# BUYER SIDE MITIGATION ICAP FORECAST - CLASS YEAR 2017-1 ASSUMPTIONS & REFERENCES

NEW YORK INDEPENDENT SYSTEM OPERATOR

MARKET MITIGATION AND ANALYSIS

ISSUED: June 8, 2018

# 1. Introduction

This document describes assumptions and identifies the sources of the inputs into the BSM Forecasts<sup>1</sup> for the buyer-side market power mitigation ("BSM") rule<sup>2</sup> determinations for Examined Facilities in bifurcated Class Year 2017-1 that are located in the New York City ("NYC" or "Zone J") and the G-J Localities.<sup>3</sup> It is accompanied by an Excel workbook containing specific values and selected calculations;<sup>4</sup> and the "BSM Narrative and Numerical Example," which provides general information regarding the methodology for the BSM exemption tests, the ICAP forecast, and Offer Floor shaping.<sup>5</sup>

# 2. Demand Curve Parameters

The ICAP Demand Curves used in the BSM ICAP Forecast are calculated using the parameters outlined in this section. For each parameter, the source is identified and in certain instances, discussed.

#### 2.1. Load Forecast

The Load forecast for the three years comprising the Mitigation Study Period ("MSP") is taken from the most recently-published NYISO Load & Capacity Data ("Gold Book"), *i.e.*, 2018 Load & Capacity Data <sup>6</sup> Table I-3a "Baseline Summer Coincident Peak Demand, Historical and Forecast," Table I-4a "Baseline Summer Non-Coincident Peak Demand, Historical and Forecast" and Table I-5 "Baseline Peak Demand – G to J Locality, Historical and Forecast."

# 2.2. New York Control Area Minimum and Locational Minimum Installed Capacity Requirements

Consistent with the Class Year 2015 BSM Rule determination<sup>7</sup> that it was appropriate to use a different value than the current Locational Minimum Installed Capacity Requirements ("LCRs") for the Class Year 2017-1, the NYISO determined that the LCRs used in the Class Year 2017-1 BSM ICAP Forecast are

<sup>&</sup>lt;sup>1</sup> Terms with initial capitalization not defined herein have the meaning set forth in the NYISO's Market Administration and Control Area Services Tariff ("Services Tariff"), and if not defined in the Services Tariff, have the meaning set forth in the NYISO's Open Access Transmission Tariff.

<sup>&</sup>lt;sup>2</sup> References herein in to BSM and BSM Rules means the rules set forth Services Tariff Section 23.4.5.7, et seq.

<sup>&</sup>lt;sup>3</sup> See Services Tariff §23.4.5.15, "Forecasts Under the Buyer Side Market Power Mitigation Measures".

<sup>&</sup>lt;sup>4</sup> The Excel Workbook for Class Year 2017-1 is available at: http://www.nyiso.com/public/markets\_operations/services/market\_monitoring/index.jsp

<sup>&</sup>lt;sup>5</sup> The BSM Narrative and Numerical Example is available at: <a href="http://www.nyiso.com/public/webdocs/markets\_operations/services/market\_monitoring/ICAP\_Market\_Mitigation/Buyer\_Side\_Mitigation/Numerical\_Example/BSM-Narrative-and-Numerical-Example-Updated-May-17-2018.pdf">http://www.nyiso.com/public/webdocs/markets\_operations/services/market\_monitoring/ICAP\_Market\_Mitigation/Buyer\_Side\_Mitigation/Numerical\_Example/BSM-Narrative-and-Numerical-Example-Updated-May-17-2018.pdf</a>

<sup>&</sup>lt;sup>6</sup> The Gold Book is available at: <a href="http://www.nyiso.com/public/webdocs/markets">http://www.nyiso.com/public/webdocs/markets</a> operations/services/planning/Documents and Resources/Planning Data and Reference Docs/Data and Reference Docs/2018-Load-Capacity-Data-Report-Gold-Book.pdf

<sup>&</sup>lt;sup>7</sup> See Class Year 2015 BSM Assumptions and References (December 1, 2016) at 2, available at http://www.nyiso.com/public/markets\_operations/services/market\_monitoring/index.jsp →Buyer Side Mitigation → Class Year 2015 (identifying the LCRs used in the BSM determination "in recognition of historically observed changes to the G-J Locality and NYC LCRs when capacity entered into service within Load Zone G, H, or I.")

projected values, while the New York Control Area ("NYCA") Minimum Installed Capacity Requirement is assumed to remain at the current value of 118.2% for all years.

The identification of the LCRs to be used in the BSM ICAP Forecast is motivated and made possible in large part by the LCR-setting methodology contained in the filed tariff revisions. These proposed new rules, which consist chiefly of what is commonly referred to as the "Alternative LCR Methodology" provide a detailed framework and process to establish the LCRs. Using provisions contained therein, and hypothetical conditions including those contemplated by the BSM Forecasts, the NYISO projected LCRs for the Class Year 2017 Mitigation Study Period.

The projected LCRs used in the BSM ICAP Forecast, shown in Table 1, were developed using the Alternative LCR Methodology and reflect projected system conditions and topology that are based on the assumptions and inputs developed for the BSM Forecasts.

Capability Year	Zone J	Zone K	G-J Locality
2020/21	83%	105%	91.0%
2021/22	85%	104%	91.5%
2022/23	85%	104%	91.5%

Table 1: Forecasted Locational Minimum Installed Capacity Requirements (LCRs)

# 2.3. ICAP Demand Curve Zero Crossing Points

The ICAP Demand Curve zero crossing point ("ZCP") for each Locality is set forth in Services Tariff Section 5.14.1.2.<sup>10</sup> For Class Year 2017-1, the zero crossing points are 112% for the NYCA, 115% for the G-J Locality, 118% for New York City, and 118% for Long Island ("LI" or "Zone K").

#### 2.4. ICAP Demand Curve Reference Points

The ICAP Demand Curve reference points for the NYCA, NYC, G-J Locality, and Long Island ICAP Demand Curves are set forth in the Services Tariff. A summary of the currently effective Demand Curve parameters for NYCA, NYC, G-J Locality and LI can be found on the NYISO website. Annual updates to the ICAP Demand Curve reference points are projected for each year of the MSP, in a manner consistent with the Demand Curve annual update rules.

<sup>12</sup> 2018-2019 Demand Curve Parameters and Demand Curves, available at: <a href="http://www.nyiso.com/public/webdocs/markets\_operations/market\_data/icap/Reference\_Documents/Demand\_Curve\_Reset\_Annual\_Updates/2018/Demand-Curve-2018-2019.pdf">http://www.nyiso.com/public/webdocs/markets\_operations/market\_data/icap/Reference\_Documents/Demand\_Curve\_Reset\_Annual\_Updates/2018/Demand-Curve-2018-2019.pdf</a>

<sup>&</sup>lt;sup>8</sup> See the New York State Reliability Council's May 2018 – April 2019 Technical Study Report, New York Control Area Control Area Installed Capacity Requirement, (Dec.17, 2018), available at: <a href="http://www.nysrc.org/pdf/Reports/2018%20IRM%20Study%20Report%20Final%2012-8-17[2098].pdf">http://www.nysrc.org/pdf/Reports/2018%20IRM%20Study%20Report%20Final%2012-8-17[2098].pdf</a>

<sup>&</sup>lt;sup>9</sup> See New York Indepen. Sys. Operator, Docket No. ER18-1743-000.

<sup>&</sup>lt;sup>10</sup> See Services Tariff Section 5.14.1.2 at table.

<sup>&</sup>lt;sup>11</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> The annual update rules for the ICAP Demand Curves are set forth in Section 5.14.1.2.2 of the Services Tariff.

#### **2.4.1.** Escalating the Peaking Plant Gross Cost

The NYISO escalated the effective ICAP Demand Curve peaking plant gross cost using the ("Inflation Index"). <sup>14</sup> For Class Year 2017-1 initial determinations, the Inflation Index value is 2.15%.

#### 2.4.2. Estimating the Peaking Plant Net Energy & Ancillary Services Revenues

For each year of the MSP, the NYISO estimated the net Energy and Ancillary Services ("EAS") revenue offsets using a rolling, "period-correct," three-year sample of inputs. For example, Capability Year 2020/2021 (*i.e.*, year 1 of MSP) used inputs for the period from September 2016 through August 2019 to estimate peaking plant net EAS. Capability Year 2021/2022 "rolled off" 2016 and replaced it with 2020. For future dates where historic data were not available, the NYISO used fuel prices based on forward curves, and forecasted LBMPs developed using the econometric model used to estimate net EAS revenues for Examined Facilities, which is discussed further in the BSM Narrative and Numerical Example. The rolling three-year samples of inputs were used in the same dispatch model to estimate the net EAS of the peaking plant of the currently effective ICAP Demand Curves.

<u>Table 2:</u> Projected peaking plant net Energy and Ancillary Services revenues used to identify the ICAP Demand Curves for the BSM ICAP Forecast, represented in \$/kW-Year

Capability Year	Zone J	G-J Locality	NYCA
2020/2021	36.17	32.89	33.48
2021/2022	47.78	38.01	36.25
2022/2023	51.76	32.39	29.34

#### **2.4.3.** Estimating Winter-to-Summer Ratio

The NYISO updated the winter-to-summer ratio ("WSR") for each year of the MSP based on the Summer and Winter Capability Period ICAP during each year of the MSP. The available ICAP used to calculate the WSR is a function of the capacity resources identified with inclusion and exclusions rules described in section 3 below.

# 2.5. Installed Capacity/Unforced Capacity Translation Factor

The Installed Capacity/Unforced Capacity ("ICAP/UCAP") translation factor for each Capability Period is the ICAP/UCAP translation factor published on the NYISO public website that corresponds most closely with the seasonal Dependable Maximum Net Capability values in the most recently published Gold Book.

<sup>&</sup>lt;sup>14</sup> Services Tariff §23.4.5.7.4 establishes that "the Inflation Index shall mean the average of the most recently published median Headline Consumer Price Index (CPI) and Headline Personal Consumption Expenditures (PCE) long-term annual averages for inflation over the ten years that includes the last year of the Mitigation Study Period, as reported by the Survey of Professional Forecasters, unless this index is eliminated, replaced or otherwise terminated by the publisher thereof. In such circumstance, the ISO shall utilize the replacement or successor index established by the publisher, if any, or, in the absence of a replacement or successor index, shall select as a replacement a substantially similar index."

The 2018 Gold Book is the most recently published Gold Book. Therefore, the Summer 2017 and Winter 2017/2018 ICAP/UCAP Translation Factors <sup>15,16</sup> are used in the ICAP Forecast.

#### 2.6. Demand Curve Calculated Values

The calculations utilized to determine the UCAP reference point, UCAP requirement, UCAP at \$0, and Demand Curve slope are described in the BSM Narrative and Numerical Example.

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<sup>&</sup>lt;sup>15</sup> See ICAP/UCAP Translation of Demand Curve; Summer 2017 Capability Period, available at: <a href="http://www.nyiso.com/public/webdocs/markets\_operations/market\_data/icap/ICAP\_Auctions/2017/Summer\_2017/Documents/ICAP\_Translation\_of\_Demand\_Curve\_Summer\_2017.pdf">http://www.nyiso.com/public/webdocs/markets\_operations/market\_data/icap/ICAP\_Auctions/2017/Summer\_2017/Documents/ICAP\_Translation\_of\_Demand\_Curve\_Summer\_2017.pdf</a>

<sup>&</sup>lt;sup>16</sup> See ICAP/UCAP Translation of Demand Curve; Winter 2017-18 Capability Period, available at: <a href="http://www.nyiso.com/public/webdocs/markets">http://www.nyiso.com/public/webdocs/markets</a> operations/market data/icap/ICAP Auctions/2017/Winter 2017-2018/Documents/Winter\_2017-18\_Demand\_Curve\_UCAP\_Translation\_1.pdf

# 3. Supply Curve

#### "Price taking" UCAP (i.e., UCAP that offers at \$0.00/kW-mo) 3.1.

# 3.1.1. Generation Capacity – "Existing Units"

Generators and Unforced Capacity Delivery Rights ("UDR") projects identified in the ISO's most-recently published Gold Book that have Capacity Resource Interconnection Service ("CRIS") and are operating at the time that the ISO determines the BSM ICAP Forecast; including but not limited to Generators in Forced Outage or Inactive Reserve status, are identified as "Existing Units" and are included in the forecast. 17

# 3.1.2. UCAP Associated with Special Case Resources

The capacity associated with Special Case Resources ("SCRs") is based on SCR enrollment in each ICAP Spot Market Auction during the three Capability Years preceding the 2018 Gold Book (i.e., Capability Years 2015/2016, 2016/2017, and 2017/2018). SCR UCAP from the "Monthly SCR Reports" posted on the ICAP section of the NYISO public website were averaged by Capability Period and by each Locality and the NYCA.<sup>18</sup>

# 3.1.3. Unoffered and Unsold Capacity

"Unoffered" and "Unsold" UCAP is based on the "Unoffered" and "Unsold" UCAP megawatts in each ICAP Spot Market Auction during the three Capability Years preceding the 2018 Gold Book (i.e., Capability Years 2015/2016, 2016/2017, and 2017/2018). "Unoffered" and "Unsold" UCAP from the "Monthly UCAP Reports" posted on the ICAP section of the NYISO public website were averaged by Capability Period and by each Locality and the NYCA. "Unoffered" and "Unsold" UCAP is removed from the supply stack of each Locality and the NYCA.

#### 3.1.4. Cleared UCAP

Cleared UCAP is offered into the ICAP Spot Market Auctions as a price-taker. Cleared UCAP is the MW of UCAP that had been subject to an Offer Floor and that have cleared in any 12, not necessarily consecutive ICAP Spot Market Auctions.<sup>20</sup>

#### 3.1.5. Examined Facilities from Prior Class Years

The UCAP MW of Examined Facilities that remained in prior Class Years at the time of the completion of that Class Year ("Prior Class Year Facilities") and that do not meet the Generation Capacity criteria in section 3.1.1 above are assumed to be price-takers in the supply stack if the Prior Class Year Facility (a) was on the "Active" tab of the most recently published version of the NYISO Interconnection Queue, and (b) was determined to be exempt from Offer Floor mitigation. For determinations for Class Year 2017-1 Examined Facilities, there were no Examined Facilities from Prior Class Years that met these criteria. Prior

<sup>&</sup>lt;sup>17</sup> See Services Tariff Section 23.4.5.7.15.4, "Existing Units."

<sup>&</sup>lt;sup>18</sup> See http://www.nyiso.com/public/markets\_operations/market\_data/icap/index.jsp, under the "Monthly Reports → Monthly SCR Reports.

<sup>&</sup>lt;sup>19</sup> *Id*.

<sup>&</sup>lt;sup>20</sup> Existing UCAP that is subject to an Offer Floor is excluded from this category, and is described in section 3.2.3 below.

Class Year Examined Facilities that did not meet these criteria are considered in the price responsive category, as described in section 3.2.4 below.

# 3.2. Price responsive UCAP

#### 3.2.1. Additional Units & Excluded Units

In some circumstances, and subject to certain exceptions, a Generator or UDR project that is not already included in the ICAP Forecast as an Existing Unit may be included as an Additional Unit. <sup>21, 22</sup> Broadly put, this occurs if either: (a) there are positive indicators that the unit will repair and return to service, or (b) the Net Present Value of returning the unit to service is positive. Given that Confidential Information was utilized in the development of the BSM Forecasts, or could be derived from data information associated with the Net Present Value analysis, the units studied are identified, but not the determinations for inclusion in the BSM Forecasts. <sup>23, 24</sup>

# 3.2.1.1. Net Present Value Analysis

Table 3: Facilities Evaluated under MST Sections 23.4.5.7.15.4, .5, and .6

	CRIS	Summer	Winter
Ravenswood 04	15.2	12.9	15.6
Ravenswood 05	15.7	15.5	17.2
Ravenswood 06	16.7	12.6	16.5
Astoria GT 05	16	12.3	14.9
Astoria GT 07	15.5	11.5	14.3
Astoria GT 08	15.3	11.4	14.8
Astoria GT 10	24.9	18.4	22.6
Astoria GT 11	23.6	16.5	25.0
Astoria GT 12	22.7	17.7	22.3
Astoria GT 13	24	16.9	22.7
Ravenswood 09	21.7	16.3	21.9
Niagara Bio-Gen	50.5	37.2	37.2
Dunkirk 2	97.2	75.0	75.0
Huntley 67	196.5	187.9	188.0
Huntley 68	198	189.5	186.8
Chateaugay Power	18.6	18.2	18.5

<sup>&</sup>lt;sup>21</sup> See Services Tariff Section 23.4.5.7.15.5, "Additional Units."

<sup>23</sup> Services Tariff Section 23.4.5.7.15.1 provides that a "'positive indicator'" that a Generator or UDR project will repair and return to service includes indications that a return to service is, in the ISO's judgment, likely and imminent, such as visible site activity, executed labor or fuel supply arrangements, or unit testing."

<sup>&</sup>lt;sup>22</sup> See Services Tariff Section 23.4.5.7.15.7, "Exceptions."

<sup>&</sup>lt;sup>24</sup> See Services Tariff Section 23.4.5.7.15.8, "Net Present Value Analysis."

Binghamton	43.8	43.7	47.1
Lyonsdale	20.2	19.3	20.3
Selkirk 1	82.1	78.1	104.3
Selkirk 2	291.3	282.1	325.9

#### **3.2.1.2. Indian Point Units 2 & 3**

Generators and UDR projects for which there is publically available information demonstrating with reasonable certainty that they will indefinitely cease operation shall be identified as excluded capacity.<sup>25</sup>

For Class Year 2017-1, the NYISO excluded Indian Point Unit 2 as of April 30, 2020, and Indian Point Unit 3 as of April 30, 2021, based on public information about each unit's proposed retirement date. <sup>26</sup>

# 3.2.1.3. On-going Generation Deactivation Assessments

Generators for which the NYISO has received a completed Generator Deactivation Notice but has not yet completed a Generation Deactivation Assessment at the time of the Class Year 2017-1 BSM evaluation were identified as Existing Units for the forecast.<sup>27</sup> There are two units in this category: Pilgrim GT1 and Pilgrim GT2e.<sup>28</sup>

# 3.2.2. Unforced Capacity Delivery Rights that have already entered the market

UCAP sales associated with UDRs of existing UDR facilities were forecasted using a two-step process. First, historical monthly UCAP sales from UDR facilities during the three Capability Years preceding the 2018 Gold Book (*i.e.*, Capability Years 2015/2016, 2016/2017, and 2017/2018) were determined and then Capability Period and Locality averages were calculated.

Second, UDR facilities were assumed to only import UCAP if the relevant market price spread would compensate the UDR rightsholder(s) for the cost of obtaining capacity in the neighboring Control Area.

For the Class Year 2018 forecast, UDR UCAP sales into New York City were reduced until capacity prices at the UDR source and sink points converged or UDR sales reached zero. UDR UCAP sales into Long Island were not adjusted.<sup>29</sup>

<sup>&</sup>lt;sup>25</sup> See Services Tariff Section 23.4.5.7.15.7.2, "Exceptions".

<sup>&</sup>lt;sup>26</sup> See, e.g., Indian Point Agreement, by and among, the State of New York, et al., and Entergy Nuclear Indian Point 2, LLC, et al. (dated January 8, 2017), available at: <a href="https://www.riverkeeper.org/wp-content/uploads/2017/01/Indian-Point-Closure-Agreement-January-8-2017.pdf">https://www.riverkeeper.org/wp-content/uploads/2017/01/Indian-Point-Closure-Agreement-January-8-2017.pdf</a>; "Entergy, NY Officials Agree on Indian Point Closure in 2020-2021" available at <a href="http://www.safesecurevital.com/entergy-ny-officials-agree-on-indian-point-closure-in-2020-2021/">https://www.safesecurevital.com/entergy-ny-officials-agree-on-indian-point-closure-in-2020-2021/</a>.

<sup>&</sup>lt;sup>27</sup> See Services Tariff §23.4.5.7.15.7.2, "Exceptions"

<sup>&</sup>lt;sup>28</sup> See Posting of Completed Generator Deactivation Notice Date 3/22/2018, available at:
<a href="http://www.nyiso.com/public/webdocs/markets\_operations/services/planning/Documents\_and\_Resources/Planned\_Generation\_Retirements/Planned\_Retirement\_Notices/Posting-of-Completed-Generator-Deactivation-Notice-for-Pilgrim.pdf">http://www.nyiso.com/public/webdocs/markets\_operations/services/planning/Documents\_and\_Resources/Planned\_Generator-Deactivation-Notice-for-Pilgrim.pdf</a>

<sup>&</sup>lt;sup>29</sup> This methodology was also used for the preceding Class Year BSM determinations. *See* Potomac Economics' "Assessment of the Buyer-Side Mitigation Exemption Tests for the Class Year 2015 Projects" (February 2, 2017) discusses this point at p 44-45,

#### 3.2.3. Net of Imports into and Exports from the NYCA

First-come, first-served imports and exports over AC transmission were forecasted using a two-step process. First, historical import and export UCAP sales over AC transmission during the three Capability Years preceding the 2018 Gold Book (*i.e.*, Capability Year 2015/2016, 2016/2017, and 2017/2018) were determined. Additionally, the NYISO also considered the capacity imports associated with the External-to-ROS Deliverability Rights ("EDRs") under the proposed HQUS 80 MW (*i.e.*, HQUS Project). <sup>30</sup> Second, the price-responsiveness of these imports and exports was reviewed. That is, did import and export UCAP vary as a function of the difference in capacity market prices between the NYISO and the neighboring Control Area? For Class Year 2017-1, the NYISO found that imports from Hydro Quebec and PJM were not price-responsive and that imports from ISO New England were price responsive.

Therefore, UCAP imports and exports from ISO New England were adjusted based on the difference between ISO New England Forward Capacity Auction capacity prices and the BSM ICAP Forecast prices.

In doing so, the NYISO also confirmed that forecasted imports and exports remain at levels in the range of the three most recent Capability Years. Specifically, in the forecast, monthly imports were restricted from exceeding the maximum observed monthly import value of the three Capability Years of data that was used to develop the initial import and export values (*i.e.*, Capability Years 2015/2016, 2016/2017, and 2017/2018). Forecasted monthly exports were restricted from exceeding the average Capacity Supply Obligation that NYCA resources obtained during ISO New England's Forward Capacity Auction #11 and Forward Capacity Auction #12.

Additionally, given the potential for the Champlain Hudson Power Express (*i.e.*, CH Interconnection project in Class Year 2017-1) to substantially increase capacity imports from Hydro Quebec to the NYCA, the capacity margins of Hydro Quebec were evaluated. Reductions in capacity margins (*i.e.*, load growth, resource retirements, and increased exports from Hydro Quebec) were compared with growth in capacity margins (*i.e.*, resource additions) during the Mitigation Study Period.<sup>31</sup> The NYISO determined that Hydro Quebec is likely to have sufficient capacity margins to simultaneously continue its historical export patterns and support additional exports. Therefore, historic capacity imports from Hydro Quebec to the NYCA were not adjusted.

http://www.nyiso.com/public/webdocs/markets\_operations/services/market\_monitoring/ICAP\_Market\_Mitigation/Buyer\_Side\_Mitigation/Class%20Year%202012/MMU%20Report%20on%20CY%202012%20BSM%20Tests.pdf

<sup>&</sup>lt;sup>30</sup> This proposed HQUS project requested 80 MW of CRIS in Class Year 2017 associated with a transmission upgrade being evaluated in the NYISO's Transmission Interconnection Procedures as Queue No. 430. This transmission upgrade increases transmission capacity on the Cedar Rapids Intertie between the province of Québec and the Rest of State. Tariff revisions approved in the NYISO's stakeholder process and pending before the Commission in a filing pursuant to Federal Power Act Section 205 would establish EDRs through which a project such as Queue No. 430 could use CRIS to participate as an ICAP Supplier. *See New York Indepen. Syst. Operator, Inc.*, Docket No. ER18-1668-000. EDRs associated with the CRIS could be used to import external capacity, as further described in the proposal. The NYISO's Interconnection Queue reflects the project's expected commercial operation date as fourth quarter of 2019.

<sup>&</sup>lt;sup>31</sup> See 2017 Long-Term Reliability Assessment, https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC\_LTRA\_12132017\_Final.pdf2017 Long-Term Reliability Assessment, http://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/2016%20Long-Term%20Reliability%20Assessment.pdf

#### 3.2.4. Existing UCAP That is Subject to an Offer Floor

Existing UCAP that is subject to an Offer Floor is added to the price-responsive category of the supply stack.

This UCAP is included in the BSM ICAP Forecast price at its applicable Offer Floor, inflated to the Mitigation Study Period. The NYISO adjusted the Offer Floor of Mitigated UCAP to account for inflation as described in Section 4 of the BSM Narrative and Numerical Example.

#### 3.2.5. Prior Class Year Examined Facilities not under the Section 3.1.5 Criteria

The UCAP of Prior Class Year Examined Facilities that have not yet entered the market are included in the price-responsive category of the supply stack if it (a) is on the "Active" tab of the most recently published version of the NYISO Interconnection Queue, (b) received an Offer Floor in its Class Year, and the NYISO determined it is has satisfied at least one of the following: (c) approximately, has incurred or expended, in the aggregate, more than 5 percent of its cost of new entry for the following: engineering, procurement, and construction costs; financing costs; or interconnection costs invoiced by the interconnecting Transmission Owner(s), *e.g.*, Transmission Owner attachment facilities, System Deliverability Upgrades, and System Upgrade Facilities; net of any amounts that would likely be recouped if the project was not completed (*e.g.*, a deposit that would be returned) ("5 percent threshold") or (d) would earn sufficient capacity revenue to recoup its Unit Net CONE, considering its Offer Floor, in a capacity price forecast for a three-year period starting one year before the Class Year 2017 Mitigation Study Period, and which does not include the current Class Year Examined Facilities.

Facilities that met all three criteria are included in the Class Year 2017 ICAP Forecast supply stack at the applicable Offer Floor, inflated to the Class Year 2017 Mitigation Study Period.

#### 3.2.6. Examined Facilities in Class Year 2017

Examined Facilities are assumed to offer into the appropriate Locality(ies) and the NYCA from lowest to highest, ordering each Examined Facility by the lower of the first year value of its Unit Net CONE or the numerical value equal to 75% of the Mitigation net CONE.

For Class Year 2017-1, the NYISO includes the following Examined Facilities in the price-responsive category of the supply stack:

- Bayonne Energy Center II, New York City
- Berrians East Replacement, New York City
- CH Interconnection, New York City
- Cricket Valley Energy Center, G-J Locality
- East River 6, New York City
- Linden Cogeneration, New York City
- Linden Cogeneration Uprate, New York City.

Examined Facilities are required to submit expected net degraded summer and winter capacity values as part of the BSM evaluation. The NYISO sought to validate the submission and, if not validated, the NYISO

substituted alternate appropriate net degraded summer and winter capacity values. Such values were utilized in the BSM evaluation, including in the BSM Forecasts.

# **3.2.7.** Class Year Projects and Prior Class Year Projects Located Outside the Mitigated Capacity Zones

The UCAP of Class Year Projects and Prior Class Year Projects located outside the Mitigated Capacity Zones were evaluated in a two-step process. First, the UCAP of Prior Class Year Projects that was never operational and that was removed from the Interconnection Queue was not considered. The UCAP of Class Year Projects and Prior Class Year Projects located outside the Mitigated Capacity Zones that are already operational, including the Class Year Projects seeking additional CRIS (*e.g.*, and uprate), or that have ERIS and are only seeking CRIS, are assumed to be in-service.

Second, each Class Year Project and remaining Prior Class Year Project located outside the Mitigated Capacity Zones are assumed to offer into the NYCA from lowest to highest, ordering each Project by a Unit Net CONE (estimated based on publically available data sources and in some instances, on Confidential Information) or as a price-taker (\$0.00/kW-mo) depending chiefly on whether or not it was in service and whether it was CRIS-only.

# 4. Auction Resolution for a Locality Contained Within Another Locality

ICAP Spot Market Auction clearing prices for the Part B test were forecasted by sequentially offering Class Year 2017 Examined Facilities from lowest to highest, ordered by the lower of the first year value of each Examined Facility's Unit Net CONE or the numerical value equal to 75% of the Mitigation Net CONE. For each iteration, the resulting three year average ICAP Spot Market Auction price was compared with the three-year average Unit Net CONE (UNC) of the Examined Facility. If the three year average ICAP Spot Market Auction clearing price exceeded the UNC of the Examined Facility, then:

- the Examined Facility received a Part B exemption, and
- the Examined Facility offered into all subsequent iterations of the ICAP Spot Market Auction forecast (*i.e.*, for all Examined Facilities with higher values of the lower of the first year value of their Unit Net CONE or the numerical value equal to 75% of the Mitigation Net CONE) at \$0/kW-mo.

If the forecasted three year average ICAP Spot Market Auction clearing price is less than or equal to the UNC of the Examined Facility, then:

- the Examined Facility did not receive a Part B exemption, and
- is excluded from all subsequent iterations of the ICAP Spot Market Auction Forecast.

This iterative process continued until all Examined Facilities were tested.

ICAP Spot Market Auction clearing prices for the Part A test are determined using the same iterative method.

The BSM Narrative and Numerical Example provides an illustrative example of both processes.

For all ICAP Spot Market Auction forecasts, a minimum market clearing price of \$1.00/kW-mo in each Locality and the NYCA is assumed. When UCAP does not clear in the smallest Mitigated Capacity Zone that contains the Load Zone in which the Examined Facility is electrically located (*i.e.*, NYC), the UCAP is "reoffered" into the auction of the other Locality in which it is located (*i.e.*, the G-J Locality), and the NYCA.

Finally, the ICAP Spot Market Auction clearing price for a Locality is the maximum of that Locality's ICAP Spot Market Auction clearing price and the ICAP Spot Market Auction clearing prices of all Localities in which it is located, and the NYCA.