

Manual 4

Installed Capacity Manual

Issued: April 2020



8. Planning reserve requirements during month m for the Control Area c corresponding to reserve requirements necessary for this Control Area c to meet NERC Resource Adequacy and applicable reliability council criteria, taking into account all sales of Capacity from this Control Area c (PRcm).

In cases in which any of the above data items is forecasted to vary from hour to hour within a month, the forecasted monthly value submitted for that data item should be the forecasted value of that data item during the peak load hour for that month for Control Area c.

To calculate the Net Projected Capacity of each Control Area System Resource for a specific month, the NYISO shall use the following formula: NPCcm = CAPcm + EPcm + LMcm - PLcm - EScm - LScm - PMcm - PRcm.

Net Projected Capacity shall be used to determine the amount of Unforced Capacity a Control Area System Resource can provide using the equations in Section 3.4 of Attachment I to this 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 to this *ICAP Manual*.

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 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 set forth in the NYISO Services Tariff and ISO Procedures, including the obligation to meet the qualifications and comply with the procedures described below.

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 Website:

http://icap.nviso.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.

Prior to enrolling any SCRs, a RIP must register with the NYISO as an ICAP Supplier. The RIP must request enrollment for each SCR in DRIS, obtain a resource identification number for each SCR it enrolls, and subsequently the NYISO must approve the request, before a SCR's enrollment becomes 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 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 https://www.nyiso.com/manuals-tech-bulletins-user-guides 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 truncated 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.

Enrolling SCRs with multiple account numbers located at a single service address

The method of enrollment for SCRs with multiple Transmission Owner or electric service provider account numbers located at a single end-use location (service address) is dependent on the metering configuration and account information of each Demand Side Resource.

Where a single end-use location (service address) has more than one Demand Side Resource with both (i) a unique Transmission Owner or electric service provider account number and (ii) an interval meter, each such Demand Side Resource must be enrolled as a separate SCR.

A single Transmission Owner or electric service provider account number may not be separated into multiple SCRs.

More than one Demand Side Resource located at a single end-use location (service address) may enroll as a single SCR only when:(i) the end-use location is associated with a single legal entity, (ii) each individual Demand Side Resource has a unique Transmission Owner or electric service provider account number, (iii) the individual Demand Side Resources do not have individual interval meters, and (iv) the end-use location does have an interval meter that aggregates all of the associated individual Demand Side Resource Transmission Owner or electric service provider account numbers located at the service address.

Examples:

A single multi-unit building with multiple account numbers:

Multiple Demand Side Resources (units) that wish to be a SCR must aggregate to form a single SCR where (i) the Demand Side Resources (units) are associated with a single legal entity, and (ii) the Demand Side Resources (units) do not have individual interval meters but the building does have an interval meter that aggregates all the associated individual Transmission Owner or electric service provider account numbers at the service address.

Multiple Demand Side Resources (units) that wish to be a SCR may not aggregate to form a single SCR where (i) the Demand Side Resources (units) are associated with a single legal entity, and (ii) the Demand Side Resources (units) each have individual interval meters.



Multiple Demand Side Resources (units) that wish to be a SCR may not enroll as a single SCR where (i) each Demand Side Resource (unit) at the single end-use location is separately owned, regardless of the end-use location's type of metering because, although there is one end-use location, each unique account number is associated with a separate legal entity.

A commercial retail chain with multiple end-use locations and account numbers: Each individual end-use location that wishes to be a SCR must be enrolled separately as a single SCR using its unique Transmission Owner or electric service provider account number because, despite common ownership, the stores are not at a single end-use location.

(The examples above are provided only to demonstrate potential application of enrollment requirements. The examples do not limit application of the requirements discussed above.)

All unique Transmission Owner or electric service provider account numbers aggregated into a single SCR must be provided to the NYISO using the "Enrolling Multiple Account Numbers" form located on the NYISO website at:

https://www.nyiso.com/demand-response RIPs are required to submit the form each time the enrollment of such SCRs is requested in DRIS. The NYISO must receive the completed form via electronic mail (at SCR Registration@nyiso.com) by the SCR enrollment deadline as specified in the ICAP and DRIS Event Calendar.

Assignment of Performance Factors

The NYISO will assign performance factors as follows:

For a RIP enrolled in the SCR program in the Prior Equivalent Capability Period, the RIP performance factor for the current Capability Period shall be computed by the NYISO in accordance with Section <u>4.12.2.1.3</u> of this *ICAP Manual*.

For a RIP that did not participate in the SCR program in the Prior Equivalent Capability Period the RIP shall be assigned the SCR program performance factor for the current Capability Period as computed by the NYISO in accordance with Section 4.12.2.1.4 of this ICAP Manual.

For an individual SCR that was not enrolled in the 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 performance factor of the RIP that enrolls the SCR in the current Capability Period.

The NYISO shall 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.

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 the following URL: https://www.nyiso.com/manuals-tech-bulletins-user-guides, 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's request to enroll must be accepted by the NYISO before the enrollment is effective. Once accepted, a SCR that is enrolled for the first time in the NYISO's SCR program is a new SCR. A new SCR that has been enrolled in a Mitigated Capacity Zone is subject to the NYISO's buyer side mitigation rules. If a RIP fails to provide SCR data that the ISO needs to conduct the calculation, the SCR will cease to be eligible to offer or sell Installed Capacity. Unless determined to be exempt by the NYISO, a new SCR enrolled in a Mitigated Capacity Zone shall be subject to an Offer Floor, in



accordance with Section 23.4.5.7.5 of the NYISO Services Tariff, 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, regardless of its RIP. Offer Floors shall be adjusted annually in accordance with Section 23.4.5.7 of the NYISO Services Tariff.

SCRs that are subject to an Offer Floor are eligible to only be offered in the ICAP Spot Market Auction. UCAP from SCRs that are subject to an Offer Floor may not be used to cover UCAP offered in a Capability Period Auction, Monthly Auction, or through a Bilateral Transaction. If a SCR that is subject to an Offer Floor 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 this SCR will constitute a shortfall.

SCRs with Local Generators

SCRs that participate with a Local Generator must enroll as either response type B or 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 SCR that participates with a Local Generator, the RIP is certifying to the NYISO, on behalf of itself and the SCR, that the SCR has obtained all necessary regulatory approvals for the Local Generator to operate for the purposes of reducing the Load being supplied from the NYS Transmission System and/or distribution system during all NYISO initiated performance tests and events.

SCRs that use Local Generators that are operating to fully serve their Load do not qualify for participation in the 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 SCR program at a level that exceeds the SCR's applicable ACL baseline that was used for enrollment in the program.

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 Section 4.12.2.1 of this *ICAP Manual* shall report to the NYISO performance test and event data, as specified in Section 4.12.4.8 of this ICAP Manual. 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 Section 4.12.2.1 of this *ICAP Manual* must only report the amount of generation that reduces Load from the NYS Transmission System and/or distribution system during an event or test as the performance of the SCR.

SCR Response Type for enrollment in DRIS

A RIP must identify a "Response Type" for each SCR it enrolls in DRIS based upon: (i) how the SCR will reduce its Load during a NYISO initiated performance test or event; and (ii) the meter configuration of the SCR's facility. Each SCR must be enrolled as: Response Type C (Curtailment), Response Type G (Generation), or Response Type B (Both).

A SCR must enroll as Response Type C when it reduces the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event only by curtailing the facility's Load, and submits the entire facility's net meter data as evidence of Load reduction (as specified in Section 5.1.2 of the NYISO's Emergency Demand Response Program ("EDRP") Manual).

A SCR must enroll as Response Type G when it reduces the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event only by using a Local Generator, and submits the Local Generator's meter data (not entire facility's net meter data) as evidence of Load reduction (as specified in Section 5.1.2 of the NYISO's EDRP Manual).

A SCR must enroll as Response Type B when:

- (i) it uses both a Local Generator and curtailment of the facility's Load to reduce the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event, and submits
 - (a) the entire facility's net meter data, or
 - (b) the net of entire facility's Load meter data and Local Generator's meter data as evidence of Load reduction;

or

- (ii) it uses only a Local Generator to reduce the Load supplied by the NYS Transmission System and/or distribution system during a NYISO initiated performance test or event, and submits
 - (a) the entire facility's net meter data, or



(b) the net of entire facility's Load meter data and Local Generator's meter data as evidence of Load reduction.

A SCR enrolled as Response Type G may not change its enrollment to either Response Type B or Response Type C within a single Capability Period. A SCR enrolled with either a Response Type B or a Response Type C may not change its enrollment to Response Type G within a single Capability Period.

4.12.2.1. Determination of ICAP, Performance Factors, UCAP, and Installed Capacity Equivalent of UCAP Sold

A RIP provides 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) calculating performance factors for a SCR, SCR Aggregation, RIP, and for the SCR program, (3) determining the UCAP value of the SCR Aggregation to which a SCR is assigned, and (4) determining the Installed Capacity Equivalent of UCAP sold of the SCR.

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:

Where:

ICAP_{gm} = the Installed Capacity that Resource g is qualified to provide in month m;

 ACL_{gm} = the applicable enrollment ACL, for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;

 CMD_{gm} = the committed maximum demand for Resource g applicable to month m, using data reported in the enrollment file uploaded to DRIS;



 TLF_{av} = 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 then current retail electric rates approved by the PSC and stored in the DRIS for deliveries of Energy at voltage level v by the relevant 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 required tests, in accordance with Section 4.12.4.5 of this ICAP Manual, in which the SCR was required to reduce load 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 SCR's best four consecutive hours in all of its mandatory events and required one-hour tests , in accordance with Section 4.12.4.5 of this ICAP *Manual*. 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 performance factor of the RIP.

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 minimum hourly raw performance factor of a SCR shall be zero. 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:

$$SCR PF = \sum_{h \in NLRHgbe} \min \left(\frac{\max \left(ACL_{gh} - h_{gh} \circ \right)}{ACL_{gh} - CMD_{gh}} \circ \right), 1$$

$$NLRH_{gbe}$$

Where:



SCR PF_{BCg}= the performance factor of the Resource g with a response type B or C for the current Capability Period;

ACL $_{
m gh}$ = the enrollment Net ACL or the Verified ACL, for Resource $m{g}$ applicable to hour $m{h}$ from the applicable Capability Period, using data reported in the DRIS;

 ML_{gh} = 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_{gh} = 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_{gbe} = the number of hours from the applicable Capability Period, up to four per mandatory event plus any hour in which Resource g was required to demonstrate load reduction as part of one or more performance tests called by the NYISO where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

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, in accordance with Section 4.12.4.5 of this ICAP Manual, 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, in accordance with Section 4.12.4.5 of this ICAP Manual.

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 minimum hourly raw performance factor of a SCR shall be zero. The hourly capacity reduction is equal to the metered generator output for the event or test hour. The minimum hourly capacity reduction for an individual SCR shall be zero.



The precise formulation is as follows:

$$SCR \ PF = \sum_{h \in NLRHgbe} \frac{\max\left(ML_{gh}, o\right)}{ACL_{gh} - CMD}_{gh}, 1$$

$$NLRH_{gbe}$$

Where:

SCR PF_{Gg} = the performance factor of the Resource g with a response type G for the current Capability Period;

 ACL_{gh} = 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;

MLgh = the metered output of the Local Generator, less any output from the generator used to support the load of the SCR in accordance with Section 4.12.2 of this ICAP *Manual* subheading "SCRs with Local Generators", for Resource **q** for hour **h** from the applicable Capability Period, using data reported in the performance data file uploaded to DRIS;

 CMD_{gh} = 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;

 $NLRH_{gbe}$ = 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 q was required to demonstrate load reduction as part of one or more performance tests called by the NYISO, where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

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, in accordance with Section 4.12.4.5 of this ICAP Manual;

e = the Prior Equivalent Capability Period in which Resource g was enrolled and wasobligated to respond to mandatory events and required tests, in accordance with Section 4.12.4.5 of this ICAP Manual.



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, calculated in accordance with Section 4.12.2.1.2 of this ICAP Manual, 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 last enrolled the SCR in the Prior Equivalent Capability Period.

The precise formulation is as follows:

$$RIP \ PF = \frac{V}{MaxDV_{RIPSCRg}}$$

Where:

RIP PF_r= the performance factor of the RIP *r* for the current Capability Period;

Proportional DV_{RIPSCRg} = the sum of the maximum declared value of each Resource genrolled 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;

 $MaxDV_{RIPSCRg}$ = 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. **SCR Program Performance Factor**

The 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, calculated in accordance with Section 4.12.2.1.2 of this ICAP Manual, 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:

Where:

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

Proportional DV_{ALLSCRg} = the sum of the proportional declared values for each Resource g enrolled in the SCR program in the Prior Equivalent Capability Period;

 $MaxDV_{ALLSCRg}$ = the sum of the maximum declared value for each Resource g enrolled in the SCR program in the Prior Equivalent Capability Period;

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, in accordance with Section 4.12.4.5 of this *ICAP Manual*, 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.

To compute the hourly raw performance of the SCR Aggregation for each hour that the SCRs assigned to the SCR Aggregation were required to reduce load in a mandatory event and required one-hour tests, in accordance with Section 4.12.4.5 of this ICAP Manual, from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period, the hourly raw performance of the SCR Aggregation shall be the sum of the capacity



reduction value from all SCRs assigned to the SCR Aggregation for the month divided by the difference between the sum of the ACLs and the sum of the CMDs from all of the SCRs assigned to the SCR Aggregation for the month.

The adjusted SCR Aggregation performance factor for each hour is the lesser of the hourly raw performance factor or one. The SCR Aggregation performance factor for the month shall be the result of the sum of the hourly adjusted performance factors during the best four consecutive hours in each mandatory event and one-hour tests, in accordance with Section 4.12.4.5 of this ICAP Manual, 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 the SCR Aggregation was required to reduce load for the mandatory events, up to a maximum of four consecutive hours per mandatory event, and required one-hour tests, in accordance with Section 4.12.4.5 of this ICAP Manual, from the Prior Equivalent Capability Period and the Capability Period immediately preceding the Prior Equivalent Capability Period.

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:

$$\frac{\sum_{h \in NLRHabe} \min \left(\frac{\sum_{g \in ah} \left(max \left(ACL_{BCgh} - ML_{BCgh}, 0 \right) + max \left(ML_{Ggh}, 0 \right) \right)}{\sum_{g \in ah} \left(ACL_{gh} - CMD_{gh} \right)}, 1 \right)}{NLRH_{abe}}$$

$$SCR \ Aggregation \ PF_{am} = \frac{NLRH_{abe}}{NLRH_{abe}}$$

Where:

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

 ACL_{BCgh} = the enrollment Net ACL or the Verified ACL, for the SCR g with response type B or response type C assigned to the SCR Aggregation a, using data reported in the DRIS 1;

 ML_{BCgh} = the metered Load for SCR g with response type B or response type C assigned to the SCR Aggregation a for hour h, using data reported in the performance data file uploaded to DRIS;



 ML_{Ggh} = the metered output of the Local Generator, less any output from the generator used to support the load of the SCR in accordance with Section 4.12.2 of this ICAP *Manual* subheading "SCRs with Local Generators", for Resource **g** for hour **h** from the **applicable Capability Period**, using data reported in the performance data file uploaded to DRIS;

 ACL_{gh} = the enrollment Net ACL or the Verified ACL, for the SCR g assigned to the SCR Aggregation *a*, using data reported in the DRIS;

 CMD_{gh} = 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;

 $NLRH_{abe}$ = 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 demonstrate load reduction as part of one or more performance tests called by the NYISO, where, in accordance with Section 4.12.4.5 of this ICAP Manual, the SCR may elect to demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test;

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, in accordance with Section 4.12.4.5 of this *ICAP Manual*;

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, in accordance with Section <u>4.12.4.5</u> of this *ICAP Manual*;

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:

$$UCAPContr \frac{SCR}{gm} = ICAP \frac{Q}{gm} \times SCR Aggregation PF_{am}$$

Where:

 $UCAPContr^{SCR}_{gm}$ = the Unforced Capacity that Resource g is qualified to provide in month *m*, as part of the SCR Aggregation;

 $ICAPQ_{gm}$ = 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_{am} = 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:

$$UCAPContr \frac{RIP}{gm} = ICAP \frac{Q}{gm} \times RIP PF \frac{Q}{gm}$$

Where:

UCAPContr $^{RIP}_{gm}$ = the Unforced Capacity that Resource g is qualified to provide in month *m*, as part of the SCR Aggregation;

 $ICAP_{gm}^{Q}$ = 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 g = 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;

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:

$$UCAP^{Q}_{am} = \sum_{am} (UCAPCo \frac{SCR}{gm}) + \sum_{am} (UCAPContr^{RIP}_{gm})$$

Where:

 $UCAPQ_{am}$ = the Unforced Capacity of that SCR Aggregation \boldsymbol{a} is qualified to provide in month **m**;

UCAPContr $^{SCR}_{gm}$ = 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 $^{RIP}_{gm}$ = 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;

SCR Installed Capacity Equivalent 4.12.2.1.8.

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:

$$ICE_{gm}^{SCR} = UCAPCont_{gm}^{SCR}$$
 Aggregation

Where:

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



 $UCAPContr^{SCR}_{gm}$ = 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*;

Aggregation PF_{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:

$$ICE \frac{RIP}{gm} = UCAPCont \stackrel{\underline{SCR}}{=} RIP PF$$

Where:

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

 $UCAPContr^{SCR}_{gm}$ = 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;

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 4.12.7 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), 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.

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.

When requested by the Transmission Owner, the NYISO may call SCRs to reduce Load in targeted sub-load pockets within Load Zone J for the Targeted Demand Response Program (TDRP) as specified in Section 6 of the NYISO's EDRP Manual. Response to TDRP events activated by the NYISO at the request of a Transmission Owner is voluntary. Response to a TDRP event will not be used to measure performance for either the SCR or the RIP.

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 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. The RIP must maintain records sufficient to demonstrate compliance with Section 5.1 of the NYISO's EDRP Manual and to confirm the meter installation date reported in DRIS.

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 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 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 SCR'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 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 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, failure to timely report a Qualified Change of Status Condition, and the underperformance of the SCR in the RIP portfolio. When a single SCR's



participation in the SCR program gives rise to more than one potential shortfall within the Capability Period, the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the NYISO Services Tariff.

Pursuant to Section 5.12.12.2 of the NYISO Services Tariff SCRs enrolled with a Provisional ACL may also be subject to potential sanctions 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 new 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 a mandatory event hour or in the first performance test in the Capability Period in accordance with Section 4.12.4.5, 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 demonstrate performance in either a mandatory event hour or in the first performance test, and then again in the second performance test in the Capability Period, performance from both test hours shall be considered 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. Provided, however, that with respect to the first performance test, the SCR may, in accordance with Section 4.12.4.5 of this ICAP Manual, demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test.

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 SCR program gives rise to more than one potential shortfall within the Capability Period, the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the NYISO Services Tariff

Pursuant to Section 5.12.12.2 of the NYISO Services Tariff SCRs enrolled with an Incremental ACL may also be subject to potential sanctions 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 performance 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 a mandatory event hour or in the first performance test in the Capability Period in accordance with Section 4.12.4.5, 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. When a RIP reports a SCR Change of Status for a SCR after the close of enrollment for the last month of the Capability Period, the SCR will not be required to perform in the second performance test, and shall be evaluated for a potential shortfall for SCR Change of Status; no sanction shall be applied for failure to report performance for the second performance test. 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 demonstrate performance in either a mandatory event hour or the first performance test, and then again in the second performance test in the Capability Period, performance from both test hours shall be considered 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 except when the SCR Change of Status is reported after the close of enrollment for the last month of the Capability Period as described above. Provided, however, that with respect to the first performance test, the SCR may, in accordance with Section



4.12.4.5 of this ICAP Manual, demonstrate its maximum enrolled megawatt value by relying on its load reduction in a mandatory event hour in lieu of participation in the first performance test.

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 SCR program gives rise to more than one potential shortfall within the Capability Period, the NYISO shall assess to the RIP the greatest deficiency charge for the Capability Period for the single SCR. The greatest deficiency charge for the Capability Period shall be the greatest sum of the monthly deficiency charges calculated for the single SCR from among the specific shortfall types identified under Section 5.14.2.3 of the NYISO Services Tariff.

Pursuant to Section 5.12.12.2 of the NYISO Services Tariff SCRs experiencing a SCR Change of Status may also be subject to a potential sanction for failure to report the metered Load data when the SCR is required to perform in the second performance 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 doublecounting. 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 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 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 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 SCR'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 enrolled megawatt value once in every Capability Period. The NYISO will accept as evidence of such demonstration the higher of its greatest load reduction either in a mandatory event hour or in a first performance test hour, provided such performance test did not exceed one clock hour on the date and at the time specified by the NYISO. In addition to demonstrating its maximum enrolled megawatt value once in every Capability Period as described above, a SCR enrolled with an Incremental ACL or a SCR Change of Status may also be required to perform in the second performance test in the Capability Period in



accordance with Sections 5.12.11.1.5 and 5.12.11.1.3.2 of the NYISO Services 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 performance test provided the NYISO receives from the RIP all required data and that the RIP complies with other performance test-related requirements in respect of the SCR. Two Capability Period performance tests shall be conducted within each Capability Period; the first performance test within the Capability Period will be conducted on the date and at the time designated by the NYISO between August 15 and September 7 for the Summer Capability Period, and between February 15 and March 7 for the Winter Capability Period; the second Capability Period performance 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). If there are no SCRs eligible or required to test in the second performance test, the NYISO may not conduct this second performance test.

During the Summer Capability Period, the NYISO shall conduct the performance 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 performance 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.

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 performance test in the Capability Period (excluding the date of the first performance test) must demonstrate performance either in the first performance test or in a mandatory event hour. Such demonstration is required regardless of whether the unforced capacity from the SCR had been offered prior to the date of the first performance test. The approval date of a SCR's enrollment can be viewed as described in Section 8.1.1 of the NYISO DRIS User's Guide. Any SCR enrolled and accepted by the NYISO on or before the date that is four (4) business prior to the date of the first performance test (excluding the date of the performance test) may elect to forego participation in the first performance test and, instead, utilize its greatest load reduction in a mandatory event hour for the purpose of demonstrating its maximum enrolled megawatt value for the Capability Period. SCRs that perform in a mandatory event prior to the first performance test retain the option to participate in the first performance test in the Capability Period.



For example, if the first performance 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 demonstrate performance either in the first performance test or in a mandatory event hour

Each SCR that is enrolled at any point in a Capability Period and was not required to demonstrate performance in the first performance test in a Capability Period shall perform in the second performance test within the Capability Period on the date and at the time specified by the NYISO regardless of whether unforced capacity from the SCR had been offered prior to the date of this second performance test. Any performance demonstrated by the SCR in a mandatory event in the Capability Period cannot be used as evidence of performance for the second performance test.

The only exception to the requirement for a SCR to demonstrate its maximum enrolled megawatt value for the Capability Period, 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 performance test in the month the registration was accepted but would need to demonstrate its maximum enrolled megawatt value during 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 performance test (termed a Former Enrolled SCR), the RIP, at its election, may provide performance test data for the Former Enrolled SCR, if the Former Enrolled SCR performed in the performance test. If the Former Enrolled SCR is enrolled by a different RIP in the same Capability Period, the new RIP may provide performance test data for the SCR for the performance test the SCR is eligible to perform in based on the enrollment date with the new RIP.

If neither RIP reports performance test data nor mandatory event data, when applicable, 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 performance test data or mandatory event data, when applicable, for the SCR, the greatest load reduction value determined for the SCR from that data will be used in all associated performance calculations; the load reduction value in the performance test shall be considered when evaluating the shortfall of RIP Portfolio Performance. If both RIPs provide performance test data or mandatory event data, when applicable, for the SCR, the greatest load reduction value determined for the SCR from the data provided by the RIP that enrolled the SCR last in the Capability Period



will be used in all performance calculations; the load reduction value in the performance test reported for the SCR by each RIP that enrolled the SCR in the Capability Period shall be considered in evaluating the shortfall of RIP portfolio performance for each RIP.

4.12.4.6. Shortfall for RIP Portfolio Performance

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 all performance tests 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 achieved by its SCRs on a Load Zone basis during a single hour in a performance test or event called by the NYISO during the Capability Period. The determination of the total load reduction for the first performance test hour shall only include the load reduction of SCRs that demonstrate and report performance during the first performance test. Mandatory event response used in lieu of a first performance test shall not be used in the determination of the total load reduction for the first performance test. 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 SCRs during a single hour is less than the total amount of UCAP sold by the RIP for a month in a Capability Period 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 a Bilateral Transaction and certified prior to that month's ICAP Spot Market Auction, the RIP did 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 charge, equal to one and onehalf 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.

Within a Capability Period, for RIPs with SCRs that have reported a SCR Change of Status, in months where the SCR Change of Status is in effect, the performance of the SCR shall be based on the 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.

When a RIP is subject to multiple deficiency charges for the same SCR for the same Capability Period, the NYISO shall assess 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 of capacity resources registered with and accepted by the NYISO subsequent to the first performance test conducted between August 15 and September 7(Summer Capability Period) or conducted between February 15 and March 7 (Winter Capability Period) will only apply to month(s) in (x) which the added resources participated and (y) the Capability Period for which the SCR was tested, not every month in the Capability Period.

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 <u>4.12.2.1</u> of this *ICAP Manual*.

4.12.4.8. **Reporting SCR Performance Data**

Performance for each SCR shall be reported for all hours during all mandatory SCR events and any required one-hour performance tests in which the SCR was required to reduce load in a



Capability Period. The RIP must upload the file into the DRIS, on or before 5:00:00 P.M. on the seventy-fifth (75th) day after each called event or test, on or before the date and time as specified in the ICAP Event Calendar and DRIS Event Calendar. 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.

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 performance test data. For SCRs called to perform in a mandatory event, the load reduction value used in performance factor calculations shall be selected as the higher of the greatest load reduction in any mandatory event hour or the load reduction demonstrated in the first performance test.

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

https://www.nyiso.com/documents/20142/3625950/DRIS_UG.pdf). The NYISO shall track each SCR's performance in accordance with the procedures contained in this Section 4.12. Performance measurements will be calculated in accordance with Sections <u>4.12.2.1</u> of this *ICAP Manual*.

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.

All hours, including those in excess of the hours used for performance measurement, including performance tests, will be used to determine Energy payments in accordance with Section 4.12.7, 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) in response to a SCR event or performance test, 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. Requesting a correction to SCR meter data

Each RIP must report accurate meter data for a SCR in accordance with Sections 5.12.5 and 5.12.11 of the NYISO Services Tariff and Sections 4.12.4.1, 4.12.4.2, 4.12.4.3 and 4.12.4.8 of this ICAP Manual. Meter data for each SCR must be reported on or before the date and time specified in the ICAP Event Calendar and DRIS Event Calendar. A RIP may not request correction of meter data (i) when it failed to report the required meter data by the deadline specified in the ICAP Event Calendar, (ii) when the meter data submitted was a placeholder for accurate information (e.g., the RIP does not have accurate meter data at the submission deadline and submits a value of zero or some other value for all required data solely in order to meet the deadline), or (iii) to correct falsified data.

Under exceptional circumstances as set forth below, and subject to NYISO evaluation, the NYISO may accept certain corrected meter data related to the enrollment and performance of a SCR that was previously submitted to the NYISO. The NYISO will review requests to correct a SCR's meter data on a case-by-case basis, and is under no obligation to accept the meter data correction requested by the RIP. The NYISO will consider correcting the meter data identified below. No other meter data will be corrected.

- For a SCR enrolled with an ACL (but not with a Provisional ACL or an Incremental ACL): The NYISO will consider correcting the SCR's net meter data used for purposes of establishing the Net Average Coincident Load for:
 - the current Capability Period,
 - the most recently closed Capability Period,
 - the prior equivalent Capability Period of the current Capability Period, or
 - the Capability Period immediately preceding the prior equivalent of the current Capability Period.
- For a SCR enrolled with either a Provisional ACL or an Incremental ACL: The NYISO will consider correcting SCR's net meter data used for purposes of establishing the SCR's Verified ACL for:
 - the most recently closed Capability Period,
 - the prior equivalent Capability Period of the current Capability Period, or



- the Capability Period immediately preceding the prior equivalent of the current Capability Period.
- Performance data reported for any hours during a SCR event or any required performance test in which the SCR was required to reduce load. The NYISO will consider correcting such data only from:
 - the current Capability Period,
 - the most recently closed Capability Period,
 - the prior equivalent Capability Period of the current Capability Period, or
 - the Capability Period immediately preceding the prior equivalent of the current Capability Period.
- CBL data reported for any hours during a SCR event or any required performance test in which the SCR was required to reduce load. The NYISO will, on a best efforts basis, process the received data such that Energy payments are reflected in the Final Bill Closeout period (see Sections 1.3 and 1.5 of the NYISO's Accounting and Billing Manual) for such event or performance test.

A RIP that requests a meter data correction is required to provide to the NYISO supporting documentation sufficient for NYISO to evaluate and validate the requested correction. Such information includes, but is not limited to:

- The SCR's hourly integrated meter Load data for each hour of the affected Capability Period(s) in Hour Beginning format;
- A letter from the SCR's Transmission Owner or Meter Services Entity (MSE) that read the meter confirming the accuracy of the meter data submitted by the RIP;
- A letter from a member of the RIP's executive team with the following:
 - Detailed explanation of the root cause of the inaccurate meter data for the SCR including, but not limited to, how the data error was identified by the RIP;
 - Detailed explanation of the procedures and processes the RIP has put in place to help prevent the error from recurring in the future, if any, since the error was identified; and
 - A statement attesting the accuracy of the corrected meter data.

A RIP may not request correction of the same meter data more than one time. If the NYISO receives, validates, and accepts a RIP's corrected meter data, that data can no longer be changed.



4.12.4.10. Adjustments 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 SCR 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.

> Adjustments for Transmission Owner's Demand Response Program 4.12.4.10.1. **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 on the NYISO Web site at:

https://www.nyiso.com/demand-response

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 Demand 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.

Adjustments for NYISO Day Ahead Demand Response Program 4.12.4.10.2. 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.

> **Adjustments for NYISO Demand Side Ancillary Services Program** 4.12.4.10.3. **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. 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 and dated 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. The authorization provided must clearly indicate the Transmission Owner account number of the SCR.
- The RIP must enroll the SCR with the facility's exact service address as listed on the electric utility bill it receives from the Transmission Owner or the electric service provider.
- 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.
- 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.
- Upon request, the RIP is required to provide to the NYISO the documentation described below for each SCR it enrolls no later than the date specified in the request. Failure of the RIP to timely submit the requested documentation may lead to the termination of the SCR's enrollment beginning with the next auction month and continuing until the NYISO has received the requested data and verified the accuracy of the resource's enrollment data.
 - Most recent electric utility bill for the Transmission Owner account number associated with the enrolled SCR. The utility bill must clearly indicate the Transmission Owner or electric service provider, Transmission Owner or electric service provider account number and the service address of the enrolled SCR. The electric utility bill must have been issued within two months of the calendar month in which the NYISO requested the documentation.
 - Documentation from the SCR's Transmission Owner or electric service provider evidencing the Load Zone and voltage service level of the enrolled SCR. This documentation can be the SCR's electric utility bill if the bill indicates the Load Zone and voltage service level for the resource.
 - Documentation demonstrating the load reduction plan for the SCR. A load reduction plan is the sequence of steps that the SCR intends to follow, and the Load reduction (in kW) expected to be achieved by each step, when called upon to reduce its Load being supplied from the NYS Transmission and/or distribution system, during a NYISO initiated event or performance test. A SCR's declared value for the auction month for which the NYISO requested the documentation must not exceed the sum of kW Load reductions expected from each step of the SCR's load reduction plan.



A sample load reduction plan is available on the NYISO website at: https://www.nyiso.com/documents/20142/3664627/Sample-Load-Reduction-Plan.pdf

• If the enrolled SCR participates with a Local Generator, documentation evidencing the Local Generator's nameplate capacity. Acceptable documentation includes the Local Generator's specification sheet as provided by the manufacturer.

4.12.7. 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 https://www.nyiso.com/manuals-tech-bulletins- user-guides).

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 4.12.7, 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.

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.

If the Demand Side Resource is a SCR, has fewer than five (5) CBL days for a NYISO initiated event or performance test and the RIP wishes to receive energy payments, the RIP must contact NYISO Stakeholder Services, at least five (5) business days prior to the deadline for importing event or test performance data into DRIS.



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.

4.12.8. 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 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.

4.13. **Existing Municipally-Owned Generation**

A municipal utility that owns generation in excess of its Minimum Installed Capacity Requirement, net of any Capacity provided by the New York Power Authority, may qualify to supply the excess Capacity as Unforced Capacity under the following conditions.

The municipal utility must:

- Provide the NYISO with the physical operating parameters of its generation capability;
- Operate the generation at the ISO's request; and
- Ensure that the Energy provided by the generation is deliverable to the New York State Power System. Only generation that was in service or under construction as of December 31, 1999 may qualify for the exemption from the bidding, scheduling, and notification requirements.

4.14. Unforced Capacity Deliverability Rights (UDRs) and External-to-Rest of State (ROS) **Deliverability Rights (EDRs)**

UDRs and EDRs are rights, as measured in megawatts, that are associated with certain new incremental transmission projects that provide a transmission interface to the NYCA or, in the case of EDRs, increase transfer capability over an existing transmission interface. External UDRs are associated with controllable interfaces between a NYCA and an External Control Area. Local UDRs