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# nyiso Installed Capacity Manual

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## **4.8 Bidding, Scheduling, and Notification Requirements (Section 5.12.7 ISO Services Tariff)**

On any day for which it supplies Unforced Capacity, each Installed Capacity Supplier (except as noted below) must schedule or Bid into the Day-Ahead Market, or declare to be unavailable an amount of Energy that is not less than the Installed Capacity Equivalent of the amount of Unforced Capacity it is supplying to the NYCA from each Resource that it uses to supply Unforced Capacity, rounded down to the nearest whole MW.

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

### **4.8.1 Generators and System Resources**

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

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

### **4.8.2 Energy Limited Resources**

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

An Energy Limited Resource must also provide the ISO with information concerning that Energy Limited Resource's upper operating limit, designating its desired operating level. Once the Energy Limited Resource has provided four (4) hours of Energy equivalent to its Installed Capacity commitment, the ISO will not call on it to provide additional Energy, absent an emergency. In the case of an emergency, the ISO may request an Energy Limited Resource for assistance, recognizing that the Energy Limited Resource may not be capable of responding.

### **4.8.3 Interruptible Load Resources**

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

#### **4.8.4 Existing Municipally-Owned Generation**

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

#### **4.8.5 Special Case Resources**

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

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

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

#### **4.8.6 Intermittent Power Resources**

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

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### **4.12 Special Case Resources**

Special Case Resources are Loads capable of being interrupted upon demand, and distributed generators, rated 100 kW or higher, that are not visible to the ISO's Market Information System. The Unforced Capacity of a Special Case Resource corresponds to its pledged amount of Load

reduction as adjusted by historical performance factors and as increased by the Transmission District loss factor . The calculation of this amount shall be made in accordance with Section 3.3 of Attachment J.

### **4.12.1 Claiming of Unforced Capacity and RIPs**

The Unforced Capacity of a Special Case Resource may be freely sold in Bilateral Transactions. However, such Unforced Capacity may not be claimed by an LSE towards satisfaction of its own Unforced Capacity requirement or be offered into an auction administered by the ISO unless there is a Responsible Interface Party (“RIP”)\* with respect to such Special Case Resource. RIPs are Market Participants that agree to be bound by 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 ISO for purposes of Minimum Payment Nomination, notification, dispatch, validation, and verification of Special Case Resources and the Unforced Capacity associated with Special Case Resources.

### **4.12.2 General Requirements**

Every Special Case Resource must submit a Special Case Resource commitment in accordance with the form in Attachment K and be accepted by the ISO as an Installed Capacity Supplier before its Unforced Capacity may be claimed by an LSE towards that LSE’s Unforced Capacity requirement or be offered in an auction administered by the ISO. Every Special Case Resources must submit a Special Case Resource commitment to the ISO in accordance with the schedule and requirements of Section 4.2. Special Case Resources must also submit a notification letter and obtain a point ID as required under Section 4.2.1.

A Special Case Resource that supplies Load reductions solely through the use of a distributed generator (whether or not operated in parallel with the NYCA) and that elects to measure such Load reductions by metering the output of such distributed generator under Section 3.3(b) of Attachment J, shall submit an appropriate DMNC test recorded on the appropriate form of Attachment D as part of its Special Case Resource commitment. All other Special Case Resources shall provide a Special Case Resource commitment in the form of Figure 1 of Attachment K. A Special Case Resource that supplies Load reductions solely through the use of a distributed generator and that elects to measure such Load reductions by metering the output of such distributed generator under Section 3.3(b) of Attachment J: (i) may not use a DMNC in calculating its Unforced Capacity that exceeds the total Load at the site of the distributed generator; (ii) must deduct from the output of such generator any auxiliary power consumed by the generator and supplied from an external source; and (iii) may not serve a load bank with the output of the generator when responding to ISO dispatch under Section 4.12.3.

Special Case Resources must meet the qualifications and comply with the procedures described below. RIPs claiming Unforced Capacity from Special Case Resources must comply with the requirements and procedures set forth below.

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\* RIPs fulfill functions similar to Curtailment Service Providers under the ISO’s Emergency Demand Response Program.

The Unforced Capacity of Special Case Resources may only be offered in auctions administered by the ISO or be claimed by an LSE towards its Unforced Capacity requirement in even increments of 100 kw (e.g., 590 kw of Unforced Capacity would be rounded down to 500 kw). However, Special Case Resources may be aggregated to minimize the effect of this requirement, provided that each such aggregation is identified as a single block of Unforced Capacity

### **4.12.3 Minimum Payment Nomination Requirements**

For each month in which a Special Case Resource supplies Unforced Capacity to the NYCA the RIP, or its assignee, must submit a Minimum Payment Nomination to the ISO that will reflect the minimum guarantee price the Special Case Resource will be paid if called upon to reduce Load equal to the Installed Capacity Equivalent of the amount of Unforced Capacity it has supplied. There is no minimum Minimum Payment Nomination and a Special Case Resource's Minimum Payment Nomination cannot exceed \$500/MWh. This Minimum Payment Nomination, or Energy curtailment payment designation, associated with a Special Case Resource's Unforced Capacity will not be entered in the Day-Ahead market, but instead will serve as a strike price that the ISO can use to determine which Special Case Resources to call when a Forecast Reserve Shortage is identified. Unlike a Generator or other Resource's Bid to supply Energy associated with Unforced Capacity, a Special Case Resource's Minimum Payment Nomination cannot be revised prior to Settlement in the Day-Ahead market. A Special Case Resource's Minimum Payment Nomination is set for the entire month.

Special Case Resource Minimum Payment Nominations to perform at a minimum payment for Load reduction must be submitted at the same time all Installed Capacity Suppliers are required to submit their monthly Installed Capacity Supplier certification forms. See Section 4.7 of this ICAP Manual. Special Case Resource Minimum Payment Nominations must be submitted to the NYISO on a separate form. RIPS must submit Minimum Payment Nominations for all qualified Special Case Resources, regardless of whether, at the time of the submission, a qualified Special Case Resource has committed to supply Unforced Capacity in the NYCA market during the upcoming month. Once submitted, a Special Case Resource's Minimum Payment Nomination will remain in effect until it is superseded by a later Minimum Payment Nomination submission. Therefore, a RIP may make one Minimum Payment Nomination for a Special Case Resource that will remain in effect for the life of the Special Case Resource unless superseded by a successive Minimum Payment Nomination. The ISO will enter a Minimum Payment Nomination of zero (0) dollars per MWh for each qualified Special Case Resource for which a Minimum Payment Nomination has not been submitted.

Special Case Resource Minimum Payment Nominations will be entered in a separate database and used only when the ISO Operations department determines the need to call on these Resources in response to a Forecast Reserve Shortage. In the event the ISO Operations department makes such a determination, the Minimum Payment Nominations placed for each Special Case Resource will allow the ISO to call for Load reduction based on Special Case Resource zone location and price. As a result, the ISO will be able to call less than the total pool of Special Case Resources in the NYCA and in each NYCA zone.

As an example, the ISO may determine that it needs a demand reduction response of 25 MWs in Zone J. A total of 50 MWs of Special Case Resources located in Zone J are supplying Unforced

Capacity. For this example, assume that each MW of Special Case Resource Capacity entered a different Minimum Payment Nomination, from \$1/MWh to \$50/MWh. Considering the likely percentage of Special Case Resources that will actually perform, the ISO determines the total number of demand response MWs it will need to call in order to fulfill its need for 25 additional MWs of reserves. If the ISO determines that it will need to call 32 MW of Special Case Resources to fulfill its need for additional Capacity it will call the 32 MWs of Special Case Resources that entered a Minimum Payment Nomination between \$1 and \$32. See section 4.12.8 for situations where multiple Special Case Resources have placed the same top Minimum Payment Nomination called upon by the ISO and the total MWs offered at that price exceed the ISO's needs.

#### **4.12.4 Performance**

A Special Case Resource must make Energy available, in amounts that correspond to the Installed Capacity Equivalent of the amount of Unforced Capacity it supplies to the NYCA as specified in Section 3.3 (c) of Attachment J, by reducing Load or transferring Load to a distributed generator, within two (2) hours of a notice provided by the ISO to the RIP, following a 24-hour notice. If the Special Case Resource is unable to provide full output within two (2) hours due to operational constraints, the RIP may petition the ISO for permission to provide maximum output from the Special Case Resource within a longer period. The ISO's permission will not be unreasonably withheld. In granting permission, the ISO will calculate the appropriate derating factor for use in determining the amount of Unforced Capacity that Special Case Resource can provide in the future.

A Special Case Resource may be required by the ISO to demonstrate its pledged Load reduction capability once in every Capability Period if it has not otherwise already been called by the ISO to reduce Load in such period.

In the event that a Special Case Resource located at a retail customer was in operation (in the case of a distributed generator) or providing Load reduction (in the case of interruptible Load), at the time of the system or Transmission District peak upon which the Unforced Capacity requirement of the LSE serving that customer is based, the LSE's Unforced Capacity requirement shall be increased by the amount of Load that was served or interrupted by the Special Case Resource.

Transmission Owners shall permit short periods of parallel operation for Load switching from the Transmission Owner's electrical system to distributed generation equipment claimed as Special Case Resource Unforced Capacity provided that the distributed generator meets the Transmission Owner's interconnection requirements.

#### **4.12.5 ISO Notification Procedures**

The ISO will provide 24 hour-ahead notification and two (2) hour notice, as required by this Manual, to the RIP. The 24 hour-ahead notification will be provided after 11 am, day-ahead, when the Day-Ahead Market closes. The ISO commits not to use 24 hour notification of potential need to operate indiscriminately but rather only when the Day-Ahead Market indicates serious shortages of supply for the next day.

The ISO shall provide notice no fewer than two (2) hours ahead of required operation or interruption.

RIPs shall contact their Special Case Resources through whatever communication protocols are agreed to between the Special Case Resources and the RIPs.

RIPs claiming Special Case Resource Unforced Capacity shall provide the ISO with their phone and Internet contact information that allows for notification by the ISO at any time. RIPs shall confirm receipt of such notification within 1 hour by Internet communication.

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

A Special Case Resource that fails to respond to RIP notification by reaching pledged Load reduction capability or maximum pledged generator output within two (2) hours following notice from the ISO to the RIP, or that fails to provide output for the period required by the ISO or four (4) hours, whichever is less, will be considered forced out (for unperformed hours) for purposes of calculating the Unforced Capacity value of the Special Case Resource for future Obligation Procurement Periods. See Attachment J of this Manual for further explanation of a Special Case Resources Unforced Capacity value.

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

A Special Case Resource that cannot operate for the full four (4) hours when called for by the ISO, due to environmental permit limits or otherwise, shall be considered forced out for the hours it is unable to operate or is operated at reduced output.

#### **4.12.7 RIP Requirements**

In addition to other requirements under this Section 4.12, an RIP claiming Unforced Capacity from a Special Case Resource for sale into an ISO-administered auction or for its own requirements (in the case of an RIP which is an LSE) shall fulfill the following obligations:

- Submit to the ISO a letter from each SCR authorizing the RIP to act on behalf of the SCR during each Capability Period. The letter 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 should be signed by an authorized representative of the SCR.
- Give notice of the claiming of such Unforced Capacity on a one-time basis to the LSE supplying Energy to the retail customer on whose premises the Special Case Resource is located (if different from the RIP).
- Notify the ISO as provided in Section 4.3.3 whenever the Special Case Resource is unavailable to provide its pledged Load reduction.

- Report operating data to the ISO each month as provided in Section 4.4.7 using the form provided in Figure 2 of Attachment K and provide copies of such form to the appropriate TO and the LSE supplying Energy to the retail customer on whose premises the Special Case Resource is located (if different from the RIP).
- Make certifications to the ISO 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 distributed generator(s) in the case of a Special Case Resource whose performance is calculated under Section 3.3(b) of Attachment J) for the four (4) hour period following the two (2) hour ISO notice under Section 4.12.4. In the event that Energy made available from Special Case Resource Unforced Capacity is a small percentage of the total metered Load at the location of the Special Case Resource, such that it may not be clearly reflected by meter reads alone, the ISO will also accept operations logs to augment metered output to ensure accurate verification. The RIP or the Transmission Owner, as appropriate, shall retain all interval meter readings upon which it bases its certification of compliance, for a period of three (3) years.

#### **4.12.8 Special Case Resource Demand Response Payments**

Each time a Special Case Resource is called upon to perform it will receive an Energy payment for the amount of Load reduction resulting from its performance. If the ISO requests performance by Special Case Resources for more than four hours, each Special Case Resource shall be paid for the duration of the event in accordance with this section 4.12.8, starting with the hour specified by the ISO as the starting time of the activation, or, in the event that the ISO specified that the demand reduction begin as soon as possible, starting with the hour that the Special Case Resource began its response. Payment for Special Case Resource Load reductions are conditioned upon verification of performance for the time period requested by the ISO.

If the ISO requests performance by Special Case Resources for four hours or less, each Special Case Resource shall be paid as if it had been activated for four hours. Each Special Case Resource that reduces demand shall receive a payment consistent with the hybrid pricing rules, in accordance with this section 4.12.8, for the duration of the ISO request or for two hours whichever is greater, starting with the hour specified by the ISO as the starting time of the event, or, if the ISO specified that the demand reduction begin as soon as possible, starting with the hour that the Special Case Resource began to perform. Each Special Case Resource shall be paid the zonal Real-Time LBMP per MWh of demand reduced for the remainder of the four-hour minimum payment period. Payment for Special Case Resource Load reductions are conditioned upon verification of performance for the time period requested by the ISO.

Special Case Resource Minimum Payment Nominations would be eligible to participate in the LBMP price setting under the hybrid pricing rules, which permit Bids, or in this case Minimum Payment Nominations, to set prices if at least one (1) MW of Special Case Resource Capacity is needed to satisfy the total reserve requirement, following performance and verification. In the event that a Special Case Resource's Minimum Payment Nomination total for the number of hours of requested performance exceeds the LBMP revenue that Special Case Resource receives,



that Special Case Resource will be eligible for a Bid Production Cost Guarantee to make up the difference.

When more than one Special Case Resource has submitted the highest Minimum Payment Nomination selected by the ISO to perform during an event, but the ISO does not need all of the Capacity represented by that pool of two or more Special Case Resources, the ISO will identify those Special Case Resources that must perform during that event. This determination will be made on a non-discriminatory, round-robin basis. Special Case Resources with Minimum Payment Nominations at this level that are not called upon to perform during an event will receive the benefits of the round-robin basis in the event a similar performance call is made during the same Capability Year, assuming Minimum Payment Nomination pricing allows for such treatment (i.e., Special Case Resource Minimum Payment Nominations have not changed, so that the same Special Case Resources are offering the same Capacity at the same guarantee prices). RIPs responsible for one or more Special Case Resources selected under the round-robin scenario that are also responsible for one or more Special Case Resources not called upon due to the round-robin selection process may substitute one or more of the Special Case Resources not selected for one or more of the Special Case Resources selected to perform so long as the total MWs eligible for payment does not exceed the MWs originally selected and the RIP responds with an equal or greater amount of demand response Resources when making such substitution.

To continue the example listed in Section 4.12.3, each Special Case Resource 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 Special Case Resource Capacity is needed to satisfy the total reserve requirement the Minimum Payment Nominations submitted by these Resources may be considered when determining the LBMP.

#### **4.12.9 ISO Verification**

The ISO retains the right to audit any records kept by the RIP, the Transmission Owner, or the Special Case Resource which are used to support the RIP's certification of compliance with the procedures set forth in this Section 4.12.

[...]