

5. NYISO Administered Installed Capacity Auctions

The NYISO will administer Installed Capacity auctions to accommodate Load Serving Entities (LSEs) and Installed Capacity Suppliers' efforts to enter into Unforced Capacity transactions and to allow LSEs to satisfy their respective LSE Unforced Capacity Obligations. In the various NYISO administered auctions, LSEs will have the opportunity to purchase the Unforced Capacity necessary to meet the LSE Unforced Capacity Obligations established by the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>), and to purchase or sell excess Unforced Capacity. Installed Capacity Suppliers will have the opportunity to sell Unforced Capacity.

New Special Case Resources are eligible to participate only in ICAP Spot Market Auctions.

Load Serving Entities and Installed Capacity Suppliers may also purchase or sell Unforced Capacity, other than Unforced Capacity of New Special Case Resources, through Bilateral Transactions. Load Serving Entities holding Unforced Capacity, which they want credited against their LSE Unforced Capacity Obligations, must certify such Unforced Capacity.

Participation in NYISO-administered auctions is restricted to NYISO Customers. Unforced Capacity supplied through the auction may only be used for the commercial interests of the purchaser. In addition, any Unforced Capacity purchased through a NYISO administered auction may not be resold for the purposes of meeting Installed Capacity requirements imposed by operators of External Control Areas.

The *NYISO Services Tariff* references are Sections 5.13 through 5.15. (The *NYISO Services Tariff* is available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>.) A summary of this Section 5 combined with [Attachment H](#) of this *ICAP Manual* is on file with FERC as an Attachment to the *NYISO Services Tariff* under the title "Installed Capacity Auction Description."

5.1. Overview of Auction Structure and Timing

The NYISO will conduct regularly scheduled Installed Capacity auctions before and during Capability Periods. See the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do) for the upcoming Capability Period schedule of auctions. The schedule is structured to ensure adequate time between the date that auction results from Monthly Auctions are posted and the date that LSEs are required to demonstrate the amount of Unforced Capacity that they have procured prior to the ICAP Spot Market Auction. Auctions shall be conducted prior to the start of each Capability Period and each month during a Capability Period.

The NYISO will post the results of Installed Capacity auctions according to the schedule in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). The ICAP Event Calendar will ensure that there are at least four (4) business days between the date that auction results from the Monthly Auction are posted and the date that LSEs are required to certify the quantity of Unforced Capacity that it has or has obtained for the upcoming Obligation Procurement Period, pursuant to Section 5.11.2 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>). LSEs attempting to credit against their LSE Unforced Capacity Obligations any Unforced Capacity that they hold in excess of their Minimum Unforced Capacity Requirement must certify such Unforced Capacity.

5.1.1. General Auction Requirements

The NYISO shall conduct regular auctions at the times specified in Section 5.13.1 of the *NYISO Services Tariff* and in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). Installed Capacity Suppliers, LSEs, and Installed Capacity Marketers that are Customers under the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) will be allowed to participate in Installed Capacity auctions, provided that they satisfy the creditworthiness requirements set forth in Section 2.4 of the *NYISO OATT*.

Offers to sell and Bids to purchase Unforced Capacity shall be made in \$/kW for the time period appropriate to the auction. The NYISO shall impose no limits on Bids or offers in any auction, except to the extent required by any applicable capacity market mitigation measures in accordance with the *NYISO Services Tariff* (available from the NYISO Web site at <https://www.nyiso.com/regulatory-viewer>), or in accordance with offer cap requirements applicable to External CRIS Rights Holders as specified in Section 5.12.2.4 of the *NYISO Services Tariff*, Section 25.7.11 of the *NYISO OATT* Attachment S, and Section 4.10.7 of this *ICAP Manual*.

Installed Capacity Suppliers that wish to participate in an NYISO-administered auction must certify to the NYISO in accordance with the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do), demonstrating that their Unforced Capacity has not been committed to a Bilateral Transaction.

Unforced Capacity from Resources electrically located within Zone J, New York City (“In-City”) and the G-J Locality may be subject to FERC-approved capacity market mitigation measures. See *NYISO Services*

Tariff, Attachment H, Section 23.4.5 (available from the NYISO Web site at the following URL:

<https://www.nyiso.com/regulatory-viewer>).

5.2. Capability Period Auctions

A Capability Period Auction will be conducted no later than thirty (30) days prior to the start of each Capability Period in which Unforced Capacity will be purchased and sold for the entire duration of the Capability Period. The exact date of the Capability Period Auction shall be established in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do).

The Capability Period Auction will be conducted and solved simultaneously to purchase Unforced Capacity, which may be used by an LSE toward all components of its LSE Unforced Capacity Obligation for each Obligation Procurement Period. Participation shall consist of: (i) LSEs seeking to purchase Unforced Capacity; (ii) any other entity seeking to purchase Unforced Capacity; (iii) qualified Installed Capacity Suppliers (for Resources other than New Special Case Resources); and (iv) any entity that owns Unforced Capacity that is not (a) otherwise already committed and wishes to make that Unforced Capacity available or (b) attributable to New Special Case Resources.

Buyers that are awarded Unforced Capacity shall pay the applicable Market-Clearing Price of Unforced Capacity in the Capability Period Auction. Sellers that are selected to provide Unforced Capacity shall receive the applicable Market-Clearing Price of Unforced Capacity in the Capability Period Auction in accordance with *the NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>).

The results of the Capability Period Auction will be made available to Market Participants at the times specified in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do), which shall be prior to the start of the Monthly Auction held prior to the beginning of each Capability Period.

5.3. Monthly Auctions

Monthly Auctions will be held, during which Unforced Capacity may be purchased and sold for the forthcoming Obligation Procurement Period, and any other month or months remaining in the Capability Period, as specified in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do).

Each Monthly Auction will be conducted and solved simultaneously to purchase Unforced Capacity, which may be used by an LSE toward all components of its LSE Unforced Capacity Obligation for each Obligation Procurement Period. Participation shall consist of: (i) LSEs seeking to purchase Unforced Capacity; (ii) any other entity seeking to purchase Unforced Capacity; (iii) qualified Installed Capacity Suppliers (for Resources other than New Special Case Resources); and (iv) any other entity that owns Unforced Capacity that is not (a) otherwise already committed and wishes to make that Unforced Capacity available or (b) attributable to New Special Case Resources.

Buyers that are awarded Unforced Capacity shall pay the applicable Market-Clearing Price of Unforced Capacity in the Monthly Auction. Sellers that are selected to provide Unforced Capacity shall receive the applicable Market-Clearing Price of Unforced Capacity in the Monthly Auction in accordance with the *NYISO Services Tariff* (available from the NYISO Web site at <https://www.nyiso.com/regulatory-viewer>).

The results of each Monthly Auction will be made available to Market Participants in accordance with the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do).

5.4. ICAP Spot Market Auction

The NYISO shall conduct an ICAP Spot Market Auction to purchase Unforced Capacity, which shall be used by an LSE toward all components of its LSE Unforced Capacity Obligation for each Obligation Procurement Period immediately preceding the start of each Obligation Procurement Period. The exact date of the ICAP Spot Market Auction shall be established in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). All LSEs shall participate in the ICAP Spot Market Auction as described herein. In the ICAP Spot Market Auction, the NYISO shall submit monthly Bids on behalf of all LSEs at a level per MW determined by the applicable ICAP Demand Curve established in accordance with Section 5.14.1.2 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) and Section 5.5 of this *ICAP Manual*. The ICAP Spot Market Auction will set the LSE Unforced Capacity Obligation for each NYCA LSE, which shall include both the LSE Unforced Capacity Requirements and any excess that LSE must purchase above that Requirement.

Prior to the ICAP Spot Market Auction, LSEs shall certify all Unforced Capacity acquired through Bilateral Transactions that will be counted toward their respective Minimum Unforced Capacity Requirement. Each entity that has previously committed to supply Unforced Capacity for the Obligation Procurement Period will also certify to the NYISO the amount of Unforced Capacity it is using to meet those

requirements. The NYISO shall receive offers from qualified Installed Capacity Suppliers for the ICAP Spot Market Auction for any amount of qualified Unforced Capacity that they have not previously certified. The NYISO shall also receive offers for the ICAP Spot Market Auction of Unforced Capacity from any LSE for any amount of qualified Unforced Capacity such LSE has in excess of its NYCA Minimum Unforced Capacity Requirement or Locational Minimum Unforced Capacity Requirement, as applicable.

The ICAP Spot Market Auction will be conducted and solved simultaneously for Unforced Capacity that shall be used by an LSE towards all components of its LSE Unforced Capacity Obligation for that Obligation Procurement Period using the applicable ICAP Demand Curves, as established in Section 5.5 of this *ICAP Manual*. LSEs that are awarded Unforced Capacity in the ICAP Spot Market Auction shall pay to the NYISO the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction. The NYISO shall pay Installed Capacity Suppliers that are selected to provide Unforced Capacity the applicable Market-Clearing Price determined in the ICAP Spot Market Auction in accordance with the *NYISO Services Tariff* (available from the NYISO Web site at <https://www.nyiso.com/regulatory-viewer>).

In accordance with Attachment H to the *NYISO Services Tariff*, for each Mitigated Capacity Zone, seasonally adjusted UCAP Offer Reference Levels will be applied to Installed Capacity in a Mitigated Capacity Zone that is subject to capacity market mitigation measures. An Installed Capacity Supplier in a Mitigated Capacity Zone that requests a unit-specific reference level must provide information on its Going-Forward Costs. If accepted, the NYISO will shape the adjusted UCAP Offer Reference level for that Generator n for the Summer and Winter months to which such Going-Forward Costs applies as follows:

$$SARP_n = \frac{AGFC_n}{6 \cdot \left(1 + R_n \cdot \frac{DCL - R}{DCL - 1} \right)}$$

and

$$WARP_n = SARP_n \cdot \frac{DCL - R}{DCL - 1},$$

Where:

$SARP_n$ is the adjusted UCAP Offer Reference Level during each month of the Summer Capability Period for Generator n ;

$AGFC_n$ is the annual Going Forward Cost for Generator n ;

R_n is the ratio of (1) the winter generating capacity of Generator n to (2) the summer generating capacity of Generator n ;

DCL is the ratio of (1) the amount of Mitigated Capacity Zone ICAP at which the Demand Curve reaches a zero price to (2) the Mitigated Capacity Zone ICAP requirement;

R is the ratio of (1) the sum of the winter generating capacities of all Mitigated Capacity Zone to (2) the sum of the summer generating capacities of all Mitigated Capacity Zone ; and

WARP_n is the adjusted UCAP Offer Reference Level during each month of the Winter Capability Period for Generator *n*.

5.5. Demand Curve and Adjustments

Separate ICAP Demand Curves are established to determine the locational component of LSE Unforced Capacity Obligations to for each Locality, and to determine the total LSE Unforced Capacity Obligations for all LSEs serving load in the NYCA. Installed Capacity Demand Curves are reviewed quadrennially pursuant to the process set forth in the *NYISO Services Tariff* and in accordance with Section 5.6, below.

Each ICAP Demand Curve is composed of three (3) straight-line¹ portions:

1. A horizontal line segment, consisting of all points for which the price of ICAP is equal to 1.5 times the estimated localized levelized cost per kW-month² to develop a new peaking plant³ in each Locality or in the Rest-of-State region (for the NYCA ICAP Demand Curve), and for which the quantity of ICAP supplied is greater than or equal to zero but less than the quantity of ICAP supplied at the point where this segment intersects segment (2), which is described below.
2. A line segment with a negative slope, which is a portion of a line that passes through the following points:

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¹ In the ICAP Market System, each ICAP Demand Curve is represented by a piece-wise linear function (step function). Each linear segment has a length of 0.1 MW and a price as calculated based on the slope of the Demand Curve.

² In translating each estimated localized levelized cost value from an annual value (\$/kW-year) to a monthly value (\$/kW-month), the NYISO will account for applicable winter-to-summer ratio value (i.e., the "WSR," variable in the equation below in this Section 5.5) and the percentage of capacity at the tariff prescribed level of excess conditions (i.e., the "LOE," variable in the equation below in this Section 5.5) used in establishing each ICAP Demand Curve.

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³ A peaking unit is defined as the unit with technology that results in the lowest fixed costs and highest variable costs among all other units' technology that are economically viable. A peaking plant is defined as the number of units (whether one or more) that constitute the scale identified in the periodic review.

- a. a point at which the amount of ICAP supplied is equal to the NYCA Minimum Installed Capacity Requirement (for the NYCA ICAP Demand Curve) or the Locational Minimum Installed Capacity Requirement (for each Locality), and the price of ICAP is equal to the monthly ICAP reference point price (as described below) for the NYCA or one of the Localities, as applicable; and
- b. a point at which the amount of ICAP supplied is set at the zero crossing point, defined as the smallest quantity of Installed Capacity counting towards the NYCA Minimum Installed Capacity Requirement or a Locational Minimum Installed Capacity Requirement, as applicable, for which the price of ICAP is zero.

The line segment which comprises this portion of the ICAP Demand Curve consists of all points on this line for which the quantity of ICAP supplied is greater than or equal to the quantity of ICAP supplied at the point where this segment intersects segment (1), but less than or equal to the zero crossing point defined for the NYCA Minimum Installed Capacity Requirement or the Locational Minimum Installed Capacity Requirement, as applicable.

3. A horizontal line, consisting of all points for which the price of ICAP is zero, and for which the quantity of ICAP Supplied is greater than the zero crossing point defined for the NYCA Installed Capacity or the Locational Installed Capacity, as applicable.

The horizontal portions of the ICAP Demand Curves therefore define maximum and minimum prices for ICAP in the Localities (in the case of the Locality ICAP Demand Curves) and for ICAP to satisfy the NYCA Minimum Installed Capacity Requirement (in the case of the NYCA ICAP Demand Curve). The sloped portion of each ICAP Demand Curve permits the price of capacity to change as a function of the amount of Installed Capacity supplied, relative to each applicable minimum Installed Capacity requirement.

The NYCA Minimum Installed Capacity Requirement is determined by the NYISO after the New York State Reliability Council sets the NYCA Installed Reserve Margin and the NYISO determines the Locational Minimum Installed Capacity Requirement (see Section 2 of this *ICAP Manual* for further explanation). The monthly ICAP reference point price for the NYCA and each Locality is based on the Annual Reference Value for that location, which is the estimated cost for a peaking plant for the Rest-of-State region (in the case of the Annual Reference Value for the NYCA) or a Locality (in the case of the Annual Reference Value for a Locality) less an estimate of annual net revenue offsets from the sale of energy and ancillary services for the Rest-of-State region or a Locality, as appropriate. Since the Annual Reference Value is based on generator ratings using an average annual temperature (59 degrees Fahrenheit, per International Standards Organization (ISO) standards), each monthly ICAP reference point price calculation shall include

adjustments to take seasonal effects on the amount of UCAP that can be supplied, as well as the price of UCAP, into account

Each monthly ICAP reference point price is set to the level that would permit a peaking unit to be paid an amount over the course of the year that is equal to the Annual Reference Value. The monthly reference point price for each ICAP Demand Curve shall be calculated as follows:

$$RP_z = \frac{ARV_z * AssmdCap_z}{6 * \left[SDMNC_z * \left(1 - \frac{LOE_z - 1}{ZCPR_z - 1} \right) + WDMNC_z * \left(1 - \frac{LOE_z - 1 + WSR_z - 1}{ZCPR_z - 1} \right) \right]}$$

$$RP_z = \frac{ARV_z * AssmdCap_z}{6 * DAF_z * \left[SDMNC_z * \left(1 - \frac{LOE_z - 1}{ZCPR_z - 1} \right) + WDMNC_z * \left(1 - \frac{LOE_z - 1 + WSR_z - 1}{ZCPR_z - 1} \right) \right]}$$

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Where:

RP_z = the monthly ICAP reference point price for location z ;

ARV_z = the Annual Reference Value for location z ;

$AssmdCap_z$ = the average degraded net plant capacity of the peaking plant for location z ;

LOE_z = the ratio of level of excess (i.e., the applicable minimum ICAP requirement, plus the $AssmdCap$ of the relevant peaking plant) to the applicable minimum ICAP requirement for location z ;

DAF_z = the applicable Duration Adjustment Factor of the peaking plant for location z

[Resources that do not have an Energy Duration Limitation will have a Duration Adjustment Factor of 100%]

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$SDMNC_z$ = the Summer Capability Period DMNC assumed for the peaking plant at the temperature used to establish the ICAP Demand Curve for location z ;

$WDMNC_z$ = the Winter Capability Period DMNC assumed for the peaking plant at the temperature used to establish the ICAP Demand Curve for location z ;

WSR_z = the ratio of the amount of ICAP available in the ICAP Spot Market Auctions in the Winter Capability Period to the amount of ICAP available in the ICAP Spot Market Auctions for the Summer Capability Period for location z calculated in accordance with Section 5.14.1.2.2.3 of *NYISO Services Tariff* and rounded to 4 decimal places (with "location" meaning applicable to that ICAP Demand Curve); and

$ZCPR_z$ = the ratio of the zero crossing point to the applicable minimum ICAP requirement for location z . Maximum clearing prices, monthly ICAP reference point prices and zero crossing

points for the ICAP Demand Curves for the first year of each four year period included in a periodic review are provided in Section 5.14.1.2 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>). ICAP Demand Curve parameters for years 2-4 of the four year period included in a periodic review will be made available once the respective annual updates are completed; provided, however, that the zero crossing points for each ICAP Demand Curve for years 2-4 of the four year period will be the same as the respective zero crossing points for the first year of the four year period. The NYISO will post the ICAP Demand Curve values determined as a result of the annual update for each such Capability Year to the following URL, within Reference Documents section: http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp.

Quantities on each of these ICAP Demand Curves are stated in terms of amounts of ICAP supplied and prices are stated in terms of dollars per kW-month of ICAP supplied, but the metric actually used in the ICAP market is UCAP. Therefore, each of these ICAP Demand Curves must be translated into UCAP Demand Curves, so that quantities are stated in terms of UCAP supplied and prices are stated in terms of dollars per kW-month of UCAP supplied. This translation will be performed as follows: Before the beginning of each Capability Period, the NYISO will calculate an ICAP-to-UCAP translation factor for each ICAP Demand Curve, equal to one minus the weighted average derating factors used to translate Installed Capacity to Unforced Capacity for that Capability Period associated with all resources electrically located in the NYCA (in the case of the ICAP Demand Curve for the NYCA) or in a Locality (in the case of the ICAP Demand Curve for that Locality). Each price on each ICAP Demand Curve shall then be converted into a price on the corresponding UCAP Demand Curve by dividing it by one minus the ICAP-to-UCAP translation factor calculated for that ICAP Demand Curve. Each quantity on each ICAP Demand Curve shall be converted into a quantity on the corresponding UCAP Demand Curve by multiplying it by one minus the ICAP-to-UCAP translation factor calculated for that ICAP Demand Curve.

The resulting Unforced Capacity Demand Curves can be found on the ICAP Market page of the public NYISO web site at <https://www.nyiso.com/installed-capacity-market> under the "ICAP Auctions" for the applicable Capability Period.

5.6. Demand Curve Adjustment Process

An independent periodic review of the ICAP Demand Curves will be performed every four (4) years in accordance with the *NYISO Services Tariff*.

5.6.1. Development and Issuance of Schedule

By mid-May (target May 15th) two years prior to the effective date of the ICAP Demand Curves for the first year included in the review, the NYISO will issue for stakeholder review and comment a draft schedule providing the completion dates of the major review activities. By May 30, a schedule will be finalized for the periodic review.

5.6.2. Development of a Request for Proposal (RFP)

In accordance with the schedule developed in Section 5.6.1, the NYISO will issue to stakeholders and the NYISO Market Monitoring Unit for their review and comment a draft RFP to engage a consultant to perform the required analyses under the review. Prior to the issuance of the RFP, face to face reviews with NYISO staff, NYISO Market Monitoring Unit, and interested stakeholders will be conducted to allow input and discussion of all relevant issues and the development of appropriate methodologies to be followed for the review. To expedite and focus the process, the NYISO staff may provide a straw proposal for consideration.

These discussions will lead to a set of desired assumptions and acceptable methodologies to be guidance for bidder responses to the RFP.

5.6.3. Selection of Consultant

Upon finalization of the RFP, but no later than the date established in the approved schedule for the periodic review, the NYISO will issue the RFP to a selected list of potential bidders.

The RFP will provide potential bidders an opportunity to seek clarification of items included in the RFP through a "bidder's conference."

The NYISO will have sole responsibility for

- The development of a selection criteria to determine the winning bidder,
- The evaluation of the RFPs submitted, and
- The selection of the winning bidder.

The NYISO will award the contract to the winning bidder in accordance with the established schedule.

5.6.4. Development of Consultant Final Report

Prior to the winning consultant beginning work, meetings will be conducted to finalize the study assumptions and required sensitivity analysis. These meetings will include NYISO staff, NYISO Market Monitoring Unit, interested stakeholders and the consultant. In the event that agreement cannot be reached

on the assumptions or sensitivities, NYISO staff in consultation with the NYISO Market Monitoring Unit, will make the final determination of the assumptions to be used and the sensitivity analyses to be included in the review.

Upon issuance of a draft report by the consultant, meeting(s) will be convened to allow review and comment of the data and assumptions used in the review and the preliminary conclusions drawn by the consultant. These meetings will include NYISO staff, NYISO Market Monitoring Unit, interested stakeholders and the consultant. The NYISO Market Monitoring Unit may propose adjustments to certain data or assumptions with input from NYISO staff and stakeholders. Comments made by NYISO staff, NYISO Market Monitoring Unit and interested stakeholders will be included in the consultant's final report. In addition, the consultant will include its rationale for inclusion or exclusion of these comments in the final results of their analysis.

The consultant will issue its final report in accordance with the established schedule.

5.6.5. Issuance of NYISO Recommendations

The NYISO will issue its draft and final recommendations in accordance with the established schedule. The contents of these recommendations will include among other items, the requirements specified in Section 5.14.1.2.2 of the *NYISO Services Tariff*.

5.6.6. NYISO Board Review

In accordance with the established schedule, stakeholders shall have an opportunity to provide the NYISO Board with supplemental analysis in writing for its consideration when acting on the proposed ICAP Demand Curves for the first year included in the review, as well as the methodologies and inputs to be used in conducting the annual updates to determine the ICAP Demand Curves for years 2-4 included in the review. The NYISO Board shall review any information and analysis timely filed with it, and, upon notice to all parties, provide the opportunity for oral presentations on the issues that have been raised.

5.6.7. FERC Filing of ICAP Demand Curves

A filing to FERC of the NYISO Board-approved ICAP Demand Curve parameters will be made by November 30 in the year prior to commencement of the first Capability Period included in the review to establish the ICAP Demand Curves for the first Capability Year included in the review, as well as the methodologies and inputs to be used in conducting the annual updates to determine the ICAP Demand Curves for the remaining three Capability Years included in the review.

5.6.8. Annual Updates of the ICAP Demand Curves

In accordance Section 5.14.1.2.2 of the *NYISO Services Tariff*, the NYISO will conduct annual updates to determine the ICAP Demand Curves for years 2-4 included in the review. The NYISO will present results of the annual updates to Market Participants. After the annual update is completed, the NYISO will post the resulting ICAP Demand Curve values on or before November 30 of the year preceding the beginning of the Capability Year for which the updated ICAP Demand Curves will apply. The results of the annual updates and resulting ICAP Demand Curves can be accessed within the "Reference Documents" section through the following link: http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp

5.7. Supplemental Supply Fee

Any LSE that has not met its share of the NYCA Minimum Installed Capacity Requirement or its share of the Locational Minimum Installed Capacity Requirement after the completion of an ICAP Spot Market Auction shall be assessed a supplemental supply fee. The supplemental supply fee shall be the applicable Market-Clearing Price of Unforced Capacity as determined in the ICAP Spot Market Auction multiplied by the number of MW the deficient LSE needs to meet its share of the NYCA Minimum Installed Capacity Requirement or its share of the Locational Minimum Installed Capacity Requirement.

The NYISO will attempt to use these supplemental supply fees to procure Unforced Capacity at a price less than or equal to the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction from Installed Capacity Suppliers that are capable of supplying Unforced Capacity including: 1) Installed Capacity Suppliers that were not qualified to supply Capacity prior to the ICAP Spot Market Auction (other than New Special Case Resources); 2) Installed Capacity Suppliers that offered Unforced Capacity at levels above the ICAP Spot Market Auction Market-Clearing Price; and 3) Installed Capacity Suppliers that did not offer Unforced Capacity in the ICAP Spot Market Auction. In the event that different Installed Capacity Suppliers offer the same price, the NYISO will give preference to Installed Capacity Suppliers that were not qualified to supply Capacity prior to the ICAP Spot Market Auction (other than New Special Case Resources).

Offers from Installed Capacity Suppliers are subject to mitigation measures in accordance with Attachment H to the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) Installed Capacity Suppliers selected by the NYISO to provide Capacity after the ICAP Spot Market Auction will be paid a negotiated price. The NYISO will not pay an Installed Capacity Supplier more than the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction per MW of Unforced Capacity, pro-rated to reflect the portion of the Capability Period for which the Installed Capacity Supplier provides Unforced Capacity.

5.8. ICAP Supplier Shortfalls and Deficiency Payments

In the event that an Installed Capacity Supplier sells more Unforced Capacity than it is qualified to sell in any specific month in the Capability Period or Monthly Auctions (such amounts including the amount of a New Special Case Resources), the Installed Capacity Supplier shall be deemed to have a shortfall for that month. To cover this shortfall, the Installed Capacity Supplier shall purchase sufficient Unforced Capacity in the relevant Monthly Auction or through Bilateral Transactions, and certify to the NYISO consistent with the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do) that it has covered such shortfall. If the Installed Capacity Supplier does not cover such shortfall or if it does not certify to the NYISO in a timely manner, the NYISO shall prospectively purchase Unforced Capacity on behalf of that Installed Capacity Supplier in the appropriate ICAP Spot Market Auction or, in the event (x) of shortages in that auction, or (y) the shortfall is due to the Installed Capacity Supplier selling Unforced Capacity from a New Special Case Resource in an auction other than a ICAP Spot Market Auction or through a Bilateral Transaction, and the shortfall is not computed by the NYISO until after the applicable ICAP Spot Market Auction, through post-ICAP Spot Market Auction Unforced Capacity purchases to cover the remaining shortfall.

External CRIS Rights Holders that fail to certify or offer the full amount of Contract or Non-Contract CRIS Rights megawatts are subject to a deficiency charge in accordance with Section 25.7.11 of the *NYISO OATT* Attachment S.

In the event that an External Installed Capacity Supplier fails to deliver to the NYCA the Energy associated with the Unforced Capacity it committed to the NYCA due to a failure to obtain appropriate transmission service or rights, the External Installed Capacity Supplier shall be deemed to have a shortfall from the last time the External Installed Capacity Supplier “demonstrated” delivery of its Installed Capacity Equivalent (“ICE”), or any part thereof, until it next delivers its ICE or the end of the term for which it certified the applicable block of Unforced Capacity, whichever occurs first, subject to the limitation that any prior lack of demonstrated delivery will not precede the beginning of the period for which the Unforced Capacity was certified. An External Installed Capacity Supplier deemed to have a shortfall shall be required to pay to the NYISO a deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity as determined in the ICAP Spot Market Auction multiplied by the number of MW the Installed Capacity Supplier is deficient, pro-rated for the number of hours in the month that External Installed Capacity Supplier is deemed to have a shortfall (i.e., ((deficiency charge ÷ total number of hours in month of shortfall) * number of hours the shortfall lasted) * number of MW of shortfall).

The NYISO shall submit a Bid, calculated pursuant to Section 5.14.1 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>), in the appropriate ICAP Spot Market Auction on behalf of an Installed Capacity Supplier deemed to have a shortfall as if it were an LSE. Such Installed Capacity Supplier shall be required to pay to the NYISO the applicable Market-Clearing Price of Unforced Capacity established in that ICAP Spot Market Auction. In the event that the ICAP Spot Market Auction clears below the NYCA Minimum Installed Capacity Requirement or the Locational Minimum Installed Capacity Requirement, whichever is applicable to the Installed Capacity Supplier, the Installed Capacity Supplier shall be assessed the applicable Market-Clearing Price of Unforced Capacity as determined in the ICAP Spot Market Auction multiplied by the number of MW the Installed Capacity Supplier needs to meet its shortfall.

If an Installed Capacity Supplier is found, at any point during or after a Capability Period, to have had a shortfall for that Capability Period, e.g., when the amount of Unforced Capacity that it supplies is found to be less than the amount it was committed to supply, the Installed Capacity Supplier shall be retrospectively liable to pay the NYISO the applicable deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity as determined in the ICAP Spot Market Auction multiplied by the number of MW the Installed Capacity Supplier is deficient.

Any remaining monies collected by the NYISO pursuant to Sections 5.14.1 and 5.14.2 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) will be applied as specified in Section 5.14.3 of the *NYISO Services Tariff*.

5.9. Timing of Auctions

The NYISO will develop a Capability Period ICAP Event Calendar ***that to the extent practicable will*** ensure that:

1. A Capability Period Auction where Unforced Capacity shall be made available for purchase for the entire six-month Capability Period will be held at least thirty (30) days before the beginning of that Capability Period;
2. Pre-Capability Period Monthly Auctions where Unforced Capacity is made available for purchase for any or all Obligation Procurement Periods within the Capability Period will be held at least fifteen (15) days before the beginning of that Capability Period;
3. During a Capability Period, Monthly Auctions will be held at least fifteen (15) days before the beginning of each Obligation Procurement Period in which Unforced Capacity will be made

available for any or all remaining Obligation Procurement Periods within that Capability Period; and

4. A monthly ICAP Spot Market Auction will be held at least two (2) business days before the beginning of each Obligation Procurement Period during which the NYISO will procure LSE Unforced Capacity Obligations on behalf of each LSE.

The above guidelines may be adjusted for weekends and holidays. The intent of the above will direct the NYISO towards fair compromises when developing or amending the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do)

5.10. Bids to Buy and Sell - General Requirements

Bids to purchase Unforced Capacity and offers to supply Unforced Capacity must be entered, and received by the NYISO, as separate Bids for each auction.

Bidders who wish to purchase Unforced Capacity and Offerors who wish to supply Unforced Capacity in any NYISO-administered auction may submit Bids to the NYISO only on the day of the auction, unless otherwise specified in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). If the NYISO does not receive Offerors offers to supply Unforced Capacity in an auction, the NYISO may cancel that auction. By contrast, if the NYISO receives at least one offer to sell in an auction from an Offeror, the NYISO will not cancel that auction, and will allow a Market-Clearing Price to be calculated in that auction, even if no Bidder submits a bid to buy in that auction.

All LSEs with Unforced Capacity in excess of their share of the NYCA Minimum Installed Capacity Requirement or their share of the Locational Minimum Installed Capacity Requirement, as applicable, may offer such Unforced Capacity into the ICAP Spot Market Auction on their own behalf.

5.11. Limitations on Offerors' Participation in Installed Capacity Auctions

Only Customers will be permitted to offer to sell Unforced Capacity in an auction. The amount of Unforced Capacity that can be offered for sale in the ICAP Spot Market Auction from a given Installed Capacity Supplier will not be permitted to exceed the amount that the Installed Capacity Supplier is qualified to supply in the NYCA.

When the NYISO reduces the amount of Unforced Capacity that an Installed Capacity Supplier may supply to the NYCA, the Installed Capacity Supplier shall procure any shortfall in Unforced Capacity

resulting from the reduction through Bilateral Transactions or in any NYISO-administered auction, provided, however, such procurements shall not include New Special Case Resources.

The amount of Unforced Capacity that any given Offeror is permitted to offer for sale in the ICAP Spot Market Auction shall not exceed the Offeror's share of the amount of Unforced Capacity its Installed Capacity Suppliers are permitted to offer for sale, as calculated above, less any offers of Unforced Capacity that Offeror has offered for sale either through Bilateral Transactions or through sales to External Control Areas. To the extent that an LSE seeks to offer into the ICAP Spot Market Auction, such LSE is limited to offering only those amounts of Unforced Capacity that are in excess of its share of the NYCA Minimum Installed Capacity Requirement or its share of the Locational Minimum Installed Capacity Requirement, as applicable.

Installed Capacity Suppliers that wish to participate in the ICAP Spot Market Auction must certify to the NYISO by the date posted in the detailed ICAP Event Calendar that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do). The certification shall demonstrate: (i) that they own, have contracted to purchase, or have been designated as the agent for the share of each Resource that they claim when making offers to supply Unforced Capacity; and (ii) that the Unforced Capacity they offer has not been committed or sold to provide Unforced Capacity in the New York market or an External Control Area. Any offer to sell that would cause the total amount of Unforced Capacity offered by that Offeror from that Resource to exceed the amount of Unforced Capacity it is permitted to offer from that Resource will be rejected in its entirety.

If an Installed Capacity Supplier (or a portion of the Unforced Capacity attributable to an Installed Capacity Supplier) is selected in the auction to provide Unforced Capacity, that Resource (or portion thereof) cannot provide Installed Capacity to any other Control Area, and shall be required to adhere to the requirements for Installed Capacity Suppliers set forth in the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) and in this *ICAP Manual*. Entities wishing to purchase Unforced Capacity that will count toward Minimum Installed Capacity Requirements in other Control Areas will not be able to purchase such Unforced Capacity in an NYISO-administered auction.

5.12. Limitations on Bidders' Participation in Installed Capacity Auctions

As part of its evaluation of each Bidder's creditworthiness, the NYISO may establish credit limits for each Bidder. The NYISO will reject Bids from Bidders if acceptance of that bid could cause the total amount owed by that Bidder as a result of the auction to exceed that Bidder's credit limit. The credit criteria used

by the NYISO are contained in Article 8 of the *NYISO Services Tariff* (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>).

5.13. Required Information in Bids to Buy

In the Capability Period and Monthly Auction, each Bidder may submit multiple Bids. Each bid to purchase Unforced Capacity submitted by a Bidder must include the following information:

1. The total amount of Unforced Capacity it wishes to purchase in association with that Bid, in increments of 100 kW;
2. The maximum price the Bidder is willing to pay for the Unforced Capacity it is offering to purchase in its Bid, in \$/kW per month;
3. The auction to which the Bid applies;
4. Whether the Unforced Capacity must be associated with Installed Capacity Suppliers located in a specific Locality, and if so, which Locality; and
5. Whether the Installed Capacity Suppliers associated with the Unforced Capacity can be located in a Control Area outside the NYCA or outside any specific Locality within the NYCA.

In the ICAP Spot Market Auction, the NYISO will enter Bids on behalf of all LSEs. Prior to the ICAP Spot Market Auction, LSEs will certify the amount of Unforced Capacity that they have obtained for the upcoming Obligation Procurement Period. After LSE certification, the NYISO will enter Bids into the ICAP Spot Market Auction in accordance with the applicable Demand Curve for each Locality and the NYCA. In order to participate in the Installed Capacity market, each LSE must sign the NYISO Unforced Capacity Purchase Agreement that is found in [Attachment F](#) to this *ICAP Manual*.

5.14. Required Information in Offers to Sell

In the Capability Period Auction, the Monthly Auction, and the ICAP Spot Market Auction, each Offeror may submit multiple offers. Each offer to sell Unforced Capacity submitted by an Offeror must include (except where noted) to the following information:

1. The amount of Unforced Capacity it offers to sell in increments of 100 kW;
2. The minimum price it is willing to accept for the Unforced Capacity it is offering to sell in its offer, in \$/kW per month;
3. The auction to which the offer applies;

4. The name (PTID) of the Installed Capacity Supplier providing the Unforced Capacity offered for sale (this provision is not a requirement of Offers submitted for the Capability Period and Monthly Auctions by Installed Capacity Suppliers offering Unforced Capacity from Generators located within the NYCA);
5. Whether that Installed Capacity Supplier is located in a Locality, and if so, which Locality; and
6. Whether that Installed Capacity Supplier is located in a Control Area outside the NYCA, and if so, which Control Area.

5.15. Selection of Bids and Offers; Determination of Market-Clearing Prices

5.15.1. Capability Period and Monthly Auctions

In the Capability Period and Monthly Auctions, the NYISO will determine which Bids to purchase and which offers to sell Unforced Capacity are selected by maximizing the sum of the Bids submitted by winning bidders minus the offers submitted by winning offerors subject to the following constraints: (1) the amount of Unforced Capacity in each Locality for which offers were accepted must be sufficient to satisfy all accepted Bids that specified that Unforced Capacity must be located in that Locality. (Unforced Capacity combined with UDRs will be treated as Unforced Capacity in the relevant Locality.); and (2) the amount of Unforced Capacity in each Control Area outside the NYCA for which offers were accepted cannot exceed the limitation placed on the Unforced Capacity that can be procured from that Control Area.

If, prior to a Capability Period Auction or Monthly Auction, the sum of Grandfathered External Installed Capacity rights, External CRIS Rights, and External Installed Capacity Import Rights granted at an interface with an External Control Area is equal to the interface limit as defined in Section 4.9.6 of this *ICAP Manual* (i.e., the interface is full), only offers using Grandfathered External Installed Capacity rights or External Installed Capacity Import Rights and offers associated with External CRIS will be accepted.

All, part, or none of a Bid to purchase or an offer to sell Unforced Capacity may be selected in any Capability Period or Monthly Auction. As a result, if a Bidder offers in a Bid to purchase a given amount of Unforced Capacity at a given price, it may be awarded that amount of Unforced Capacity, or it may be awarded any amount lower than the amount it offered to purchase (including zero MW).

Neither Bidders nor Offerors will be permitted to submit Bids or offers that specify that either all or none of a Bid or offer can be selected. Bids to purchase or offers to sell Unforced Capacity in a given Capability Period or Monthly Auction cannot be made contingent on the outcome of another auction; e.g., an Offeror will not be permitted to offer Unforced Capacity within one month's auction contingent upon its sale of Unforced Capacity in another month's auction.

In cases in which multiple Bidders Bid to pay the same price for Unforced Capacity in a given location (or group of locations, if there is no price difference between those locations) in the same Capability Period or Monthly Auction, and some but not all of those Bids can be selected, the amount of Unforced Capacity awarded to each of those Bidders in association with each of those Bids shall be proportional to the amount of Unforced Capacity that Bidder Bid to purchase in that location (or group of locations, if there is no price difference between those locations) at that price. Likewise, in cases in which multiple Offerors offer to sell Unforced Capacity in a given location (or group of locations, if there is no price difference between those locations) for the same price in the same Capability Period or Monthly Auction, and some but not all of those offers can be selected, the amount of Unforced Capacity selected from each of those Offerors in association with each of those offers shall be proportional to the amount of Unforced Capacity that the Offeror offered to sell in that location (or group of locations, if there is no price difference between those locations) at that price.

As a result of each Capability Period or Monthly Auction, the following Market-Clearing Prices for Unforced Capacity will be determined:

1. Prices for Unforced Capacity located in each Locality.
2. Prices for Unforced Capacity located in each Control Area outside the NYCA.
3. Price for Unforced Capacity located in the portion of the NYCA that is not located in a capacity-constrained Locality.

Market-Clearing Prices per MW of Unforced Capacity will be calculated for each Locality, for the NYCA, and for each External Control Area.

1. The Market-Clearing Price for a Locality will be the price at which one could have satisfied an incremental increase in demand in the auction for Capacity that had to be located in the Locality.
2. The Market-Clearing Price for the NYCA will be the price at which one could have satisfied an incremental increase in demand in the auction for Capacity that could have been located anywhere in the NYCA.
3. The Market-Clearing Price for an External Control Area will be the price at which one could have satisfied an incremental increase in demand in the auction for Capacity that could have been located in the NYCA.

The objective function that the NYISO will use in the Capability Period and Monthly Auctions, which was described in the previous section, will be to select the offers of Unforced Capacity with the lowest offer prices, insofar as doing so would not cause violations on the total amount of Unforced Capacity that can be purchased from an External Control Area (or group of Areas), pursuant to Section 4.9.3. But the need to honor these locational constraints may require the NYISO to accept some offers, which specify relatively high offer prices for Unforced Capacity while not accepting other offers with lower offer prices, because purchasing the lower-priced Unforced Capacity would violate locational constraints. In such cases, locational constraints will be binding and Market-Clearing Prices of Unforced Capacity may differ from location to location. If no locational constraints are binding (i.e., if the limitations on the total amount of Unforced Capacity that can be sold from any given Control Area did not force the NYISO to select more expensive offers of Unforced Capacity in the auction than it would have selected in the absence of those locational constraints), then the Market-Clearing Price of Unforced Capacity will be the same at every location.

When locational constraints do not bind, the Market-Clearing Price of Unforced Capacity in a given Capability Period or Monthly Auction will be the marginal resource price, which may be a bid or offer ("Marginal Offer Price") for additional Unforced Capacity in such Monthly Auction or Capability Period Auction, as applicable. This procedure for calculating Market-Clearing Prices is analogous to the procedure that will be used to calculate LBMP prices in the Energy market (which are based on the marginal bid or offer of supplying an increment of Load at a location). Illustrations of these procedures for calculating prices appear in [Attachment H](#) of this *ICAP Manual*.

In order to determine the Marginal Offer Price of providing Unforced Capacity in the Capability Period and Monthly Auction, the NYISO will calculate the change in the amount of Unforced Capacity that would have been bought and sold by each Bidder and Offeror if there had been — in addition to the Bids and offers that were already part of the auction — an additional demand for a very small amount of Unforced Capacity. The presence of this additional demand would have had one of two effects. Either it would have increased the amount of Unforced Capacity purchased from the marginal Offeror (which is the Offeror whose offer price is lowest among those entities that offered Unforced Capacity into that auction, but did not sell all of that Unforced Capacity in that auction), so that the amount of Unforced Capacity purchased from that Offeror would have been slightly above the amount that was actually purchased in that auction. Alternatively, it would have decreased the amount of Unforced Capacity purchased by the marginal Bidder (which is the Bidder whose bid price is lowest among those entities that purchased Unforced Capacity in that auction), so that the amount of Unforced Capacity purchased by that Bidder would have been slightly below the amount that was actually purchased in that auction (with the leftover Unforced Capacity used to

meet the small additional demand). The algorithm that the NYISO uses to conduct the Capability Period or Monthly Auction will choose whichever of these mechanisms satisfies the additional demand at the lowest cost. That cost (expressed in terms of \$/kW per time period applicable to the auction) will determine the Marginal Offer Price of providing Unforced Capacity in that auction.

When a locational constraint is binding, the Market-Clearing Price of Unforced Capacity at the location in either the Capability Period or Monthly Auction, as applicable, will be the Marginal Offer Price of providing Unforced Capacity at the location of the locational constraint.

First, the locational constraints will be divided into two groups. A Locality constraint is binding if the NYISO selects offers of Unforced Capacity located in a certain Locality while not selecting lower-priced offers of Unforced Capacity from outside that Locality. The only instance in which the NYISO will not select such offers is in order to avoid violating locational constraints specified by Bidders that state that a Bid is only valid for Unforced Capacity located in a given Locality, or that can be used to satisfy a Locational requirement. An External Control Area constraint is binding if the NYISO does not select offers of Unforced Capacity located in a particular External Control Area (or group of Areas), while selecting offers with higher offer prices from Installed Capacity Suppliers located in the NYCA or in other External Control Areas, to avoid violating the limits on the total amount of Unforced Capacity that can be sold from a given External Control Area (or group of Areas), pursuant to Section 4.9.3 of this *ICAP Manual*. When the only unawarded offers for Unforced Capacity at an External Control Area interface are associated with External Capacity Resource Interconnection Service (CRIS) Rights offers by an Installed Capacity Supplier whose Unforced Capacity obligation has been met, such offers (i.e., the Unforced Capacity in excess of the External CRIS Right obligation) will not be considered in determining the Market-Clearing Price at the External Interface, and the External Control Area constraint is not deemed to be binding for purposes of settling the Market-Clearing Price of Unforced Capacity.

The Market-Clearing Price in a Locality or External Control Area is determined as follows:

- If a Locality constraint is binding in a Capability Period or Monthly Auction, the Market-Clearing Price of Unforced Capacity located in that Locality will be the Marginal Offer Price of providing additional Unforced Capacity in that Locality in that auction.
- If an External Control Area constraint is binding for a particular Control Area (or group of Areas) in a Capability Period or Monthly Auction, then the Market-Clearing Price of Unforced Capacity located in that External Control Area (or group of Areas) will be the Marginal Offer Price of providing additional Unforced Capacity from that particular External Control Area (or group of Areas).

- The Market-Clearing Price in a Capability Period or Monthly Auction for Unforced Capacity located in Rest of State (which includes (1) Unforced Capacity located in the NYCA, but not in any other Locality; (2) Unforced Capacity located in a Locality, if that Locality constraint is not binding; and (3) Unforced Capacity located in an External Control Area, if no External Control Area constraint affecting that External Control Area (or group of Areas) is binding) will be the Marginal Offer Price of providing additional Unforced Capacity located anywhere other than a Locality for which a Locality constraint is binding or an External Control Area (or group of Areas) for which an External Control Area constraint is binding.

The set of prices that result will ensure that when a Locality constraint is binding, the Market-Clearing Price for Unforced Capacity located in that Locality will be higher than the Market-Clearing Price for Unforced Capacity located in the portion of the NYCA that is not part of another Locality. It also ensures that when an External Control Area constraint is binding, the Market-Clearing Price for Unforced Capacity located in that External Control Area (or group of Areas) will be lower than the Market Clearing Price for Unforced Capacity located in the portion of the NYCA that is not part of another Locality.

The NYISO will identify Bids that are accepted as follows:

1. Bids for Unforced Capacity that must be located in a Locality and that are above the Market-Clearing Price for that Locality will be accepted in their entirety. Bids equal to the Market-Clearing Price will be accepted on a pro rata basis.
2. Bids for Unforced Capacity that could be located anywhere in the NYCA that are above the Market-Clearing Price for Rest of State will be accepted in their entirety. Bids equal to the Market-Clearing Price will be accepted on a pro rata basis.
3. Bids for Unforced Capacity that could be located anywhere in the NYCA or in one or more External Control Areas that were above the Market-Clearing Price for Rest of State will be accepted in their entirety. Bids equal to the Market-Clearing Price will be accepted on a pro rata basis.

The NYISO will identify offers that are accepted as follows:

1. Offers for Unforced Capacity in a Locality that were below the Market-Clearing Price for that Locality will be accepted in their entirety. Offers equal to the Market-Clearing Price will be accepted on a pro rata basis.

- a. Offers of Unforced Capacity that have an Offer Floor must be at or above the Offer Floor and can only be offered into the ICAP Spot Market Auction as set forth below in ICAP Manual Section 5.15.2.
2. Offers for Unforced Capacity in Rest of State that were below the Market-Clearing Price for Rest of State will be accepted in their entirety. Offers equal to the Market-Clearing Price will be accepted on a pro rata basis.
3. Offers for Unforced Capacity in an External Control Area that were below the Market-Clearing Price for that External Control Area will be accepted in their entirety. Bids equal to the Market-Clearing Price will be accepted on a pro rata basis.

Market-Clearing Prices will be calculated independently for the Capability Period Auction and for each Monthly Auction, and separately for each Capacity area. As a result, the Market-Clearing Price for Unforced Capacity at a given location may vary within the same auction, or among different monthly auctions conducted at the same time.

5.15.2. ICAP Spot Market Auction

In the ICAP Spot Market Auction, the NYISO will construct a supply curve for the total Unforced Capacity in the NYCA for which the NYISO receives offers, which includes all Capacity that LSEs or Installed Capacity Suppliers had designated for use to meet their respective LSE Unforced Capacity Obligations through self-supply, as well as all other Capacity offered into the ICAP Spot Market Auction. In cases in which the total amount of Capacity in a given External Control Area, or the combination of all External Control Areas, would exceed limits on the amount of Capacity that can be awarded from these areas, the NYISO shall eliminate the highest offers (or parts of those offers) in the affected External Control Areas from this supply curve until those limits are no longer exceeded.

If prior to an ICAP Spot Market Auction the sum of Grandfathered External Installed Capacity rights, External CRIS Rights and External Installed Capacity Import Rights granted at an interface with an External Control Area is equal to the interface limit as defined in Section [4.9.6](#) of this *ICAP Manual* (i.e., the interface is full), only offers using Grandfathered External Installed Capacity rights, or External Installed Capacity Import Rights, and offers associated with External CRIS Rights will be accepted.

In the ICAP Spot Market Auction, the NYISO will also construct a supply curve for all Unforced Capacity offered for the NYCA, as well as for each Locality, which includes all Capacity that LSEs or Installed Capacity Suppliers had designated for use to meet their respective LSE Unforced Capacity Obligations through self-supply, as well as all other Capacity for the relevant Locality or NYCA offered into the ICAP Spot Market

Auction. Capacity combined with EDRs or UDRs shall be treated as Capacity in the NYCA or in the case of UDRs, the relevant Locality.

In the ICAP Spot Market Auction, the Market-Clearing Price shall be determined for the NYCA, for each Locality, and for each External Control Area. The Market-Clearing Price for the NYCA will be the price at which the supply curve for the total Unforced Capacity intersects the applicable ICAP Demand Curve for the total Installed Capacity market, subject to applicable constraints. The Market-Clearing Price for a Locality will be the price at which the supply curve for that Locality intersects the Demand Curve for that Locality unless the Market-Clearing Price determined for Rest of State is higher in which case the Market-Clearing Price for that Locality will be set at the Market-Clearing Price for Rest of State.

The Market-Clearing Price for an External Control Area will be set to the Market-Clearing Price for the NYCA unless there were offers below the NYCA Market-Clearing Price from Installed Capacity Suppliers in External Control Areas that were not accepted. If a received offer in the ICAP Spot Market Auction was not accepted because it would cause the limit on the total amount of Capacity provided by Installed Capacity Suppliers located outside the NYCA to have been exceeded, the Market-Clearing Price for all External Control Areas shall be set to the price at which one could have obtained an incremental amount of Capacity from anywhere outside the NYCA unless there were offers below such Market-Clearing Price from Installed Capacity Suppliers in a given External Control Area that were not accepted. In that case, the Market-Clearing Price for that External Control Area would be set to the price at which one could have obtained an incremental amount of Capacity in that External Control Area. If the only unawarded offers for Unforced Capacity at that External Control Area interface are associated with External Capacity Resource Interconnection Service (CRIS) Rights offers by an Installed Capacity Supplier whose Unforced Capacity obligation has been met, such offers (i.e., the Unforced Capacity in excess of the External CRIS Right obligation) will not be considered in determining the Market-Clearing Price at that External interface.

No later than the fifth (5th) business day following the date that the NYISO posts the ICAP Spot Market Auction results, for all Special Case Resources in Zone J, each RIP shall submit, among other data required by the NYISO, (i) all individual registered Special Case Resources not offered, (ii) all individual registered Special Case Resources offered in part (denoted by a fractional value between 0 and 1; (iii) all individual registered Special Case Resources offered (in whole or part) but not sold, and if sold in part, the fractional value of the sale, (iv) all individual registered Special Case Resources included in bilateral capacity contracts, and if included in part, denoted by a fractional value between 0 and 1.

5.16. Billing and Settlements

The NYISO will pay each Offeror whose offer to sell Unforced Capacity is selected in an auction the Market-Clearing Price determined in that auction at the location of each of its Resources that have been selected to provide Unforced Capacity, for each 100 kW of Unforced Capacity that Resource has been selected to supply. Each Bidder for Unforced Capacity whose Bid to purchase is selected in an auction will pay the NYISO the Market-Clearing Price at the location specified in the Bid(s) that have been selected, for each 100 kW of Unforced Capacity that it purchased.

The capacity-weighted Market-Clearing price for all capacity purchased to satisfy accepted Bids that did not state that capacity used to meet those bids must be provided from Resources in a Locality shall be determined for each Auction as follows:

$$CP_a = \frac{ROSP_a \cdot \left(NYCASale_a - \sum_{l \in L} LocPurch_{l,a} \right) + \sum_{e \in E} (ECAP_{e,a} \cdot ECASale_{e,a})}{\left(NYCASale_a - \sum_{l \in L} LocPurch_{l,a} \right) + \sum_{e \in E} ECASale_{e,a}}$$

Where:

CP_a is the capacity-weighted average Market-Clearing price charged to purchasers of capacity in Auction a as described above;

$ROSP_a$ is the Market-Clearing price in Auction a for Unforced Capacity provided by Resources in Rest of State;

$NYCASale_a$ is the amount of Unforced Capacity sold in Auction a from Resources within the NYCA, including Localities;

$LocPurch_{l,a}$ is the amount of Unforced Capacity purchased in Auction a by auction participants stating that the capacity purchased in association with their bid must be located in Locality l ;

L is the set of Localities in the NYCA;

$ECAP_{e,a}$ is the Market-Clearing price in Auction a for Unforced Capacity provided by Resources in external Control Area e ;

$ECASale_{e,a}$ is the amount of Unforced Capacity sold in Auction a from Resources in external Control Area e ; and

E is the set of external Control Areas.

For all Installed Capacity auctions, entities selling Unforced Capacity will be paid:

1. The Market-Clearing Price for the Locality times the number of MW of offers they submitted that were accepted for Capacity in that Locality. (Capacity combined with UDRs will be treated as Capacity in the relevant Locality.)
2. The Market-Clearing Price for the NYCA times the number of MW of offers they submitted that were accepted.
3. The Market-Clearing Price for an External Control Area times the number of MW of offers they submitted that were accepted for Capacity in that External Control Area.

In the ICAP Spot Market Auction, the NYISO will charge entities purchasing Unforced Capacity the Market-Clearing Price as determined in Section [5.15](#) of this *ICAP Manual*.

Settlements for all Installed Capacity auctions will occur in the month following the month for which the Unforced Capacity was purchased. For example, Unforced Capacity purchased for the month of May will be billed and paid for in the month of June. The schedule for bills and payments for Unforced Capacity will follow the Energy Market schedule. A timetable for bills and payments for the Energy Market can be found on the NYISO Web site: (www.nyiso.com).

Unforced Capacity purchased in the six-month strip auction (the Capability Period Auction) will be settled on a monthly basis. The NYISO will issue bills for one-sixth of the applicable Market-Clearing Price for Unforced Capacity on the same schedule referenced above.

5.17. Allocation of Winning Bids

In the Capability Period and Monthly Auctions, each Bidder whose Bid to purchase Unforced Capacity is selected will be allocated a pro rata share of the Unforced Capacity purchased in the auction using the following procedure:

1. Bidders whose Bids specified that the Unforced Capacity must be associated with an Installed Capacity Supplier located in a Locality will be awarded such Unforced Capacity.
2. Any remaining purchasers of Unforced Capacity shall be allocated capacity provided by all remaining sellers of Unforced Capacity on a pro-rata basis.

5.18. Posting of Results

The NYISO will post the results of each auction within the time period specified in the NYISO Procedures. These results shall include:

1. The Market-Clearing Price for each Locality, each External Control Area, and the portion of the NYCA not included in any other Locality, in each NYISO-administered auction.
2. The total amount of Unforced Capacity associated with Installed Capacity Suppliers in each Locality, each External Control Area, and the portion of the NYCA that is not included in any other Locality that was sold in each NYISO-administered auction.
3. The total amount of Unforced Capacity purchased in each NYISO-administered auction, broken down by the constraints placed upon the location of that Unforced Capacity by the Bidders placing those Bids.

The NYISO shall publish all Bids and Offers made in each auction three months after the conclusion of that auction. The names of Offerors or Bidders will not be revealed publicly; however, the NYISO will post these data in a way that permits the identity of a given Offeror or Bidder to be tracked over time.

6. Sanctions

The NYISO may impose sanctions on Installed Capacity Suppliers, LSEs, and Transmission Owners for failing to comply with requirements set forth in the NYISO Services Tariff (available from the NYISO Web site at the following URL: <https://www.nyiso.com/regulatory-viewer>) and requirements enumerated in this ICAP Manual.

Sanctions may be assessed against Installed Capacity Suppliers for actions that fall into the following two categories:

- * Failure to provide required information; and
- * Failure to comply with bidding, scheduling and notification requirements, and procedures.

An LSE that fails to comply with the ISO's requirement to demonstrate ahead of an Obligation Procurement Period that it has procured sufficient Unforced Capacity to cover its Minimum Unforced Capacity Requirement is penalized through the procedures and financial consequences of the Deficiency Procurement Auction. Please refer to Section 5 of this ICAP Manual for details.

A Transmission Owner that fails to provide the information required by Section 5.11.3 of the NYISO Service Tariff in a timely fashion is subject to sanctions as described below in Section 6.2 of this ICAP Manual. The NYISO Services Tariff references are Sections 5.11.3, 5.12.1, 5.12.12, and 5.14.1.

6.1. Supplier Sanctions

Supplier sanctions are set forth in the NYISO Services Tariff.

6.2. Transmission Owner Sanctions

The NYISO Load Forecasting Manual (available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>), and the detailed timeline that can be found by selecting the link provided (http://icap.nyiso.com/ucap/public/evt_calendar_display.do), contain detailed descriptions of the types of information that Transmission Owners must provide to the NYISO, and deadlines for receipt of that information.

If a Transmission Owner fails to provide the required information, the following procedures will be followed:

- * On the first day that the required information is late (unless that day falls on a weekend or official New York State holiday, in which case the notification shall be made on the next business day), the NYISO

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~~shall notify the Transmission Owner that the information is past due and that the NYISO reserves the right to impose financial sanctions if the information is not provided by the end of the next day.~~

~~* Starting on the third day that the required information is late, the NYISO may impose a daily financial sanction up to \$5,000 per day.~~

~~* Starting on the tenth day that the required information is late, the NYISO may impose a daily financial sanction up to \$10,000 per day.~~

6.3. Procedural Safeguards

~~If the NYISO staff becomes aware of potentially sanctionable activity by a Market Participant, it shall report the activity to NYISO's Dispute and Claims Committee ("DAC"). The DAC will evaluate the reported activity pursuant to its procedures and, if warranted, shall recommend an appropriate sanction. All DAC decisions shall be made in a reasonable and non-discriminatory manner.~~

~~If the DAC recommends a sanction, the NYISO shall send a "Notice of Recommended Sanction" to any Market Participant potentially subject to sanctions pursuant to the DAC procedures. The DAC shall afford Market Participants a reasonable opportunity to demonstrate that its activities are not sanctionable. Market Participants shall also have a reasonable opportunity to bring any mitigating circumstances to the DAC's attention and to explain why the DAC, in the event that it decides to recommend a sanction, should reduce the sanction's severity.~~

~~If a Market Participant accepts a sanction recommended by the DAC, the NYISO will automatically impose the sanction. If a Market Participant disagrees with a recommended sanction it may appeal the DAC's decision to the ISO's President and Chief Executive Officer ("CEO"), who must approve all contested sanctions. Market Participants may challenge any sanction approved by the CEO pursuant to the NYISO Dispute Resolution Procedures.~~

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