR Meter Data: ACL Data Request Enrollment Procedures**

Beginning with the 2014 Summer Capability Period, when a RIP does not have and cannot obtain the interval billing meter data from the Prior Equivalent Capability Period necessary to compute an ACL for enrollment of a SCR, the RIP may enroll the SCR using existing data in the DRIS, to the extent the necessary data is available in the DRIS, by requesting such data from the NYISO (“ACL data request enrollment”). The DRIS Provisional ACL Eligibility Import will indicate whether the ACL data necessary for enrollment of a SCR exists in the DRIS (refer to the *NYISO DRIS User’s Guide* for details on this import).

Below is a summary of the process the RIP is required to take to enroll a SCR using existing data from the DRIS. A more detailed description of the ACL data request enrollment process is provided in the *NYISO DRIS User’s Guide*.

- The request to use existing ACL data and the meter installation date of the SCR shall be included as part of the enrollment file upload to the DRIS upon the initial enrollment of the SCR by the RIP.
- An ACL data request enrollment that passes validations as part of the enrollment file upload to the DRIS shall be placed in a *Pending* enrollment request status, which will require further action by the RIP to be taken following the close of SCR enrollment and before the close of Aggregation Management as specified in the ICAP Event Calendar and DRIS Event Calendar.
- The RIP will be required to approve or decline the use of existing ACL data as specified in the *NYISO DRIS User’s Guide*.
  - When a RIP approves, the RIP is required to enter additional enrollment values for the SCR prior to acceptance by the DRIS.
  - If the RIP declines, the SCR is not enrolled.
- All ACL data request enrollments that have not been acted on by the RIP (i.e., approved or declined) by the close of Aggregation Management will be automatically declined or denied by the DRIS and the SCRs associated with the ACL data request enrollments will not be enrolled.
- A RIP that declines an ACL data request enrollment for a SCR, or an enrollment that is declined by the DRIS, may not subsequently enroll the SCR using RIP obtained interval billing meter data for the remainder of the Capability Period. The same RIP may make another request to use existing interval meter data from the DRIS during subsequent enrollment windows within the same Capability Period.

### 4.12.4.3 Changes to ACL

#### 4.12.4.3.1 Increase to ACL: Incremental ACL

A RIP may increase the ACL of a SCR in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* by reporting the qualifying increase, the Incremental ACL value, on the enrollment upload to the DRIS for the first month of enrollment with an Incremental ACL. The RIP may also report an increase to the declared value of a SCR that meets the criteria of a SCR Load Change Reporting Threshold as defined in Section 2.19 of the *NYISO Services Tariff*. The Incremental ACL must be reported for each subsequent month that the RIP reports a change to the SCR enrollment within the Capability Period. When the Incremental ACL crosses into the following Capability Period, the RIP must report the Incremental ACL value for the first month of enrollment within the following Capability Period and each subsequent month within that Capability Period that the RIP reports a change to the SCR enrollment within the Capability Period.

When a RIP enrolls a SCR using the ACL data request enrollment process set forth in Section 4.12.4.2.2 of this *ICAP Manual*, the RIP may report an Incremental ACL value for the SCR upon viewing and approving the use of existing ACL data.

All Incremental ACLs shall be subject to verification using the Verified ACL calculated in accordance with the verification process set forth in Section 5.12.11.1.5 of the *NYISO Services Tariff*. The RIP is responsible for uploading into the DRIS the required interval billing meter data of the SCR for each month's Monthly SCR Load Zone Peak Hours from the Capability Period in which the SCR was enrolled with an Incremental ACL. Such Monthly SCR Load Zone Peak Hours shall be posted to the NYISO website and imported into the DRIS during the time frame corresponding to the posting of the Capability Period SCR Load Zone Peak Hours in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff* and Section 4.12.4.1 of this *ICAP Manual*. Any Load supported by generation produced from a Local Generator, other behind-the-meter generator, or other supply source located behind the SCR's meter operating during the applicable Monthly SCR Load Zone Peak Hours may not be included in the SCR's metered Load values reported for the verification of its Incremental ACL.

Failure by a RIP to report required interval data for the Incremental ACL verification process in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff* shall result in the Verified ACL being set to zero for **all months within** the Capability Period in which the resource was enrolled with an Incremental ACL.

The Verified ACL will be used in the calculation of the SCR's performance factor, and all other associated performance factors (i.e., RIP and SCR Aggregation performance factors), and where applicable, potential deficiency charges.

Any SCR enrolled with an Incremental ACL that was required to perform in the first performance test in the Capability Period, may also be required to perform in the second performance test in the Capability Period in accordance with Section 5.12.11.1.5 of the *NYISO Services Tariff*. Subsequent to the first performance test in the Capability Period, the DRIS may be used by the RIP to identify SCRs required to perform in the second performance test, including SCRs enrolled with an Incremental ACL. The detailed process for identifying these SCRs is described in the *NYISO DRIS User's Guide*. When a SCR is required to test in both performance tests in the Capability Period, performance in both tests shall be used in the calculation of the SCR's performance factor and all other associated performance factors (i.e., RIP and SCR Aggregation performance factors), and where applicable, potential shortfalls and deficiency charges.

In accordance with Section 5.14.2.3.2 of the *NYISO Services Tariff* SCRs enrolled with an Incremental ACL shall be subject to potential shortfalls and deficiency charges as a result of overstating the Incremental ACL and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under 5.14.2 as an Installed Capacity Supplier, including but not limited to those shortfalls that may result from the invalid enrollment of the SCR, failure to timely report a Qualified Change of Status Condition, and the underperformance of the SCR in the RIP portfolio. Where a single SCR's participation in the ICAP/SCR program gives rise to more than one potential shortfall for a specific month, the ISO shall assess to the RIP the deficiency charge calculated using the greatest shortfall identified by the NYISO for that month.

Pursuant to Section 5.12.12.2 of the *NYISO Services Tariff* SCRs enrolled with an Incremental ACL ~~shall~~ may also be subject to potential sanctions ~~in accordance with Section 5.12.12.2 of the *NYISO Services Tariff*~~ for failure to report the metered Load data required for verification of the Incremental ACL and failure to report the metered Load data when the SCR is required to perform in the second test in the Capability Period. The SCR may also be subject to a financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

#### **4.12.4.3.2 Decrease to ACL: SCR Change of Status**

A RIP is required to report a decrease, to the ACL of a SCR, a SCR Change of Status, in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff* and Section 4.3.3.2 of this *ICAP Manual*.

When a RIP enrolls the SCR using the ACL data request enrollment process set forth in Section 4.12.4.2.2 of this *ICAP Manual*, the RIP must report, when applicable, a SCR Change of Status for the SCR upon viewing and approving the use of existing ACL data

when such SCR Change of Status begins or is occurring on the effective date of the SCR enrollment.

Any SCR enrolled with a SCR Change of Status that was required to perform in the first performance test in the Capability Period, may also be required to perform in the second performance test in the Capability Period in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff*. Subsequent to the first performance test in the Capability Period, the DRIS may be used by the RIP to identify SCRs required to perform in the second performance test, including SCRs with a SCR Change of Status. The detailed process of identifying these SCRs is described in the *NYISO DRIS User's Guide*. When a SCR is required to test in both performance tests in the Capability Period, performance in both tests shall be used in the calculation of the SCR's performance factor and all other associated performance factors (*i.e.*, RIP and SCR Aggregation performance factors), and where applicable, potential shortfall and deficiency charges.

Changes to ACL due to a reported SCR Change of Status as required per Section 4.3.3.2 of this *ICAP Manual* are also subject to in-period verification using actual hourly interval billing meter data for the applicable Capability Period.

In accordance with Section 5.14.2.3.3 of the *NYISO Services Tariff* a RIP that has enrolled a SCR that experiences a SCR Change of Status shall be subject to potential deficiency charges as a result of failing to timely report the SCR Change of Status and shall be subject to all other shortfalls and deficiency charges that may apply to the RIP under Section 5.14.2 as an Installed Capacity Supplier, including but not limited to those that may result from the invalid enrollment of the SCR, overstating the SCR's Provisional ACL or Incremental ACL, and the underperformance of the SCR in the RIP portfolio. Where a single SCR's participation in the ICAP/SCR program gives rise to more than one potential shortfall for a specific month, the ISO shall assess to the RIP the deficiency charge calculated using the greatest shortfall identified by the NYISO for that month.

Pursuant to Section 5.12.12.2 of the NYISO Services Tariff SCRs experiencing a SCR Change of Status ~~shall~~ may also be subject to a potential sanction ~~in accordance with Section 5.12.12.2 of the NYISO Services Tariff~~ for failure to report the metered Load data when the SCR is required to perform in the second test in the Capability Period. The SCR may also be subject to a financial sanction for failure to timely report a Qualified Change of Status Condition, in addition to the corresponding shortfall penalty as provided in Section 5.14.2.3.3 of the *NYISO Services Tariff*.

#### **4.12.4.4 Use of Generation by a SCR**

Only a Local Generator available to respond to the NYISO direction and effect a real time load reduction may be enrolled as a SCR ("enrolled SCR generator"). When a Local

Generator normally operates to serve its resource's Load, it may participate in the SCR program only to the extent that it can shift additional Load from the NYS Transmission System and/or distribution system onto the Local Generator at the direction of the NYISO.

In order for a RIP to enroll a SCR that uses an eligible Local Generator, any amount of generation that can reduce Load from the NYS Transmission System and/or distribution system at the direction of the NYISO that was produced by the Local Generator during the hour coincident with the NYCA or Locality peaks, upon which the Unforced Capacity Obligation of the LSE that serves that SCR is based, must be accounted for when the LSE's Unforced Capacity Obligation for the upcoming Capability Year is established. RIPs must provide this generator data annually to the NYISO on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar so that the ISO can adjust upwards the LSE Unforced Capacity Obligation to prevent double-counting. If a RIPs fails to report this generator data for the NYCA or Locality peaks, the generation operating during the NYCA/Locality peak hours becomes ineligible to participate as SCR capacity in the upcoming Capability Year. This reporting requirement applies only when the RIP is seeking to qualify generation produced by a Local Generator as Capacity to be enrolled in the ICAP/SCR program. The RIP is not required to report to the NYISO the amount of generation from the eligible Local Generator that was running on the NYCA or Locality peaks that is normally operating to serve the resource's load because this amount of generation is not eligible to qualify as Capacity that can be enrolled in the ICAP/SCR program.

The NYCA/Locality Peak Hour Load Generation Form is available on the NYISO Web site. The amount of generation produced by a Local Generator ~~on~~ during the NYCA and Locality Peak Hours must be timely reported on the NYCA/Locality Peak Hour Load Generation Form in accordance with NYISO Procedures in order for the enrollment of the SCR to be valid. RIPs may enroll the available capacity from a SCR's qualifying generation up to the level of the resource's Net ACL or Provisional ACL. The NYISO will notify the Transmission Owner in the Transmission District in which the SCR generator is located to report the amount of generation supplied during the NYCA/Locality peak hours that must be accounted for in the relevant customer's Load, the LSE's Load, the Transmission District's Load forecast, and the NYCA/Locality peak Load forecast for the applicable Capability Year.

#### 4.12.4.5 Testing of SCRs

Each SCR is required by the NYISO to demonstrate its maximum registered megawatt value in a test once in every Capability Period, such test not to exceed one clock hour on the date and at the time specified by the NYISO. A SCR enrolled with an Incremental ACL or a SCR Change of Status may be required to perform in both the first and second tests in the Capability Period in accordance with Sections 5.12.11.1.5 and 5.12.11.1.3.2 of the *NYISO Service Tariff*. Further detail is provided in Sections 4.12.4.3.1 and 4.12.4.3.2 of this *ICAP Manual*.

The RIP shall be eligible for Energy payments for the one-hour test provided the NYISO receives from the RIP all required data and that the RIP complies with other test-related



requirements in respect of the SCR. Two Capability Period tests shall be conducted within each Capability Period; the first test within the Capability Period will be conducted on the date and at the time designated by the NYISO between July 1 and August 31 for the Summer Capability Period, and between January 1 and the last calendar date of February for the Winter Capability Period; the second Capability Period test shall be conducted on the date and at the time designated by the NYISO, namely, in late September or October (Summer Capability Period) or late March or April (Winter Capability Period).

During the Summer Capability Period, the NYISO shall conduct the test in hours that correspond to the time boundaries of the Capability Period SCR Load Zone Peak Hours. During the Winter Capability Period, the NYISO shall conduct the test in hours that include one (1) hour before and one (1) hour after the actual hours included in the Capability Period SCR Load Zone Peak Hours, for that Winter Capability Period, not to exceed the time boundaries of the Capability Period SCR Load Zone Peak Hours.

All SCRs enrolled with and accepted by the NYISO on or before the date that is four business days prior to the date of the first test in the Capability Period (excluding the date of the test), such enrollment in any auction month within the Capability Period, must perform in the first test for each Capability Period in which the SCR is accepted on any date regardless of whether megawatts from the SCR had been offered prior to the date of the test.

For example, if the test was on a Friday on the 10th day of a month, SCRs enrolled with and accepted by the NYISO on or before the Monday prior to the 10th (i.e., accepted on the 6th), must perform the test. All SCRs enrolled with and accepted by the NYISO, such enrollment in any auction month within the Capability Period, that were not required to perform in the first Capability Period test shall perform in the second test within the Capability Period on the date and at the time specified by the NYISO regardless of whether megawatts from the SCR had been offered prior to the date of this test.

The only exception to the requirement to test is for a SCR that was (i) registered with and accepted by the NYISO in the last month of a Capability Period for enrollment in the following Capability Period and (ii) was not registered by another RIP for any month during the same Capability Period, in which case the SCR would not need to respond to a test in the month the registration was accepted but would need to respond to the test called by the NYISO for the following Capability Period for which the SCR is being enrolled.

If a RIP terminates the enrollment with the NYISO of a SCR prior to the date of a test (termed a *Former Enrolled SCR*), the RIP, at its election, may provide test data for the Former Enrolled SCR, if the Former Enrolled SCR performed the test. If the Former Enrolled SCR is enrolled by a different RIP in the same Capability Period, the new RIP may provide test data for the SCR for the test the SCR is eligible to perform in based on the enrollment date with the new RIP.

If neither RIP reports test data for the SCR, a value of zero (0) will be attributed to the SCR's performance in the computation of the SCR's performance factor, SCR specific

shortfalls and deficiency charges. If only one RIP reports test data for the SCR, that test data will be used in all associated performance calculations and evaluating the shortfall of RIP portfolio performance. If both RIPs provide test data for the SCR, the test data provided by the RIP that enrolled the SCR last in the Capability Period will be used in all performance calculations. ~~The test data reported for each the SCR by each RIP that enrolled the SCR in the Capability Period will be used in evaluating the shortfall of RIP portfolio performance for each RIP.~~

#### 4.12.4.6 Shortfall for RIP Portfolio Performance RIP Deficiency Determination

~~In accordance with Section 5.14.2.3.4 of the NYISO Services Tariff, each RIP's portfolio of SCRs will have its performance evaluated on a Load Zone basis for purposes of determining whether a RIP was deficient in providing the UCAP it had sold and was obligated to provide during any month in the Capability Period. Each SCR's performance in the test and events will be considered when determining RIP portfolio performance. This evaluation will be based on the Installed Capacity Equivalent of the greatest load reduction of the portfolio performance of achieved by its Special Case Resource SCRs on a Load Zone basis during a single hour in a test or event called by the ISO during the Capability Period. A RIP will not be charged with a deficiency charge if the total performance of its individual Special Case Resources in a Load Zone eligible to be sold within its committed supply meets or exceeds the total capacity sold by the RIP in that Load Zone, in accordance with the NYISO Services Tariff. The Installed Capacity Equivalent of the greatest load reduction during a single hour is then converted to the UCAP equivalent of the greatest performance during a single hour in the Load Zone and compared to the UCAP sold for each month of the Capability Period. Within a Load Zone, if the UCAP equivalent of the greatest performance of the RIP's Special Case Resource SCRs during a single hour is less than the total amount of UCAP sold by the RIP for a month in a eligible to be sold in the applicable Capacity Capability Period a Auction or a Monthly Auction and certified prior to that month's ICAP Spot Market Auction, the UCAP sold in that month's ICAP Spot Market Auction, or the UCAP sold as or through a Bilateral Transaction and certified prior to that month's ICAP Spot Market Auction, the RIP did does not meet its full commitment. A shortfall for the month shall be identified in UCAP terms, and the RIP will be subject to a deficiency penalties charge equal to one and one-half times the applicable Market-Clearing Prices of Unforced Capacity determined using the applicable ICAP Demand Curve for that ICAP Spot Market Auction times the amount of its shortfall for each month as applicable to any Installed Capacity Resource.~~

~~Each Special Case Resource's performance in the test and event will be considered when determining RIP deficiencies. The calculation of the deficiency penalty shall utilize the greater of the quantity of capacity it proves is available during (i) the test called by the NYISO and (ii) any event within the same Capability Period, such quantity termed, "Maximum Demonstrated MW Reduction."~~

Within a Capability Period, for RIPs with ~~Special Case Resource~~SCRs that have reported a for which the NYISO has received a SCR Change of Status, in months where the SCR Change of Status is in effect, the performance of the ~~Special Case Resource~~SCR shall be based on the ~~reduced~~Net ACL. For RIPs with SCRs that have enrolled with an Incremental ACL, in months where the Incremental ACL is in effect, the performance of the SCR shall be based on the Verified ACL. For RIPs with SCRs that have enrolled with a Provisional ACL, in months where the Provisional ACL is in effect, the performance of the SCR shall be based on the Verified ACL. For all other SCRs enrolled by the RIP, the performance of the SCR shall be based on the enrolled ACL. In months prior to the beginning of the onset of the Change of Status, the performance of the Special Case Resource shall be based on the ACL immediately prior to the month in which the reduction pursuant to a Change of Status began. In months in which load increases due to the end of a Change of Status event, the performance of the Special Case Resource shall be based on the ACL established in accordance with the ICAP Manual Section 4.3.3.3.

~~A RIP will be subject to deficiency charge in any month it sells more capacity than the sum of the Maximum Demonstrated MW Reduction for all Special Case Resources sold within a Load Zone in the same Capability Period. A RIP also will be deficient if New Special Case Resources are include in UCAP certified for a sale in any auction other than an ICAP Spot Market Auction or included in a Bilateral Transaction that is certified by both parties, and if the RIP oversold a Special Case Resource with a Provisional ACL as defined under Services Tariff Section 5.14.2.~~

When a RIP is subject to multiple deficiency charges for the same SCR for the same Capability Period, the ISO shall assess to the RIP only the greatest deficiency charge related to such SCR. The NYISO shall apply the following procedure to the determination of the RIP portfolio performance when the RIP is subject to multiple deficiency charges for the same SCR for the same months within the Capability Period. When a SCR has previously been assessed a deficiency charge for an ineligible enrollment, a Provisional ACL enrollment, Incremental ACL enrollment, or SCR Change of Status enrollment, the SCR shall be removed from both the UCAP equivalent of the greatest performance during a single hour and the UCAP sales during the determination of the RIP portfolio performance for the applicable months within the Capability Period.

The performance during the test ~~or event~~ of ~~Special Case Resource~~SCRs that move from one RIP (~~termed the “Initial RIP”~~) portfolio to another RIP (~~termed the “Final RIP”~~) portfolio will be credited to the RIP that was required to demonstrate the SCR performance in that test that has the Special Case Resource registered to it at the time of the event or test. If the NYISO identifies a RIP ~~deficiency portfolio performance shortfall, an Initial~~the RIP shall have an opportunity to demonstrate to the NYISO (aa) that a ~~Special Case Resource~~SCR that was a resource of the ~~Initial~~RIP was registered with a ~~Final~~another RIP at the time of an event or test, and (bb) the performance of the SCR during the test when it was enrolled with another RIP the portion of the RIP's sales attributable to such Special Case Resource for the month under review. Provided such demonstration is to the satisfaction of the NYISO, the portion of such ~~Special Case Resource~~SCR's sales performance will ~~not~~ be used in the computation of the ~~Initial~~RIP's ~~deficiency charge portfolio performance~~ for the month.

The performance of capacity resources registered with and accepted by the NYISO subsequent to the test in July or August (Summer Capability Period) or January or February (Winter Capability Period) will only apply to month(s) in (x\*) which the added resources participated and (y) the Capability Period for which the ~~Resource-SCR~~ was tested, not every month in the Capability Period. ~~Individual Special Case Resources will be subject to derating as described below.~~

#### 4.12.4.7 Reporting Partial Sales

A RIP that sells less than one hundred percent (100%) and more than zero percent (0%) of its total registered MW may identify the portion of each SCR that constitutes the sale. The RIP must import any such identification into the DRIS within five (5) business days following posting of the ICAP Spot Market Auction results on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar. Nothing in the preceding sentence shall diminish a RIP's obligation to provide data regarding SCRs within a Mitigated Capacity Zone, including pursuant to *ICAP Manual* Section 5.15.2. SCRs identified by a RIP as not sold in the month of an event will not have their performance during event hours counted toward their performance factors. If a RIP does not provide the information within the specified period, each SCR of a RIP applicable to a sale (for example, at the PTID if the PTID is identified in the sale) will be considered as sold at its full registered MW value. UCAP values will be calculated for each SCR in accordance with Sections 4.12.2.1 and ~~4.12.1.14.12.2.2~~ of this *ICAP Manual*.

#### 4.12.4.8 Reporting SCR Performance Data

Performance for each SCR shall be reported for all hours during all called SCR events and one-hour tests in a Capability Period. Each Capability Period, the NYISO will calculate performance factors for each SCR based on all of the following values from the Prior Equivalent Capability Period and the Capability Period preceding the Prior Equivalent Capability Period: (a) the best set of four (4) consecutive hours in each mandatory event of four hours or more, (b) all hours for mandatory events of less than four hours, and (c) all required one-hour test data.

The RIP shall report the performances of each SCR individually directly into the DRIS 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](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

The NYISO shall track each SCR's performance in accordance with the procedures contained in this Section ~~Error! Reference source not found.4-12~~. Performance measurements will be calculated in accordance with Sections 4.12.2.1 and ~~4.12.1.14.12.2.2~~ of this *ICAP Manual*.

If SCR data is not received by the NYISO in the form and manner and within the time period prescribed for any of the hours used for performance measurement, those hours will be

treated as forced outage hours unless the SCR was previously identified as not committed for that month. If a resource (including one that ceases to be registered with the NYISO or a resource of the RIP at the time of the test) does not perform the test, or if required test data is not received by the NYISO within the specified time period after a test, the hour test period will be treated as a forced outage hour. All hours, including those in excess of the hours used for performance measurement, including tests, will be used to determine Energy payments in accordance with Section ~~4.12.74.12.8~~, statistics for NYISO internal use, the computation of deficiency charges, and as the basis for various external reports, and for other purposes in accordance with the *NYISO Services Tariff*.

In the event that a SCR located at a retail customer was in operation (in the case of a Local Generator) or providing Load reduction (in the case of interruptible Load), at the time of the NYCA system or Transmission District peak upon which the Minimum Unforced Capacity Requirement of the LSE serving that customer is based, the LSE's Minimum Unforced Capacity Requirement shall be increased by the amount of Load that was served or interrupted by the SCR.

#### **4.12.4.9      Adjustments ~~for Demand Reductions During~~ Affecting SCR Load Zone Peak Hours**

Prior to the calculation of the applicable ACL, adjustments to the metered load of a SCR shall be made for: (a) Load reductions resulting from participation in a Transmission Owner's demand response program, (b) Load reductions resulting from participation in the NYISO Day Ahead Demand Response Program (DADRP), or, (c) participation in the NYISO Demand Side Ancillary Services Program (DSASP), during any of the Capability Period or Monthly SCR Load Zone Peak Hours for the applicable Capability Period. The adjustments shall be made, as described in each section below, to the corresponding metered load values of the SCRs as reported to the DRIS by the RIP at enrollment or when reporting Provisional ACL or Incremental ACL verification data.

Applicable adjustments to the metered load of a SCR, as described below, shall be made prior to the beginning of each Capability Period following the upload of the applicable Capability Period SCR Load Zone Peak Hours for that Capability Period and the Monthly SCR Load Zone Peak Hours for each month within that Capability Period, as specified on the DRIS and ICAP Event Calendars.

Applicable adjustments to the metered load for a SCR shall be incorporated into the applicable ACL calculation at the time of the successful import of enrollment or verification data by the RIP (refer to the *DRIS User's Guide* for details). If a modification is made to any adjusted metered load values reported by a Transmission Owner for a Transmission Owner demand response program or by the NYISO for one of NYISO's economic demand response programs, DADRP or DSASP, associated with a SCR, the applicable ACL shall be recalculated upon successful import of such changes.

Modifications may be made by the Transmission Owners and/or the NYISO to the reported adjustments when the verification data reporting period occurs for resources with a Provisional ACL or an Incremental ACL. Modifications may also be made by the



Transmission Owners and/or the NYISO to the reported adjustments during each monthly enrollment period, provided the resource was not enrolled with a Provisional ACL or Incremental ACL and the resource has not already been enrolled in an auction month within the Capability Period.

It is the responsibility of the RIP to resolve any issues regarding adjustments for participation in a Transmission Owner's demand response program with the Transmission Owner's contacts prior to the close of each monthly enrollment period or verification data reporting period. Any issues with adjustments related to NYISO economic demand response program participation must be resolved prior to the close of each monthly enrollment period or verification data reporting period by contacting the NYISO Stakeholder Services. Adjustments to the ACL for any unresolved issues between a RIP and Transmission Owner or a RIP and the NYISO will not be permitted after the monthly enrollment period or verification data reporting period closes.

#### **4.12.4.9.1 Adjustments for ~~Demand Reductions in a~~ Transmission Owner's Demand Response Program During Affecting SCR Load Zone Peak Hours**

The authorized Transmission Owners that administer demand response programs shall import into the DRIS verified Load reductions that occurred during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. The Transmission Owners shall report the Transmission Owner account number and verified Load reductions for each Capability Period or Monthly SCR Load Zone Peak Hour for each of the resources enrolled in its demand response program(s).

When the period for upload of verified Load reductions begins, Transmission Owners must provide contact information to the NYISO for the person(s) that the RIPs should contact to resolve any issues with adjustments for its demand response program data reported into the DRIS. The NYISO shall make this contact information available in the *General Information* section of the *Demand Response* folder on the NYISO Web site at:  
[http://www.nyiso.com/public/markets\\_operations/market\\_data/demand\\_response/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/demand_response/index.jsp)

The NYISO shall use the Transmission Owner account number to identify the SCR for which a Transmission Owner adjustment will be made to one or more hours used in the calculation of the applicable ACL. If a SCR is enrolled in more than one Transmission Owner demand response program, or in the NYISO Day Ahead Demand Response Program, for which a Load reduction is reported for the same hour, the highest Load reduction reported by a Transmission Owner or verified Load reduction from a DADRP schedule, will be used to adjust that hour's metered load reported by the RIP.

#### 4.12.4.9.2 Adjustments for ~~Demand Reductions in the~~ NYISO Day Ahead Demand Response Program ~~During Affecting~~ SCR Load Zone Peak Hours

The NYISO shall import into the DRIS, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*, verified Load reductions in response to a Day Ahead Demand Response Program (“DADRP”) schedule that occurred during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. If a SCR is also enrolled in one or more Transmission Owner demand response programs for which a Load reduction is reported for the same hour, the highest Load reduction occurring in either the DADRP or as reported by a Transmission Owner, will be used to adjust that hour’s metered Load reported by the RIP.

#### 4.12.4.9.3 Adjustments for ~~Demand Reductions in the~~ NYISO Demand Side Ancillary Services Program ~~During Affecting~~ SCR Load Zone Peak Hours

The NYISO shall import into the DRIS the DSASP Baseline MW, in accordance with Section 5.12.11.1.1 of the *NYISO Services Tariff*, for verified Load reduction of a SCR in the Demand Side Ancillary Services Program (“DSASP”) during any of the Capability Period or Monthly SCR Load Zone Peak Hours used in the calculation of the applicable ACL for the Capability Period and/or used in the calculation of a Monthly ACL for SCRs reporting Incremental ACL verification data. If a RIP also reports the Load of the SCR for the same hour, the Load of the SCR to be used in the calculation of the applicable ACL will be the higher of the DSASP Baseline MW or the Load reported by the RIP. If a SCR is also enrolled in one or more Transmission Owner demand response programs for which a Load reduction is reported for the same hour, the highest Load reduction reported by a Transmission Owner will be added to the Load of the SCR reported by the RIP and the Load of the SCR to be used in the calculation of the applicable ACL will be the higher of the DSASP Baseline MW or the sum of the Load reported by the RIP and the highest Transmission Owner Load reduction.

### 4.12.5 NYISO Notification Procedures

The NYISO will provide twenty-one (21) hour-ahead notification if notification is provided by 3:00 PM ET, or twenty-four (24) hour notice otherwise, and two (2) hour notice, as required by this *ICAP Manual* (and described in Section 4.12.4, above), to the RIP. The former notification will be provided after 11:00 A.M. day-ahead, when the Day-Ahead Market closes. The NYISO commits not to use the day-ahead notification of potential need to operate indiscriminately but rather only when the Day-Ahead Market indicates potential serious shortages of supply for the next day in accordance with the Emergency Operations Manual. The day-ahead notice may occur on a weekend day or a holiday, as needed.

The NYISO shall provide notice no less than two (2) hours ahead of required operation or interruption, in the manner described in Section 4.12.4, above. Requested hours of operation within the two hour notification window and/or beyond the maximum 4 hours obligation

will be considered voluntary for purposes of performance measurement. Notifications will normally be specified from, and to, specific clock hours, on-the-hour. Performance calculations and energy payments will normally be calculated for energy reductions for whole clock hours; i.e. from 13:00 to 14:00, 14:00 to 15:00, etc. In cases where events are initiated other than on-the-hour, energy payments will be computed for partial hours but performance calculations will only be calculated for whole hours.

RIPs shall contact their SCRs through whatever communication protocols are agreed to between the SCRs and the RIPs. Communication from the RIP to the SCR is the responsibility of the RIP. Such communication is subject to review by the NYISO. Any misrepresentation of the NYISO program in such notifications is subject to sanction by the NYISO, up to and including disqualification as a RIP.

RIPs claiming SCR Unforced Capacity shall provide the NYISO with their phone and Internet contact information that allows for notification by the NYISO at any time. RIPs shall confirm receipt of both instances of notification (day-ahead and two (2) hour) within 1 hour. Such confirmation must be received in accordance with the instructions in the notification and must confirm the relay of proper notification by the RIPs to their SCR clients, where applicable.

#### **4.12.6 Capacity Adjustment Procedures**

~~Seasonal performance factors will be calculated in accordance with Attachment J of this ICAP Manual. Existing Special Case Resources that have a performance record from the Prior Equivalent Capability Period will have initial Unforced Capacity values determined based on the Attachment J calculation. All new Special Case Resources will be assigned Unforced Capacity values based on the ratio of the sum of all Unforced Capacity values to the sum of all Installed Capacity values of all Special Case Resources in the associated RIP's portfolio of resources in accordance with calculations set forth in Section 3.3 of Attachment J. A Special Case Resource that fails to respond to RIP notification by reaching pledged Load reduction capability or maximum pledged generator output following notice from the NYISO to the RIP, or that fails to provide output for the period required by the NYISO or four (4) hours, whichever is less, will be considered forced out (for unperformed hours) for purposes of calculating the Unforced Capacity value of the Special Case Resource for future Obligation Procurement Periods. See Attachment J of this ICAP Manual for further explanation and calculation of a Special Case Resource's Unforced Capacity value.~~

~~A Special Case Resource that requested and for which the NYISO has granted written permission to reach pledged Load reduction or maximum output in more than two (2) hours will be considered forced out in the amount of Unforced Capacity not backed by Energy for the period starting two (2) hours following the notice from the NYISO to the RIP until the Special Case Resource attains pledged Load reduction or maximum output.~~

~~A Special Case Resource (SCR) that cannot operate for the full four (4) 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 and will have its Unforced Capacity rating calculated accordingly.~~



**4.12.74.12.6 Additional RIP Requirements**

In addition to other requirements under this *ICAP Manual*, a RIP claiming Unforced Capacity from a SCR for sale into a NYISO-administered auction or for its own requirements (in the case of a RIP that is an LSE) shall fulfill the following obligations:

- Obtain authorization from each SCR to allow the RIP to act on behalf of the SCR during each Capability Period or for the term of the agreement. The authorization must specify that the RIP has authority to sell the SCR's Unforced Capacity, act as the organization of record for all financial transactions, and shall be signed by an authorized representative of the SCR. Upon request, the RIP shall provide such authorization to the NYISO promptly and, if a date is specified by the NYISO in the request, such information must be received by the NYISO on or before the date.
- Notify the NYISO when the SCR will be unavailable to provide its Load reduction, due to a SCR Change of Load or SCR Change of Status in accordance with Section 4.3.3 of this *ICAP Manual*, as recorded in the DRIS, in accordance with this *ICAP Manual*.
- Report operating data to the NYISO for all hours during all called SCR events and one-hour tests in a Capability Period and as required in Section 4.4.7 by uploading data directly into the DRIS in the format required by and in accordance with the *NYISO DRIS User's Guide*
- Perform all auction functions in the NYISO's ICAP software program as required, and make certifications to the NYISO each month as provided in Section 4.7.
- Document reductions in Load with interval billing meter readings on customer Load (or with readings on the Local Generator(s) in the case of a SCR whose performance is calculated under Section 4.12.1. of [this ICAP Manual](#)) for the period following the NYISO notice under Section 4.12.4. See the Emergency Demand Response Program Manual for metering requirements. In the event that Energy made available from SCR Unforced Capacity is a small percentage of the total metered Load at the location of the SCR, such that it may not be clearly reflected by meter reads alone, the NYISO will also accept operations logs to augment metered output to ensure accurate verification.
- The RIP (including a Transmission Owner that is a RIP) shall retain all interval meter readings upon which it bases its certification of compliance, for a period of three (3) years.

**4.12.84.12.7 ~~Special Case Resource~~ SCR Demand Response Payments**

Each time a SCR is called to perform in an event or test, the NYISO shall pay the Resource's RIP an Energy payment, provided the NYISO receives in the DRIS the required data for the SCR performance and demand response energy payments in the required format, no later than 5:00:00 P.M. on the seventy-fifth (75th) day following the date of each event or test, on the date set forth on the ICAP Event Calendar and DRIS Event Calendar. Payment for SCR Load reductions are conditioned upon verification of performance for the time period requested by the NYISO. If a SCR participates in either the DADRP or DSASP and

concurrently participates as a SCR, the energy payment to the RIP will be adjusted if the resource was committed in the Day-Ahead Market to perform in either the DADRP or DSASP at the same time as the SCR activation. The Customer Base Load (CBL) calculation and methodology are specified in the *NYISO Emergency Demand Response Manual* (available from the NYISO Web site at [http://www.nyiso.com/public/markets\\_operations/documents/manuals\\_guides/index.jsp](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

The RIP must use and adhere to the upload file format to report required data the NYISO will use to compute performance and energy payment calculations. The format of and specifications for the file are outlined in the *NYISO DRIS User's Guide*.

The Energy payment shall be computed for the amount of Load reduction occurring during the event measured in terms of the Energy supplied during each clock hour of its performance. If the NYISO requests performance by SCRs for more than four (4) hours, the RIP for each responding SCR shall be paid for the duration of its verified performance in the event in accordance with this *ICAP Manual*, starting with the hour specified by the NYISO as the starting time of the activation, or, in the event that the NYISO specified that the Demand Reduction begin as soon as possible, starting with the whole clock-hour in which the SCR began its response. Payment for participation in events and tests shall be computed in accordance with *NYISO Services Tariff* Section 5.12.11.1 pursuant to ISO Procedures. Payment for SCR Load reductions are conditioned upon verification of performance for the time period requested by the NYISO.

If the NYISO requests performance by SCRs in an event for four (4) hours or less, each SCR that provided a verified load reduction for the duration of the event shall be paid as if it had been activated for four (4) hours. Each SCR that reduces demand shall receive a payment consistent with the scarcity pricing rules, in accordance with this Section [4.12.74-12.8](#), for the duration of the NYISO request or for four (4) hours, whichever is greater, starting with the hour specified by the NYISO as the starting time of the event, or, if the NYISO specified that the Demand Reduction begin as soon as possible, starting with the hour that the SCR began to perform. Except in the case of a test, each SCR shall be paid the zonal Real-Time LBMP per MWh of Load reduced for the four-hour minimum payment period. Payment for SCR Load reductions is conditioned upon verification of performance for the time period requested by the NYISO.

SCR Minimum Payment Nominations would be eligible to participate in the LBMP price setting under the scarcity pricing rules, which permit Bids, or in this case Minimum Payment Nominations, to set prices if at least one (1) MW of SCR Capacity is needed to satisfy the total reserve requirement, following performance and verification. In the event that a SCR's Minimum Payment Nomination total for the number of hours of performance requested by the NYISO or four (4) hours, whichever is greater, in accordance with this *ICAP Manual* exceeds the LBMP revenue that RIP receives for the SCR for the corresponding number of hours, that SCR will be eligible for a Bid Production Cost Guarantee to make up the difference.

When more than one SCR has submitted the highest Minimum Payment Nomination selected by the NYISO to perform during an event, the NYISO will specify the number of

megawatts of the amount of SCRs that must perform during that event such that all such resources are selected in the same zone provided that single source resources shall be taken without being called upon for partial performance.

To continue the example listed in Section 4.12.3, each SCR that was called to perform in Zone J would be paid the greater of its Minimum Payment Nomination or the applicable LBMP per MW per hour of requested performance following verification of performance of Demand Reduction. When at least one (1) MW of SCR Capacity is needed to satisfy the total reserve requirement, the Minimum Payment Nominations submitted by these Resources may be considered when determining the LBMP.

For event performance data received from a RIP at least ten (10) business days prior to the date of the initial settlement invoice for the month in which the event occurred (Initial Event Data Submission Date), the NYISO will, on a best efforts basis, process the received event performance data such that Energy payments for the event are reflected in the initial settlement invoice. Event data received after the Initial Event Data Submission Date referenced above shall be processed for the true-up or final invoice.

#### **4.12.94.12.8 NYISO Verification**

The NYISO retains the right to audit any records kept by the RIP, the Transmission Owner, and the SCR that are used to support the RIP's certification of compliance with the procedures set forth in this Section [Error! Reference source not found.4.12](#). The RIP shall be obligated to ensure the SCR complies and fully cooperates with any NYISO audit. Before auditing a SCR, the NYISO will first request information from the RIP that registered the SCR for the period(s) in question, and give the RIP an opportunity to provide information on behalf of the SCR.

### **4.3 Maintenance Scheduling Requirements (Sections 5.12.3 and 5.12.11 NYISO Services Tariff)**

#### **4.3.3 Special Case Resources (Section [Error! Reference source not found.4.12](#) of this ICAP Manual)**

Although SCRs are not subject to maintenance scheduling requirements, each SCR must be capable of being interrupted on demand at the direction of the NYISO, as specified in Section 5.12.11.1 of the *NYISO Services Tariff* and this *ICAP Manual*. The RIP for a SCR that meets the criteria of the SCR Load Change Reporting Threshold as defined in Section 2.19 of the *NYISO Services Tariff*, that is not capable of being interrupted on demand at the direction of the NYISO shall report such an occurrence to the NYISO in accordance with the requirements set forth in Sections 4.3.3.1 and 4.3.3.2 of this *ICAP Manual*.

**4.3.3.1 Reporting SCR Change of Load**

RIPs shall report a SCR Change of Load, as defined in Section 2.19 of the *NYISO Services Tariff*, in accordance with Section 5.12.11.1.3.1 of the *NYISO Services Tariff* and meeting the criteria of a Qualified Change of Load Condition as defined in Section 2.17 of the *NYISO Services Tariff*.

Procedures for identifying a SCR Change of Load for individual SCRs are defined in the table below. The RIP is required to document a SCR Change of Load and when the total Load reduction for SCRs that have a SCR Change of Load within the same Load Zone is greater than or equal to 5 MWs, the RIP shall report the SCR Change of Load for each SCR in accordance with Section 5.12.11.1.3.1 of the *NYISO Services Tariff*.

<b>Qualified Change of Load Condition</b>	<b>SCR Change of Load Reporting Requirement</b>
<b>(i)</b> The SCR is expected to have a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than seven (7) consecutive days.	Submit SCR Change of Load form no later than 5:00:00 P.M. two (2) business days prior to the onset of the SCR Change of Load. Include start and expected end dates of the SCR Change of Load.
<b>(ii)</b> The SCR is experiencing a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than seven (7) consecutive days.	Submit SCR Change of Load form no later than 5:00:00 P.M. on the seventh calendar day of the onset of the SCR Change of Load. Include date when the SCR Change of Load began and the expected end date.
<b>(iii)</b> The SCR experienced an unanticipated reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold for a period greater than seven (7) consecutive days within any month in which the SCR sold capacity or adjoining months in which the SCR sold capacity in either month.	Submit SCR Change of Load form no later than 5:00:00 P.M. on the day following the day the RIP became aware of the SCR Change of Load, include start and end dates of the SCR Change of Load.

The SCR Change of Load report shall be in writing on the SCR Change of Load form and must be received via electronic mail to [SCR\\_Registration@nyiso.com](mailto:SCR_Registration@nyiso.com). RIPs shall also notify the NYISO in writing as soon as practicable but no later than 5:00:00 P.M. two (2) business days following the date on which the SCR's load returns from a SCR Change of Load. The RIP's written notice shall be on the SCR Change of Load form and must be received via electronic mail to [SCR\\_Registration@nyiso.com](mailto:SCR_Registration@nyiso.com).

**4.3.3.2 Reporting SCR Change of Status**

RIPs shall report a SCR Change of Status, as defined in Section 2.19 of the *NYISO Services Tariff* in accordance with Section 5.12.11.1.3.2 of the *NYISO Services Tariff* and meeting the criteria of a Qualified Change of Load Condition as defined in Section 2.17 of the *NYISO Services Tariff*. RIPs shall report a SCR Change of Status by both providing the required information on the SCR Change of Status form for the NYISO's receipt and uploading the required information into the Demand Response Information System (DRIS) using the enrollment file.

Qualified Change of Status Condition	SCR Change of Status Reporting Requirement
(i) The SCR is expected to have a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that will extend for a period of greater than sixty (60) consecutive days.	<ul style="list-style-type: none"> <li>• 1) Submit SCR Change of Status form during enrollment for the first month in which the SCR Change of Status is expected and 2) Upload SCR Change of Status value and any change to the SCR declared value into the DRIS.</li> <li>• If enrollment for a month has already closed:               <ul style="list-style-type: none"> <li>• Report partial auction sales through the DRIS when SCR declared value is greater than Net ACL.</li> <li>• Submit SCR Change of Status form with start date.</li> <li>• Upload SCR Change of Status value and any change to the SCR declared value into the DRIS during next SCR enrollment period.</li> </ul> </li> </ul>
(ii) The SCR is experiencing a reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that is expected to continue for a total period that is greater than sixty (60) consecutive days.	<ul style="list-style-type: none"> <li>• 1) Submit SCR Change of Status form during enrollment for the first month in which the SCR Change of Status is expected and 2) Upload SCR Change of Status value and any change to the SCR declared value into the DRIS.</li> <li>• If enrollment for a month has already closed:               <ul style="list-style-type: none"> <li>• Report partial auction sales through DRIS when SCR declared value is greater than Net ACL.</li> <li>• Submit SCR Change of Status form with start date.</li> <li>• Upload SCR Change of Status value and any change to the SCR declared</li> </ul> </li> </ul>

<p align="center"><b>Qualified Change of Status Condition</b></p>	<p align="center"><b>SCR Change of Status Reporting Requirement</b></p>
	<p align="center">value into the DRIS during next SCR enrollment period.</p>
<p>(iii) The SCR has experienced an unanticipated reduction in total Load that meets or exceeds the SCR Load Change Reporting Threshold that has existed for a period greater than sixty (60) consecutive days in which the SCR sold capacity.</p>	<ul style="list-style-type: none"> <li>• 1) Submit SCR Change of Status form during enrollment for the first month in which the SCR Change of Status is still in effect and 2) Upload SCR Change of Status value and any change to the SCR declared value into the DRIS.</li> <li>• If enrollment for the month has already closed:               <ul style="list-style-type: none"> <li>• Report partial auction sales through the DRIS when SCR declared value is greater than Net ACL.</li> <li>• Submit SCR Change of Status form with start date.</li> <li>• Upload SCR Change of Status value and any change to the SCR declared value into the DRIS during next SCR enrollment period.</li> </ul> </li> <li>• If the SCR has a Qualified Change of Status Condition that persists for more than sixty (60) days:               <ul style="list-style-type: none"> <li>• Submit SCR Change of Status form including start and end dates no later than 5:00:00 P.M. two (2) business days after the load reduction that meets the criteria of the SCR Change of Status has exceeded sixty (60) days.</li> </ul> </li> <li>• If the SCR Change of Status occurred in the past:               <ul style="list-style-type: none"> <li>• Submit SCR Change of Status form including start and end dates no later than 5:00:00 P.M. on the last day of the Capability Period in which the SCR Change of Status began.</li> <li>• The NYISO will not accept a SCR Change of Status after 5:00:00 P.M. on the last day of the Capability Period in which the SCR Change of Status began.</li> </ul> </li> </ul>



For each month in which (a) the SCR Change of Status is in effect for a SCR and (b) the RIP imports into the DRIS any change in the enrollment for the SCR, the RIP shall upload to the DRIS (i) the SCR Change of Status value and (ii) any corresponding changes in the declared values. While a SCR Change of Status is in effect, the Net ACL for the month will be equal to the applicable ACL plus Incremental ACL minus the reduction amount reported for the SCR Change of Status on the enrollment file for the month. If the NYISO receives from the RIP a SCR Change of Status form and the RIP does not make corresponding changes to the SCR's enrollment in the DRIS, the NYISO shall place the SCR in *Under Review* status beginning with the auction month in which the SCR Change of Status first took effect or the next immediate auction month for which the SCR enrollment period is open, whichever is greater. Any such SCR under review in the DRIS remains associated with the RIP that enrolled it; however, the SCR cannot be used in an auction or auction-related activity. For any SCR with a SCR Change of Status for at least one day in a month, the reduced ACL shall be applied for the entire month.

There shall be no relief from penalties or other obligations for failure to perform if the RIP was an Installed Capacity Supplier in any month within the Capability Period.

#### **4.3.3.3 Increasing ACL in Conjunction with Change of Status Event Ending within Same Capability Period as Initiated**

For a SCR that increases its load due to the end of a SCR Change of Status event in the same Capability Period in which the reduction pursuant to a SCR Change of Status report began, the RIP for a SCR whose ACL was reduced in accordance with [Error! Reference source not found.4.3.3.1](#), may (a) increase the SCR's ACL for any months remaining in the Capability Period in which the reduction occurred, (b) provided such increase corresponds to the 4.3.3.2 reduction, (c) in an amount not to exceed the ACL for that Capability Period prior to the 4.3.3.2 reduction. The RIP shall use the SCR Change of Status form to report an increase in load associated with the previously reported SCR Change of Status. In addition, for the first month after the SCR Change of Status has ended, the SCR Change of Status value reported in the enrollment file uploaded to the DRIS must be zero, and any corresponding change to the declared value associated with the SCR Change of Status must be reported in the DRIS on or before the monthly deadline for resource enrollment changes. If a RIP reports an SCR's declared value that is greater than the revised ACL reported on the SCR Change of Status form, and the RIP has not uploaded to the DRIS on or before the enrollment deadline a revised SCR Change of Status value and a revised declared value, the NYISO shall change the status of the SCR in the DRIS to *Under Review*.

#### **4.3.3.4 Option for ACL if a Change of Status Event in Like Capability Period Different than Initiated**

For a SCR returning from a Change of Status in an equivalent Capability Period other than the Capability Period in which it began to reduce load in respect of a Change of Status report, the RIP for that SCR may claim as an ACL for that current Capability Period the

ACL for the equivalent Capability Period established in the enrollment file imported into the DRIS (whether by the SCR's current or former RIP) immediately prior to reporting the Change of Status.

#### **4.3.3.5 Procedures for Determining Fluctuations in Load Attributed to Weather**

RIPs shall report a SCR Change of Status as defined in section 2.19 of the NYISO Services Tariff. For SCRs with an applicable ACL greater than or equal to 500 kW, RIPs may optionally use the following procedure to demonstrate that the SCR experienced a reduction in total load that is attributable to the weather:

##### **1. Identifying historical relationship between SCR load kW and temperature**

- 1.1. Identify the nearest weather station to the SCR from the list of weather stations posted on the NYISO website.
  - 1.2. For each month from the Prior Equivalent Capability Period, 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.
  - 1.3. For each load kW value recorded in step 1.2, identify the maximum temperature of that day at the weather station identified in step 1.1 using the load forecast weather data posted on the NYISO website.
  - 1.4. Develop a temperature-load model in Excel based on the load kW and temperature identified in step 1.2 and step 1.3.
    - 1.4.1. Create a scatter chart in Excel with temperature values on the x-axis and load kW values on the y-axis.
    - 1.4.2. Add trend line in Excel to this scatter chart. Select the Excel Trend/Regression Type "Linear". Select the Excel options to "Display equation on chart" and "Display R-squared value on chart". After this step, Excel should display a trend line on the scatter chart, equation of the trend line, and the associated R-squared value.
    - 1.4.3. Stop if the best R-squared value of the trend line identified in step 1.4.2 is less than 0.70. This SCR is not weather sensitive 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. For a better fit of the trend line, in addition to the monthly peaks, it is recommended that at least eight data values are used in the 60 – 80 degree temperature range for the Summer Capability Period and 30 – 50 degree temperature range for the Winter Capability Period. It is also recommended that the data values from the Capability Period SCR Load Zone Peak Hours be used to identify a better 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 may be attributable to weather.
- 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 is not attributable to weather, and may be required to report a SCR Change of Status based on the criteria 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)

### 4.4.7 Special Case Resources (Section [Error! Reference source not found.4.12](#) of this ICAP Manual)

RIPs shall report performance data of each SCR individually directly into the DRIS, 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](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

The RIP must upload the file into the DRIS on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar.

#### 4.4.7.1 SCRs that are Curtailable Load Resources

RIPs shall report to the NYISO on or before 5:00:00 P.M. on the seventy-fifth (75th) day after each called event or test, performance data of SCRs that were requested to reduce Load in any month, using an import file formatted as specified in the *NYISO DRIS User's Guide* (available from the NYISO Web site at

[http://www.nyiso.com/public/markets\\_operations/documents/manuals\\_guides/index.jsp](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

For example, the NYISO must receive from the RIP SCRs performance data on or before 5:00:00 P.M. on June 29 pertaining to the month of April during which the SCR was called upon to reduce Load on April 15.

If the RIP does not import performance data for any SCRs into the DRIS by 5:00:00 P.M. on the seventy-fifth (75th) day after the date of each event or test, the NYISO (a) will attribute zero performance to those Resources for purposes of satisfying the Resource's capacity obligation, determining energy payments, and calculating shortfalls and deficiency charges, and (b) may impose sanctions pursuant to the *NYISO Services Tariff*.

#### **4.4.7.2 Special Case Resources that are Generators**

RIPs shall report to the NYISO on or before 5:00:00 P.M. on the seventy-fifth (75th) day after the date of each called event or test, performance data of SCRs that are Generators and were requested to operate in any month, using an import file formatted as specified in the *NYISO DRIS User's Guide* (available from the NYISO Web site at [http://www.nyiso.com/public/markets\\_operations/documents/manuals\\_guides/index.jsp](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

For example, the NYISO must receive from the RIP performance data for SCRs that are Generators on or before 5:00:00 P.M. on June 29 their data pertaining to the month of April if they were called upon to operate on April 15.

If the performance data for any SCRs are not imported by the RIP into the DRIS by 5:00:00 P.M. on the seventy-fifth (75th) day after the date of each event or test, the NYISO (a) will attribute zero performance to those Resources for purposes of satisfying the Resource's capacity obligation, determining energy payments, and calculating shortfalls and deficiency charges, and (b) may impose sanctions pursuant to the *NYISO Services Tariff*.

#### **4.4.7.3 Reporting of Special Case Resource 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*).

### **4.8 Bidding, Scheduling, and Notification Requirements (Sections 5.12.7 and 5.12.11 *NYISO Services Tariff*)**

#### **4.8.5 Special Case Resources (Section [Error! Reference source not found.4.12](#) of this *ICAP Manual*)**

SCRs are not subject to daily bidding, scheduling, and notification requirements.

For every month in which a SCR supplies Unforced Capacity, the RIP must offer to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity the SCR is supplying to the NYCA. The NYISO must receive from the RIP a Minimum Payment Nomination associated with such Unforced Capacity. This Minimum Payment Nomination will act as a strike price, allowing the NYISO to call on a specific amount of SCRs to perform, based on price and NYCA zone in accordance with the NYISO Emergency Operations Manual. The Minimum Payment Nomination will remain in effect through the month and is not subject to change. SCR Minimum Payment Nomination submission procedures are detailed in Section [4.12.3](#).

A RIP must notify the NYISO if a SCR is not able to provide the full amount of Load reduction associated with the Unforced Capacity that was uploaded to the Demand Response Information System (DRIS) in the enrollment file. See Sections [4.3.3](#) and [4.12.14.12.6](#) of this *ICAP Manual*.

<p>The NYISO will retire this technical bulletin upon approval of the acceptance of the proposed revisions for Docket No. ER14-39 to the ICAP Manual.</p>
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