156 FERC ¶ 61,039
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Norman C. Bay, Chairman;
Cheryl A. LaFleur, Tony Clark,
and Colette D. Honorable.

New York Independent System Operator, Inc. Docket No. ER16-1751-000

ORDER ACCEPTING TARIFF REVISIONS SUBJECT TO CONDITION

(Issued July 18, 2016)

1. On May 20, 2016, pursuant to section 205 of the Federal Power Act (FPA),[1] the New York Independent System Operator, Inc. (NYISO) filed proposed amendments to its Market Administration and Control Area Services Tariff (Services Tariff) to enhance its process for periodically reviewing its Installed Capacity (ICAP) demand curves. In this order, we accept NYISO's proposed Services Tariff revisions, subject to condition, to become effective as requested.[2]

I. Background

2. Pursuant to the Services Tariff,[3] every three years NYISO reviews the parameters of the ICAP demand curves, referred to as the ICAP demand curve reset (DCR), to establish ICAP demand curves for the subsequent three Capability Years. In advance of

[1] 16 U.S.C. § 824d (2012).

[2] NYISO requests an effective date of July 19, 2016 for the proposed revisions to sections 2.9 and 5.14 of the Services Tariff and section 30.4.6.3 of Attachment O of the Services Tariff. NYISO requests that the amendments to sections 23.2.1 and 23.5.6 of Attachment H of the Services Tariff become effective on a date that NYISO will request in a subsequent compliance filing that it will submit at least two weeks prior to the proposed effective date. This approach will allow NYISO to align the revisions to Attachment H of the Services Tariff with related tariff revisions that NYSIO will file on November 30, 2016. NYISO May 20, 2016 Application at 1, 23 (NYISO transmittal).

[3] NYISO, Services Tariff, §5.14.1.2. (14.0.0).

the upcoming DCR, NYISO, in coordination with its stakeholders and an independent consultant, Analysis Group, Inc., examined potential enhancements to the DCR process.[4] As discussed below, NYISO proposes to revise its Services Tariff to increase the period between DCRs from three years to four years and to provide annual updates of certain parameters of the ICAP demand curves for the second through the fourth years of each reset period.

II. Notice, Interventions, and Responsive Pleadings

3. Notice of NYISO's filing was published in the *Federal Register*, 81 Fed. Reg. 33,521 (2016), with interventions and protests due on or before June 10, 2016. City of New York, New York (City of New York); Electric Power Supply Association; Entergy Nuclear Power Marketing, LLC; Independent Power Producers of New York, Inc. (IPPNY); NRG Power Marketing LLC; GenOn Energy Management, LLC; Multiple Intervenors; [5] and New York Transmission Owners[6] filed timely motions to intervene.

4. On June 10, 2016, City of New York and Multiple Intervenors (together, Consumer Parties) and New York State Public Service Commission (New York Commission) each submitted protests and comments, and IPPNY submitted comments.

5. On June 23, 2016, IPPNY filed an answer to the New York Commission's and Consumer Parties' protests and comments. Subsequently, on July 19, 2016, NYISO filed an answer to New York Commission's comments and Consumer Parties' protest and comments.

[4] NYISO transmittal at 2.

[5] Multiple Intervenors is an unincorporated association of approximately 60 large industrial, commercial, and institutional energy consumers with manufacturing and other facilities located throughout New York State.

[6] New York Transmission Owners consists of the following entities: Central Hudson Gas & Electric Corporation; Consolidated Edison Company of New York, Inc.; Power Supply Long Island; New York Power Authority; New York State Electric & Gas Corporation; Niagara Mohawk Power Corporation d/b/a National Grid; Orange and Rockland Utilities, Inc.; and Rochester Gas and Electric Corporation.

III. Discussion

A. Procedural Matters

6. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2015), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

7. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2015), prohibits an answer to a protest unless otherwise ordered by the decisional authority. We will accept IPPNY's and NYISO's answers because they have provided information that assisted us in our decision-making process.

B. Substantive Matters

8. We find NYISO's proposed enhancements to the periodic reviews of the ICAP demand curves to be just and reasonable, as discussed below. We find that NYISO's proposal will improve transparency and market certainty and stability, better capture changes in market conditions, and reduce administrative burden. Therefore, we accept the tariff revisions, subject to condition, to become effective as requested.[7] We direct NYISO to submit a compliance filing providing no less than two weeks' notice of the actual effective date for the revisions to Attachment H.[8]

1. Frequency of Periodic Reviews and Net Energy and Ancillary Service Revenue Estimation Methodology

a. Proposal

9. NYISO proposes to increase the period between DCRs from three to four years and estimate net Energy and Ancillary Services (EAS) using a historical methodology instead of an econometric forecast. NYISO asserts that its proposed historical

[7] We find good cause to grant NYISO's request for waiver of the prior notice requirements of section 35.3 of the Commission's Rules and Regulations, 18 C.F.R. § 35.3 (2015), to permit the filing to be made more than 120 days in advance of the proposed effective date. Doing so will allow NYISO to align the effective date of these revisions with the Commission's issuance of an order regarding the tariff revisions that NYISO will submit in November 2016 establishing the ICAP demand curves beginning with the 2017/2018 Capability Year.

[8] *See supra* note 2.

methodology will provide greater certainty to market participants and developers of new capacity resources, and will reduce the resources that both NYISO and stakeholders would otherwise dedicate to the DCR process. NYISO contends that, compared to the triennial process, its proposal to increase the period between DCRs from three to four years should not increase the risk that the technology selected to serve as the peaking unit will change between resets.[9]

10. NYISO also proposes, as part of each DCR, to estimate the annual level of net EAS revenue that a peaking plant is likely to earn from participation in the NYISO-administered market using a historical methodology instead of the econometric forecast used previously.[10] The proposed historical methodology will utilize the most recent three years of historical data in developing net EAS revenue projections.[11] NYISO states that, under the proposed revisions, net EAS revenue projections would be based primarily on a three-year history of location based marginal prices, fuel prices, and the variable costs and operating parameters of the peaking plant for each ICAP demand curve.[12] NYISO asserts that the historical methodology offers several advantages over the previous model, including increased transparency of resulting revenue projections and allowing for the model to project net Ancillary Services revenue based on actual, historic market outcomes. NYISO also states that the historical methodology will facilitate the implementation of a formulaic and transparent annual update process, eliminate the need to develop forecasts of the future market conditions, and reduce the potential for forecast errors to impact results.[13]

11. NYISO proposes to retain unchanged the requirement that it establish the ICAP demand curve values under conditions where the level of excess adjustment is equal to the sum of the applicable minimum Installed Capacity requirement and the megawatt (MW) value of the relevant peaking plant's capacity. NYISO further states it will adjust historical market prices by a level of excess adjustment factor reflecting the tariff-prescribed excess level.[14] NYISO explains that it will determine the level of adjustment

[9] NYISO transmittal at 4.

[10] *Id.* at 5-6.

[11] *Id.* at 7.

[12] Hibbard Affidavit at 6.

[13] NYISO transmittal at 6-7.

[14] As part of the amount of capacity used in estimating the net energy and ancillary services revenues, NYISO includes the level of excess adjustment, which consists of the

(continued ...)

factor values during each DCR, and hold them constant for the annual updates for the three intervening Capability Years.[15]

b. Comments

12. IPPNY supports NYISO's proposed revisions, stating that the proposed revisions will improve stability for market-based outcomes by allowing participants to incorporate changes in market conditions into ICAP demand curve reference point prices in a manner that is more accurate and timely than under the current process.[16] They also state that the proposed changes are "grounded in economic principles" and will help to improve the accuracy, stability, and transparency of those markets.[17]

13. The Consumer Parties and New York Commission also support NYISO's proposal to continue using the existing methodology to calculate the level of excess adjustment. The New York Commission asserts that the reference peaking unit capacity represents the proper level of excess above the reserve margin for calculating the net cost of new entry.[18] In addition, the New York Commission asserts the adjustment fine-tunes the level of excess used to calculate the net cost of new entry, which is based, in part, on three years of historical prices that, according to the New York Commission, used a level of excess that was greater than what is currently required under the Services Tariff.[19] Consumer Parties state that the level of excess adjustment is necessary to ensure that the ICAP demand curve is set at a level that provides sufficient revenue to cover the cost of peaking plant when market entry of additional generation resources is required to maintain reliability.[20]

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peaking plant's available capacity. *Id.* at 7-8. The purpose of the level of excess adjustment factor is to ensure that the ICAP demand curves are established at a level that provides sufficient revenues to cover the costs of a peaking plant when market entry by such facility is required in order to maintain reliability. *Id.* at 7-8.

[15] *Id.* at 8.

[16] IPPNY June 10, 2016 Comments at 3-6.

[17] *Id*. at 3-4 (citing the Affidavit of Paul J. Hibbard at 10).

[18] New York Commission Protest at 8.

[19] *Id.* at 8-9.

[20] Consumer Parties Protest at 6.

14. Also, the Consumer Parties and New York Commission support NYISO's proposal to use a fixed level of excess adjustment for the four-year duration of the ICAP demand curve, rather than revise the adjustment as part of the annual update process.[21] Consumer Parties maintain that an annual update would require NYISO to use special data modeling, which would consume significant resources and lead to litigation concerning the subjective interpretation of the model's outcomes.[22] Further, Consumer Parties assert, the benefits associated with the annual update would be minor because the Analysis Group confirmed that the level of excess adjustment had an immaterial effect on net EAS revenue projections.[23]

c. Commission Determination

15. We accept NYISO's proposal to increase the period between DCRs from three to four years. We agree that the additional year is not expected to increase the risk that the peaking unit technology will change between resets and will instead provide greater certainty to market participants and developers of new capacity resources. We also support the proposed changes as an effort to reduce both NYISO and stakeholder resources that would otherwise be dedicated to the DCR process.

16. With respect to the net EAS revenues estimation revisions, we accept the change from an econometric forecast to a historical methodology. In contrast to the existing econometric model, which uses forecasted data and is based on subjective assumptions, the new historical methodology will allow the model to project revenues based on actual, historical market outcomes. Furthermore, the new estimation approach enables the implementation of annual updates through a formulaic and transparent methodology to reflect market changes in reference prices on a timely and gradual basis.

17. We agree with NYISO that the methodology for calculating the level of excess adjustment appropriately balances the economic rationale for the adjustment with the competing objectives of transparency, stability, feasibility, and understandability.[24]

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[21] *Id.* at 6; New York Commission Protest at 9.

[22] Consumer Parties Protest at 7 (citing Transmittal Letter at 8).

[23] *Id.* at 8.

[24] NYISO transmittal at 8.

2. Annual Updates and the Winter-to-Summer Ratio

a. NYISO's Proposal

18. NYISO states that the current triennial reset process creates the potential for significant step changes in the values of the ICAP demand curves from one reset to the next, which may impact the stability of capacity market pricing outcomes.[25] As such, NYISO proposes tariff changes to annually update certain demand curve parameters for the Capability Years between DCRs. NYISO asserts that, combined with increasing the period between DCRs to four years, annual updates will more timely reflect changing market conditions and the impacts of market rule enhancements.[26] As part of the annual update, NYISO proposes to reflect seasonal differences in capacity availability by calculating a winter-to-summer ratio using a historical methodology, which mirrors calculation of the EAS revenues. As discussed in more detail below, the proposed winter-to-summer ratio will treat market entry and exit behaviors as occurring at the beginning of each demand curve year to reduce volatility of the winter-to-summer ratio value and foster market stability.

i. Annual Update Process

19. Under NYISO's proposal, the DCR will establish the methodologies and inputs that NYISO will use to establish the ICAP demand curve values for each of the subsequent three Capability Years of each reset period. NYISO states it will update the following parameters each year: (1) the levelized, localized embedded cost of the peaking plant for each ICAP demand curve (or gross cost of new entry (CONE)) based on a composite escalation factor; (2) the net EAS revenue estimates for each peaking plant based on updated cost and market price information; and (3) revised values of the ICAP demand curves based on both the updated gross CONE and net EAS values, and the updated winter-to-summer ratio values.[27] NYISO explains that the winter-to-summer ratio value is "used in the calculation of the reference point that accounts for seasonal differences in the amount of capacity that is available in the Summer Capability Period versus the Winter Capability Period as part of translating the annual net CONE value for each ICAP demand curve into a monthly value."[28] NYISO proposes to post the results of

[25] *Id.* at 9.

[26] *Id.* at 9-10 (citing Hibbard Affidavit at 10-14).

[27] *Id.* at 10.

[28] *Id.* at 10 n.44 & 11 (citing Hibbard Affidavit at 8-9).

the annual updates to its website on or before November 30th of the calendar year prior to the commencement of the Capability Year for which the updated demand curve applies.[29]

ii. Transitional Reference Point Collaring Mechanism

20. In conjunction with the changes to the DCR process, NYISO proposes to establish a transitional collaring mechanism that limits the allowable annual change in the reference point values for each ICAP demand curve, as calculated for the first three annual updates, to a maximum increase of 12 percent or a maximum decrease of 8 percent, compared to the prior year's applicable reference point value.[30] NYISO explains that the collaring mechanism is designed to minimize the potential for unanticipated volatility in ICAP demand curve values upon the initial implementation of the annual update procedures, and will only apply to the reference point values for the 2018/2019, 2019/2020, and 2020/2021 Capability Years. NYISO further explains that the collaring mechanism is transitory and will not apply to reference point values that will be proposed for the 2017/2018 Capability Year or any period after the 2020/2021 Capability Year.[31]

iii. Winter-to-Summer Ratios

21. NYISO's capacity market operates with two distinct six-month Capability Periods (Summer and Winter) and, thus, accounts for seasonal differences in calculating the reference point for each ICAP demand curve.[32] NYISO states that the proposed tariff revisions provide for it to annually update the winter-to-summer ratios, so that the ICAP demand curves reflect changes in the resource mix over time.[33] To ensure data consistency, NYISO states, the winter-to-summer ratio values will be based on the

[29] *Id.* at 11.

[30] *Id.* at 16.

[31] *Id.* at 17.

[32] The purpose of the winter-to-summer ratio is to reflect the difference in the capacity availability ratings of units between the Summer Capability Period and the Winter Capability Period, which contributes to differences in capacity prices throughout the year. *Id.* at 14. The winter-to-summer ratio is used to convert the annual net CONE value for each ICAP demand curve to the monthly values that are used in the NYISO's ICAP Spot Market Auctions. *Id.* at 10 n.44.

[33] *Id.* at 14 (citing Hibbard Affidavit at 9).

capacity availability for sale in the ICAP Spot Market Auctions for the same three year period utilized to estimate the net EAS revenues.[34] NYISO states that the proposed revisions will account for the impacts of Special Case Resources[35] on the winter-to-summer ratios, which tend to have the opposite effect on the winter-to-summer ratio that a temperature-sensitive generator would have.[36]

22. NYISO recognizes the potential for "transitory volatility"[37] resulting from market entry and exit actions that do not coincide with the beginning and end of each 12-month period.[38] NYISO states that, to account for the potential volatility issue, the proposed revisions provide for NYISO to make certain adjustments to available capacity values reflected in the historical data and examine data for each 12-month period to identify qualifying entry and exit actions.[39] NYISO explains that the changes will enable NYISO to adjust all remaining months of the 12-month period to more accurately reflect a resource's status of availability over the entire 12-month period.[40]

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[34] *Id.* at 14.

[35] Special Case Resources include demand side resources whose load is capable of being interrupted upon demand or that have a local generator that can be operated to reduce load at the direction of the ISO.

[36] *Id.* at 15. NYISO explains that temperature-sensitive generators generally have an ability to produce more energy in the Winter Capability Period than the Summer Capability Period.

[37] *Id.* at 16 n.58.

[38] *Id.* at 15-16.

[39] *Id.* at 16 & n.59. NYISO explains that NYISO will examine each 12-month data set to identify instances "in which a resource either entered the capacity market for reasons other than returning from the Inactive Reserves state or exits the capacity market for reasons because it is Retired or enters a Mothball Outage or ICAP Ineligible Forced Outage." NYISO states that for "qualifying" entry and exit actions, the affected resource's available capacity will be included or excluded (respectively) in all months of the applicable 12-month period at issue.

[40] *Id.* at 16.

b. Protests

23. The New York Commission and Consumer Parties challenge NYISO's proposal to account for seasonal capacity changes by adjusting the historical data used to calculate the winter-to-summer ratio. They state that units tend to enter the market just before the Summer Capability Period because capacity prices are higher, and units tend to exit the market during the Winter Capability Period because capacity prices decline.[41] The New York Commission argues that market-driven trends are more reliable than NYISO's proposed adjustment process.[42] Thus, the New York Commission argues, because the winter-to-summer ratio impacts the ICAP reference prices and, as a result, the revenue adequacy of the proxy unit, NYISO should use market-driven trends as part of its calculation of the winter-to-summer ratio.[43]

24. While Consumer Parties concede that NYISO's proposed approach may result in a more stable winter-to-summer ratio, they assert that NYISO's approach is not accurate because the adjustment incorrectly assumes that all generator additions and deactivations take effect at the beginning of a capability year, instead of when they actually occur.[44] Thus, Consumer Parties argue, the proposed adjustment will not reflect the market trend that more capacity supply is available in the Summer Capability Period than the Winter Capability Period. Additionally, they argue that NYISO's proposal to include a price collar adequately addresses any price volatility that could result from calculations based on actual generator additions and deactivations.[45]

c. Answers

25. IPPNY disagrees with the protesters. IPPNY explains that NYISO's proposal is designed to ensure that each year's winter-to-summer ratio is set based on the Summer Capability Period and Winter Capability Period ratings of the same units.[46] IPPNY asserts that reflecting the actual month that a unit entered or exited the market introduces

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[41] New York Commission Protest at 4.

[42] Consumer Parties Protest at 3-6; New York Commission Protest at 5-6.

[43] New York Commission Protest at 5-6.

[44] Consumer Parties Protest at 3.

[45] *Id.* at 4-5.

[46] IPPNY June 23, 2016 Answer at 2 (IPPNY Answer).

undue volatility to the winter-to-summer ratio and no longer serves the intended purpose of representing seasonal differences in capacity. For example, IPPNY explains, a new entrant with a 1,000 MW Summer Capability Rating and a 1,075 MW Winter Capability Rating would yield an annual winter-to-summer ratio of 1.075. However, depending on the actual month that unit entered the market, the winter-to-summer ratio for that unit could be as low as 1.008 or as high as 1.109.[47] As a result, IPPNY argues that using the actual entry and exit date could cause variable and erroneous results, whereas NYISO's proposed calculation yields winter-to-summer ratio values as they are expected to persist over time.[48]

26. NYISO maintains that its proposal to adjust the historical data used to calculate the winter-to-summer months is just and reasonable.[49] Based on its analysis comparing its proposed adjustment methodology with that of the protestors, NYISO states that, without the proposed adjustment to entry and exit actions, the winter-to-summer ratio would change substantially from one capability year to the next, causing a level of volatility that may materially impact the ICAP demand curve reference point values.[50] NYISO further argues that, without the adjustment, the winter-to-summer ratio may not properly reflect changes in seasonal capacity availability resulting from year-to-year changes to the resource mix instead of producing stable and predictable outcomes that account for these changes over time. Therefore, NYISO argues, the Commission should reject the protesters' arguments and accept its proposed tariff changes to its methodology for calculating the winter-to-summer month ratio.

d. Commission Determination

27. We find NYISO's proposal to implement annual updates in the DCR process to be just and reasonable. The proposed annual update process will provide a mechanism to more timely reflect changes in market conditions, which will help minimize concerns associated with the transition to a longer period between resets. Further, by annually updating the DCR process, NYISO will reduce the potential for significant changes in the values of the ICAP demand curves from one reset to the next, a benefit that will promote greater stability and predictability of future capacity market outcomes to the benefit of all market participants and potential developers.

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[47] *Id.* at 4.

[48] *Id.* at 2-5.

[49] NYISO June 27, 2016 Answer at 4 (NYISO Answer).

[50] *Id.* at 5, 11.

28. In regards to the reference point price collar mechanism, we find the transitional mechanism to be just and reasonable for the application of the next DCR. The transitional mechanism provides an acceptable mitigation to stakeholder concerns regarding the potential for price volatility.

29. Lastly, we find that NYISO's proposed methodology to calculate the winter-to-summer ratio, an important component of the demand curve calculation to ensure that the reference prices calculated yield adequate revenues for the proxy peaking units, is just and reasonable. We find that NYISO's methodology will reflect seasonal differences in capacity availability ratings as well as changes in system conditions that are expected to persist in future years.[51] It is also consistent with the principles underlying the proposed annual updates – to provide transparent formulaic updates that reflect market conditions – as the winter-to-summer ratio will be calculated using the same three-year period used in the net EAS revenue estimate.[52] NYISO's winter-to-summer ratio calculation will provide for a stable and predictable value that will account for year-to-year changes in the resource mix.

30. Given that resource entry and exit actions that do not coincide with the start and end of each 12-month period may misstate the winter-to-summer ratio, we find appropriate NYISO's proposed adjustment to the historical data to uniformly reflect each resource's level of availability across the 12-month period.[53] Without the adjustment, the winter-to-summer ratio will be highly influenced by the timing and size of a resource's entry or exit and could lead to widely variable and erroneous results.[54] We find that NYISO's proposed methodology will recognize changes in the resource mix over time, ensure that each year's winter-to-summer ratio will continue to measure the seasonal capacity differences with minimized volatility from resource entry or exit, and provide for a more stable, predictable, and transparent market. We disagree with the Consumer Parties' suggestion that the NYISO's methodology does not reflect market trends and that the price collar mechanism alone will mitigate the effects of the price volatility that could result from calculations based on actual generator additions and deactivations. As noted above, the winter-summer ratio's purpose is to address seasonal differences, and without

[51] *See supra* note 33.

[52] NYISO transmittal at 15.

[53] *Id.* at 16. In circumstances where changes will persist for the remaining months of a given 12 month period, NYISO will adjust all months of the 12-month period to reflect that resource's state uniformly across all such months.

[54] IPPNY Answer at 4.

NYISO's proposed methodology, the entry and exit of resources could distort this adjustment to the reference price and misrepresent market trends. Therefore, we find that NYISO has appropriately balanced providing accurate estimates with transparency and certainty to market participants.

The Commission orders:

(A) NYISO's revisions to the Services Tariff are hereby accepted, subject to condition, to become effective as discussed in the body of this order.

(B) NYISO is hereby directed to submit a compliance filing with no less than two weeks' notice of the proposed effective date for the Attachment H revisions, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose,
Secretary.