

UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT
Thurgood Marshall U.S. Courthouse 40 Foley Square, New York, NY 10007 Telephone: 212-857-8500

MOTION INFORMATION STATEMENT

Docket Number(s): FERC Docket Nos. ER13-1380-000 and ER14-500-000

Caption [use short title]

Motion for: Emergency Limited Stay Pending Action on Rehearing
and, if Necessary, on Judicial Review, and Alternative Petition
for a Writ of Mandamus

In re Central Hudson Gas & Electric Corporation

Set forth below precise, complete statement of relief sought:

Limited stay of the effectiveness of FERC's 08/13/13
and 01/28/14 orders and an order directing FERC to
issue its orders responding to requests for rehearing of
the 08/13/13 and 01/28/14 orders within 45 days.

MOVING PARTY: Central Hudson Gas & Electric Corporation

Plaintiff

Defendant

Appellant/Petitioner

Appellee/Respondent

OPPOSING PARTY: Federal Energy Regulatory Commission, Respondent

MOVING ATTORNEY: William G. Miozzi

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Court-Judge/Agency appealed from: Federal Energy Regulatory Commission

Please check appropriate boxes:

Has movant notified opposing counsel (required by Local Rule 27.1):

Yes

No

(explain): _____

Opposing counsel's position on motion:

Unopposed

Opposed

Don't Know

Does opposing counsel intend to file a response:

Yes

No

Don't Know

FOR EMERGENCY MOTIONS, MOTIONS FOR STAYS AND
INJUNCTIONS PENDING APPEAL:

Has request for relief been made below?

Yes

No

Has this relief been previously sought in this Court?

Yes

No

Requested return date and explanation of emergency:

06/06/14

A stay is needed to preserve the status quo until

FERC's orders can be reviewed. This Court needs to

issue its order in advance of the next spot

market auction cycle that will begin on 06/09/14.

Is oral argument on motion requested?

Yes

No

(requests for oral argument will not necessarily be granted)

Has argument date of appeal been set?

Yes

No

If yes, enter date: _____

Signature of Moving Attorney: William G. Miozzi

Date: May 12, 2014

Service by: CM/ECF

Other [Attach proof of service]

14-

United States Court of Appeals
for the
Second Circuit

IN RE CENTRAL HUDSON GAS & ELECTRIC CORPORATION
Petitioner

**EMERGENCY MOTION FOR LIMITED STAY OF
FEDERAL ENERGY REGULATORY COMMISSION ORDERS
AUTHORIZING ELECTRIC CAPACITY AUCTIONS PENDING ACTION
ON REHEARING AND, IF NECESSARY, ON JUDICIAL REVIEW, AND
ALTERNATIVE PETITION FOR A WRIT OF MANDAMUS,
AND MEMORANDUM IN SUPPORT THEREOF**

**RELIEF REQUESTED NO LATER THAN
JUNE 6, 2014**

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Petitioner Central Hudson Gas & Electric Corp. submits this certificate as to parties, rulings and related cases.

A. Parties:

The parties, intervenors, and amici who have appeared before the agency in this proceeding are as follows:

Astoria Generating Company, L.P., Brookfield Energy Marketing LP, Calpine Corporation, City of New York, New York, Consolidated Edison Company of New York, Inc., Consolidated Edison Solutions, Inc., CPV Valley, LLC, Dynegy Marketing and Trade, LLC, East Coast Power L.L.C., Electric Power Supply Association, Empire Generating Co, LLC, Environmental Advocates of New York, Entergy Nuclear Power Marketing, LLC, Exelon Corporation, H.Q. Energy Services (U.S.) Inc., Independent Power Producers of New York, Inc., Invenergy LLC, Lockport Energy Associates, L.P., Long Island Power Authority, Multiple Intervenors, Natural Resources Defense Council, New Athens Generating Company, LLC, New York Association of Public Power, New York Independent System Operator, Inc., New York Power Authority, New York State Electric & Gas Corporation, New York State Public Service Commission, Niagara Mohawk d/b/a National Grid, NRG Companies, Orange and Rockland Utilities, Inc., and PSEG Energy Resources & Trade LLC.

B. Rulings Under Review:

The rulings of the Federal Energy Regulatory Commission (“FERC”) under review are as follows:

1. *New York Independent System Operator, Inc.*, “Order Accepting Proposed Tariff Revisions and Establishing a Technical Conference,” 144 FERC ¶ 61,126 (Aug. 13, 2013); and
2. *New York Independent System Operator, Inc.*, “Order Accepting Tariff Filing Subject to Condition and Denying Waiver,” 146 FERC ¶ 61,043 (Jan. 28, 2014) (“January 28 Order”).

C. Related Cases:

This case has not previously been before this Court.

Respectfully submitted,

/s/ William G. Miossi
William G. Miossi

*Attorney for Petitioner Central
Hudson Gas & Electric Corp.*

Dated: May 12, 2014

**CORPORATE DISCLOSURE STATEMENT
OF CENTRAL HUDSON GAS & ELECTRIC CORPORATION**

Pursuant to Rule 26.1 of the Federal Rules of Appellate Procedure, Central Hudson Gas & Electric Corporation (“Central Hudson”) respectfully submits the following:

Central Hudson is a corporation created and organized under the laws of the State of New York, with its principal offices in Poughkeepsie, New York. Central Hudson is an electric and natural gas utility engaged in, among other things, the businesses of (1) distributing natural gas for residential, commercial, and industrial use, and (2) transmitting and distributing electric power to wholesale and retail customers, and transmitting electric power on behalf of third parties. Central Hudson’s transmission of electric power in interstate commerce is regulated by the Federal Energy Regulatory Commission (“FERC”).

Central Hudson is a wholly owned subsidiary of CH Energy Group, Inc. (“CH Energy”) and indirect subsidiary of Fortis Inc., a Canadian company located in St. John’s Newfoundland and publicly traded on the Toronto stock exchange. Other than Central Hudson, none of its United States affiliates or subsidiary companies has issued shares of debt and only Fortis Inc., has issued equity securities to the public.

Respectfully submitted,

/s/ Paul Colbert

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Dated: May 12, 2014

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**UNITED STATES COURT OF APPEALS
FOR THE SECOND CIRCUIT**

IN RE CENTRAL HUDSON GAS &)
ELECTRIC CORPORATION,)
)
Petitioner)
)
)

No. 14-_____

**EMERGENCY MOTION FOR LIMITED STAY OF
FEDERAL ENERGY REGULATORY COMMISSION ORDERS
AUTHORIZING ELECTRIC CAPACITY AUCTIONS PENDING ACTION
ON REHEARING AND, IF NECESSARY, ON JUDICIAL REVIEW, AND
ALTERNATIVE PETITION FOR A WRIT OF MANDAMUS,
AND MEMORANDUM IN SUPPORT THEREOF**

Central Hudson Gas & Electric Corporation (“Petitioner”) respectfully petitions this Court pursuant to Rules 18 and 21 of the Federal Rules of Appellate Procedure and Circuit Rule 21.1 to issue an order (1) granting a limited stay of the effectiveness of two orders issued by the Federal Energy Regulatory Commission (“FERC”) that will cause consumers in New York’s Lower Hudson Valley (“LHV”) to pay several hundred million dollars in additional charges for electric capacity through periodic auctions conducted by the New York Independent System Operator, Inc. (“NYISO”), and alternatively (2) to issue an order pursuant to the Court’s authority under the All Writs Act, 28 U.S.C. § 1651, directing FERC to issue its orders responding to requests for rehearing of the orders at issue within **45 days** so that the legality of FERC’s decisions can be subjected to judicial

scrutiny. Finally, Petitioner requests this Court to issue an order directing answers to this Petition to be filed within **eight (8) calendar days**, with three **(3) days for replies**. Petitioner respectfully requests this Court to issue its order on this Petition by **June 6, 2014**, in advance of the NYISO's next spot market auction cycle that will be conducted on June 9, 2014.

Petitioner also seeks leave to exceed the page limit by 10 pages. Petitioner is asking for two forms of relief, and Federal Rules of Appellate Procedure 21(d) and 27(d)(2) provide two different page limits. To the extent that the Court construes our filing to be subject to the 30 page limit of Rule 21(d), Petitioner respectfully requests leave to exceed the page limit, as the issues presented here are complex.

As we show below, FERC: (1) allowed NYISO to establish a new pricing zone for the sale of generating capacity reserves in the LHV without holding NYISO to its tariff requirement to show that the zone is economically justified and will produce rates that are just and reasonable, *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (Aug. 13, 2013) (“August 13 Order”); (2) accepted NYISO's parameters for monthly capacity auctions that will remain in effect for three years—which NYISO predicted will cost consumers in the LHV \$500 million or more in increased capacity charges—while also rejecting NYISO's modest mitigation plan, *New York Independent System Operator, Inc.*, 146 FERC ¶

61,043 (Jan. 28, 2014) (“January 28 Order”); and (3) allowed Petitioner’s rehearing requests challenging these decisions to languish for months beyond the statutory timetable, 16 U.S.C. § 825*l*, instead of addressing these ratemaking questions “as speedily as possible” as commanded by Congress. 16 U.S.C. § 824d(e). Although the Federal Power Act (“FPA”) ordinarily gives consumers refund protection against excessive rates, 16 U.S.C. § 824d(e), FERC’s policy is to deny refunds that require resettling auction-based markets like the one at issue here.¹

Here, NYISO has already conducted three electric capacity auctions in the past month that have caused consumers in the LHV to pay an additional \$17.5 million for capacity reserves for May 2014 alone, thus confirming NYISO’s forecasts of sharply higher prices. FERC’s orders, coupled with its no-refund policy, eviscerate the FPA’s protections against unjust and unreasonable rates because consumers in the LHV will never receive refunds for excessive charges, but will have only prospective remedies available to them. Therefore, Petitioner is forced to seek extraordinary relief from this Court to stay the effectiveness of FERC’s orders to preclude NYISO from conducting further electric capacity auctions for the LHV as a separate pricing zone so as to minimize irreparable

¹ *E.g.*, *New York Independent System Operator, Inc.*, 122 FERC ¶ 61,211, at P 147 (2008) (refusing to order refunds for installed capacity charges due to complexity and because refunds would not further the goals of ICAP).

harm. Alternatively, Petitioner requests this Court to use its mandamus authority to direct FERC to rule on the pending requests for rehearing within 45 days. In further support, Petitioner respectfully shows as follows:

INTRODUCTION

Petitioner operates a franchised electric service area that covers the middle and lower Hudson Valley in the State of New York. Petitioner is charged by statute with providing reliable electric service to its customers at just and reasonable rates.² Petitioner is one of a group of publicly- and privately-owned electric transmission-owning utilities in the State that participated in the proceedings below as the “Indicated New York Transmission Owners,” or simply “NYTOs.”³ NYISO is an independent entity that oversees New York’s bulk electric transmission network and operates wholesale power markets pursuant to tariffs approved by FERC. NYISO filed tariff amendments to alter its markets for the sale of installed capacity reserves, known as “ICAP,”⁴ by (1) creating a new ICAP pricing zone in the LHV, and (2) establishing certain parameters that define

² N.Y. Pub. Serv. Law § 65.

³ In addition to Petitioner: Consolidated Edison Company of New York, Inc., 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.

⁴ FERC has accepted a modification to the way NYISO counts reserve capacity to reflect the unforced outage rate of generating units, called “UCAP.” *Keyspan-Ravenswood, LLC v. FERC*, 474 F.3d 804 (D.C. Cir. 2007). For consistency with the FERC orders at issue, Petitioner will refer to the capacity product as “ICAP.”

how ICAP prices will be established through monthly auctions. Petitioner actively participated in NYISO's proceedings before FERC, both individually and with the NYTOs. To understand the issues presented, it is necessary briefly to explain ICAP and how the NYISO's ICAP market works.

Electric utilities in New York like Petitioner are "load serving entities," or "LSEs," that must own or have contractual rights to generating capacity to meet their customers' maximum demand plus an installed reserve margin ("IRM") requirement. The IRM requirement is established by the non-profit New York State Reliability Council ("NYSRC") as the amount of capacity needed above the forecasted load peak to meet a probabilistic loss of load expectation ("LOLE") in which the risk of being forced to disconnect customers due to a system deficiency is, on average, not more than once in ten years, taking into account potential outages of transmission or generating facilities used to supply and to deliver the electricity needed to serve the load.⁵ For example, if the NYSRC sets the IRM to be 18 percent to meet the State's LOLE, an LSE with a forecasted load peak of 1,000 MW would be required to purchase at least 1,180 MW of capacity in order to satisfy its forecasted load peak plus IRM requirement.

⁵ *Keyspan-Ravenswood, LLC v. FERC*, 474 F.3d 804, 806 (D.C. Cir. 2007).

The NYISO administers a FERC regulated market process to determine the price for ICAP to meet the State’s reliability requirements.⁶ NYISO calculates the price to be paid for reserve capacity by finding the point at which the total amount of supply being offered intersects with a NYISO created and FERC approved demand curve.⁷ NYISO calculates a demand curve for each pricing zone in its region, but these calculations have been controversial.

In 2003, the NYISO began to reform the way it sets electric capacity prices, first switching from the vertical demand curve method to a sloped demand curve,⁸ and then modifying the sloped demand curve to factor in a locational component to account for transmission constraints that might cause prices to diverge on either side of the constraint.⁹ The locational pricing mechanism is intended to account for price differences for electric capacity that is deliverable into New York’s different sub-regional capacity markets.¹⁰

The NYISO initially divided New York into three capacity zones, a New York City capacity zone, a Long Island capacity zone, and a third zone comprised

⁶ *TC Ravenswood, LLC v. FERC*, 741 F.3d 112, 114 (D.C. Cir. 2013).

⁷ *See Maine Public Utilities Commission v. FERC*, 520 F.3d 464, 468 n.3 (D.C. Cir. 2008) (“*Maine PUC*”) (describing a similar demand curve in New England).

⁸ *See Electricity Consumers Resource Council v. FERC*, 407 F.3d 1232, 1234-36 (D.C. Cir. 2005) (“*ELCON*”) (explaining the pricing anomalies with the vertical demand curve that led NYISO to switch to a sloped demand curve).

⁹ *New York Independent System Operator, Inc.*, 105 FERC ¶ 61,108 (2003).

¹⁰ *See Maine PUC*, 520 F.3d at 468 (explaining the theory of the locational component in the sloped demand curve pricing construct).

of the “Rest of State.”¹¹ NYISO calculated separate ICAP demand curves for each of these zones. FERC, however, directed the NYISO to examine whether transmission constraints might require the formation of new capacity zones within the “Rest of State, with separate demand curves for each.”¹²

On April 30, 2013, the NYISO filed a proposed new capacity pricing zone with FERC that would encompass NYISO Load Zones G, H, I, and J (sometimes called the “G-J Locality” below).¹³ The G-J Locality covers Petitioner’s service territory in the LHV. The proposal was based on a “highway deliverability test that identified a binding transmission constraint at the Upstate New York-Southeast New York (“UPNY/SENY”) transmission interface located just south of Albany, N.Y. NYISO proposed to implement this new capacity zone (“NCZ”) consisting of the G-J Locality to meet ICAP requirements starting with May 1, 2014, the beginning of its new capacity year, to remain in effect for a three year period.

¹¹ These capacity pricing zones should not be confused with New York’s eleven “load zones” which were established for a different purpose, although the load zones do form the building blocks for the capacity zones. Here, NYISO’s new capacity zone is comprised of Load Zones G through I and J.

¹² *New York Independent Transmission System Operator, Inc.*, 127 FERC ¶ 61,318, at P 53 (2009).

¹³ *New York Indep. Sys. Operator, Inc.*, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 (filed Apr. 30, 2013).

As part of its filing, the NYISO also calculated an Indicative Locational Minimum Installed Capacity Requirement (“Indicative LCR”).¹⁴ One purpose of this calculation is to estimate the effect that generating capacity in the proposed NCZ will have on future capacity prices. NYISO uses the Indicative LCR to construct an expected demand curve for the NCZ to make the cost estimate. In this manner, NYISO forecast that implementing the NCZ would cost consumers in the LHV an extra \$173 million in additional ICAP charges the first year.¹⁵ NYISO later advised FERC that consumers might pay as much as an additional \$500 million over the three-year period covered by its new demand curve filing.¹⁶

Petitioner opposed NYISO’s plan to create the NCZ because NYISO’s Indicative LCR calculation used flawed assumptions, and a corrected method did not support the need for the new zone. Petitioner argued that the purpose of the Indicative LCR is to determine whether the NCZ is economically justified by estimating the effect of capacity imports into the proposed NCZ on capacity prices expected to occur in the NCZ. The Indicative LCR does this indirectly by

¹⁴ *New York Independent Transmission System Operator, Inc.*, 136 FERC ¶ 61,165, at P 17 (2011).

¹⁵ *New York Indep. Sys. Operator, Inc.*, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 (filed Apr. 30, 2013), Att. XII, Affidavit of Mr. Tariq N. Niazi, at PP 21-23, 28, and Table 3.

¹⁶ *New York Indep. Sys. Operator, Inc.*, Request for Partial Reconsideration of the New York Independent System Operator, Inc., Docket No. ER13-1380-000 (filed Oct. 28, 2013) at 3.

affecting the amount of capacity that NYISO assumes to be available to serve peak demand. If supply is plentiful, a hypothetical new generator would not be able to sell enough ICAP to recover the cost of the investment, and a new ICAP pricing zone would not make economic sense. As a result, NYISO's supply assumptions have a big impact on the decision to create a new zone because of the relationship between supply, demand and price as these come together in its demand curves.

FERC itself had previously confirmed that the Indicative LCR affects the indicative demand curve and decisions about creating new ICAP zones.¹⁷ According to FERC, the purpose of this indicative demand curve is to “indicate the capacity prices that would be expected in the new zone” so that the NYISO can “analyze those prices in comparison to prices in the existing capacity zones in NYC, L1, and ROS zones.”¹⁸ This, FERC said, allows the NYISO to evaluate the expected value of new generation capacity in the new capacity zone based on the forecasted cost of new generation because, if electric capacity prices will be substantially lower than in adjacent zones, that information “would militate against creating a new zone.”¹⁹ Viewed in this light, the calculation of the Indicative LCR is vitally important because, if done incorrectly, it will lead to a demand curve that will send the wrong price signals for building generation or transmission, cause the

¹⁷ *New York Independent Transmission System Operator, Inc.* 136 FERC ¶ 61,165, at P 7 (2011).

¹⁸ *Id.*

¹⁹ *Id.*

formation of an NCZ that is not required and cause consumers to pay too much, as occurred here.

Here, Petitioner showed that NYISO failed to consider the potential of the transmission system to deliver generating capacity from the new “rest of state” capacity zone (NYISO Load Zones A through F) to Load Zones J and K in calculating the Indicative LCR because NYISO failed to link its Indicative LCR calculation to the UPNY/SENY transmission constraint that it was attempting to analyze. In other words, NYISO undercounted available capacity and overstated the Indicative LCR.

FERC rejected Petitioner’s arguments, holding that the Indicative LCR calculation is not “used to determine whether a new capacity zone should be created or to establish the new capacity zone boundary,” but instead is “used solely for establishing an ICAP Demand Curve for the new capacity zone.”²⁰ FERC did not reconcile its decision with the interpretation of the indicative demand curve that it gave in its earlier order.

Petitioner filed a timely request for rehearing of the August 13 Order that highlighted FERC’s inconsistency, and argued that FERC erred by reading sections

²⁰ August 13 Order, 144 FERC ¶ 61,126, at P 66.

of NYISO's tariff in isolation.²¹ Under FERC's newly revised interpretation, NYISO's calculation of the Indicative LCR as part of the new capacity zone evaluation served no real purpose other than to let consumers know that prices were expected to increase substantially—which is the whole point of forming the NCZ—and this narrow reading effectively rendered the Indicative LCR requirement a nullity. Petitioner further argued that FERC had failed to exercise its statutory duty to evaluate whether NYISO's tariff filing would produce just and reasonable rates.²²

Petitioner explained that NYISO's method of calculating the Indicative LCR (and the associated indicative demand curve for the new capacity zone) was flawed. NYISO used starting assumptions for its computer model that ensured the results would show a violation of the loss of load expectation (LOLE) reliability criterion. The LOLE establishes a baseline for the amount of generating capacity that must be purchased from each Load Zone. Because NYISO's simulation of its computer model shifted generation capacity out of Load Zones that are not part of the NCZ and added generating capacity to Load Zones outside of the NCZ it

²¹ See *Nicole Gas Production, Ltd.*, 105 FERC ¶ 61,371, at P 9 (2003) (“Like a contract, a tariff must be interpreted to give meaning to all provisions of the tariff.”).

²² 16 U.S.C. § 824d(a), (b) and (e). For example, in the context of an administratively determined ICAP demand curve, the D.C. Circuit held: “Of course, FERC cannot pluck rates out of thin air; it must rely on record evidence to establish a reasonable range of rates.” *Maine PUC*, 520 F.3d 464, 472 (D.C. Cir. 2008).

artificially created a violation of the LOLE—a shortage of generating capacity—in the NCZ that is speculative at best. As a result, NYISO’s method produced an unjust and unreasonable result by overstating the amount of capacity that customers in the LHV would be required to purchase, which also had the effect of overstating the need for the NCZ in the first place. Customers in the LHV should not be required to pay unreasonable capacity prices based upon speculative capacity deficiencies. This is particularly true where, as in this case, FERC departed from its precedent, which took into account capacity prices in adjacent Load Zones as part of its decision to establish a new capacity zone, without explaining its departure.

Petitioner gave a real-world example to illustrate the issue. The 475 MW Danskammer generating plant in Petitioner’s service area retired in early 2013. That retirement caused the LCR for Load Zone J to increase from 83% to 86% (an increase of 250 MW), and caused the LCR for Load Zone K to increase from 102% to 105% (an increase of 150 MW).²³ Mathematically speaking, with all other variables being equal, if the same 475 MW were added back to Load Zones G-I, the LCRs for Load Zones J and K would drop, but the capacity required to

²³ State of New York Public Service Commission, Order Approving Transfer and Authorizing a Retirement Prior to Expiration of the Notice Period, Case 13-E-0019, *et al.* (Issued Apr. 22, 2013).

meet the LCR for Zones G-I actually would increase by 75 MW.²⁴ This illustration showed that the NYISO's method that FERC endorsed was flawed, would overstate the LCR requirement, called into serious question the NYISO's analysis for establishing the new zone in the first place, and showed that it would lead to unjust and unreasonable rates. As this example shows, NYISO's modeling method sends an incorrect signal to locate new generating capacity in the LHV, while giving customers in other load zones the benefit.

FERC has not ruled on Petitioner's timely request for rehearing raising these points, which has been pending since September 12, 2013. Rather, on October 10, 2013, FERC issued a "tolling order" noting that requests for rehearing had been filed, and that it was granting rehearing for the limited purpose of affording itself more time to rule on the questions raised.²⁵

In the meantime, the NYISO used the flawed Indicative LCR that FERC accepted in the August 13 Order to establish the method for calculating the ICAP demand curve in the NCZ through a tariff filing with FERC on November 27, 2013.²⁶ NYISO projected that ICAP prices in the new zone would roughly double

²⁴ *New York Indep. Sys. Operator, Inc.*, Protest of Central Hudson Gas & Electric Corp., Docket No. ER13-1380-000 (filed May 21, 2013), Affidavit of John J. Borchert.

²⁵ *New York Indep. Sys. Operator, Inc.*, Order Granting Rehearing for Further Consideration, Docket No. ER13-1380-003 (issued Oct. 10, 2013).

²⁶ *New York Indep. Sys. Operator, Inc.*, Proposed Tariff Revisions to Implement Revised ICAP Demand Curves and a New ICAP Demand Curve for

on a dollars-per-kilowatt-month basis from the rate that customers in the LHV paid in 2013. Accordingly, NYISO proposed to phase-in these price impacts by providing an approximately 24% discount to ICAP auction prices for the LHV in 2014, and an approximately 12% discount in 2015, with no discount in 2016.²⁷

NYISO estimated that this phased approach would mean, for example, that the price for ICAP in the LHV would increase from \$5.80/kW-month for the summer months of 2013 to \$8.09/kW-month for the summer months of 2014, instead of \$10.65/kW-month without the phase-in.²⁸ NYISO argued that this phase-in proposal would not adversely impact participation in its ICAP auctions, would produce rates that will fall within a “zone of reasonableness” (at least so far as its overall method is concerned) and, therefore, would be presumptively just and reasonable.²⁹ Petitioner and the NYTOs supported NYISO’s phase-in plan at FERC because some relief was better than no relief.³⁰ Petitioner supported NYISO’s proposed phase-in of ICAP auction prices because it would mitigate the unjust and unreasonable rate that results from creating the NCZ. Petitioner

Capability Years 2014/2015, 2015/2016 and 2016/2017 and Request for Partial Phase-In and for Any Necessary Tariff Waivers, Docket No. ER14-500-000 (filed Nov. 27, 2013) (“Demand Curve Filing”).

²⁷ Demand Curve Filing at 37-38.

²⁸ *Id.* at p. 40.

²⁹ *Jersey Central Power & Light Co. v. FERC*, 768 F.2d 1500, 1503 (D.C. Cir. 1985).

³⁰ *New York Indep. Sys. Operator, Inc.*, Motion for Leave to Answer and Answer of the New York Transmission Owners, Docket No. ER14-500-000 (filed Jan. 10, 2014), Exh. A (“Cadwalader Aff.”) at ¶ 19 and Table 3.

asserted that the phased-in rates are, however, also unjust and unreasonable because they are based upon the same flawed Indicative LCR that resulted in the creation of the NCZ and the indicative demand curve used as the basis for the auction price.

In the January 28 Order, FERC once again did not evaluate the justness or reasonableness of NYISO's Indicative LCR calculation as applied to calculate the demand curve to be used in the NCZ for the next three years. FERC, however, rejected the NYISO's phase-in proposal without addressing the NYISO's explanation that the phase-in would balance consumer and investor interests by producing rates that fall within the zone of reasonableness.³¹ Instead, FERC found that the phase-in "will not ensure that market-clearing prices will guide efficient investment decisions to add or retire capacity resources and meet reliability needs in this region."³² FERC did not cite any evidence that new generation investments would be in any way affected by the phase-in—an unlikely outcome given the immediate significant increase to ICAP prices even with a phase-in. FERC's ruling rested entirely on speculation, given its refusal to scrutinize NYISO's assumptions in the Indicative LCR estimate discussed above.

Rather than carefully analyze NYISO's supply assumptions, FERC instead stated that it was concerned that a subset of capacity market participants who can

³¹ January 28 Order, 146 FERC ¶ 61,043, at P 162.

³² *Id.*

enter the market on short notice might be discouraged from doing so.³³ Those participants in theory comprise consumers who are willing to forego consumption in order to be paid as though they are generators (demand response providers in FERC’s parlance) or generation owners who are able to quickly repower generating facilities. FERC, however, did not identify any demand response providers or repowering generators who would be “discouraged” from participating in NYISO capacity markets in the NCZ if they were paid “only” 40% more for ICAP in the summer of 2014 than they could have received in the summer of 2013.

On February 27, 2014, Central Hudson joined with the NYTOs to file a timely request for rehearing of the January 28 Order rejecting the phase-in.³⁴ The rehearing request argued that FERC failed to balance the harsh impact on consumers—to the tune of several hundred million dollars—against the lack of any demonstrated harm to the competitive market from providing a relatively small discount to the monthly ICAP auction clearing prices. On March 24, 2014, FERC issued a “tolling order” noting that requests for rehearing had been filed, and that it

³³ *Id.* at P 164.

³⁴ *New York Indep. Sys. Operator, Inc.*, Request for Rehearing of the New York Transmission Owners, Docket No. ER14-500-000 (filed Feb. 27, 2014).

was granting rehearing for the limited purpose of affording itself more time to rule on the questions raised.³⁵ FERC has taken no further action since that time.

In the absence of any FERC action to reconsider its decisions, NYISO began to conduct monthly ICAP auctions beginning with May 2014. NYISO conducts three types of ICAP auctions: a “strip” or seasonal auction, a “monthly” auction, and a “spot” auction. To date, NYISO has completed four such auctions, one seasonal auction for the summer capability period covering May through September 2014, one for the month of May, a May spot market auction, and one for the month of June (completed on May 8, 2014).³⁶ Excluding the ICAP auction for June, Petitioner estimates that consumers in the LHV have paid about \$17.5 million more for ICAP than they would have paid if there were no separate LHV pricing zone.³⁷ The prices per kilowatt-month for ICAP in these auctions are higher than NYISO’s projections in its submissions to FERC. Based on these results, the New York Public Service Commission now estimates that consumers in the LHV can expect to pay an extra \$280 million per year for ICAP, which will

³⁵ *New York Indep. Sys. Operator, Inc.*, Order Granting Rehearing for Further Consideration, Docket No. ER14-500-001 (issued March 24, 2014).

³⁶ Information about NYISO’s ICAP market, including prices and the auction schedule, is available at:

http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp.

³⁷ *New York Indep. Sys. Operator, Inc.*, Emergency Motion of Central Hudson Gas & Electric Corporation for Expedient Rulings Or, Alternatively, For a Stay of Capacity Auctions for the New Capacity Zone in New York’s Lower Hudson Valley and Motion for Shortened Response Time of Three Business Days, Docket Nos. ER13-1380-000 and ER14-500-000 (filed Apr. 30, 2014) at 6.

amount to over \$800 million in new ICAP charges over the next three years.³⁸ NYISO will conduct a June spot market auction on May 23, 2014, and it will conduct its monthly auction for July on June 9, 2014.

Given these circumstances, on April 30, 2014, Petitioner petitioned FERC to issue its orders on rehearing of the August 13 Order and the January 28 Order expeditiously so that Petitioner and others can seek judicial review, if necessary. Alternatively, Petitioner requested FERC to stay further ICAP auctions by NYISO for the NCZ to preserve the status quo and minimize damages to consumers until the lawfulness of FERC's orders can be tested. FERC granted Petitioner's request for a shortened answer period to these motions, but has not ruled on the motions. Accordingly, Petitioner is left with no alternative to seeking relief in this Court.

ISSUE PRESENTED

Whether this Court should stay further ICAP auctions by NYISO for the NCZ, or alternatively exercise its authority under the All Writs Act to direct FERC to issue its orders on rehearing of the August 13 Order and the January 28 Order, given that FERC's failure to correct its orders on rehearing to achieve just and reasonable rates is costing consumers in the middle and lower Hudson Valley

³⁸ *New York Indep. Sys. Operator, Inc.*, Answer of the New York State Public Service Commission in Support of Motion for a Stay of New Capacity Zone Auctions and for Expedited Ruling on Requests for Rehearing, Docket Nos. ER13-1380-000 and ER14-500-000 (filed May 2, 2014) at 3.

hundreds of millions of dollars from excessive ICAP charges that they will never recover because FERC's policy prohibits refunds in the circumstances of this case?

STATUTES

The pertinent provisions of Sections 205, 206, and 313 of the Federal Power Act ("FPA"), 16 U.S.C. §§ 824d, 824e, and 824I, and the All Writs Act, 28 U.S.C. § 1651, are reproduced in the addendum.

JURISDICTION

Because this Court has jurisdiction to review final FERC orders pursuant to the FPA, 16 U.S.C. § 825I, this Court has jurisdiction over this petition for mandamus and motion for stay under the All Writs Act, 28 U.S.C. § 1651 and the Administrative Procedure Act, 5 U.S.C. § 706(1).³⁹

ARGUMENT

A. THE COURT SHOULD GRANT A LIMITED STAY OF THE EFFECTIVENESS OF NYISO'S ELECTRIC CAPACITY AUCTIONS PURSUANT TO FERC'S AUGUST 13 ORDER AND JANUARY 28 ORDER PENDING ACTION ON REHEARING AND, IF NECESSARY, ON APPEAL.

Ordinarily, FERC's initial orders on rate filings such as those made by NYISO at issue here are not reviewable until the agency issues its order addressing

³⁹ See *FTC v. Dean Foods Co*, 384 U.S. 597, 603-04 (1966) ("the authority of the appellate court 'is not confined to the issuance of writs in aid of a jurisdiction already acquired by appeal but extends to those cases which are within its appellate jurisdiction although no appeal has been perfected.'") (quoting *Roche v. Evaporated Milk Ass'n*, 319 U.S. 21, 25 (1943)).

arguments presented in requests for rehearing.⁴⁰ However, “when parties face the prospect of irreparable injury, with no practical means of procuring effective relief after the close of the proceeding, . . . they [may] be entitled to immediate review of a nonfinal order.”⁴¹ As Petitioner shows below, Petitioner and its customers face the virtual certainty of incurring hundreds of millions of dollars in new ICAP charges over the next three years that will not be refunded even if FERC’s orders are ultimately reversed, or substantially revised, following judicial review.

In determining whether to issue a stay, this Court considers four factors: “(1) whether the stay applicant has made a strong showing that he is likely to succeed on the merits; (2) whether the applicant will be irreparably injured absent a stay; (3) whether issuance of the stay will substantially injure the other parties interested in the proceeding; and (4) where the public interest lies.”⁴² The Court has recognized that the degree to which a factor must be present varies with the strength of the other factors, meaning that “more of one [factor] excuses less of the other.”⁴³ Thus, in *Mohammed v. Reno*,⁴⁴ this Court explained:

⁴⁰ 16 U.S.C. § 825l.

⁴¹ *Papago Tribal Utility Authority v. FERC*, 628 F.2d 235, 240 (D.C. Cir. 1980) (citing *Gardner v. Westinghouse Broadcasting Co.*, 437 U.S. 478, 480 (1978) and *Cohen v. Beneficial Industrial Loan Corp.*, 337 U.S. 541, 546 (1949)).

⁴² *SEC v. Citigroup Global Markets Inc.*, 673 F.3d 158, 162-63 (2d Cir. 2012) (quoting *Hilton v. Braunskill*, 481 U.S. 770, 776 (1988)).

⁴³ *In re World Trade Center Disaster Site Litigation*, 503 F.3d 167, 170 (2d Cir. 2007) (quoting *Thapa v. Gonzales*, 460 F.3d 323, 324 (2d Cir. 2006)).

⁴⁴ 309 F.3d 95, 101 (2d Cir. 2002).

Ultimately, we see considerable merit in the approach expressed by the District of Columbia Circuit: “The necessary ‘level’ or ‘degree’ of possibility of success will vary according to the court’s assessment of the other [stay] factors.” [citation omitted]. Applying this test, that Circuit has granted a stay pending appeal where the likelihood of success is not high but the balance of hardships favors the applicant, *id.*, and has stated that a stay may be granted where the probability of success is “high” and “some injury” has been shown [citation omitted]. As the Sixth Circuit has explained, “The probability of success that must be demonstrated is inversely proportional to the amount of irreparable injury plaintiff[] will suffer absent the stay. Simply stated, more of one excuses less of the other.” [citation omitted].

1. Petitioner and Its Customers Are Likely to Suffer Irreparable Harm Absent a Stay.

This Court has held that irreparable harm is demonstrated where the movant shows a probability of harm and “injury for which a monetary award cannot be adequate compensation.”⁴⁵ Normally, in rate proceedings before FERC, a utility’s customers can count on refunds if a proposed rate increase is ultimately found to be unjust and unreasonable and FERC fixes a lower just and reasonable amount,⁴⁶ because FERC has a general policy of awarding refunds for utility overcharges as provided in the FPA.⁴⁷ FERC, however, has an exception to this general policy for auction-based markets like NYISO’s ICAP market at issue here. When wholesale

⁴⁵ *Jackson Dairy, Inc. v. H.P. Hood & Sons, Inc.*, 596 F.2d 70, 72 (2d Cir. 1979) (citing *Studebaker Corp. v. Gattlin*, 360 F.2d 692, 698 (2d Cir. 1966); *Foundry Services, Inc. v. Beneflux Corp.*, 206 F.2d 214, 216 (2d Cir. 1948)).

⁴⁶ *E.g., Papago Tribal Utility Authority v. FERC*, 628 F.2d at 240.

⁴⁷ *Towns of Concord, Norwood, and Wellesley v. FERC*, 955 F.2d 67, 76 (D.C. Cir. 1992).

electricity or capacity is sold through an auction, FERC's general policy is to deny refunds.

For example, in *Ameren Services Company v. Midwest Independent Transmission System Operator, Inc.*,⁴⁸ FERC stated that “In cases involving changes in market design, the Commission generally exercises its discretion and does not order refunds when doing so would require re-running a market.”⁴⁹ In fact, in *California Independent System Operator*,⁵⁰ FERC ruled that re-running auction markets to pay refunds to consumers is “the exception, not the rule.”⁵¹

Here, the sharply higher ICAP prices at issue are being produced through an auction-based market that involves the participation of numerous buyers and sellers of capacity. NYISO is conducting a minimum of two such auctions each month. LSEs also have the option of procuring ICAP through bilateral contracts outside of the NYISO auctions, although these contracts typically settle at the monthly NYISO ICAP spot market auction price. NYISO also conducts seasonal auctions where LSEs like Petitioner can acquire ICAP to meet their anticipated

⁴⁸ 127 FERC ¶ 61,121, at P 157 (2009), *reh'g pending*.

⁴⁹ *Id.* at P 157 (emphasis added) (citing *Maryland Public Service Comm'n v. PJM Interconnection, L.L.C.*, 123 FERC ¶ 61,169, at P 49 (2008); *Mirant Energy Trading, LLC v. PJM Interconnection, LLC*, 122 FERC ¶ 61,007 (2008); *Bangor Hydro-Electric Company v. ISO New England Inc.*, 97 FERC ¶ 61,339 (2001) (finding that re-running markets even when an error was made would do more harm to electric markets than is justifiable), *reh'g denied*, 125 FERC ¶ 61,340 (2008), *reh'g pending*).

⁵⁰ 120 FERC ¶ 61,271 (2007).

⁵¹ *Id.* at P 25 (emphasis added).

requirements for the upcoming seasonal period, such as the auction that NYISO conducted this past April for the summer 2014 period that runs from May to September.

If FERC's orders below are reversed—as is likely to occur—to provide refunds NYISO would have to re-run its ICAP auctions to include the NCZ as part of the former “Rest of State” region to determine new ICAP prices. Alternatively, depending on the results of the litigation, FERC may require NYISO to change the parameters of the indicative demand curve for the NCZ, for example, to correct the Indicative LCR calculation that is used to establish the demand curve and thereby lower ICAP prices. To determine whether refunds would be due, this change would also require NYISO to re-run its auctions. However, according to FERC, these changes would not be pertinent to past decisions by market participants in the ICAP auctions who could not revisit them, making refunds highly unlikely, as FERC explained in another NYISO ICAP case:

We find that granting refunds here would create substantial uncertainty in the market and undermine confidence in them. Further, given the impossibility of predicting and restoring what might have happened in the market under the alternative set of circumstances, and as market participants can neither revisit economic decisions nor retroactively alter their conduct, refunds should not be granted in this instance. Ordering refunds would require the Commission to speculate as to the extent to which both mitigated and non-mitigated market resources would have participated in the market, and how they would have behaved. There is no basis to assume that the same amount of capacity that cleared in the market would have been available at prices in the \$5.60/kW-month range. Units with high

opportunity costs, for instance, might not have participated in the market had lower clearing prices existed in the market. A decrease in participation by these entities, in response to the lower clearing prices, which parties supporting refunds allege would have resulted, would have caused an increase in the clearing price as supply was reduced. As “ICAP is not devised to compensate past investment but to spur sellers to make new investment and net buyers to meet their reserve capacity obligations,” ordering refunds would not help achieve the goals of ICAP and would not redress the harm that is claimed by the parties favoring refunds.⁵²

Given the circumstances involving NYISO’s ICAP auctions at issue here, and FERC’s pronouncement that it will not award refunds for flaws in NYISO’s ICAP markets, it is a virtual certainty that Petitioner and its customers will suffer irreparable harm that will reach several hundred million dollars if ICAP auctions for the LHV continue uncorrected for three years. Perversely, the more capacity auctions the NYISO conducts before FERC acts to correct its orders or they are reversed by a court, the more certain it is that FERC will not award refunds and the greater the damages will be. This factor alone is so substantial as to justify a stay independent from consideration of the other factors discussed below.⁵³

2. Petitioner Is Likely to Prevail on the Merits.

FERC’s orders below suffer from a host of legal errors and arbitrary decisions that will require a reviewing court to reverse them, or at a minimum

⁵² *New York Independent System Operator, Inc.*, 122 FERC ¶ 61,211, at P 147 (2008) (quoting in part *Sithe New England Holdings, LLC v. FERC*, 308 F.3d 71, 78 (1st Cir. 2002)).

⁵³ *In re World Trade Center Disaster Site Litigation*, 503 F.3d at 170.

require a remand for further proceedings to obtain an explanation that passes muster under the Administrative Procedures Act.

First, FERC’s August 13 Order authorizing NYISO to create the NCZ violates the filed rate doctrine.⁵⁴

The filed rate doctrine requires FERC to follow the plain words of the tariff. FERC must give effect to all provisions of the tariff and—as FERC has specifically recognized in the context of NYISO’s ICAP tariff—FERC must interpret those provisions to achieve a just and reasonable result if there is any ambiguity.⁵⁵

As discussed above, Petitioner showed in its protest and request for rehearing before FERC that the NYISO Services Tariff requires NYISO to perform an economic necessity test to determine whether to establish an NCZ. Petitioner showed that NYISO’s economic necessity test was defective because it did not relate the expected capacity prices calculated through the Indicative LCR to the constrained UPNY/SENY interface to determine the necessity of the NCZ. Absent some nexus between the expected capacity prices in the NCZ and mitigation of the constraint identified for the UPNY/SENY interface there can be no rational basis

⁵⁴ *Arkansas Louisiana Gas Co. v. Hall*, 453 U.S. 571, 577-78 (1981) (“[T]he Act bars a regulated seller . . . from collecting a rate other than the one filed with the Commission and prevents the Commission itself from imposing a rate increase . . .”).

⁵⁵ *Long Island Power Authority v. NYISO*, 118 FERC ¶ 61,109, at P 28 (2007).

for the NCZ. FERC's precedent is consistent with this view and FERC failed to provide reasoning justifying its departure from its precedent.

The August 13 Order deviated from FERC's precedent by holding that the Indicative LCR calculation is "not used to determine whether a new capacity zone should be created or to establish a new capacity zone boundary," but instead is "used solely for establishing an ICAP Demand Curve for the new capacity zone."⁵⁶ FERC, however, failed to reconcile this ruling with its previous finding that the Indicative LCR is a factor in deciding whether to establish a new capacity zone.⁵⁷ FERC also failed to apply applicable rules of tariff construction to read the provisions of NYISO's tariff in harmony,⁵⁸ rather than to render null and void the provision requiring NYISO to perform the Indicative LCR calculation in conjunction with its evaluation of a new capacity zone proposal.⁵⁹ Reading the provisions together, as FERC should have, demonstrates that FERC's earlier interpretation was correct: the Indicative LCR calculation is part of the evaluation

⁵⁶ August 13 Order, 144 FERC ¶ 61,126, at P 66.

⁵⁷ *New York Independent Transmission System Operator, Inc.*, 136 FERC ¶ 61,165, at P 17 (2011).

⁵⁸ *See New York Independent System Operator, Inc.*, 133 FERC ¶ 61,028, at P 22 (2010) ("Based on our analysis of the language in NYISO's OATT, the Commission ruled that both Section 7.2A and Section 3.1 of Attachment K made up the filed rate [and] to give proper effect to the meaning of NYISO's OATT, both provisions of the tariff must be read together.").

⁵⁹ NYISO Services Tariff § 5.14.1.2.

process to determine whether to establish a new capacity zone. FERC’s failure to do so was legal error.

Second, the NYISO method produces unjust and unreasonable results in violation of two well-known legal standards: the end result test and cost-causation.⁶⁰

The end result test established by the Supreme Court seventy years ago in the *Hope* case holds that the justness and reasonableness of rates must be judged by the result alone, and not by the method used to achieve that result.⁶¹ Here, FERC violated this standard in two ways. It accepted NYISO’s method for calculating the Indicative LCR for the NCZ without evaluating whether NYISO’s method was mathematically correct—FERC stated that it was relevant only to setting a future demand curve, but then never revisited the method in the January 28 Order.⁶²

FERC also ignored the end-result impact on consumers in terms of ICAP prices that the NCZ would produce. FERC failed to answer Petitioner’s evidence showing that NYISO’s baseline assumptions were wrong, and that starting with the wrong assumptions caused NYISO to over-estimate the amount of capacity that

⁶⁰ *Illinois Commerce Comm’n v. FERC*, 576 F.3d 470 (7th Cir. 2009).

⁶¹ *Duquesne Light Co. v. Barasch*, 488 U.S. 609, 616-17 (1989) (citing *FPC v. Hope Natural Gas Co.*, 320 U.S. 591, 602 (1944)).

⁶² *E.g.*, *Maine PUC*, 5230 F.3d at 471-72 (FERC could not “pluck rates out of thin air” when evaluating an administratively determined ICAP demand curve).

would be required in the NCZ. NYISO's error should have been readily apparent to FERC because the logic of the NCZ method rests on the need to factor in the impact of transmission constraints on ICAP pricing, yet FERC did not require NYISO to show that its supply assumptions were reasonable, or that its calculation of the demand curve for the NCZ mitigated the UPNY/SENY constraint that NYISO claimed to be addressing. As a result of this error, FERC accepted NYISO's over-estimate of the need for capacity in the NCZ, which has led directly to the excessive ICAP prices that consumers in the Lower Hudson Valley are now being forced to pay. Indeed, had FERC focused on the end-result instead of simply accepting NYISO's method, FERC would have been forced to examine whether the need for capacity truly justified creating the NCZ in the first place.

NYISO's method also violated cost-causation ratemaking which requires that customers pay rates in a reasonable proportion to the costs they impose on the system.⁶³ Even if a new capacity zone is justified, NYISO overstated the need for new generation in the NCZ while under-counting the benefits of that generation in adjacent zones. As a consequence, customers in the LHV are being required to pay more—far more—for ICAP than they should while customers in other zones receive the benefit.

⁶³ *Illinois Commerce Comm'n v. FERC*, 576 F.3d 470 (7th Cir. 2009).

Third, FERC erred as a matter of law in the January 28 Order when it rejected NYISO’s proposal to mitigate the unreasonable rate impact to consumers in the LHV by phasing-in the new ICAP prices over three years, which Petitioner supported. NYISO alleged that the phase-in would produce rates that fall within the zone of reasonableness (at least within the context of its overall method),⁶⁴ but FERC rejected NYISO’s proposal without finding that the resulting rates would be unjust and unreasonable. Instead, FERC addressed an entirely different point by claiming that a subset of market participants might be “discouraged” from participating in NYISO’s auction markets without identifying a single such market participant, and without providing a rational explanation for why those market participants would be “discouraged” despite the substantial—Petitioner asserts unreasonable—ICAP price increase that the phase-in would allow.⁶⁵ Although Petitioner submits that NYISO’s method is unjust and unreasonable, as discussed above, FERC erred by rejecting the modest rate relief that NYISO offered without finding it to be unreasonable in the context of NYISO’s method.

Fourth, FERC failed to base its decisions on substantial evidence in the record of the proceedings before it. Generalized claims and unsupported

⁶⁴ *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Jersey Central Power & Light Co. v. FERC*, 768 F.2d 1500, 1503 (D.C. Cir. 1985).

⁶⁵ January 28 Order, 146 FERC ¶ 61,043, at P 164.

assumptions do not meet this standard.⁶⁶ The reason is that the Commission must be able to identify the evidence on which it relies and explain how that evidence supports the conclusions it reaches.⁶⁷ The evidence may not be speculative or conjectural.⁶⁸

FERC's finding on the Indicative LCR issue did not rest on an examination of NYISO's supply assumptions, and its finding on the phase-in issue was contrary to NYISO's evidence showing there would be no adverse impact on market participation. In both instances FERC departed from its precedent.⁶⁹ Thus, at a minimum, FERC's orders are arbitrary and capricious and fail to reflect reasoned decision-making and will require further explanation from the agency (which may or may not be provided when FERC eventually rules on the pending requests for rehearing).⁷⁰

Although an outright reversal of FERC on legal grounds could swiftly staunch the rapidly growing impact on consumers in the LHV, a remand of

⁶⁶ *Constellation Power Source, Inc.*, 100 FERC ¶ 61,157, at P 33 (2002).

⁶⁷ *City of Charlottesville v. FERC*, 661 F.2d 945, 949–50 (D.C. Cir. 1981).

⁶⁸ *Florida Municipal Power Agency v. FERC*, 602 F.3d 454, 461 (D.C. Cir. 2010).

⁶⁹ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,165, at P 7 (2011); *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201, at P 6 (2003).

⁷⁰ *E.g., Republic Airline Inc. v. U.S. Dept. of Transp.*, 669 F.3d 296, 299 (D.C. Cir. 2012) (“One of the core tenets of reasoned decision-making is that ‘an agency [when] changing its course . . . is obligated to supply a reasoned analysis for the change.’”).

FERC's orders would prolong the pain and magnify the economic harm. Given FERC's refund policy discussed above, the prospects of a remand and further proceedings weigh heavily in favor of granting a stay now to contain the damages.

3. Issuance Of A Stay Is In The Public Interest.

FPA sections 205 and 206⁷¹ give FERC authority to regulate rates for the interstate sale and transmission of electricity. Under these sections the utility (here, NYISO) sets its rates in the first instance,⁷² subject to the statutory obligation that rates must be just and reasonable and not unduly discriminatory or preferential.⁷³ FERC can investigate a newly filed rate,⁷⁴ and if the rate is inconsistent with the statutory standard, FERC can order a change in the rate to make it conform to that standard.⁷⁵

Section 205(e) states that FERC "may . . . require such public utility or public utilities to refund . . . such portion of such increased rates or charges as by its decision shall be found not justified."⁷⁶ Whether to order refunds in a particular case is discretionary, however, so long as FERC properly evaluates the purposes of

⁷¹ 16 U.S.C. §§ 824d and 824e.

⁷² 16 U.S.C. § 824d(a).

⁷³ *Id.* §§ 824d(a)-(b).

⁷⁴ *Id.* § 824d(e).

⁷⁵ *Id.*

⁷⁶ *Id.*

the statute and the practical consequences of its actions.⁷⁷ Those purposes include ensuring adequate supplies of electricity,⁷⁸ and protecting consumers against excessive charges.⁷⁹

Here, while FERC has the authority to permit NYISO to procure reserve capacity for New York through periodic ICAP auctions—and thereby ensure the adequacy of electric supplies for the State—FERC must balance its chosen method against its statutory responsibility to protect consumers against excessive rates. FERC has yet to complete this balancing act because it has not ruled on pending requests for rehearing that challenge the sufficiency of its orders authorizing NYISO to establish a NCZ in the LHV.

As Petitioner has shown above, however, FERC’s decisions below suffer from numerous errors that cast serious doubt on the need to create a new capacity pricing zone in the LHV in the first place. Even if an NCZ arguably is necessary,

⁷⁷ *Towns of Concord*, 955 F.2d at 76; *Cities of Batavia, et. al. v. FERC*, 672 F.2d 64, 85 (D.C. Cir. 1982).

⁷⁸ *Consolidated Edison Co. of New York, Inc. v. FERC*, 510 F.3d 333, 342 (D.C. Cir. 2007).

⁷⁹ *See Pa. Water & Power Co. v. FPC*, 343 U.S. 414 (1952) (“A major purpose of the whole [Federal Power] Act is to protect power consumers against excessive prices.”); *California ex rel. Lockyer v. FERC*, 383 F.3d 1006, 1017 (9th Cir. 2004) (describing “protecting consumers” as the FPA’s “primary purpose”); *see also Atl. Ref. Co. v. Pub. Serv. Comm’n*, 360 U.S. 378, 388 (1959) (“The [Natural Gas] Act was so framed as to afford consumers a complete, permanent and effective bond of protection from excessive rates and charges.”). Courts often cite the rate provisions of the FPA and Natural Gas Act interchangeably when interpreting those requirements. *Arkansas Louisiana Gas Co. v. Hall*, 453 U.S. 571, 577 n.7 (1981).

FERC's orders failed to satisfy the public interest goals of the FPA to ensure that consumers pay just and reasonable rates. Given FERC's discretionary authority to order refunds, and its policy against the payment of refunds stemming from auction-based sales of wholesale electric products, the public interest weighs in favor of a stay until these issues are resolved through further orders from FERC that can be subjected to judicial scrutiny.

4. Granting the Requested Relief Will Not Harm Other Parties.

Other parties will not be substantially harmed by a stay. Granting the Petitioner's request for a stay will not cause market participants to supply ICAP to consumers in the LHV without compensation. Rather, a stay will require NYISO to return to the status quo ante where it procured ICAP for the LHV through monthly auctions that grouped the LHV with the "Rest of State" as a single ICAP pricing zone. NYISO's most recent ICAP auction for the month of May 2014 produced an ICAP price of \$5.50/kW-month for the "NYCA" zone that was left over from the former "ROS" zone after the NCZ was created. The NYCA price is thus a reasonable proxy for comparison purposes with the \$10.33/kW-month for the G-J Locality in May 2014.⁸⁰ The recent NYCA price is on par with ICAP prices observed in the ROS zone in the summer of 2013.⁸¹

⁸⁰ *New York Indep. Sys. Operator, Inc.*, Emergency Motion of Central Hudson Gas & Electric Corporation for Expeditious Rulings Or, Alternatively, For a Stay of Capacity Auctions for the New Capacity Zone in New York's Lower Hudson

Although suppliers of ICAP into NYISO's NCZ would receive less for that capacity under the stay requested herein than under the NYISO's current auction, they will nevertheless continue to be compensated on par with suppliers in the NYCA similar to the prices they received before FERC approved the formation of the NCZ.

Moreover, as FERC has noted, the purpose of ICAP is to “spur sellers to make new investment”⁸² Constructing new generating plants involves a long-term investment commitment because it takes several years to acquire the sites, obtain necessary permits, resolve interconnection disputes, construct the facilities and place them into commercial operation. Granting a prospective stay of NYISO's current ICAP auctions in the NCZ will not affect these investment decisions because the developers of new generating plants cannot expect to receive ICAP payments for several years. Conversely, not granting a stay will provide a windfall to incumbent generators of hundreds of millions of dollars even though the payments will have no impact on their investment decisions for plants that are already operating.

Accordingly, in the balance between consumers who are paying sharply higher ICAP prices in the LHV and generators who will either (a) receive a

Valley and Motion for Shortened Response Time of Three Business Days, Docket Nos. ER13-1380-000 and ER14-500-000 (filed Apr. 30, 2014) at 6.

⁸¹ *Id.*

⁸² *Sithe New England Holdings, LLC*, 308 F.3d at 78.

windfall or (b) not be affected because their plants will not be operational in the near term, the Court should find in favor of a stay.

B. ALTERNATIVELY, THE COURT SHOULD ISSUE A WRIT OF MANDAMUS ORDERING FERC TO ACT ON REHEARING OF ITS AUGUST 13 AND JANUARY 28 ORDER WITHIN 45 DAYS.

If the Court grants Petitioner’s request for a stay of NYISO’s ICAP auctions for the NCZ prospectively, there is no need for the extraordinary remedy of mandamus because the harm to consumers will be mitigated until judicial review of FERC’s orders runs its course.⁸³ Under the circumstances of this case, however, a writ of mandamus directing FERC to issue its orders on rehearing is a second-best solution because consumers will continue to bear substantially higher ICAP prices with refunds likely unavailable at the conclusion of the proceedings. Nevertheless, the writ is appropriate, at a minimum, to mitigate the growing economic harm to consumers that results from FERC’s delay.

In *Michael v. Immigration & Naturalization Service*, this Court applied the criteria applicable to a stay as discussed above in deciding whether to issue a writ of mandamus.⁸⁴ More recently, the Court has applied a three-part inquiry:

⁸³ See, e.g., *Michael v. Immigration & Naturalization Service*, 48 F.3d 657, 664 n.6 (2d Cir. 1995) (quoting *Reynolds Metals Co. v. FERC*, 777 F.2d 760, 762 (D.C. Cir. 1985) (holding that when the “normal” means of obtaining extraordinary relief via a stay is available, the extraordinary remedy of mandamus is unavailable).

⁸⁴ *Id.*

(1) “the party seeking issuance of the writ must have no other adequate means to attain the relief it desires”; (2) “the issuing court, in the exercise of its discretion, must be satisfied that the writ is appropriate under the circumstances”; and (3) the petitioner must demonstrate that the “right of issuance of the writ is clear and indisputable.”⁸⁵

Petitioner’s alternative request for a writ of mandamus satisfies these requirements.

1. Petitioner and Its Customers Have No Other Adequate Means to Attain the Relief Requested.

As shown above, FERC’s policy is to deny refunds that require the re-running of auction-based markets like NYISO’s monthly ICAP auctions. The longer FERC’s orders remain in force without being corrected through further orders on rehearing or judicial review, the greater the irreparable damages to consumers will become. Absent a directive from this Court requiring FERC to issue its orders on rehearing (or an order staying NYISO’s monthly ICAP auctions for the NCZ prospectively), Petitioner’s customers have no possibility of relief.⁸⁶

⁸⁵ *SEC v. Rajaratnam*, 622 F.3d 159, 169 (2d Cir. 2010) (quoting *In re City of New York*, 607 F.3d 929, 932-33 (2d Cir. 2010)).

⁸⁶ *See Kokajko v. FERC*, 837 F.2d 524, 526 (1st Cir. 1988) (evaluating the reasonableness of FERC’s delay against the backdrop of potential refunds at the end of the proceedings in deciding whether to exercise mandamus powers) (citing *Wellesley, Concord and Norwood v. FERC*, 829 F.2d 275, 277 (1st Cir. 1987) (stating that one of the conditions for issuing a writ of mandamus is that petitioner has “no other adequate means to attain the relief” desired) and *Public Service Co. of N.M. v. FPC*, 557 F.2d 227, 233 (10th Cir. 1977) (“To be reviewable the order must have an impact upon rights and be of such a nature that it will cause irreparable injury if not challenged.”)).

Here, the absence of any realistic chance for refunds following judicial review weighs heavily in favor of issuance of the writ to preserve this Court’s jurisdiction.

2. Issuance of the Writ Is Appropriate Under the Circumstances.

The circumstances of this case involve the ongoing harm to consumers in the LHV from excessive charges for ICAP, as we have discussed, and the unreasonableness of FERC’s delay in issuing its orders on rehearing. Once again, issuance of the writ is appropriate.

The governing statutes all require FERC to act on rate proceedings and requests for rehearing with expedition. Section 205(e) of the FPA authorizes FERC to investigate proposed rate increases, and “shall give to the hearing and decision of such questions preference over other questions pending before it and decide the same as speedily as possible.”⁸⁷ FERC is required to “act” on requests for rehearing of its orders within 30 days or the requests are deemed to be denied.⁸⁸ Similarly, the Administrative Procedure Act requires an agency to act “within a reasonable time,”⁸⁹ and requires reviewing courts to “compel agency action” that is “unreasonably delayed.”⁹⁰

⁸⁷ 16 U.S.C. § 824d(e).

⁸⁸ 16 U.S.C. § 825l.

⁸⁹ 5 U.S.C. § 555(b).

⁹⁰ *Id.* § 706; *Telecommunications Research & Action Center v. FCC*, 750 F.2d 70, 79 (D.C. Cir. 1984).

These statutory directives must be considered against the context of this case where rehearing requests on the August 13 Order have languished for eight months while the May 1, 2014 start-date for auctions in the NCZ loomed. FERC was well aware of this start date because NYISO emphasized the importance of speedy action by FERC so that NYISO could implement ICAP auctions for the new zone by that date. FERC is also surely aware of its harsh policy against refunds that would otherwise be required for flawed or unlawful auction-based markets. Nevertheless, FERC failed to act on the timely requests for rehearing that were before it, and surely did not act on them “as speedily as possible.” Given that consumers cannot expect refunds, if the Court does not stay the effectiveness of NYISO’s auctions it should give consumers the next best thing: a directive to FERC that it issue its orders on rehearing by a date-certain.

3. Petitioner’s Right to the Issuance of the Writ Is Clear and Indisputable.

As discussed above in the motion for a stay, FERC’s orders below suffer from several legal errors that violate its statutory obligations to adhere to the filed rate and to ensure that rates methods produce just and reasonable results. FERC also failed to support its decisions with substantial evidence in the record of the proceedings below, or to provide a reasoned explanation for its decisions based on that evidence. For all of these reasons, discussed in greater detail above, Petitioner submits that its right to issuance of the writ is clear and indisputable.

CONCLUSION

For the foregoing reasons, Petitioner respectfully petitions this Court pursuant to Rules 18 and 21 of the Federal Rules of Appellate Procedure and Circuit Rule 21.1 to issue an order (1) granting a limited stay of the effectiveness of FERC's August 13 Order and January 28 Order to preclude NYISO from conducting monthly auctions for installed capacity reserves known as "ICAP" for NYISO load zones G through J, now known as the NCZ, pending judicial review, and alternatively (2) directing FERC to issue its orders responding to requests for rehearing of the August 13 Order and the January 28 Order within **45 days**. Petitioner further requests this Court to issue an order directing answers to this Petition to be filed within **eight (8) calendar days**, with **three (3) calendar days** for a reply, and respectfully request this Court to issue its order on this Petition by **June 6, 2014** in advance of NYISO's next ICAP auction cycle that starts on June 9, 2014.

Dated: May 12, 2014

Respectfully submitted,

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STATUTORY AND REGULATORY ADDENDUM

Administrative Procedure Act, 5 U.S.C. § 555(b). Ancillary Matters.

(b) A person compelled to appear in person before an agency or representative thereof is entitled to be accompanied, represented, and advised by counsel or, if permitted by the agency, by other qualified representative. A party is entitled to appear in person or by or with counsel or other duly qualified representative in an agency proceeding. So far as the orderly conduct of public business permits, an interested person may appear before an agency or its responsible employees for the presentation, adjustment, or determination of an issue, request, or controversy in a proceeding, whether interlocutory, summary, or otherwise, or in connection with an agency function. With due regard for the convenience and necessity of the parties or their representatives and within a reasonable time, each agency shall proceed to conclude a matter presented to it. This subsection does not grant or deny a person who is not a lawyer the right to appear for or represent others before an agency or in an agency proceeding.

Administrative Procedure Act, 5 U.S.C. § 706(1). Scope of Review.

To the extent necessary to decision and when presented, the reviewing court shall decide all relevant questions of law, interpret constitutional and statutory provisions, and determine the meaning or applicability of the terms of an agency action. The reviewing court shall—

(1) compel agency action unlawfully withheld or unreasonably delayed;

Section 205(a)-(d) of the Federal Power Act, 16 U.S.C. § 824d(a)-(d). Rates and charges; schedules; suspension of new rates; automatic adjustment clauses

(a) Just and reasonable rates

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be just and reasonable, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.

(b) Preference or advantage unlawful

No public utility shall, with respect to any transmission or sale subject to the jurisdiction of the Commission, (1) make or grant any undue preference or advantage to any person or subject any person to any undue prejudice or disadvantage, or (2) maintain any unreasonable difference in rates, charges, service, facilities, or in any other respect, either as between localities or as between classes of service.

(c) Schedules

Under such rules and regulations as the Commission may prescribe, every public utility shall file with the Commission, within such time and in such form as the Commission may designate, and shall keep open in convenient form and place for public inspection schedules showing all rates and charges for any transmission or sale subject to the jurisdiction of the Commission, and the classifications, practices, and regulations affecting such rates and charges, together with all contracts which in any manner affect or relate to such rates, charges, classifications, and services.

(d) Notice required for rate changes

Unless the Commission otherwise orders, no change shall be made by any public utility in any such rate, charge, classification, or service, or in any rule, regulation, or contract relating thereto, except after sixty days' notice to the Commission and to the public. Such notice shall be given by filing with the Commission and keeping open for public inspection new schedules stating plainly the change or changes to be made in the schedule or schedules then in force and the time when the change or changes will go into effect. The Commission, for good cause shown, may allow changes to take effect without requiring the sixty days' notice herein provided for by an order specifying the changes so to be made and the time when they shall take effect and the manner in which they shall be filed and published.

Section 313 of the Federal Power Act, 16 U.S.C. § 8251. Review of orders

(a) Application for rehearing; time periods; modification of order

Any person, electric utility, State, municipality, or State commission aggrieved by an order issued by the Commission in a proceeding under this chapter to which such person, electric utility, State, municipality, or State commission is a party may apply for a rehearing within thirty days after the issuance of such order. The

application for rehearing shall set forth specifically the ground or grounds upon which such application is based. Upon such application the Commission shall have power to grant or deny rehearing or to abrogate or modify its order without further hearing. Unless the Commission acts upon the application for rehearing within thirty days after it is filed, such application may be deemed to have been denied. No proceeding to review any order of the Commission shall be brought by any entity unless such entity shall have made application to the Commission for a rehearing thereon. Until the record in a proceeding shall have been filed in a court of appeals, as provided in subsection (b) of this section, the Commission may at any time, upon reasonable notice and in such manner as it shall deem proper, modify or set aside, in whole or in part, any finding or order made or issued by it under the provisions of this chapter.

(b) Judicial review

Any party to a proceeding under this chapter aggrieved by an order issued by the Commission in such proceeding may obtain a review of such order in the United States court of appeals for any circuit wherein the licensee or public utility to which the order relates is located or has its principal place of business, or in the United States Court of Appeals for the District of Columbia, by filing in such court, within sixty days after the order of the Commission upon the application for rehearing, a written petition praying that the order of the Commission be modified or set aside in whole or in part. A copy of such petition shall forthwith be transmitted by the clerk of the court to any member of the Commission and thereupon the Commission shall file with the court the record upon which the order complained of was entered, as provided in section 2112 of title 28. Upon the filing of such petition such court shall have jurisdiction, which upon the filing of the record with it shall be exclusive, to affirm, modify, or set aside such order in whole or in part. No objection to the order of the Commission shall be considered by the court unless such objection shall have been urged before the Commission in the application for rehearing unless there is reasonable ground for failure so to do. The finding of the Commission as to the facts, if supported by substantial evidence, shall be conclusive. If any party shall apply to the court for leave to adduce additional evidence, and shall show to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for failure to adduce such evidence in the proceedings before the Commission, the court may order such additional evidence to be taken before the Commission and to be adduced upon the hearing in such manner and upon such terms and conditions as to the court may seem proper. The Commission may modify its findings as to the facts by reason of the additional evidence so taken, and it shall file with the court

such modified or new findings which, if supported by substantial evidence, shall be conclusive, and its recommendation, if any, for the modification or setting aside of the original order. The judgment and decree of the court, affirming, modifying, or setting aside, in whole or in part, any such order of the Commission, shall be final, subject to review by the Supreme Court of the United States upon certiorari or certification as provided in section 1254 of title 28.

(c) Stay of Commission's order

The filing of an application for rehearing under subsection (a) of this section shall not, unless specifically ordered by the Commission, operate as a stay of the Commission's order. The commencement of proceedings under subsection (b) of this section shall not, unless specifically ordered by the court, operate as a stay of the Commission's order.

All Writs Act, 28 U.S.C. § 1651(a). Writs

(a) The Supreme Court and all courts established by Act of Congress may issue all writs necessary or appropriate in aid of their respective jurisdictions and agreeable to the usages and principles of law.

UNITED STATES COURT OF APPEALS FOR THE SECOND CIRCUIT

CAPTION:

_____ v.
In re Central Hudson Gas &
Electric Corporation

CERTIFICATE OF SERVICE
Docket Number: 14-_____

I, Carlos L. Sisco, hereby certify under penalty of perjury that on
(name)
May 12, 2014, I served a copy of Emergency Motion for Limited Stay of Federal Energy
(date)
Regulatory Commission Orders Authorizing Electric Capacity Auctions Pending Action on Rehearing and if Necessary, on Judicial Review, and
(list all documents)

Alternative Petition for a Writ of Mandamus, and Memorandum in Support Thereof and Appendix Volumes 1 and 2.
by (select all applicable)*

- United States Mail
- Federal Express
- Overnight Mail
- Facsimile
- E-mail
- Hand delivery

on the following parties (complete all information and add additional pages as necessary):

(See separate page)

Name Address City State Zip Code

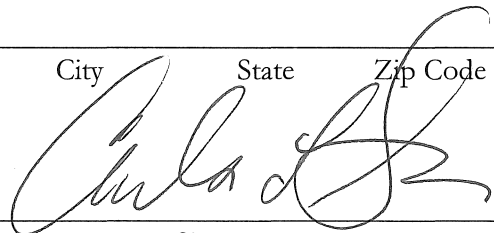
Name Address City State Zip Code

Name Address City State Zip Code

Name Address City State Zip Code

May 12, 2014

Today's Date



Signature

*If different methods of service have been used on different parties, please indicate on a separate page, the type of service used for each respective party.

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14-

United States Court of Appeals
for the
Second Circuit

IN RE CENTRAL HUDSON GAS & ELECTRIC CORPORATION
Petitioner

**EMERGENCY MOTION FOR LIMITED STAY OF
FEDERAL ENERGY REGULATORY COMMISSION ORDERS
AUTHORIZING ELECTRIC CAPACITY AUCTIONS PENDING ACTION
ON REHEARING AND, IF NECESSARY, ON JUDICIAL REVIEW, AND
ALTERNATIVE PETITION FOR A WRIT OF MANDAMUS,
AND MEMORANDUM IN SUPPORT THEREOF**

APPENDIX – VOLUME 1

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April 30, 2013

By Electronic Delivery

Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, DC 20426

Re: New York Independent System Operator, Inc., *Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing*, Docket No. ER13-____-000

In accordance with Section 5.16.4 of the Market Administration and Control Area Services Tariff (“Services Tariff”), the Commission’s April 2, 2013 letter order granting a limited waiver of Section 5.16.4’s filing deadline,¹ and Section 205 of the Federal Power Act, the New York Independent System Operator, Inc. (“NYISO”) respectfully submits proposed tariff revisions to establish and recognize a New Capacity Zone² (“NCZ”).³ In addition, and as required by the Services Tariff, this filing includes a “report of the results of the NCZ Study.” As discussed below, the NCZ Study identified a Highway deliverability constraint, which triggered the requirement to create an NCZ.⁴ This filing proposes to establish an NCZ that would encompass NYISO Load Zones G, H, I, and J (the “G-J Locality”).⁵

The NYISO strongly supports the establishment of the NCZ. As discussed in detail in this filing, the NYISO carefully examined and considered the transmission system, capacity market, and economic consequences of its NCZ proposal. It concluded that establishing and implementing the G-J Locality for the May 1, 2014 start of the 2014/2015 Capability Year is necessary to send more efficient price signals, enhance reliability, mitigate potential transmission security issues, and serve the long-term interest of all consumers in New York State. The

¹ See *Letter Order*, Docket No. ER13-1124-000 at 1 (April 2, 2013) accepting the *Motion for Expedited Action and Limited Tariff Waivers of the New York Independent System Operator, Inc.* (“Expedited Waiver Filing”), Docket No. ER13-1124-000 (March 15, 2013). As noted in Section II.A.1, the April 2 letter order also authorized the NYISO to make any necessary adjustments by April 30, 2013 to the “Indicative NCZ LCR” determination that it had made by March 1, 2013.

² Capitalized terms that are not otherwise defined herein have the meaning set forth in the NYISO’s Services Tariff, and if not defined therein, in the Open Access Transmission Tariff (“OATT”).

³ Services Tariff Section 2.14.

⁴ Services Tariff Sections 5.16.4(a), 5.16.2.

⁵ See Attachment IX hereto, a map depicting the NYISO’s Load Zones; the NCZ, which would be defined as the “G-J Locality;” and the current Localities of Load Zone J and Load Zone K.

Independent Market Monitoring Unit (“MMU”) for the NYISO has previously called for the creation of an NCZ and supports the NYISO’s proposal.

The NYISO respectfully requests that the Commission issue an order no later than July 1, 2013, accepting the tariff revisions proposed in this filing with an effective date of July 1 except as noted below and in Section V. The NYISO is asking for an order by July 1, 2013 because sixty days from the date of the filing (*i.e.*, June 29) is a Saturday. Therefore, the NYISO believes that the sixty-day notice period does not expire until July 1.⁶ As explained in the NYISO’s November 7, 2011 compliance filing (“November 2011 Filing”)⁷ and in the Commission’s August 2012 order accepting it,⁸ acceptance of the NCZ within sixty days of filing is critical to the schedule of the ongoing ICAP Demand Curve reset process and the processes to implement the G-J Locality. Specifically, the ICAP Demand Curve reset consultant must know that a new Locality will be established, and its boundaries, with certainty. This information is needed so that the consultant may timely develop and propose an ICAP Demand Curve for the NCZ concurrent with the other ICAP Demand Curves. Commission acceptance is also necessary for development, testing, and deployment steps that are specific to the configuration of the G-J Locality. That timing is consistent with existing Service Tariff provisions.⁹

The NYISO is requesting later effective dates for certain of its proposed tariff revisions as specified in Section V. The reasons for each effective date are also specified. The requested effective dates correspond to necessary actions to implement the G-J Locality in time for the market activities which occur before the May 2, 2014 start of the 2014/2015 Capability Year.

As noted in Sections II.A.2 and V, the NYISO also asks the Commission to issue an order accepting pending compliance tariff revisions to establish market power mitigation rules in the NCZ as soon as possible.¹⁰

⁶ See 18 C.F.R. 385.2007 (2012). The NYISO does not intend that its request for effective dates later than June 29, 2013 be deemed to be a waiver of the requirement under 18 C.F.R. §35.3 that the Commission act on its proposed tariff revisions within sixty days of the date of this filing.

⁷ Compliance Filing at 7, Docket No. ER12-236 (filed November 7, 2011).

⁸ *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,160 (2012) (“August 2012 Order”).

⁹ Services Tariff Section 5.14.1.2 specifies that an ICAP Demand Curve is to be established for any New Capacity Zone. The defined term “New Capacity Zone” means the “proposed” zone. (See Services Tariff Section 2.14 at definition of “New Capacity Zone”). Section 5.14.1.2.11 specifies that such ICAP Demand Curve is to be filed by November 30 “of the year prior to the year that includes the beginning of the first Capability Year to which such ICAP Demand Curves would be applied.” In this instance, the first Capability Year is 2014/2015, which commences May 1, 2014.

¹⁰ The pending tariff revisions were submitted on June 29, 2012 in Docket No. ER12-360-001. (“June 2012 Compliance Filing”).

I. LIST OF DOCUMENTS SUBMITTED

The NYISO respectfully submits the following documents:

1. This filing letter;
2. A blacklined version of the proposed modifications to the Services Tariff effective July 1, 2013 (“Attachment I”);
3. A clean version of the proposed modifications to the Services Tariff effective July 1, 2013 (“Attachment II”);
4. A blacklined version of the proposed modifications to the OATT effective July 1, 2013 (“Attachment III”);
5. A clean version of the proposed modifications to the OATT effective July 1, 2013 (“Attachment IV”);
6. A blacklined version of the proposed modifications to the Services Tariff effective January 15, 2014 (“Attachment V”);
7. A clean version of the proposed modifications to the Services Tariff effective January 15, 2014 (“Attachment VI”);
8. A blacklined version of the proposed modifications to the Services Tariff effective January 27, 2014 (“Attachment VII”);
9. A clean version of the proposed modifications to the Services Tariff effective January 27, 2014 (“Attachment VIII”);
10. Map of NYISO Load Zones, identifying proposed G-J Locality and the current Localities. (“Attachment IX”).
11. *2013 New Capacity Zone Study Report* (“Attachment X”);
12. Affidavit of Dr. David B. Patton, Ph.D (“Patton Affidavit”) (“Attachment XI”);
13. Affidavit of Mr. Tariq N. Niazi (“Niazi Affidavit”) (“Attachment XII”);
14. Affidavit of Mr. Steven Corey (“Corey Affidavit”) (“Attachment XIII”);
15. Affidavit of Henry Chao, Ph.D. and John M. Adams (“Chao/Adams Affidavit”) (“Attachment XIV”);
16. Affidavit of Mr. Gary Jordan (“Jordan Affidavit”) (“Attachment XV”); and
17. Affidavit of Ms. Emilie Nelson (“Nelson Affidavit”) (“Attachment XVI”).

II. BACKGROUND AND SUMMARY

A. NYISO Tariff Provisions Governing the Creation of, and Market Mitigation Power Mitigation in, NCZs

1. Tariff Provisions Governing the Creation of NCZs

In response to the Commission's September 2011 Order,¹¹ the NYISO's November 2011 Filing specified the process for evaluating, identifying and, if necessary, establishing NCZs in the New York Control Area ("NYCA"). In the August 2012 Order, the Commission accepted the November 2011 Filing and made it effective as of January 9, 2012.

The August 2012 Order accepted Section 5.16.4 of the Services Tariff, which requires the NYISO to make one of two types of NCZ filings¹² on or before March 31 of each ICAP Demand Curve Reset Filing Year¹³ (*i.e.*, by March 31, 2013, because 2013 is an ICAP Demand Curve Reset Filing Year). The Services Tariff also requires the NYISO to commence a triennial NCZ Study in the preceding year, review the inputs and assumptions to be used in it with stakeholders by October 1 of that preceding year,¹⁴ and complete the NCZ Study by January 15 of the ICAP Demand Curve Reset Filing Year.¹⁵ Under Section 5.16.2, if the NCZ Study identifies a constrained Highway interface into one or more Load Zones, the NYISO is to identify the boundary of one or more NCZs. Under Section 5.16.4, the NYISO must file tariff revisions to implement new NCZ(s) along with the NCZ Study results.

Section 5.14.1.2 of the Services Tariff describes both: (i) the timing and sequence of the steps needed to create an NCZ; and (ii) how an NCZ is factored into the triennial ICAP Demand Curve reset process. Essentially, the periodic review of the ICAP Demand Curves incorporates a review of an ICAP Demand Curve for an NCZ concurrent with the review of ICAP Demand Curves for existing Localities and the NYCA. The economic parameters of each NCZ ICAP Demand Curve are likewise established as part of the normal reset procedure. ICAP Demand Curves for an NCZ would be effective at the same time as revised ICAP Demand Curves for the existing Localities and the NYCA, subject to Commission acceptance of certain tariff revisions effective January 27, 2014, as further explained in Section V. That is, the NCZ ICAP Demand Curve would be in effect for all ICAP market activities for the first Capability Year that commences after its filing and acceptance. Thus, for the NCZ proposed in this filing, the ICAP

¹¹ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,165 (2011).

¹² Services Tariff Section 5.16.4(b) provides that "[i]f the NCZ Study does not identify a constrained Highway interface, the ISO shall file with the Commission the ISO's determination that the NCZ Study did not indicate that any New Capacity Zone is required pursuant to this process, along with a report of the results of the NCZ Study."

¹³ Services Tariff Section 2.9.

¹⁴ Services Tariff Section 5.16.1.2.

¹⁵ Services Tariff Section 5.16.

Demand Curve is expected to be filed by November 30, 2013, and become effective for the Capability Year beginning May 1, 2014.

Section 5.16.3 of the Services Tariff directs the NYISO to establish an Indicative Locational Minimum Installed Capacity Requirement (“Indicative NCZ LCR”) for each Load Zone or group of Load Zones “identified in the NCZ Study as having a constrained Highway Interface, on or before March 1 of each ICAP Demand Curve Reset Filing Year.” The NYISO must also provide “an opportunity for stakeholders to review and comment . . .”¹⁶ Indicative NCZ LCRs are used “solely for establishing revised ICAP Demand Curves in accordance with Section 5.14.1.2.”¹⁷

Accordingly, the NYISO only briefly addresses its Indicative NCZ LCR determination in this filing.¹⁸ The NYISO satisfied the March 1 tariff deadline to establish an Indicative NCZ LCR including the stakeholder review requirements.¹⁹ The Commission subsequently granted the NYISO’s request in the Expedited Waiver Filing for a waiver of the March 1 deadline so that the NYISO could adjust the Indicative NCZ LCR if necessary after further technical analyses. On April 4, 2012, the NYISO presented a revised proposed Indicative NCZ LCR at an ICAP Working Group meeting. At the April 18, 2013 ICAP Working Group meeting, the NYISO made a presentation in response to stakeholder questions regarding the Indicative NCZ LCR. The Indicative NCZ LCR will be an element in the ICAP Demand Curve reset filing that will be submitted by November 30, 2013. The NYISO will continue to discuss with stakeholders the Indicative NCZ LCR, and its use, in the ICAP Demand Curve reset process.

2. Proposed Market Power Mitigation Rules for NCZs

On June 29, 2012, the NYISO submitted the June 2012 Compliance Filing in further compliance with the September 2011 Order. The June 2012 Compliance Filing proposed tariff revisions to implement “both buyer-side and supplier-side mitigation measures for NCZs using the same conceptual framework of the existing market mitigation measures currently applicable to the New York City Locality.”²⁰ The NYISO asked that these further compliance revisions be made effective as of “September 1, 2012, or the effective date the Commission accepts for the

¹⁶ Services Tariff Section 5.16.3.

¹⁷ *Id.* The actual Locational Minimum Installed Capacity Requirements (“LCR”) that will be used to administer market rules for the G-J Locality will be established in the same manner as, and concurrent with, the LCRs for existing Localities J and K.

¹⁸ Specifically, the Chao/Adams Affidavit presents a brief description, at PP 35-41 of how the NYISO used the same methodology and tools it employed to determine the NYCA Installed Reserve Margin and Locational Minimum Installed Capacity Requirements (“LCRs”) to determine an Indicative NCZ LCR of 88%. The Jordan Affidavit affirms the reasonableness of this analysis at PP 14-15.

¹⁹ See Services Tariff Section 5.16.3. The actual LCR that will be used to administer the G-J Locality capacity market rules will be established in the same manner as, and concurrent with, the LCRs for existing Localities J and K.

²⁰ June 2012 Compliance Filing at 1.

tariff revisions submitted in the November 2011 Filing. . . .” (*i.e.*, January 9, 2012). The Commission has not yet acted on the June 2012 Compliance Filing. The NYISO had proposed that the NCZ mitigation compliance revisions would be in place before the beginning of the triennial NCZ Study process on September 1, 2012. The order would provide Market Participants, including those in the on-going Class Year processes,²¹ with certainty of the rules. It is essential that the Commission act on the June 2012 Compliance Filing by August 30, 2013. That date is sufficiently in advance of the NYISO’s November 29, 2013 filing of the ICAP Demand Curves to permit buyer-side mitigation analyses to be performed in time for the NYISO to issue an “Indicative BSM Determination” for any project proposed to be located in the NCZ that is then going through the Class Year project cost Allocation process.²²

B. The 2013 New Capacity Zone Study Report

As required by Sections 5.16.4 and 5.16, the NYISO commenced work on the NCZ Study by September 1 2012 and completed it by January 15, 2013. A copy of the 2013 New Capacity Zone Study Report is included as Attachment X to this filing. As discussed in more detail therein, and in Section III.A, the NCZ Study was performed in accordance with the procedures and methodology set forth in Section 5.16. The rules require the NYISO to use, in large part, the deliverability methodology from the Class Year Study set forth in Attachment S to the NYISO OATT. The NCZ Study concluded that “[t]he UPNY-SENY Highway Interface is bottling 849.2 MW generation from upstream (Zones A through F), thus indicating the need to create a New Capacity Zone.”

C. Selection of the NCZ Boundary

Section 5.16.2 of the Services Tariff provides that “[i]n determining the New Capacity Zone boundary, the ISO shall consider the extent to which incremental Capacity in individual constrained Load Zones could impact the reliability and security of constrained Load Zones,

²¹ OATT Attachment S contains a process for periodic study of projects that have completed similar milestones – a “Class Year” of projects that are through a certain stage of the Interconnection process. The NYISO conducts a detailed study that evaluates the cumulative impact of the group of projects (a “Class Year Study”).²¹ The Class Year Study identifies the upgrade facilities needed to reliably interconnect all the projects in a Class Year. For the group of Class Year projects requesting Capacity Resource Interconnection Service (“CRIS”), the Class Year Study includes a deliverability test to determine the extent to which each project is deliverable at the requested CRIS MW level. The deliverability study in the Class Year Study evaluates the deliverability of projects requesting CRIS within the applicable Capacity Region. The Class Year Study then allocates the cost of System Upgrade Facilities and System Deliverability Upgrades identified in the study among the projects in the Class Year in accordance with the cost allocation methodologies set forth in Attachment S to the OATT. Section IV.B.2.b of this filing describes tariff revisions that would apply to the deliverability test used in the Class Year Study.

²² See June 2012 Compliance Filing at Section 23.4.5.7.2.2. The Indicative BSM Determination is for informational purposes only. A final buyer-side mitigation determination will be issued for projects then going through the project cost allocation process, and projects in a completed Class Year, after Commission acceptance of the ICAP Demand Curves for the NCZ.

taking into account interface capability between constrained Load Zones.” As discussed in Section III.B, the Chao/Adams Affidavit describes the resource adequacy and transmission security analyses that the NYISO conducted in order to determine the boundary of the NCZ. The Jordan Affidavit reviews and validates the reasonableness of those analyses. The Patton Affidavit explains the market design principles that are relevant to establishing NCZ boundaries and accepts the NYISO’s proposed G-J Locality as consistent with them and reasonable.

D. The Benefits of Establishing an NCZ

As explained in the Patton Affidavit, the creation of an NCZ will bring many benefits by sending more efficient locational investment signals.²³ As Dr. Patton explains, NCZs are intended to reflect the reliability needs of the system over the planning horizon, which allows the capacity market to attract investment where it will provide the greatest reliability benefit.²⁴ The creation of an NCZ provides an incentive to build new, and to maintain existing, resources, in areas where investment is most effective. The Patton Affidavit notes that establishing the G-J Locality also will improve the incentives to develop new demand response resources in that location.²⁵ In short, establishing an NCZ will “facilitate more efficient investment and retirement decisions.”²⁶

The reliability needs that the G-J Locality would address are becoming increasingly significant. As indicated in the NYISO’s 2012 Comprehensive Reliability Plan²⁷ and in the MMU’s *2012 State of the Market Report* (“*2012 SOM*”),²⁸ recent generator retirements in Load Zones G and H resulted in higher Locational Minimum Installed Capacity Requirements (“LCRs”) for Load Zones J and K.²⁹ The total amount of Unforced Capacity in Load Zones G, H, and I has fallen by 1 GW since the Summer of 2006, even though there has been an apparent need for resources to address issues with the UPNY-SENY interface.³⁰ The lack of a capacity price signal has contributed to a reduction in capacity in these Load Zones.³¹ This has led to

²³ See Patton Affidavit at P 8.

²⁴ *Id.*

²⁵ *Id.* at P 12.

²⁶ *Id.* at P 13.

²⁷ NYISO, *2012 Comprehensive Reliability Plan Final Report* (March 19, 2013), available at <http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_espwg/meeting_materials/2013-01-31/2012%20CRP%20Compare%20Jan29%20to%20Jan23changes.pdf>.

²⁸ *2012 State of the Market Report for the New York ISO Markets* (April 2013) available at <http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Reports/Market_Monitoring_Unit_Reports/2012/NYISO2012StateofMarketReport.pdf> .

²⁹ *Id.* at P 11.

³⁰ *Id.*

³¹ *Id.* at P 12.

increased LCRs for New York City and Long Island, which have resulted in higher capacity prices in those Localities.³²

Additionally, as described in the Niazi Affidavit, the NYISO conducted analyses of the potential wholesale price impacts of creating the G-J Locality. The NYISO considered various timeframes and alternative assumptions regarding future transmission development, new resource entry, and plant retirements. A number of the NYISO's analyses were conducted in direct response to stakeholder requests.

The Niazi Affidavit focuses on the two wholesale consumer impact price analyses that Mr. Niazi believes are the most informative. They are: (i) a forward-looking 2013 impact analysis that considers both summer and winter conditions;³³ and (ii) a forward-looking 2018 case that assumes a 1000 MW increase in transmission system transfer capability and resource additions.³⁴ The NYISO presents this information to provide an indication of prices with and without a G-J Locality.³⁵ In general, Mr. Niazi's analysis shows expected capacity price increases in Load Zones G, H, and I and no price increases in other zones.³⁶ This is an expected consequence of reflecting the effect of the UPNY-SENY interface on capacity prices.

While the simulations show that the creation of the NCZ will increase capacity prices in Load Zones G, H, and I over the prices absent the creation of the G-J Locality, this is a corrective response to the longstanding absence of a needed locational price signal.³⁷ Price increases in Load Zones G, H, and I therefore appear to be an efficient and appropriate outcome that will signal the need for capacity investment in Load Zones G, H, and I.³⁸ The reliability and market benefits of sending more effective investment signals are in the long-term interest of all consumers, even those that may pay higher locational prices in the short-term.

Finally, the Niazi Affidavit highlights another benefit that the establishment of an NCZ for the G-J Locality would likely bring. Proposed new resources in the new Rest of State (Load Zones A-F) may be more likely to enter the market.³⁹ Those resources would be more

³² *Id.* at P 12.

³³ As noted in the Niazi Affidavit, the NYISO is not proposing to implement the NCZ in 2013. However, the 2013 case is instructive because there are more data and therefore less need to rely on assumptions than for any future year. (*See* Niazi Affidavit at P 11).

³⁴ Niazi Affidavit at PP 12-13.

³⁵ As Mr. Niazi states in his Affidavit, the simulated ICAP Spot Market Auction prices are not intended to be a forecast of prices for 2013 or 2018. (*See* Niazi Affidavit at PP 11 and 12, respectively). They also do not reflect hedging or other actions Market Participants may take to manage capacity costs. (*See id.*).

³⁶ Niazi Affidavit at P 15.

³⁷ *Id.*

³⁸ *Id.*

³⁹ *Id.*

environmentally friendly than the existing generators they might displace, and thus could bring environmental benefits.⁴⁰

E. MMU Recommendations

The MMU has consistently stated that the NYISO should create an NCZ in the Lower Hudson Valley, most recently in its comments on the *2012 SOM*.⁴¹ The *2012 SOM* emphasizes that “[c]apacity price signals should reflect the value of capacity in each area” and that the creation of an NCZ in Southeast New York “will greatly enhance the efficiency of the capacity market signals but is overdue.”⁴² It explains that: (i) the total amount of UCAP sold in Load Zones G, H, and I has fallen by more than twenty percent since 2006 “even as the need for resources to address the UPNY-SENY interface has become more apparent in the NYISO’s Comprehensive Reliability Planning Process;” (ii) UPNY-SENY interface limits have resulted in higher LCRs for Load Zones J and K; and (iii) it should be a “high priority for the NYISO to move forward expeditiously to create and price” an NCZ in SENY. The NYISO agrees with these recommendations.⁴³ Similarly, as noted above, the Patton Affidavit reiterates that an NCZ is needed and that the proposed G-J Locality is reasonable.

F. Stakeholder Review

The NYISO has had extensive discussions with its stakeholders regarding the NCZ Study, the proposed boundary, potential impacts of the proposed G-J Locality, the tariff revisions that would implement it, and related issues.⁴⁴ By engaging in these discussions, carefully considering all of the input provided by stakeholders, and responding to numerous requests for additional information, the NYISO has more than fully satisfied tariff requirements concerning stakeholder review. More specifically, on October 1, 2012, the NYISO presented to the ICAP Working Group the NCZ Study inputs and assumptions. On November 19, 2012 the NYISO presented additional information on the NCZ Study and responded to stakeholder input and questions. On January 14, 2013, the NYISO presented the results of the NCZ Study to the ICAP Working Group. The NYISO released a final version of the study incorporating stakeholder feedback on the same date.

On January 30, 2013, the NYISO presented to ICAP Working Group members a proposed boundary for the NCZ of Load Zones G, H, I, J, and K based on its analysis as of that date. It received input from stakeholders at the January 30 and February 14 ICAP Working

⁴⁰ *Id.* at P 44.

⁴¹ *2012 SOM* at 51-52.

⁴² *Id.* at 51.

⁴³ The NYISO is evaluating other recommendations made by the MMU in the *2012 SOM*. However, those recommendations go beyond the scope of the issues to be considered in this proceeding.

⁴⁴ As noted above, these other issues include the Indicative NCZ LCR which is an element to be discussed in more detail in relation to the proposed ICAP Demand Curve for the NCZ. *See* Services Tariff Section 5.14.1.2.

Group meetings and continued its analyses, including analyses requested by stakeholders. After further analysis, the NYISO revised the NCZ boundary on March 28, 2013 to consist of Load Zones G, H, I, and J. Load Zone K was not included. The NYISO presented details of its analyses at the March 28 and April 18 ICAP Working Group meetings. At each of these meetings, and also separately, the NYISO responded to stakeholder questions regarding the boundary.

Drafts of the non-credit-related tariff revisions proposed to establish the NCZ were proposed at the February 14, April 4, and April 18 ICAP Working Group meetings. Additional incremental tariff revisions were sent to stakeholders on April 26. In response to stakeholder comments during and separate from the meetings, a number of changes were made to the various drafts of tariff revisions based on stakeholder input. The credit-related provisions, *i.e.*, those described in Section IV.A.4 were discussed at its January 25, February 22, and March 8, 2013 Credit Policy Working Group meetings, and additionally, they were also posted on the NYISO's website with the ICAP Working Group meeting materials. The NYISO revised its proposed credit tariff provisions based on stakeholder input, as described below.

The NYISO made presentations concerning the consumer impacts of its NCZ proposal at the September 11 and December 3, 2012, and the January 30, and March 28, 2013 meetings, and provided further information in presentation form on April 18.

III. BASIS FOR THE PROPOSED NEW CAPACITY ZONE

A. NCZ Study

The Corey Affidavit explains that, as required by the Services Tariff, the NCZ Study was performed using in large part,⁴⁵ the deliverability methodology from the Class Year Study set

⁴⁵ See Corey Affidavit at P 6. Section 5.16 of the Services Tariff is replete with references to Attachment S of the OATT which clearly establish that the NCZ Study is largely based on the Class Year Study methodology. See, e.g., Section 5.16.1.1.5 (“The ISO will perform the NCZ Study by applying to the above inputs and assumptions the methodology contained in OATT Attachment S Sections 25.7.8.2.6, 25.7.8.2.7, 25.7.8.2.8, 25.7.8.2.9, 25.7.8.2.12, and 25.7.8.2.13 to Highways.”). As explained in the NYISO's October 11, 2011 *Request for Clarification, or in the Alternative Rehearing* in Docket No. ER04-449-023 (“Request for Clarification”), and as accepted by the Commission, the primary difference between the way the NCZ Study is performed relative to the deliverability methodology is that the evaluation is limited to deliverability across Highways and not Byways, in accordance with Section 5.16.1 of the Services Tariff. See *Request for Clarification* at 5 (Assessment of Byway facilities, *i.e.*, transmission facilities that are neither Highways nor Other Interfaces, would not provide an indication of whether the transmission system interfaces between Load Zones are constrained. Assessment of Highway facilities by application of the Deliverability Test methodology in section 25.7.8 will provide the information necessary to determine whether inter-zonal constraints exist which necessitate the creation of new Capacity zones.”). See also *New York Independent Transmission System Operator, Inc.*, 137 FERC ¶ 61,229 (2011) (“We grant clarification that the section 25.7.8 Highway Capacity Deliverability Test methodology to be used in the context of determining whether a new capacity zone is needed should only be that test in section 25.7.8 which applies to Highway facilities.”).

forth in Attachment S of the OATT.⁴⁶ The NCZ Study evaluates whether there is a constrained Highway interface into one or more Load Zones but does not evaluate deliverability across Other Interfaces or Byways.⁴⁷ Thus, the NYISO conducted the NCZ Study by testing the transfer capability across Highway interfaces.

As further explained in the Corey Affidavit, the NCZ Study applied the assumptions and methodology required under Section 5.16.1.1.⁴⁸ Pursuant to those provisions, the NYISO developed the required Load, Generator, Transmission, and Import/Export models, which used results from many NYISO studies and reports. Specifically, the NYISO's Load model used the 2017 Summer peak load conditions from the 2012 Load and Capacity Data report ("Gold Book"), and accounted for the impact of Load Forecast uncertainty using values from the 2012 New York State Reliability Council ("NYSRC") IRM Report.⁴⁹ The NYISO's Generator model included: (1) existing Capacity Resource Interconnection Service ("CRIS") generators and all projects with Unforced Capacity Deliverability Rights ("UDRs"), and (2) planned generation projects or Merchant Transmission Facilities. The Generator model also included a UCAP derate factor and accounted for units retaining CRIS rights for three years after being deactivated, that still have the ability to transfer those rights. The transmission model included: (1) existing transmission facilities, as set forth in the 2012 Gold Book; (2) planned changes of facilities that are scheduled to be in service prior to the NCZ Study Capability Period; and (3) any System Upgrade Facilities and System Deliverability Upgrades associated with planned projects, however, System Deliverability Upgrades were only modeled if they are being constructed.⁵⁰ The Import/Export model included: (1) NYCA scheduled imports from HQ/PJM/ISO-NE/IESO; and (2) actual flow scheduled from Rest of State to New York City and Long Island consistent with the IRM and the LCRs for Load Zones J and K.⁵¹

The NCZ Study finalized on January 14, 2013 determined that the UPNY-SENY Highway interface into Load Zones G, H, and I was constrained. Therefore, in accordance with the Services tariff, the NYISO is required to establish an NCZ.

⁴⁶ The Class Year Study identifies the upgrade facilities needed to reliably interconnect all the projects in a Class Year, including System Upgrade Facilities. For the group of Class Year projects requesting CRIS, the Class Year Study includes a Deliverability test to determine the extent to which each project is deliverable at the requested CRIS MW level. Among the Class Year Study provisions in Attachment S are details regarding the study methodology for evaluation of a project's Deliverability and the identification and cost allocation of System Deliverability Upgrades required for a project's proposed capacity to be fully deliverable. This is the "deliverability methodology" referred to herein.

⁴⁷ Corey Affidavit at P 7.

⁴⁸ *Id.* at P 13.

⁴⁹ *Id.* at PP 14.

⁵⁰ *Id.* at P 15

⁵¹ *Id.* at P 16.

B. Selection of the NCZ Boundary

As discussed in the Chao/Adams Affidavit,⁵² the NYISO's NCZ boundary determination focused principally on resource adequacy assessments. The NYISO ran simulations in which capacity was relocated from Load Zones G, H, and I to Load Zones J and K while monitoring compliance with NYSRC loss-of-load ("LOLE") requirements. The simulations were conducted using General Electric's Multi-Area Reliability Simulation ("MARS") model together with the "unified" or "Tan 45" methodology. The simulations demonstrated that capacity in Load Zones G, H, and I was more fungible with capacity in Load Zone J than it was with capacity in Load Zone K. This meant that Load Zone K could provide only very limited support to Load Zones G, H, and I. By contrast, Load Zone J capacity had a considerably greater value to Load Zones G, H, and I.⁵³

The NYISO undertook further analyses which demonstrated that adding capacity to Load Zone J would provide greater LOLE benefits per MW in Load Zones G, H, and I than would adding capacity to Load Zone K.⁵⁴ In addition, the NYISO conducted a transmission security analysis the results of which were consistent with and reinforced the results from its probabilistic resource adequacy analyses.⁵⁵ Finally, the Chao/Adams Affidavit explains that establishing an NCZ that included Load Zone K would be inconsistent with sound market design principles. Such an NCZ would incent capacity additions in Load Zone K even though they would provide "considerably less reliability value to the other Load Zones located on the constrained side of the UPNY-SENY interface and to the NYCA as a whole."⁵⁶ The NYISO therefore concluded that an NCZ encompassing the G-J Locality was more consistent with tariff requirements and market design principles than alternative NCZ configurations.

The Jordan Affidavit reviewed the NCZ boundary analysis described in the Chao/Adams Affidavit and concluded that the NYISO had "reasonably: (i) concluded that the NCZ that it is required to establish should encompass Loads Zones G, H, I, and J ("GHIJ"), but exclude Load Zone K; (ii) selected and applied the methodology that it used in its NCZ boundary analysis; and (ii) determined the Indicative NCZ LCR for its proposed NCZ."⁵⁷

The Patton Affidavit notes that "[i]n principle . . . the boundaries of any [NCZ] should be determined based on the ability of the resources within each area to contribute to satisfying the reliability needs of the zone."⁵⁸ Not including Load Zone K in the NCZ is consistent with this

⁵² See Chao/Adams Affidavit at PP 12-34.

⁵³ *Id.* at PP 19-22.

⁵⁴ *Id.* at PP 23-27.

⁵⁵ *Id.* at PP 28-31.

⁵⁶ *Id.* at PP 32-33.

⁵⁷ See Jordan Affidavit at P 7.

⁵⁸ See Patton Affidavit at P 9.

principle. More generally, the Patton Affidavit accepts and defers to the analysis in the Chao/Adams and Jordan Affidavits. It concludes that the NYISO's proposal to create a G-J Locality is consistent with market design principles and "therefore, a reasonable configuration."⁵⁹

IV. EXPLANATION AND DESCRIPTION OF PROPOSED TARIFF REVISIONS

A. Proposed Revisions to the Services Tariff

1. Definitions

Several existing Services Tariff definitions refer to, address, or define concepts related to Load Zones and Localities. They thus require modification to recognize the creation of an NCZ. Because the NCZ will be a new Locality, the NYISO is proposing to revise the definition of "Locality" in Section 2.12 to include the NCZ, as follows:

Locality: A single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District or a set of adjacent Transmission Districts (or a portion of a Transmission District(s)) within which a minimum level of Installed Capacity must be maintained, and as specifically identified in this subsection to mean (1) Load Zone J; ~~and~~ (2) Load Zone K; and (3) Load Zones G, H, I, and J (collectively the "G-J Locality").

A new defined term "G-J Locality" proposed in a revision to Section 2.7 would clearly specify that the NYISO's NCZ is to be "comprised of Load Zones G, H, I, and J, collectively."

In addition, the NYISO seeks to clarify the Services Tariff definition of "Locational Minimum Installed Capacity Requirement." When the NYISO proposed revisions to the OATT Section 1.12 definition of "Locational Installed Capacity Requirement" at an ICAP Working Group Meeting, stakeholders identified that the Services Tariff definition of "Locational Minimum Installed Capacity Requirement" could benefit from certain clarifying revisions. The NYISO agrees and proposes the following revisions:

Locational Minimum Installed Capacity Requirement: The portion of the NYCA Minimum Installed Capacity Requirement provided by Capacity Resources that must be electrically located within a Locality (including those combined with or possess an approved Unforced Capacity Deliverability Right except for rights returned in an annual election to the ISO in accordance with ISO Procedures.) in order to ensure that sufficient Energy and Capacity are available in that Locality and that appropriate reliability criteria are met.

The NYISO is further proposing to revise the Services Tariff's definition of "LSE Unforced Capacity Obligation" to reflect the fact that there will be such an obligation for the "G-J Locality."

⁵⁹ See *id.* at P 16.

Additionally, the NCZ will include Load Zones G, H, and I which were formerly not a Locality or part of a Locality, but instead were included in the “Rest of State,” as defined in Section 2.18. Therefore, the definition of “Rest of State” in Section 2.18 must be revised to add Load Zones G, H, and I to the list of Load Zones not included in “Rest of State” and to specify the Capability Year in which their removal will become effective, as follows:

Rest of State: The set of all non-Locality NYCA LBMP Load Zones. As of the ~~2002-2003~~ 2014/2015 Capability Year, Rest of State includes all NYCA LBMP Load Zones, other than LBMP Load Zones G, H, I, J, and K.

The NYISO also proposes revisions to the definition of “Unforced Capacity Deliverability Rights” in Section 2.21 to reflect the establishment of an NCZ, and minor clarifying revisions requested by stakeholders which the NYISO agrees adds clarity, as follows:

Unforced Capacity Deliverability Rights: Unforced Capacity Deliverability Rights (“UDRs”) are rights, as measured in MWs, associated with new incremental controllable transmission projects that provide a transmission interface to a NYCA Locality (~~i.e., an area of the NYCA in which a minimum amount of Installed Capacity must be maintained~~). When combined with Unforced Capacity which is located in an External Control Area or non-constrained NYCA region either by contract or ownership, and which is deliverable to the NYCA interface in the Locality in which with the UDR transmission facility is electrically located, UDRs allow such Unforced Capacity to be treated as if it were located in the NYCA Locality, thereby contributing to an LSE’s Locational Minimum Installed Capacity Requirement. To the extent the NYCA interface is with an External Control Area the Unforced Capacity associated with UDRs must be deliverable to the Interconnection Point.

2. Revisions to Tariff Provisions Related to the Installed Capacity Market

a. Section 5.11

Several tariff provisions related to the NYISO’s administration of the Installed Capacity market must be modified to recognize the creation of the NCZ. Section 5.11.1 requires revision to accommodate the fact that the NCZ will be a Locality that contains another Locality within it. The NYISO is proposing a revision to clearly acknowledge that it is to calculate for each relevant Locality the Unforced Capacity Obligation for any LSE with Load in a Load Zone that is included in more than one Locality.

Specifically, the NYISO proposes to revise Section 5.11.1 as follows:

Each LSE Unforced Capacity Obligation will equal the product of (i) the ratio of that LSE’s share of the NYCA Minimum Unforced Capacity Requirement to the total NYCA Minimum Unforced Capacity Requirement and (ii) the total of all of the LSE Unforced Capacity Obligations for the NYCA established by the ICAP Spot Market Auction. The LSE Unforced Capacity Obligation will be determined in each Obligation Procurement

Period by the ICAP Spot Market Auction, in accordance with the ISO Procedures. Each LSE will be responsible for acquiring sufficient Unforced Capacity to satisfy its LSE Unforced Capacity Obligations. LSEs with Load in more than one Locality will have an LSE Unforced Capacity Obligation for each Locality.

The NYISO is also proposing a minor clarifying change to Section 5.11.4 to delete the term “NYCA” and to reiterate that LSEs will have LCRs for every Locality in which they serve Load. Specifically:

The Locational Minimum Unforced Capacity Requirement represents a minimum level of Unforced Capacity that must be secured by LSEs in NYCA each Locality in which it has Load for each Obligation Procurement Period. . . .”

Again, this change more clearly recognizes the establishment of an NCZ.

b. Section 5.12

The NYISO is proposing to revise Section 5.12 of the Services Tariff to specify that certain capacity cannot be used to satisfy an LCR. Specifically, capacity associated with External CRIS Rights, Grandfathered External Installed Capacity Agreements listed in Attachment E of the Installed Capacity Manual, and Existing Transmission Capacity for Native Load (“ECTNL”) for the New York State Electric & Gas Corporation (“NYSEG”)⁶⁰ listed in Table 3 of Attachment L to the ISO OATT, is only qualified to satisfy a NYCA Minimum Unforced Capacity Requirement and is not eligible to satisfy an LCR. The restriction would not apply to External capacity associated with UDRs. As noted by the Nelson Affidavit, this modification would align the proposed rule for NCZs with the existing limitation that prevents External Capacity not associated with UDRs from satisfying LCRs in the existing Localities, *i.e.*, Load Zones J and K.⁶¹ This rule is reasonable because, as explained in the Nelson Affidavit, although it is possible that some portion of the Energy associated with External capacity may satisfy a Locality’s need under certain circumstances, there is no assurance that it will actually do so.⁶² Unless External capacity is associated with controllable transmission equipment that is considered a Scheduled Line (*i.e.*, a UDR), there is no such assurance. Therefore, External capacity should not be counted towards a Locality’s LCR unless it is associated with a LCR.⁶³

⁶⁰ Under the OATT, ETCNL is “[t]ransmission capacity identified on a Transmission Owner’s transmission system” to serve its Native Load customers “(as of the filing date of the original ISO Tariff – January 31, 1997) for the purposes of allocating revenues from the sale of TCCs related to that capacity.” The Commission has held that NYSEG’s ETCNL constitutes a grandfathered Deliverability right to import up to 1080 MW of capacity from PJM. *See New York Independent Transmission System Operator, Inc., et al.*, 127 FERC ¶ 61,318 (2009).

⁶¹ *See* Nelson Affidavit at PP 10-17.

⁶² *See id.* at P 11.

⁶³ *See id.* at P 12.

Additionally, the Nelson Affidavit explains why the NYISO disagreed with suggestions that it create additional “exceptions” that would allow certain External capacity to be used to satisfy LCRs.⁶⁴ Certain stakeholders have argued that Energy from External capacity ought to be eligible to count against LCRs if it is expected, *e.g.*, to flow over a Phase Angle Regulator (“PAR”)-controlled transmission facility from the PJM Interconnection, LLC (“PJM”), specifically, in recognition of certain power flows associated with the Ramapo PAR facilities (“Ramapo PARs”).⁶⁵ Ms. Nelson explains that target flow assumptions associated with the Ramapo PARs are not the functional equivalent of a UDR right.⁶⁶ Further, deviations from the target flow can be satisfied by financial settlement payments from PJM, rather than through physical delivery on the Ramapo PAR-controlled 5018 line.⁶⁷ Thus, there is no guarantee that when external PJM capacity is called upon to meet a reliability need in the G-J Locality that the associated Energy would be delivered across the 5018 line into Load Zone G, rather than over the large set of interconnections connecting PJM to the new Rest of State.⁶⁸ Therefore, it is distinguishable from capacity associated with a UDR which is qualified to satisfy an LCR obligation under the NYISO’s Services Tariff and should not be eligible to satisfy an LCR.

The NYISO also considered but rejected a stakeholder request that External capacity over a transmission line from ISO-New England be permitted to satisfy a G-J Locality LCR.⁶⁹ As Ms. Nelson explains, it is impossible for External capacity from New England, and the associated Energy, to be controlled to be made deliverable to the G-J Locality.⁷⁰ Accordingly, it should not be eligible to satisfy an LCR.⁷¹

Therefore, the NYISO proposes to insert the following new paragraph, after the third paragraph in Section 5.12.1:

External Installed Capacity not associated with UDRs, including capacity associated with External CRIS Rights, Grandfathered External Installed Capacity Agreements listed in Attachment E of the ISO Installed Capacity Manual, the Existing Transmission Capacity for Native Load listed for New York State Electric & Gas Corporation in Table 3 of Attachment L to the ISO OATT, Import Rights, and External System Resources, is only

⁶⁴ *See id.* at PP 18-22.

⁶⁵ *Id.* at P 18.

⁶⁶ *Id.* at P 21.

⁶⁷ *Id.* The 5018 line is one of larger set of interconnections connecting PJM to the NYCA. *Id.* at P 19.

⁶⁸ *Id.*

⁶⁹ *Id.* at P 22. As explained in the Nelson Affidavit, this one line is part of a much larger set of uncontrolled interconnections connecting New England to the NYCA.

⁷⁰ *Id.*

⁷¹ *Id.*

qualified to satisfy a NYCA Minimum Unforced Capacity Requirement and is not eligible to satisfy a Locational Minimum Installed Capacity Requirement. . . .

The NYISO is also proposing to add the language set forth below to the second paragraph of Section 5.12.8. It would specify limits on offering non-UDR External Capacity into capacity market auctions that parallel the proposed prohibition against counting such capacity against LCRs.⁷²

External Unforced Capacity (except External Installed Capacity associated with UDR(s)) may only be offered into the Capability Period Auctions or Monthly Auctions for the Rest of State, and ICAP Spot Market Auctions for the NYCA and may not be offered into a Locality for an ICAP Auction. Bilateral Transactions which certify External Unforced Capacity using Import Rights may not be used to satisfy a Locational Minimum Unforced Capacity Requirement

Language has also been added to Section 5.12.2 to specify that terms not defined therein, will have the meaning provided in the OATT. This clarification is intended to avoid ambiguity and confusion given the number of terms defined in OATT Attachments S and X that appear in Section 5.12.2. Additionally, and consistent with the changes described above, several revisions to Section 5.12.2 are proposed to clarify that the External Installed Capacity deliverability test will only evaluate whether such External capacity is deliverable within the Rest of State. Section 5.12.2.4.1 has been revised to provide that the Offer Cap applicable to certain External CRIS Rights will be determined based on the relevant NYCA ICAP Demand Curve.

Revisions to the sanctions provision in Section 5.12.12 are also needed to recognize the introduction of an NCZ. Specifically, the NYISO is proposing to revise Section 5.12.12.2 to state: “The deficiency charge may be up to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction corresponding to where the Installed Capacity Supplier’s capacity cleared, and for each month in which the Installed Capacity Supplier is determined not to have complied with the foregoing requirements. . . .”

c. Section 5.14

Just as it has proposed to do in its revision to Section 5.12.2.4.1 (described above), the NYISO proposes to modify language describing the payment of ICAP Suppliers in Section 5.14.1.1 to more clearly specify that their compensation will be computed using the “ICAP Demand Curve applicable to its offer.” This change would recognize and accommodate the establishment of ICAP Demand Curves for NCZs.

Similarly, the NYISO would revise Section 5.14.2, which governs the calculation of deficiency charges to more clearly establish that such charges will be determined “using the

⁷² See *id.* at P 15.

applicable in the ICAP Demand Curve for that ICAP Spot Market Auction . . .” Again, this revision would accommodate the establishment of ICAP Demand Curves for NCZs.

The NYISO is also proposing revisions to Section 5.14.3.2(iii) and (iv) to reflect the addition of the NCZ. Specifically, Section 5.14.3.2(iii) would be revised to describe how the NYISO would rebate unspent deficiency charges or supplemental supply fees for the proposed G-J Locality. The language added has been modeled on the previously accepted provisions for the existing Localities, and provides as follows:

(iii) G-J

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the G-J Locality, allocated among all LSEs in that Locality in proportion to their share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

Section 5.14.3.2(iv) has been renumbered and its references to the New York City and Long Island Localities, which would be too narrow after the G-J Locality is effective, would be deleted, as follows:

(iv) Rest of State

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the Rest of State requirements, allocated among all LSEs in each of the ~~two~~ Localities, ~~New York City and Long Island~~, and in Rest of State, in proportion to each LSE’s share of the NYCA Minimum Installed Capacity Requirement less that LSE’s Locational Minimum Installed Capacity Requirement. Rebates shall include interests accrued between the time payments were collected and the time that rebates are paid.

Additionally, while the NYISO is not proposing any changes to the table of ICAP Demand Curves in Section 5.14.1.2 at this time, the ICAP Demand Curve reset filing to be made by November 30, 2013 will include a new row for the G-J Locality. The creation of the G-J Locality will not alter the existing requirement that the plant used to establish the NYCA ICAP Demand Curve must be located in the Rest of State (as that term would be revised to recognize the new G-J Locality).⁷³

⁷³ See Services Tariff Section 5.14.1.2; and *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,058 at P 38 (2011) (“Therefore, we conclude that the tariff requires that NYISO determine the localized levelized embedded costs for three separate peaking units, i.e., one for the NYC (Zone J) locality, one for the LI (Zone K) locality, and one for the rest-of-state. Further, in past applications of the demand curve, the rest-of-state has carried a de facto meaning of all NYCA Load Zones with the exception of NYC and LI. Furthermore, protestor’s assertions would lead to the conclusion that a NYCA

d. Additional Minor Typographical Correction to Section 5.16.1.1.4

The NYISO proposes an additional minor revision to correct a typographical error in Services Tariff Section 5.16.1.1.4, to insert a close parenthesis after “5.16.1.1.1(iii)” as follows: “(excluding and not recognizing MW of CRIS requested by Developers other than CRIS identified in Section 5.16.1.1.1 (iii)),...”

3. Revisions to the Pivotal Supplier Threshold in Attachment H

The NYISO’s June 2012 Compliance Filing described that it is necessary to apply market power mitigation measures within NCZs because they will not have a significant amount of surplus capacity in equilibrium. Thus, establishing the NCZ will raise local market power concerns. “Over- mitigation” is unlikely to occur as long as a threshold is applied only to ICAP Suppliers that likely have market power and not to relatively small suppliers that do not control a minimum quantity of Unforced Capacity.

The June 2012 Compliance Filing proposed to apply mitigation measures to the NCZ that this filing would establish.⁷⁴ That filing explained that the NYISO would propose a Pivotal Supplier threshold at the time that it made a filing to implement an NCZ. Accordingly, the NYISO is now proposing the threshold by revising Section 23.2.1’s definition of “Pivotal Supplier.” The NYISO is proposing a 650 MW threshold, and minor wording revisions (*i.e.*, the insertion of the words “New York City Locality,” “G-J Locality,” and “if any”):⁷⁵

For purposes of Section 23.4.5 of this Attachment H, “**Pivotal Supplier**” shall mean (i) for the New York City Locality, a Market Party that, together with any of its Affiliated

peaking unit on LI would need to be deliverable to the entire state, including NYC and rest-of-state. This would imply that a NYCA peaking unit located in rest-of-state would need to be deliverable to NYC and LI, which is not reasonable and not required by the Tariff. Accordingly, we find NYISO correct in locating the NYCA peaker within the rest-of-state area.”).

⁷⁴ For ease of considering the revisions proposed to this section, the NYISO distinguishes them with double underline. The revisions proposed in the June 2012 Compliance Filing are shown with a single underline.

⁷⁵ As noted at Section II.A.2, the NYISO respectfully requests the Commission issue an order on the June 2012 Compliance Filing no later than August 30, 2013, well in advance of the effective date of the tariff revisions proposed herein, so that the NYISO may make necessary mitigation and exemption determinations for facilities in the NCZ. In the event that the Commission does not issue an order on the June 2012 Compliance Filing prior to acting on this submittal, the NYISO respectfully requests that the Commission accept the changes to the Pivotal Supplier definition, in Services Tariff Section 23.2.1, proposed in the June 2012 Compliance Filing. Pursuant to the Commission’s e-tariff filing requirements, the June 2012 Compliance Filing’s proposed changes to that Section 23.2.1 are reflected in Attachment VII as the base, accepted language to which the incremental changes proposed in this filing are marked. Therefore, consistent with the NYISO’s proposal, the NYISO is seeking acceptance of the tariff language in Section 23.2.1 as reflected in Attachment VIII to this filing.

Entities, (a) Controls 500 MW or more of Unforced Capacity, and (b) Controls Unforced Capacity some portion of which is necessary to meet the New York City Locality Locational Minimum Installed Capacity Requirement in an ICAP Spot Market Auction; (ii) for the G-J Locality, a Market Party that, together with any of its Affiliated Entities, (a) Controls 650 MW or more of Unforced Capacity; and (b) Controls Unforced Capacity some portion of which is necessary to meet the G-J Locality Locational Minimum Installed Capacity Requirement in an ICAP Spot Market Auction; and (iii) for each Mitigated Capacity Zone except the New York City Locality and the G-J Locality, if any, a Market Party that Controls at least the quantity of MW of Unforced Capacity specified for the Mitigated Capacity Zone and accepted by the Commission.

The Patton Affidavit explains that the NYISO calculated its proposed 650 MW threshold for the G-J Locality in a manner consistent with MMU recommendations and describes how those calculations were conducted.⁷⁶ The methodology aimed to achieve a balance between the benefits of effectively mitigating Suppliers with market power against the benefits of minimizing NYISO interventions in the markets.⁷⁷ It focused on identifying how large an ICAP Supplier's portfolio would have to be for it to have the incentive to withhold capacity and raise prices in the NCZ.⁷⁸ The Patton Affidavit reiterates that "[i]t is appropriate to be conservative in selecting the minimum size threshold because this will ensure that suppliers with market power will be subject to mitigation."⁷⁹ The Patton Affidavit therefore concludes that the proposed threshold is reasonable.⁸⁰

At the same time, the Patton Affidavit notes that the MMU is concerned that the existing Pivotal Supplier framework could be circumvented.⁸¹ The concern is that under the proposed tariff language, "UCAP that is sold in advance of the monthly spot auction is deducted from the portfolio of the supplier" when applying the Pivotal Supplier test and "minimum size threshold."⁸² Thus, a "large supplier with market power can reduce the amount of capacity that it is deemed to control by selling some of its capacity in the Capability Period Auction or the Monthly Auction."⁸³ By doing so, the Supplier could drive up ICAP Spot Market Auction prices via withholding. It could thereby benefit itself by inflating capacity prices in future Monthly or

⁷⁶ See Patton Affidavit at PP 18-26.

⁷⁷ *Id.* at P 18.

⁷⁸ *Id.* at P 19.

⁷⁹ *Id.* at P 25.

⁸⁰ *Id.*

⁸¹ *Id.* at PP 27-32. The MMU also raised this issue in the *2011 SOM (2011 State of the Market Report for the New York ISO Markets)* (April 2012) available at <http://www.potomaceconomics.com/uploads/nyiso_reports/NYISO_2011_SOM_Report-Final_4-18-12.pdf> and the *2012 SOM*.

⁸² Patton Affidavit at P 27.

⁸³ *Id.* at P 29.

Capability Period auctions as those prices converged with prices in the ICAP Spot Market Auctions over time.⁸⁴ The NYISO would emphasize that, to date, and to the best of its knowledge, the MMU has not, detected any entity pursuing this strategy.

The Patton Affidavit states that the MMU's concern could be addressed by deleting the "current exclusion of forward capacity sales in Section 23.4.5.5(1)."⁸⁵

The NYISO agrees that the MMU's proposed change to Section 23.4.5.5(1) would be an enhancement and supports it. The NYISO would ask the Commission to consider that the approach to determining "Control" that the NYISO has proposed to apply to the NCZ currently applies in New York City. That is, "Control" of UCAP in both New York City and the NCZ is determined based on the number of MW of UCAP controlled after certification and prior to the ICAP Spot Market Auction.⁸⁶ The NYISO believes that the MMU's proposed enhancement should apply to both New York City and the NCZ. Thus, the NYISO would favor conforming tariff revisions to provide for parallel treatment.⁸⁷

4. Revisions to the Credit Provisions in Attachment K

Section 26.4.3 (iv) of the Services Tariff, which governs the NYISO's administration of the bidding requirements for the ICAP Spot Market Auction, must be modified to recognize the creation of the NCZ; *i.e.*, a new Locality. The credit policy reflects modifications, based on stakeholder input, including what the potential exposure will be based on the fact that there will be a Locality contained within another Locality (Load Zone J is within the G-J Locality). Further, the tariff revisions will recognize that the Locality's price could be set by the bids and offers within the Locality or could be determined by the larger Locality in which it is contained. Also in response to stakeholder comments, the NYISO included a credit cap set at the UCAP based reference point (in \$/kW-Month) to prevent unrealistic credit requirements by limiting it to cover probable market outcomes. The NYISO proposes to use its current methodology for calculating a Market Participant's credit requirement for bidding in the ICAP Spot Market Auction⁸⁸ while accommodating the fact that the NCZ will be a Locality that itself contains a

⁸⁴ *Id.* at PP 29-30.

⁸⁵ *Id.* at P 32.

⁸⁶ Services Tariff Section 23.2.1 at the definition of "Pivotal Supplier," specifies in (b) that the determination is made based on Control of UCAP "which is necessary to meet the New York City Locational Minimum Installed Capacity Requirement in an ICAP Spot Market Auction." This same concept was proposed in the June 2102 Compliance Filing for any "Mitigated Capacity Zone." "Mitigated Capacity Zone" is a term proposed in the June 2012 Compliance Filing to mean "New York City and any Locality added to the definition of "Locality" accepted by the Commission on or after March 31, 2012." See June 2012 Compliance Filing at proposed revisions to pp 3-4, and Services Tariff Section 2.13.

⁸⁷ If the Commission declines to require that the "Control" definition be enhanced consistent with the MMU's recommendation at this time, the NYISO believes that its proposed Pivotal Supplier threshold for the NCZ, and its existing Pivotal Supplier test for New York City, would still be just and reasonable.

⁸⁸ For more information on the current methodology see *New York Independent System Operator*,

Locality.

Each calendar month the NYISO uses the most recent Monthly Auction Market-Clearing Price plus a margin as a proxy for the ICAP Spot Market Auction Market-Clearing Price. The NYISO then calculates credit requirements by multiplying the proxy price by the Market Participant's estimated LSE UCAP Obligation, by location, for the Obligation Procurement Period. The NYISO proposes that for a Locality (*i.e.*, Load Zone J) contained within another Locality (*i.e.*, the G-J Locality) the proxy price will be the higher of that Locality's most recent Monthly Auction Market-Clearing Price plus its margin or the proxy price for the NCZ, multiplied by its margin. The margin for the G-J Locality will be 100%, as it will contain Load Zones that currently have a 100% margin. This proposal will protect the NYISO and its Market Participants from any large increases in credit exposure associated with an increase in market price. The revisions are consistent with the methodology and computation of Market Participants' credit requirements associated with Long Island and Rest of State obligations.

The NYISO proposes to use within its credit calculation for the NCZ the price that is the lower of the proxy price calculated as explained above or the UCAP based reference point (in \$/kW-Month). This proposal will cap the proxy price for the NCZ at the UCAP based reference point (in \$/kW-Month) derived from the corresponding ICAP Demand Curve because the NYISO's exposure to the Market Participant is unlikely to exceed this amount. As such, any funds retained by the NYISO above this amount would be an unnecessary cost to Market Participants. The NYISO further proposes to apply this credit cap to all Localities and for the NYCA to create uniformity of computations for all capacity obligations in the different locations, and certainty for Market Participants.⁸⁹ Once the proxy price is determined, the NYISO would calculate the bidding requirement by multiplying the proxy price by the Market Participant's estimated LSE UCAP Obligation, by location, for the Obligation Procurement Period. The Market Participant's ICAP Spot Market Auction bidding requirement would equal the sum of its locational credit requirements.

The NYISO is proposing to revise the formula in Section 26.4.3 (iv) as follows:

five (5) days prior to any ICAP Spot Market Auction, the amount that the Customer maybe required to pay for UCAP in the auction, calculated as follows:

$$\Sigma \left[(1 + Margin_L) * MCP_L \cdot \underline{ICPM}_L \cdot 1000 \cdot Deficiency_L \right]$$

Inc.'s Filing of Proposed Tariff Revisions Related to ICAP Credit Requirements, Docket No. ER12-2443-000, accepted by the Commission on September 10, 2012.

⁸⁹ The NYISO believes that creating this uniformity is warranted (and authorized) under Section 5.16.4 because it addresses an issue, *i.e.*, the potential implications of non-uniform computations across locations, that is raised by the establishment of the NCZ. It is therefore a tariff change that "recognizes" the creation of NCZ.

$$LES \left[\frac{(1 + Margin_L) * MCP_L * ICPM_L * x 1000 * (ZCP_L - 1)}{x RQT_L} \right] \frac{1}{2}$$

The NYISO would also modify and add the following definitions for the new variables used in the equation.

ICPM_L equals the lesser of UBRP_L or LM_L.

UBRP_L equals the UCAP based reference point (in \$/kW-Month) for location *L*, as determined on the ICAP Demand Curve for that location (or for the NYCA if *L* is Rest of State) for the applicable Obligation Procurement Period.

LM_L equals (1) for any Locality *L* that is contained within another Locality *X*, the greater of CPM_L or CPM_X, or (2) for any other Locality or Rest of State, CPM_L.

CPM_L equals for location *L*, $(1 + Margin_L) * MCP_{L+}$.

CPM_X equals for location *X*, $(1 + Margin_X) * MCP_{X+}$.

It would also make the following revisions to four definitions of variables that are currently included in Section 26.4.3(iv) formula, in order to account for the establishment of the G-J Locality.

S equals a set containing the following locations: ~~New York City, Long Island~~ each Locality and Rest of State,

Margin_L equals 25% if location *L* is New York City and 100% if location *L* is the G-J Locality, Long Island or Rest of State,

Deficiency_L equals the number of megawatts of Unforced Capacity that are to be procured in location *L* on behalf of that Customer in the ICAP Spot Market Auction in order to cover any deficiency for that Customer that exists in that location after the certification deadline for that ICAP Spot Market Auction less any deficiency calculated for that Customer for any Localities contained within location *L*, such value not to be less than zero,

RQT_L equals (1) if *L* is New York City or Long Island, that Customer's share of the Locational Minimum Unforced Capacity Requirement for location *L* or (2) if *L* is G-J Locality, that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality that remains after reducing this amount by its share of the Locational Minimum Unforced Capacity Requirements for New York

City or, (3) if L is Rest of State, its that Customer's share of the NYCA Minimum Unforced Capacity Requirement that remains after reducing this amount by (a) its share of the Locational Minimum Unforced Capacity Requirements for New York City and Long Island, for the month covered by the ICAP Spot Market Auction, measured in megawatts and (b) that Customer's share of the Locational Minimum Unforced Capacity Requirement for the G-J Locality remaining after accounting for New York City, as calculated in (2) above; such value not to be less than zero

B. Proposed Revisions to the OATT

Several provisions of the OATT must be modified to recognize the creation of the NCZ.

1. OATT Definitions

Modifications to two OATT definitions are necessary due to the creation of the G-J Locality. Specifically, the OATT definition of "Locality" in Section 1.12 of the OATT requires revision, as follows:

Locality: Shall have the meaning set forth in §2.12 of the ISO Services Tariff~~A single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District, and within which a minimum level of Installed Capacity must be maintained.~~

Similarly, the NYISO is proposing to revise the existing OATT definition of "Locational Installed Capacity Requirement" to achieve consistency with the Services Tariff definition (which is described above). The concepts in the OATT and Services tariff are the same, and conforming the language will enhance clarity.

Locational Minimum Installed Capacity Requirement: ~~A~~The determination by the ISO in accordance with the ISO Services Tariff of that portion of the NYCA Minimum statewide Installed Capacity Requirement (as defined in the ISO Services Tariff) that must be electrically located within a Locality in order to ensure that sufficient Energy and Capacity are available in that Locality and that appropriate reliability criteria are met.

2. Revisions to Attachments S and X of the OATT

a. Changes to Recognize the Establishment of a G-J Locality

Attachments S and X contain definition sections in Section 25.1 of Attachment S, Section 30.1 of Attachment X and in the *pro forma* Large Generator Interconnection Agreement in Section 30.14. For consistency, the NYISO proposes to make the revisions described below to each of these definition sections.

The deliverability test methodology evaluates Load Zones in groups defined by Attachments S and X as "Capacity Regions." Because the NCZ will create a new Locality and also impact the composition of the Rest of State Capacity Region, the NYISO is proposing to

revise the definition of “Capacity Region” as follows:

Capacity Region: One of ~~three~~four subsets of the Installed Capacity statewide markets comprised of (1) Rest of State (i.e., Load Zones A through F); (2) Lower Hudson Valley (i.e., Load Zones G, H and I); (3) New York City (i.e., Load Zone J); and (4) Long Island (i.e., Zone K) and New York City (Zone J), except for Class Year Interconnection Facility Studies conducted prior to Class Year 2012, for which “Capacity Region” shall be defined as set forth in Section 25.7.3 of this Attachment S.

Similarly, due to the new composition of the Rest of State Capacity Region, the NYISO is proposing to revise the definition of “External CRIS Rights” to reflect the new composition of Load Zones in the Rest of State Capacity Region. The NYISO also proposes to further clarify the definition of “External CRIS Rights,” so that it corresponds to the proposed revisions to the Services Tariff Sections 5.12.1, and 5.12.8. The proposed revisions to the definition of “External CRIS Rights” are as follows:

External CRIS Rights: A determination of deliverability within ~~a New York~~the Rest of State Capacity Region (i.e., Load Zones A – F), awarded by the NYISO for a term of five (5) years or longer, to a specified number of Megawatts of External Installed Capacity that satisfy the requirements set forth in Section 25.7.11 of this Attachment S to the NYISO OATT, and that can be certified in a Bilateral Transaction used for the NYCA and not a Locality, or sold into the NYCA for an Installed Capacity auction and not in an Installed Capacity auction for a Locality.

The new composition of the Capacity Regions evaluated in the deliverability test also impacts the definitions of certain transmission facility interfaces to which specific analyses apply. The deliverability test methodology evaluates three separate categories of transmission facilities: (1) Highways (transmission facilities 115 kV and above that comprise internal NYCA interfaces and in series BPS facilities; Highway interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, UPNY-SENY and UPNY-ConEd); (2) Other Interfaces (interfaces into New York Capacity Regions, into Zone J and into Zone K, and external ties into the NYCA); and (3) Byways (all transmission facilities of the NYS Transmission System that are neither Highways nor Other Interfaces). In light of the new “Lower Hudson Valley” Capacity Region which comprises Load Zones G, H and I, the UPNY-SENY interface would no longer be a Highway interface, but rather, would be defined as an “Other Interface.” The NYISO is therefore proposing to alter the definition of “Highway” as set forth below.

Highway: 115 kV and higher transmission facilities that comprise the following NYCA interfaces: Dysinger East, West Central, Volney East, Moses South, Central East/Total East, ~~UPNY-SENY~~ and UPNY-ConEd, and their immediately connected, in series, Bulk Power System facilities in New York State. Each interface shall be evaluated to determine additional “in series” facilities, defined as any transmission facility higher than 115 kV that (a) is located in an upstream or downstream zone adjacent to the interface and (b) has a power transfer distribution factor (DFAX) equal to or greater than five percent when the aggregate of generation in zones or systems adjacent to the upstream

zone or zones which define the interface is shifted to the aggregate of generation in zones or systems adjacent to the downstream zone or zones which define the interface. In determining “in series” facilities for Dysinger East and West Central interfaces, the 115 kV and 230 kV tie lines between NYCA and PJM located in LBMP Zones A and B shall not participate in the transfer. Highway transmission facilities are listed in ISO Procedures.

The NYISO is also proposing revisions to the definition of “Other Interface.” These proposed revisions: (1) modify the definition such that it refers to Capacity Regions in a manner consistent with the addition of the Lower Hudson Valley region; (2) clarify the existing language; and (3) provide explanatory parentheticals to further clarify the references to each of the Other Interfaces:

Other Interfaces: The following Interfaces into New York Capacity Regions: Lower Hudson Valley [i.e., Rest of State (Load Zones A-F) to Lower Hudson Valley (Load Zones G, H and I); New York City [i.e., Lower Hudson Valley (Load Zones G, H and I) to New York City (Load Zone J)]; and Long Island [i.e., Lower Hudson Valley (Load Zones G, H and I) to Long Island (Load Zone K)], and external ties into the New York Control Area the following Interfaces between the NYCA and adjacent Control Areas: PJM to NYISO, ISO-NE to NYISO, Hydro-Quebec to NYISO, and Norwalk Harbor (Connecticut) to Northport (Long Island) Cable.

b. Revisions to the Deliverability Test Methodology

Section 25.7 of OATT Attachment S details the deliverability test methodology. With the implementation of the NCZ and resulting addition of the Lower Hudson Valley Capacity Region and change to the composition of the Rest of State Capacity Region, certain sections of Section 25.7 require revisions. The basic framework of the current deliverability test methodology, however, is not changing; rather, the revisions are required merely to reflect the NCZ and the resulting composition of the respective Capacity Regions in the methodology for the deliverability test.

Section 25.7.3, for example, which explains the manner in which the deliverability test methodology will be applied within the Capacity Regions, requires revisions to reflect the new definition of Capacity Region. The NYISO proposes to further revise Section 25.7.3 as set forth below in order to clarify that the revised Capacity Regions will be reflected in the Class Year deliverability study beginning with Class Year 2012.⁹⁰

The specific proposed revisions to Section 25.7.3 are as follows:

25.7.3 ~~New York~~ Capacity Regions.

⁹⁰ As explained in Section V below, the NYISO does not anticipate that the Class Year Deliverability Study for Class Year 2012 will begin before Commission action on this filing.

For Class Years prior to Class Year 2012, the deliverability test will be applied within each of the three (3) New York Capacity Regions: (1) Rest of State (i.e., Load Zones A through I); (2) New York City (i.e., Load Zone J); and (3) Long Island (i.e., Load Zone K) and New York City. To be declared deliverable a generator or merchant transmission project must be deliverable throughout the NYISO Capacity Region in which the project is interconnected. For example, a proposed generator or merchant transmission project interconnecting in the Rest of State Capacity Region (i.e., Load Zones A-I) will be required to demonstrate deliverability throughout the Rest of State Capacity Region (i.e., Load Zones A-I), but will not be required to demonstrate deliverability to or within either of the following Capacity Regions: New York City (i.e., Load Zone J); or Long Island (i.e., Load Zone K) Long Island Capacity Region or the New York City Capacity Region.

Starting with Class Year 2012, the deliverability test will be applied within each of the four (4) Capacity Regions: (1) Rest of State (i.e., Load Zones A through F); (2) Lower Hudson Valley (i.e., Load Zones G, H and I); (3) New York City (i.e., Load Zone J); and (4) Long Island (i.e., Load Zone K). To be declared deliverable a generator or merchant transmission project must only be deliverable throughout the Capacity Region in which the project is interconnected. For example, starting with Class Year 2012, a proposed generator or merchant transmission project interconnecting in the Rest of State Capacity Region (i.e., Load Zones A-F) will be required to demonstrate deliverability throughout the Rest of State Capacity Region (i.e., Load Zones A-F), but will not be required to demonstrate deliverability to or within any of the following Capacity Regions: Lower Hudson Valley (i.e., Load Zones G, H and I); New York City (i.e., Load Zone J); or Long Island (i.e., Load Zone K).

A number of the NYISO's proposed revisions to Attachments S and X would modify tariff language that the Commission adopted in Order No. 2003, or its successors as part of the *pro forma* interconnection procedures.⁹¹ The Commission has accepted other modifications to the NYISO interconnection procedures,⁹² recognizing that where changes to *pro forma* interconnection procedures "are clarifying and/or ministerial in nature and/or NYISO has supplied sufficient justification," such modifications are acceptable under the "independent entity variation" standard.⁹³ The Commission has explained that under this standard, "the Commission will review the proposed variations to ensure they do not provide an unwarranted opportunity for undue discrimination or produce an interconnection process that is unjust and

⁹¹ *Standardization of Generator Interconnection Agreements and Procedures*, Order No. 2003, FERC Stats. & Regs. 31,146 (2003), *order on reh'g*, Order No. 2003-A, FERC Stats. & Regs. 31,160 (2004), *order on reh'g*, Order No. 2003-B, FERC Stats. & Regs. 31,171 (2004), *order on reh'g*, Order No. 2003-C, FERC Stats. & Regs. 31,190 (2005), *affirmed sub nom. Nat'l Ass'n of Regulatory Util. Com'rs v. FERC*, 475 F.3d 1277 (D.C. Cir. 2007).

⁹² *See, e.g., New York Independent System Operator, Inc.*, 135 FERC ¶ 51,014 (2011); *New York Independent System Operator, Inc.*, 124 FERC ¶ 61,238 (2008).

⁹³ *New York Independent System Operator, Inc.*, 124 FERC ¶ 61,238 at PP 17-18.

unreasonable.”⁹⁴

The proposed revisions to Attachments S and X are fully justified under the Commission’s “independent entity variation” standard because they are required under Section 5.16.4 of the Services Tariff, are necessary to implement the NCZ, and are in no way unduly discriminatory or unjust and unreasonable.

3. Additional Minor OATT Modifications

The NYISO also proposes additional minor revisions to the following subsections of OATT Attachment S Section 25.7 and Attachment Y Section 31:

- Revisions to update outdated references to the PJM-NYISO operating protocols in Section 25.7.8.2.9 and Section 25.7.8.2.12;
- Revision to Section 25.7.8.2.14 to refer simply to “Highway interfaces” rather than “Highway interfaces in the Rest of State Capacity Region” to reflect the fact that Highway interfaces are no longer limited to the Rest of State Capacity Region;
- Revisions to Section 25.7.11.1.2.3 to clarify that the referenced auctions are NYCA Auctions, to clarify the reference to “bilateral contract” and to clarify that defined terms used in such section, to the extent not defined in Attachment S are defined in the Services Tariff;
- Revisions to Section 25.7.11.1.4.2 to make the reference to the “open Class Year Deliverability Study” a reference to the defined term “Open Class Year;”
- Revisions to Section 25.7.11.1.4.2.2 consistent with the revised definition of External CRIS Rights;
- Certain ministerial formatting and grammatical revisions to Section 25.7 of Attachment S and its subsections;
- A revision to the defined term LCR to insert the word “Minimum” in the definition of LCR to reflect the corresponding insertion in OATT Section 31.1.2 to the defined term “Locational Installed Capacity Requirement” and
- Revisions to 31.5.3.1.12 to make the corresponding change to reflect the defined term “Locational Minimum Installed Capacity Requirement”

Finally, the NYISO is also proposing certain ministerial formatting revisions to Section 25.1 of Attachment S and to Sections 30.1 and 30.14 of Attachment X.

⁹⁴ See *id.* at P18.

V. REQUESTED EFFECTIVE DATE

As stated above, the NYISO respectfully requests that the Commission issue an order no later than sixty days after the date of filing (*i.e.*, by July 1, 2013),⁹⁵ that accepts the NYISO's proposed tariff revisions and makes them effective on July 1, 2013, except for the provisions noted below for which later effective dates are requested. As explained in the November 2011 Filing, and at page 2, above, a Commission order accepting the tariff revisions identifying the NCZ issued sixty days after their filing is necessary to allow the ICAP Demand Curve reset consultant to develop an ICAP Demand Curve for the NCZ, along with the other ICAP Demand Curves. The requested effective dates are also necessary for development, testing, and deployment steps that are specific to the identified NCZ.

With respect to the proposed revisions to Attachments S and X of the OATT, the NYISO respectfully requests a July 1, 2013 effective date, *i.e.*, the first business day that is sixty days from the date of this filing. That date will provide the certainty needed with respect to the applicable deliverability methodology for the Class Year Study for Class Year 2012. While Class Year 2012 has formally begun, the deliverability analysis is not scheduled to begin until later this year, due largely to the status of Class Year 2011, which has not concluded.⁹⁶ Certain components of a Class Year Study can begin prior to completion of the prior Class Year Study; however, system-wide analysis is dependent upon assumptions that cannot be finalized until after the completion of the prior study. Therefore, since Class Year 2011 has not concluded, a number of the inputs for the base cases required for Class Year 2012 cannot yet be determined.

The NYISO anticipates that the Commission will have acted on this filing prior to the NYISO's start of the deliverability analysis for Class Year 2012. Accordingly, the NYISO believes that its proposed revisions to OATT Attachments S and X could, and in order to reflect the NCZ, should be applied to Class Year 2012. The NYISO therefore requests that the revisions proposed herein to Attachments S and X of the OATT become effective July 1, 2013.

The NYISO also respectfully requests an effective date of July 1, 2013 for all Services Tariff revisions described herein except those enumerated in the next two paragraphs.

⁹⁵ Because sixty days from the date of the filing is Saturday June 29, the NYISO believes that the sixty-day notice period does not expire until July 1. *See* 18 C.F.R. 385.2007 (2012). The NYISO does not intend that its request for effective dates later than June 29, 2013 be deemed to be a waiver of the requirement under 18 C.F.R. §35.3 that the Commission act on its proposed tariff revisions within sixty days of the date of this filing.

⁹⁶As of the date of this filing, the NYISO anticipates that the Class Year 2011 Project Cost Allocation process will commence in the second quarter or early in the third quarter of 2013. Certain components of a Class Year Study can begin prior to completion of the prior Class Year Study; however, system-wide analysis is dependent upon assumptions that cannot be finalized until after the completion of the prior study. Therefore, since Class Year 2011 has not concluded, a number of the inputs for the base cases required for Class Year 2012 cannot yet be determined.

Activities in preparation of the 2014/2015 Capability Year, such as the calculation of LCRs and the Imports Rights processes, and each of the auctions associated with the month of May 2014 all occur before May 1, 2014. Therefore, the NYISO requests an effective date of January 27, 2014, so that the following tariff revisions are applied to the 2014/2015 Capability Year: Section 2.7 (definition of “G-J Locality”), Section 2.12 (definitions of “Locality,” and “LSE Unforced Capacity Obligation”), Section 2.18 (definition of “Rest of State”), Section 5.14.3.2(iv) (describing G-J Locality shortfalls), and Section 23.2.1 (Attachment H, at definition of Pivotal Supplier).⁹⁷ The NYISO is requesting an effective date of January 27, 2014 for these provisions because that date is sixty days after the ICAP Demand Curves are filed so it will be the requested effective date for all ICAP Demand Curves including the Demand Curve for the G-J Locality.

The NYISO is requesting an effective date of January 15, 2014 for the revisions to Section 26.4.3(iv) (Attachment K, credit provisions). This date corresponds with the anticipated date of the NYISO’s deployment of software through which the changed credit requirements would be applied. Thus, it would be applied to the first ICAP Spot Market Auction after the software deployment. That date would enable the NYISO to implement the rule requested by stakeholders to cap the credit requirements for all capacity market areas in the NYCA, not just associated with the G-J Locality.

For ease of reference, the NYISO specifically sets forth each proposed modification and the requested effective date in the table below:

Tariff Section Being Revised	Requested Effective Date
OATT 1.12 <ul style="list-style-type: none"> • Definition of “Locality” • Definition of “Locational Minimum Installed Capacity Requirement” 	July 1, 2013
OATT 25.1, 30.1, and 30.14 <ul style="list-style-type: none"> • Definition of “Capacity Region” • Definition of “External CRIS Rights” • Definition of “Highway” • Definition of “Other Interfaces” 	July 1, 2013
OATT 25.7.3	July 1, 2013

⁹⁷ See n.73 in which the NYISO requests that if the Commission accepts the revision to the definition of “Pivotal Supplier” proposed in this filing prior to ruling on the June 2012 Compliance Filing, the NYISO respectfully requests that the Commission accept the totality of the revisions proposed to the term “Pivotal Supplier” herein and therein.

Tariff Section Being Revised	Requested Effective Date
OATT 25.7.8.2.12	July 1, 2013
OATT 25.7.8.2.9	July 1, 2013
OATT 25.7.11.1.2.3	July 1, 2013
OATT 25.7.11.1.4.2	July 1, 2013
OATT 25.7.11.4.2.2	July 1, 2013
OATT 31.1.2	July 1, 2013
OATT 31.5.3.1.12	July 1, 2013
ST 2.12 <ul style="list-style-type: none"> • Definition of “Locality” • Definition of “Locational Minimum Installed Capacity Requirement” • Definition of “LSE Unforced Capacity Obligation” 	<ul style="list-style-type: none"> • January 27, 2014 • July 1, 2013 • January 27, 2014
ST 2.7 – Definition of “G-J Locality”	January 27, 2014
ST 2.18 – Definition of “Rest of State”	January 27, 2014
ST 2.21 – Definition of “Unforced Capacity Deliverability Rights”	July 1, 2013
ST 5.11.1	July 1, 2013
ST 5.11.4	July 1, 2013
ST 5.12.1	July 1, 2013
ST 5.12.12.2	July 1, 2013
ST 5.12.2	July 1, 2013
ST 5.12.2.4.1	July 1, 2013
ST 5.12.8	July 1, 2013
ST 5.14.1.1	July 1, 2013
ST 5.14.2	July 1, 2013
ST 5.14.3.2(iii)	January 27, 2014
ST 5.14.3.2(iv)	January 27, 2014
ST 5.16.1.1.4	July 1, 2013

Tariff Section Being Revised	Requested Effective Date
ST 23.2.1 – Definition of “Pivotal Supplier”	January 27, 2014
ST 26.4.3(iv)	January 15, 2014

VI. SERVICE

This filing will be posted on the NYISO’s website at www.nyiso.com. In addition, the NYISO will e-mail an electronic link to this filing to the official representative of each party to this proceeding, to each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the New Jersey Board of Public Utilities.

VII. COMMUNICATIONS

Copies of correspondence concerning this filing should be served on:

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⁹⁸ Waiver of the Commission’s regulations (18 C.F.R. § 385.203(b)(3) (2012)) is requested to the extent necessary to permit service on counsel for the NYISO in both Houston, TX and Washington, DC.

VIII. CONCLUSION

For the reasons specified above, the New York Independent System Operator, Inc. respectfully requests that the Commission accept the tariff revisions proposed herein to be effective on the dates as described in Section V.

Respectfully submitted,

/s/ Gloria Kavanah

Gloria Kavanah
Senior Attorney
New York Independent System Operator, Inc.

Dated: April 30, 2013

cc: Travis Allen
Michael A. Bardee
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2.12 Definitions - L

LBMP Market(s): The Real-Time Market or the Day-Ahead Market or both.

Limited Control Run-of-River Hydro Resource: A Generator above 1 MW in size that has demonstrated to the satisfaction of the ISO that its Energy production depends directly on river flows over which it has limited control and that such dependence precludes accurate prediction of the facility's real-time output.

Limited Customer: An entity that is not a Customer but which qualifies to participate in the ISO's Emergency Demand Response Program by complying with Limited Customer requirements set forth in the ISO Procedures.

Limited Energy Storage Resource ("LESR"): A Generator authorized to offer Regulation Service only and characterized by limited Energy storage, that is, the inability to sustain continuous operation at maximum Energy withdrawal or maximum Energy injection for a minimum period of one hour. LESRs must bid as ISO-Committed Flexible Resources.

Limited Energy Storage Resource ("LESR") Energy Management: Real-time Energy injections or withdrawals scheduled by the ISO to manage the Energy storage capacity of a Limited Energy Storage Resource, pursuant to ISO Procedures, for the purpose of maximizing the Capacity bid as available for Regulation Service from such Resource.

Linden VFT Scheduled Line: A transmission facility that interconnects the NYCA to the PJM Interconnection, L.L.C. Control Area in Linden, New Jersey.

LIPA Tax Exempt Bonds: Obligations issued by the Long Island Power Authority, the interest on which is not included in gross income under the Internal Revenue Code.

Load : A term that refers to either a consumer of Energy or the amount of demand (MW) or Energy (MWh) consumed by certain consumers.

Load Serving Entity ("LSE"): Any entity, including a municipal electric system and an electric cooperative, authorized or required by law, regulatory authorization or requirement, agreement, or contractual obligation to supply Energy, Capacity and/or Ancillary Services to retail customers located within the NYCA, including an entity that takes service directly from the ISO to supply its own Load in the NYCA.

Load Shedding: The systematic reduction of system demand by disconnecting Load in response to a Transmission System or area Capacity shortage, system instability, or voltage control considerations under the ISO OATT.

Load Zone: One (1) of eleven (11) geographical areas located within the NYCA that is bounded by one (1) or more of the fourteen (14) New York State Interfaces.

Local Furnishing Bonds: Tax-exempt bonds issued by a Transmission Owner under an agreement between the Transmission Owner and the New York State Energy Research and

Development Authority (“NYSERDA”), or its successor, or by a Transmission Owner itself, and pursuant to Section 142(f) of the Internal Revenue Code, 26 U.S.C. § 142(f).

Local Generator: A resource operated by or on behalf of a Load that is either: (i) not synchronized to a local distribution system; or (ii) synchronized to a local distribution system solely in order to support a Load that is equal to or in excess of the resource’s Capacity. Local Generators supply Energy only to the Load they are being operated to serve and do not supply Energy to the distribution system.

Locality: A single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District or a set of adjacent Transmission Districts (or a portion of a Transmission District(s)) within which a minimum level of Installed Capacity must be maintained, and as specifically identified in this subsection to mean (1) Load Zone J and (2) Load Zone K.

Local Reliability Rule: A Reliability Rule established by a Transmission Owner, and adopted by the NYSRC, to meet specific reliability concerns in limited areas of the NYCA, including without limitation, special conditions and requirements applicable to nuclear plants and special requirements applicable to the New York City metropolitan area.

Locational Based Marginal Pricing (“LBMP”): The price of Energy at each location in the NYS Transmission System as calculated pursuant to Section 17 Attachment B of this Services Tariff.

Locational Minimum Installed Capacity Requirement: The portion of the NYCA Minimum Installed Capacity Requirement provided by Capacity Resources that must be electrically located within a Locality (including those combined with, or possess an approved Unforced Capacity Deliverability Right except for rights returned in an annual election to the ISO in accordance with ISO Procedures.) in order to ensure that sufficient Energy and Capacity are available in that Locality and that appropriate reliability criteria are met.

Locational Minimum Unforced Capacity Requirement: The Unforced Capacity equivalent of the Locational Minimum Installed Capacity Requirement.

Long Island (“L.I.”): An electrical area comprised of Load Zone K, as identified in the ISO Procedures.

Lost Opportunity Cost: The foregone profit associated with the provision of Ancillary Services, which is equal to the product of: (1) the difference between (a) the Energy that a Generator could have sold at the specific LBMP and (b) the Energy sold as a result of reducing the Generator’s output to provide an Ancillary Service under the directions of the ISO; and (2) the LBMP existing at the time the Generator was instructed to provide the Ancillary Service, less the Generator’s Energy bid for the same MW segment.

LSE Unforced Capacity Obligation: The amount of Unforced Capacity that each NYCA LSE must obtain for an Obligation Procurement Period as determined by the ICAP Demand Curve for the NYCA, the New York City Locality, and/or the Long Island Locality, as applicable, for each ICAP Spot Market Auction. The amount includes, at a minimum, each LSE’s share of the

NYCA Minimum Unforced Capacity Requirement and the Locational Minimum Unforced Capacity Requirement, as applicable.

2.21 Definitions - U

Unforced Capacity: The measure by which Installed Capacity Suppliers will be rated, in accordance with formulae set forth in the ISO Procedures, to quantify the extent of their contribution to satisfy the NYCA Installed Capacity Requirement, and which will be used to measure the portion of that NYCA Installed Capacity Requirement for which each LSE is responsible.

Unforced Capacity Deliverability Rights: Unforced Capacity Deliverability Rights (“UDRs”) are rights, as measured in MWs, associated with new incremental controllable transmission projects that provide a transmission interface to a NYCA-Locality ~~(i.e., an area of the NYCA in which a minimum amount of Installed Capacity must be maintained)~~. When combined with Unforced Capacity which is located in an External Control Area or non-constrained NYCA region either by contract or ownership, and which is deliverable to the NYCA interface in the Locality in which ~~with~~ the UDR transmission facility is electrically located, UDRs allow such Unforced Capacity to be treated as if it were located in the NYCA-Locality, thereby contributing to an LSE’s Locational Minimum Installed Capacity Requirement. To the extent the NYCA interface is with an External Control Area the Unforced Capacity associated with UDRs must be deliverable to the Interconnection Point.

UCAP Component: A component of the Operating Requirement, calculated in accordance with Section 26.4.2 of Attachment K to this Services Tariff.

Unrated Customer: A Customer that does not currently have a senior long-term unsecured debt rating or issuer rating from Standard & Poor’s, Moody’s, Fitch, or Dominion, and that has not received an ISO Equivalency Rating.

Unsecured Credit: A basis for satisfying part of a Customer’s Operating Requirement on the basis of the Customer’s creditworthiness. The amount of a Customer’s Unsecured Credit shall be determined in accordance with Section 26.5 of Attachment K to this Services Tariff.

5.11 Requirements Applicable to LSEs

5.11.1 Allocation of the NYCA Minimum Unforced Capacity Requirement

Each Transmission Owner and each municipal electric utility will submit to the ISO, for its review pursuant to mutually agreed upon procedures which shall be described in the ISO Procedures, the weather-adjusted Load within its Transmission District during the hour in which actual Load in the NYCA was highest (the “NYCA peak Load”) for the current Capability Year. (Municipal electric utilities may elect not to submit weather-adjusted data, in which case, weather adjustments shall be performed per ISO procedures. The ISO shall use these data to determine the Adjusted Actual Load at the time of the NYCA peak Load for each Transmission District and municipal electric utility pursuant to ISO Procedures, which shall ensure that transmission losses and the effects of demand reduction programs are treated in a consistent manner and that all weather normalization procedures meet a minimum criterion described in the ISO Procedures. Each Transmission District or municipal electric utility Load forecast coincident with the NYCA peak shall be the product of that Transmission District or municipal electric utility’s Adjusted Actual Load at the time of the NYCA peak Load multiplied by one plus the regional Load growth factor for that Transmission District or municipal electric utility developed pursuant to Section 5.10 of this Tariff. After calculating each Transmission District or municipal electric utility Load forecast, if the ISO determines that an Adjusted Actual Load determined for a Transmission District or municipal electric utility does not reflect reasonable expectations of what Load might reasonably have been expected to occur in that Transmission District or area served by that municipal electric utility in that Capability Year, after taking into consideration the adjustments to account for weather normalization, transmission losses and demand response programs that are described in the ISO Procedures, the ISO Procedures shall

also authorize the ISO to substitute its own measures of Adjusted Actual Load for that Transmission District or area serviced by that municipal electric utility in this calculation, subject to the outcome of dispute resolution procedures if invoked. The ISO's measure of Adjusted Actual Load shall be binding unless otherwise determined as the result of dispute resolution procedures that may be invoked. Each Transmission Owner must also submit aggregate Adjusted Load data, coincident with the NYCA peak hour, for all customers served by each LSE active within its Transmission District. The aggregate Load data may be derived from direct meters or Load profiles of the customers served. Each Transmission Owner shall be required to submit such forecasts and aggregate peak Load data in accordance with the ISO Procedures. Each municipal electric utility may choose to submit its peak Load forecast based on the Transmission District's peak Load forecast provided by a Transmission Owner or to provide its own. Any disputes arising out of the submittals required in this paragraph shall be resolved through the Expedited Dispute Resolution Procedures set forth in Section 5.17 of this Tariff.

All aggregate Load data submitted by a Transmission Owner must be accompanied by documentation indicating that each affected LSE has been provided the data regarding the assignment of customers to the affected LSE. Any disputes between LSEs and Transmission Owners regarding such data or assignments shall be resolved through the Expedited Dispute Resolution Procedures set forth in Section 5.17 of this Tariff, or the Transmission Owner's retail access procedures, as applicable.

The ISO shall allocate the NYCA Minimum Unforced Capacity Requirement among all LSEs serving Load in the NYCA prior to the beginning of each Capability Year. It shall then adjust the NYCA Minimum Unforced Capacity Requirement and reallocate it among LSEs before each Winter Capability Period as necessary to reflect changes in the factors used to

translate ICAP requirements into Unforced Capacity requirements. Each LSE's share of the NYCA Minimum Unforced Capacity Requirement will equal the product of: (i) the NYCA Minimum Installed Capacity Requirement as translated into a NYCA Minimum Unforced Capacity Requirement; and (ii) the ratio of the sum of the Load forecasts coincident with the NYCA peak Load for that LSE's customers in each Transmission District to the NYCA peak Load forecast.

Each LSE Unforced Capacity Obligation will equal the product of (i) the ratio of that LSE's share of the NYCA Minimum Unforced Capacity Requirement to the total NYCA Minimum Unforced Capacity Requirement and (ii) the total of all of the LSE Unforced Capacity Obligations for the NYCA established by the ICAP Spot Market Auction. The LSE Unforced Capacity Obligation will be determined in each Obligation Procurement Period by the ICAP Spot Market Auction, in accordance with the ISO Procedures. Each LSE will be responsible for acquiring sufficient Unforced Capacity to satisfy its LSE Unforced Capacity Obligations. [LSEs with Load in more than one Locality will have an LSE Unforced Capacity Obligation for each Locality.](#)

Prior to the beginning of each Capability Period, Transmission Owners shall submit the required Load-shifting information to the ISO and to each LSE affected by the Load-shifting, in accordance with the ISO Procedures. In the event that there is a pending dispute regarding a Transmission Owner's forecast, the ISO shall nevertheless establish each LSE's portion of the NYCA Minimum Unforced Capacity Requirement applicable at the beginning of each Capability Period in accordance with the schedule established in the ISO Procedures, subject to possible adjustments that may be required as a result of resolution of the dispute through the Expedited Dispute Resolution Procedures set forth in Section 5.17 of this Tariff.

Each month, as Transmission Owners report customers gained and lost by LSEs through Load-shifting, the ISO will adjust each LSE's portion of the NYCA Minimum Unforced Capacity Requirement such that (i) the total Transmission District Installed Capacity requirement remains constant and (ii) an individual LSE's allocated portion reflects the gains and losses. If an LSE loses a customer as a result of that customer leaving the Transmission District, the Load-losing LSE shall be relieved of its obligation to procure Unforced Capacity to cover the Load associated with the departing customer as of the date that the customer's departure is accepted by the ISO and shall be free to sell any excess Unforced Capacity. In addition, when a customer leaves the Transmission District, the ISO will adjust each LSE's portion of the NYCA Minimum Unforced Capacity Requirement so that the total Transmission District's share of the NYCA Minimum Unforced Capacity Requirement remains constant.

5.11.2 LSE Obligations

Each LSE must procure Unforced Capacity in an amount equal to its LSE Unforced Capacity Obligation from any Installed Capacity Supplier through Bilateral Transactions with purchases in ISO-administered Installed Capacity auctions, by self-supply from qualified sources, or by a combination of these methods. Each LSE must certify the amount of Unforced Capacity it has or has obtained prior to the beginning of each Obligation Procurement Period by submitting completed Installed Capacity certification forms to the ISO by the date specified in the ISO Procedures. The Installed Capacity certification forms submitted by the LSEs shall be in the format and include all the information prescribed by the ISO Procedures.

All LSEs shall participate in the ICAP Spot Market Auction pursuant to Section 5.14.1 of this Tariff.

5.11.3 Load-Shifting Adjustments

The ISO shall account for Load-shifting among LSEs each month using the best available information provided to it and the affected LSEs by the individual Transmission Owners. The ISO shall, upon notice of Load-shifting by a Transmission Owner and verification by the relevant Load-losing LSE, increase the Load-gaining LSE's LSE Unforced Capacity Obligation, as applicable, and decrease the Load-losing LSE's LSE Unforced Capacity Obligation, as applicable, to reflect the Load-shifting.

The Load-gaining LSE shall pay the Load-losing LSE an amount, pro-rated on a daily basis, based on the Market-Clearing Price of Unforced Capacity determined in the most recent previous applicable ICAP Spot Market Auction until the first day of the month after the nearest following Monthly Installed Capacity Auction is held. The amount paid by a Load-gaining LSE shall reflect any portion of the Load-losing LSE's LSE Unforced Capacity Obligation that is attributable to the shifting Load for the applicable Obligation Procurement Period, in accordance with the ISO Procedures. In addition, the amount paid by a Load-gaining LSE shall be reduced by the Load-losing LSE's share of any rebate associated with the lost Load paid pursuant to Section 5.15 of this Tariff.

Each Transmission Owner shall report to the ISO and to each LSE serving Load in its Transmission District the updated, aggregated LSE Loads with documentation in accordance with and by the date set forth in the ISO Procedures. The ISO shall reallocate a portion of the NYCA Minimum Unforced Capacity Requirement and the Locational Minimum Unforced Capacity Requirement, as applicable, to each LSE for the following Obligation Procurement Period, which shall reflect all documented Load-shifts as of the end of the current Obligation Procurement Period. Any disputes among Market Participants concerning Load-shifting shall be resolved through the Expedited Dispute Resolution Procedures set forth in Section 5.17 of this

Tariff, or the Transmission Owner's retail access procedures, as applicable. In the event of a pending dispute concerning a Load-shift, the ISO shall make its Obligation Procurement Period Installed Capacity adjustments as if the Load-shift reported by the Transmission Owners had occurred, or if the dispute pertains to the timing of a Load-shift, as if the Load-shift occurred on the effective date reported by the Transmission Owner, but will retroactively modify these allocations, as necessary, based on determinations made pursuant to the Expedited Dispute Resolution Procedures set forth in Section 5.17 of this Tariff, or the Transmission Owner's retail access procedures, as applicable.

5.11.4 LSE Locational Minimum Installed Capacity Requirements

The ISO will determine the Locational Minimum Installed Capacity Requirements, stated as a percentage of the Locality's forecasted Capability Year peak Load and expressed in Unforced Capacity terms, that shall be uniformly applicable to each LSE serving Load within a Locality. In establishing Locational Minimum Installed Capacity Requirements, the ISO will take into account all relevant considerations, including the total NYCA Minimum Installed Capacity Requirement, the NYS Power System transmission Interface Transfer Capability, the election by the holder of rights to UDRs that can provide Capacity from an External Control Area with a capability year start date that is different than the corresponding ISO Capability Year start date ("dissimilar capability year"), the Reliability Rules and any other FERC-approved Locational Minimum Installed Capacity Requirements.

The Installed Capacity Supplier holding rights to UDRs from an External Control Area with a dissimilar capability year shall have one opportunity for a Capability Year in which the Scheduled Line will first be used to offer Capacity associated with the UDRs, to elect that the ISO determine Locational Minimum Installed Capacity Requirements without a quantity of MW

from the UDRs for the first month in the Capability Year, and with the same quantity of MW as Unforced Capacity for the remaining months, in each case (a) consistent with and as demonstrated by a contractual arrangement to utilize the UDRs to import the quantity of MW of Capacity into a Locality, and (b) in accordance with ISO Procedures (a “capability year adjustment election”). If there is more than one Installed Capacity Supplier holding rights to UDRs concurrently, an Installed Capacity Supplier’s election pursuant to the preceding sentence (x) shall be binding on the entity to which the NYISO granted the UDRs up to the quantity of MW to which the Installed Capacity Supplier holds rights, and a subsequent assignment of these UDRs to another rights holder will not create the option for another one-time election by the new UDR rights holder, and (y) shall not affect the right another Installed Capacity Supplier may have to make an election. The right to make an election shall remain unless and until an election has been made by one or more holders of rights to the total quantity of MW corresponding to the UDRs. Absent this one-time election, the UDRs shall be modeled consistently for all months in each Capability Year as elected by the UDR rights holder in its notification to the ISO in accordance with ISO Procedures. Upon such an election, the ISO shall determine the Locational Minimum Unforced Capacity Requirement (i) for the first month of the Capability Year without the quantity of MW of Capacity associated with the UDRs, and (ii) for the remaining eleven months as Unforced Capacity. After the Installed Capacity Supplier has made its one-time election for a quantity of MW, the quantity of MW associated with the UDRs held by the Installed Capacity Supplier shall be modeled consistently for all months in any future Capability Period.

The Locational Minimum Unforced Capacity Requirement represents a minimum level of Unforced Capacity that must be secured by LSEs in ~~the NYCA~~ each Localities ~~ies~~ in which it has

Load for each Obligation Procurement Period. The Locational Minimum Unforced Capacity Requirement for each Locality shall equal the product of the Locational Minimum Installed Capacity Requirement for a given Locality (with or without the UDRs if there is a capability year adjustment election by a rights holder) and the ratio of (1) the total amount of Unforced Capacity that the specified Resources are qualified to provide (with or without the UDRs associated with dissimilar capability periods, as so elected by the rights holder) during each month in the Capability Period, as of the time the Locational Minimum Unforced Capacity Requirement is determined as specified in ISO Procedures, to (2) the sum of the DMNCs used to determine the Unforced Capacities of such Resources for such Capability Period (with or without the DMNCs associated with the UDRs, as so elected by the rights holder). The foregoing calculation shall be determined using the Resources in the given Locality in the most recent final version of the ISO's annual Load and Capacity Data Report, with the addition of Resources commencing commercial operation since completion of that report and the deletion of Resources with scheduled or planned retirement dates before or during such Capability Period. Under the provisions of this Services Tariff and the ISO Procedures, each LSE will be obligated to procure its LSE Unforced Capacity Obligation. The LSE Unforced Capacity Obligation will be determined for each Obligation Procurement Period by the ICAP Spot Market Auction, in accordance with the ISO Procedures.

Qualified Resources will have the opportunity to supply amounts of Unforced Capacity to meet the LSE Unforced Capacity Obligation as established by the ICAP Spot Market Auction.

To be counted towards the locational component of the LSE Unforced Capacity Obligation, Unforced Capacity owned by the holder of UDRs or contractually combined with UDRs must be deliverable to the NYCA interface with the UDR transmission facility pursuant to

NYISO requirements and consistent with the election of the holder of the rights to the UDRs set forth in this Section.

In addition, any Customer that purchases Unforced Capacity associated with any generation that is subject to capacity market mitigation measures in an ISO-administered auction may not resell that Unforced Capacity in a subsequent auction at a price greater than the annual mitigated price cap, as applied in accordance with the ISO Procedures in accordance with Sections 5.13.2, 5.13.3, and 5.14.1 of this Tariff. The ISO shall inform Customers that purchase Unforced Capacity in an ISO-administered auction of the amount of Unforced Capacity they have purchased that is subject to capacity market mitigation measures.

The ISO shall have the right to audit all executed Installed Capacity contracts and related documentation of arrangements by an LSE to use its own generation to meet its Locational Minimum Installed Capacity Requirement for an upcoming Obligation Procurement Period.

5.12 Requirements Applicable to Installed Capacity Suppliers

5.12.1 Installed Capacity Supplier Qualification Requirements

In order to qualify as an Installed Capacity Supplier in the NYCA, each generator and merchant transmission facility interconnected to the New York State Transmission System must, commencing with the 2009 Summer Capability Period, have elected Capacity Resource Interconnection Service and been found deliverable, or must have been grandfathered as deliverable, pursuant to the applicable provisions of Attachment X, Attachment Z and Attachment S to the ISO OATT. In addition, to qualify as an Installed Capacity Supplier in the NYCA, Energy Limited Resources, Generators, Installed Capacity Marketers, Intermittent Power Resources, Limited Control Run-of-River Hydro Resources and System Resources rated 1 MW or greater, other than External System Resources and Control Area System Resources which have agreed to certain Curtailment conditions as set forth in the last paragraph of Section 5.12.1 below, Responsible Interface Parties, existing municipally-owned generation, Energy Limited Resources, and Intermittent Power Resources, to the extent those entities are subject to the requirements of Section 5.12.11 of this Tariff, shall:

- 5.12.1.1 provide information reasonably requested by the ISO including the name and location of Generators, and System Resources;
- 5.12.1.2 in accordance with the ISO Procedures, perform DMNC tests and submit the results to the ISO, or provide to the ISO appropriate historical production data;
- 5.12.1.3 abide by the ISO Generator maintenance coordination procedures;
- 5.12.1.4 provide the expected return date from any outages (including partial outages) to the ISO;
- 5.12.1.5 in accordance with the ISO Procedures,

- 5.12.1.5.1 provide documentation demonstrating that it will not use the same Unforced Capacity for more than one (1) buyer at the same time; and
- 5.12.1.5.2 in the event that the Installed Capacity Supplier supplies more Unforced Capacity than it is qualified to supply in any specific month (i.e., is short on Capacity), documentation that it has procured sufficient Unforced Capacity to cover this shortfall.
- 5.12.1.6 except for Installed Capacity Marketers and Intermittent Power Resources that depend upon wind or solar as their fuel, Bid into the Day-Ahead Market, unless the Energy Limited Resource, Generator, Limited Control Run-of-River Hydro Resource or System Resource is unable to do so due to an outage as defined in the ISO Procedures or due to temperature related de-ratings. Generators may also enter into the MIS an upper operating limit that would define the operating limit under normal system conditions. The circumstances under which the ISO will direct a Generator to exceed its upper operating limit are described in the ISO Procedures;
- 5.12.1.7 provide Operating Data in accordance with Section 5.12.5 of this Tariff;
- 5.12.1.8 provide notice to the ISO, prior to the commencement of the Annual Transmission Reliability Assessment on March 1, of any transfers of deliverability rights to be carried out pursuant to Sections 25.9.4 - 25.9.6 of Attachment S to the ISO OATT;
- 5.12.1.9 comply with the ISO Procedures;
- 5.12.1.10 when the ISO issues a Supplemental Resource Evaluation request (an SRE), Bid into the in-day market unless the entity has a bid pending in the Real-

Time Market when the SRE request is made or is unable to bid in response to the SRE request due to an outage as defined in the ISO Procedures, or due to other operational issues, or due to temperature related deratings; and

5.12.1.11 Installed Capacity Suppliers located East of Central-East shall Bid in the Day-Ahead and Real-Time Markets all Capacity available for supplying 10-Minute Non-Synchronized Reserve (unless the Generator is unable to meet its commitment because of an outage as defined in the ISO Procedures), except for the Generators described in Subsections 5.12.1.11.1, 5.12.1.11.2 and 5.12.1.11.3 below:

5.12.1.11.1 Generators providing Energy under contracts executed and effective on or before November 18, 1999 (including PURPA contracts) in which the power purchasers do not control the operation of the supply source but would be responsible for penalties for being off-schedule, with the exception of Generators under must-take PURPA contracts executed and effective on or before November 18, 1999, who have not provided telemetering to their local TO and historically have not been eligible to participate in the NYPP market, which will continue to be treated as TO Load modifiers under the ISO-administered markets;

5.12.1.11.2 Existing topping turbine Generators and extraction turbine Generators producing Energy resulting from the supply of steam to the district steam system located in New York City (LBMP Zone J) in operation on or before November 18, 1999 and/or topping or extraction turbine Generators used in replacing or repowering steam supplies from such units (in accordance with good engineering

and economic design) that cannot follow schedules, up to a maximum total of 499 MW of such units; and

5.12.1.11.3 Units that have demonstrated to the ISO that they are subject to environmental, contractual or other legal or physical requirements that would otherwise preclude them from providing 10-Minute NSR.

The ISO shall inform each potential Installed Capacity Supplier that is required to submit DMNC data of its approved DMNC ratings for the Summer Capability Period and the Winter Capability Period in accordance with the ISO Procedures.

Requirements to qualify as Installed Capacity Suppliers for External System Resources and Control Area System Resources located in External Control Areas that have agreed not to Curtail the Energy associated with such Installed Capacity or to afford it the same Curtailment priority that it affords its own Control Area Load shall be established in the ISO Procedures.

External Installed Capacity not associated with UDRs, including capacity associated with External CRIS Rights, Grandfathered External Installed Capacity Agreements listed in Attachment E of the ISO Installed Capacity Manual, the Existing Transmission Capacity for Native Load listed for New York State Electric & Gas Corporation in Table 3 of Attachment L to the ISO OATT, Import Rights, and External System Resources, is only qualified to satisfy a NYCA Minimum Unforced Capacity Requirement and is not eligible to satisfy a Locational Minimum Installed Capacity Requirement.

Not later than 30 days prior to each ICAP Spot Market Auction, each Market Participant that may make offers to sell Unforced Capacity in such auction shall submit information to the ISO, in accordance with ISO Procedures and in the format specified by the ISO that identifies each Affiliated Entity, as that term is defined in Section 23.2.1 of Attachment H of the Services

Tariff, of the Market Party or with which the Market Party is an Affiliated Entity. The names of entities that are Affiliated Entities shall not be treated as Confidential Information, but such treatment may be requested for the existence of an Affiliated Entity relationship. The information submitted to the ISO shall identify the nature of the Affiliated Entity relationship by the applicable category specified in the definition of “Affiliated Entity” in Section 23.2.1 of Attachment H of the Services Tariff.

5.12.2 Additional Provisions Applicable to External Installed Capacity Suppliers

Terms in this Section 5.12.2 not defined in the Services Tariff have the meaning set forth in the OATT.

5.12.2.1 Provisions Addressing the Applicable External Control Area.

External Generators, External System Resources, and Control Area System Resources qualify as Installed Capacity Suppliers if they demonstrate to the satisfaction of the NYISO that the Installed Capacity Equivalent of their Unforced Capacity is deliverable to the NYCA or, in the case of an entity using a UDR to meet a Locational Minimum Installed Capacity Requirement, to the NYCA interface associated with that UDR transmission facility and will not be recalled or curtailed by an External Control Area to satisfy its own Control Area Loads, or, in the case of Control Area System Resources, if they demonstrate that the External Control Area will afford the NYCA Load the same curtailment priority that they afford their own Control Area Native Load Customers. The amount of Unforced Capacity that may be supplied by such entities qualifying pursuant to the alternative criteria may be reduced by the ISO, pursuant to ISO Procedures, to reflect the possibility of curtailment. External Installed Capacity associated with Import Rights or UDRs is subject to the same deliverability requirements applied to Internal Installed Capacity Suppliers associated with UDRs.

5.12.2.2 Additional Provisions Addressing Internal Deliverability and Import Rights.

In addition to the provisions contained in Section 5.12.2.1 above, External Installed Capacity not associated with UDRs or External CRIS Rights will be subject to the deliverability test in Section 25.7.8 and 25.7.9 of Attachment S to the ISO OATT. The deliverability of External Installed Capacity not associated with UDRs or External CRIS Rights will be evaluated annually as a part of the process that sets import rights for the upcoming Capability Year, to determine the amount of External Installed Capacity that can be imported to the New York Control Area across any individual External Interface and across all of those External Interfaces, taken together. The External Installed Capacity deliverability test will be performed using the ISO's forecast, for the upcoming Capability Year, of New York Control Area CRIS resources, transmission facilities, and load. Under this process (i) Grandfathered External Installed Capacity Agreements listed in Attachment E of the ISO Installed Capacity Manual, and (ii) the Existing Transmission Capacity for Native Load listed for New York State Electric & Gas Corporation in Table 3 of Attachment L to the ISO OATT, will be considered deliverable within the Rest of State. Additionally, 1090 MW of imports made over the Quebec (via Chateaugay) Interface will be considered to be deliverable until the end of the 2010 Summer Capability Period.

The import limit set for External Installed Capacity not associated with UDRs or External CRIS Rights will be set no higher than the amount of imports deliverable into Rest of State that (i) would not increase the LOLE as determined in the upcoming Capability Year IRM consistent with Section 2.7 of the NYISO Installed Capacity Manual, "Limitations on Unforced Capacity Flow in External Control Areas," (ii) are deliverable within the Rest of State Capacity Region ~~where the External Interface is located~~ when evaluated with the New York Control Area CRIS

resources and External CRIS Rights forecast for the upcoming Capability Year, and (iii) would not degrade the transfer capability of any Other Interface by more than the threshold identified in Section 25.7.9 of Attachment S to the ISO OATT. Import limits set for External Installed Capacity will reflect the modeling of awarded External CRIS rights, but the awarded External CRIS rights will not be adjusted as part of import limit-setting process. Procedures for qualifying selling, and delivery of External Installed Capacity are detailed in the Installed Capacity Manual.

Until the grandfathered import rights over the Quebec (via Chateauguay) Interface expire at the end of the 2010 Summer Capability Period, the 1090 MW of grandfathered import rights will be made available on a first-come, first-served basis pursuant to ISO Procedures. Any of the grandfathered import rights over the Quebec (via Chateauguay) Interface not utilized for a Capability Period will be made available to other external resources for that Capability Period, pursuant to ISO Procedures, to the extent the unutilized amount is determined to be deliverable.

Additionally, any of the Existing Transmission Capacity for Native Load listed for New York State Electric & Gas Corporation not utilized by New York State Electric & Gas Corporation for a Capability Period will be made available to other external resources for that Capability Period, pursuant to ISO procedures, to the extent the unutilized amount is determined to be deliverable [within the Rest of State Capacity Region](#).

LSEs with External Installed Capacity as of the effective date of this Tariff will be entitled to designate External Installed Capacity at the same NYCA Interface with another Control Area, in the same amounts in effect on the effective date of this Tariff. To the extent such External Installed Capacity corresponds to Existing Transmission Capacity for Native Load as reflected in Table 3 of Attachment L to the ISO OATT, these External Installed Capacity

rights will continue without term and shall be allocated to the LSE's retail access customers in accordance with the LSE's retail access program on file with the PSC and subject to any necessary filings with the Commission. External Installed Capacity rights existing as of September 17, 1999 that do not correspond to Table 3 of Attachment L to the ISO OATT shall survive for the term of the relevant External Installed Capacity contract or until the relevant External Generator is retired.

5.12.2.3 One-Time Conversion of Grandfathered Quebec (via Chateaugay) Interface Rights.

An entity can request to convert a specified number of MW, up to 1090 MW over the Quebec External Interface (via Chateaugay), into External CRIS Rights by making either a Contract Commitment or Non-Contract Commitment that satisfies the requirements of Section 25.7.11.1 of Attachment S to the ISO OATT. The converted number of MW will not be subject to further evaluation for deliverability within a Class Year Deliverability Study under Attachment S to the ISO OATT, as long as the External CRIS Rights are in effect.

5.12.2.3.1 The External CRIS Rights awarded under this conversion process will first become effective for the 2010-2011 Winter Capability Period.

5.12.2.3.2 Requests to convert these grandfathered rights must be received by the NYISO on or before 5:00 pm Eastern Time on February 1, 2010, with the following information: (a) a statement that the entity is electing to convert by satisfying the requirements of a Contract Commitment or a Non-Contract Commitment in accordance with Section 25.7.11.1 of Attachment S to the ISO OATT; (b) the length of the commitment in years; (c) for the Summer Capability Period, the requested number of MW; (d) for the Winter Capability Period, the

Specified Winter Months, if any, and the requested number of MW; and (e) a minimum number of MW the entity will accept if granted (“Specified Minimum”) for the Summer Capability Period and for all Specified Winter Months, if any.

5.12.2.3.3 An entity cannot submit one or more requests to convert in the aggregate more than 1090 MW in any single month.

5.12.2.3.4 If requests to convert that satisfy all other requirements stated herein are equal to or less than the 1090 MW limit, all requesting entities will be awarded the requested number of MW of External CRIS Rights. If conversion requests exceed the 1090 MW limit, the NYISO will prorate the allocation based on the weighted average of the requested MW times the length of the contract/commitment (*i.e.*, number of Summer Capability Periods) in accordance with the following formula:

$$\text{Rights allocated to entity } i = 1090 * \frac{(MW_i * \text{contract/commitment length}_i)}{\sum_j (MW_j * \text{contract/commitment length}_j)}$$

$j = 1, \dots, \#$ entities requesting import rights

In the formula, contract/commitment length means the lesser of the requested contract/commitment length and twenty (20) years. The NYISO will perform separate calculations for the Summer and Winter Capability Periods. The NYISO will determine whether the prorated allocated number of MW for any requesting entity is less than the entity’s Specified Minimum. If any allocation is less, the NYISO will remove such request(s) and recalculate the prorated allocations among the remaining requesting entities using the above formula. This process

will continue until the prorated allocation meets or exceeds the specified minimum for all remaining requests.

5.12.2.3.5 Any portion of the previously grandfathered 1090 MW not converted through this process will no longer be grandfathered from deliverability. Previously grandfathered rights converted to External CRIS Rights but then terminated will no longer be grandfathered from deliverability.

5.12.2.4 Offer Cap Applicable to Certain External CRIS Rights.

Notwithstanding any other capacity mitigation measures or obligations that may apply, the offers of External Installed Capacity submitted pursuant to a Non-Contract Commitment, as described in Section 25.7.11.1.2 of Attachment S of the ISO OATT, will be subject to an offer cap in each month of the Summer Capability Period and for all Specified Winter Months. This offer cap will be determined as the higher of:

5.12.2.4.1 1.1 times the price corresponding to all available Unforced Capacity determined from the [NYCA ICAP Demand Curve](#) for that Period ~~and for the Capacity Region in which the Interface of entry is located~~; and

5.12.2.4.2 The most recent auction clearing price (a) in the External market supplying the External Installed Capacity, if any, and if none, then the most recent auction clearing price in an External market to which the capacity may be wheeled, less (b) any transmission reservation costs in the External market associated with providing the Installed Capacity, in accordance with ISO Procedures.

5.12.3 Installed Capacity Supplier Outage Scheduling Requirements

All Installed Capacity Suppliers, except for Control Area System Resources and Responsible Interface Parties, that intend to supply Unforced Capacity to the NYCA shall submit a confidential notification to the ISO of their proposed outage schedules in accordance with the ISO Procedures. Transmission Owners will be notified of these and subsequently revised outage schedules. Based upon a reliability assessment, if Operating Reserve deficiencies are projected to occur in certain weeks for the upcoming calendar year, the ISO will request voluntary rescheduling of outages. In the case of Generators actually supplying Unforced Capacity to the NYCA, if voluntary rescheduling is ineffective, the ISO will invoke forced rescheduling of their outages to ensure that projected Operating Reserves over the upcoming year are adequate.

A Generator that refuses a forced rescheduling of its outages for any unit shall be prevented from supplying Unforced Capacity in the NYCA with that unit during any month where it undertakes such outages. The rescheduling process is described in the ISO Procedures.

A Generator that intends to supply Unforced Capacity in a given month that did not qualify as an Installed Capacity Supplier prior to the beginning of the Capability Period must notify the ISO in accordance with the ISO Procedures so that it may be subject to forced rescheduling of its proposed outages in order to qualify as an Installed Capacity Supplier. A Supplier that refuses the ISO's forced rescheduling of its proposed outages shall not qualify as an Installed Capacity Supplier for that unit for any month during which it schedules or conducts an outage.

Outage schedules for External System Resources and Control Area System Resources shall be coordinated by the External Control Area and the ISO in accordance with the ISO Procedures.

5.12.4 Required Certification for Installed Capacity

- (a) Each Installed Capacity Supplier must confirm to the ISO, in accordance with ISO Procedures that the Unforced Capacity it has certified has not been sold for use in an External Control Area.
- (b) Each Installed Capacity Supplier holding rights to UDRs from an External Control Area must confirm to the ISO, in accordance with ISO Procedures, that it will not use as self-supply or offer, and has not sold, Installed Capacity associated with the quantity of MW for which it has not made its one time capability adjustment year election pursuant to Section 5.11.4.

5.12.5 Operating Data Reporting Requirements

To qualify as Installed Capacity Suppliers in the NYCA, Resources shall submit to the ISO Operating Data in accordance with this Section 5.12.5 and the ISO Procedures. Resources that do not submit Operating Data in accordance with the following subsections and the ISO Procedures may be subject to the sanctions provided in Section 5.12.12.1 of this Tariff.

Resources that were not in operation on January 1, 2000 shall submit Operating Data to the ISO no later than one month after such Resources commence commercial operation, and in accordance with the ISO Procedures and the following subsections as applicable.

5.12.5.1 Generators, System Resources, Energy Limited Resources, Responsible Interface Parties, Intermittent Power Resources, Limited Control Run-of-River Hydro Resources and Municipally Owned Generation

To qualify as Installed Capacity Suppliers in the NYCA, Generators, External Generators, System Resources, External System Resources, Energy Limited Resources, Responsible Interface Parties, Intermittent Power Resources, Limited Control Run-of-River

Hydro Resources and municipally owned generation or the purchasers of Unforced Capacity associated with those Resources shall submit GADS Data, data equivalent to GADS Data, or other Operating Data to the ISO in accordance with the ISO Procedures. Prior to the successful implementation of a software modification that allows gas turbines to submit multiple bid points, these units shall not be considered to be forced out for any hours that the unit was available at its base load capability in accordance with the ISO Procedures. This section shall also apply to any Installed Capacity Supplier, External or Internal, using UDRs to meet Locational Minimum Installed Capacity Requirements.

5.12.5.2 Control Area System Resources

To qualify as Installed Capacity Suppliers in the NYCA, Control Area System Resources, or the purchasers of Unforced Capacity associated with those Resources, shall submit CARL Data and actual system failure occurrences data to the ISO each month in accordance with the ISO Procedures.

5.12.5.3 Transmission Projects Granted Unforced Capacity Deliverability Rights

An owner of a transmission project that receives UDRs must, among other obligations, submit outage data or other operational information in accordance with the ISO procedures to allow the ISO to determine the number of UDRs associated with the transmission facility.

5.12.6 Operating Data Default Value and Collection

5.12.6.1 UCAP Calculations

The ISO shall calculate for each Resource the amount of Unforced Capacity that each Installed Capacity Supplier is qualified to supply in the NYCA in accordance with formulae provided in the ISO Procedures.

The amount of Unforced Capacity that each Generator, System Resource, Energy Limited Resource, Special Case Resource, and municipally-owned generation is authorized to supply in the NYCA shall be based on the ISO's calculations of individual Equivalent Demand Forced Outage Rates. The amount of Unforced Capacity that each Control Area System Resource is authorized to supply in the NYCA shall be based on the ISO's calculation of each Control Area System Resource's availability. The amount of Unforced Capacity that each Intermittent Power Resource is authorized to supply in the NYCA shall be based on the NYISO's calculation of the amount of capacity that the Intermittent Power Resource can reliably provide during system peak Load hours in accordance with ISO Procedures. The amount of Unforced Capacity that each Limited Control Run-of-River Hydro Resource is authorized to provide in the NYCA shall be determined separately for Summer and Winter Capability Periods as the rolling average of the hourly net Energy provided by each such Resource during the 20 highest NYCA integrated real-time load hours in each of the five previous Summer or Winter Capability Periods, as appropriate, stated in megawatts.

The ISO shall calculate separate Summer and Winter Capability Period Unforced Capacity values for each Generator, System Resource, Special Case Resource, Energy Limited Resource, and municipally owned generation and update them periodically using a twelve-month calculation in accordance with formulae provided in the ISO Procedures.

The ISO shall calculate separate Summer and Winter Capability Period Unforced Capacity values for Intermittent Power Resources and update them seasonally as described in ISO Procedures.

5.12.6.2 Default Unforced Capacity

In its calculation of Unforced Capacity, the ISO shall deem a Resource to be completely forced out for each month for which the Resource has not submitted its Operating Data in accordance with Section 5.12.5 of this Tariff and the ISO Procedures. A Resource that has been deemed completely forced out for a particular month may submit new Operating Data, for that month, to the ISO at any time. The ISO will use such new Operating Data when calculating, in a timely manner in accordance with the ISO Procedures, a Unforced Capacity value for the Resource.

Upon a showing of extraordinary circumstances, the ISO retains the discretion to accept at any time Operating Data which have not been submitted in a timely manner, or which do not fully conform with the ISO Procedures.

5.12.6.3 Exception for Certain Equipment Failures

When a Generator, Special Case Resource, Energy Limited Resource, or System Resource is forced into an outage by an equipment failure that involves equipment located on the high voltage side of the electric network beyond the step-up transformer, and including such step-up transformer, the outage will not be counted for purposes of calculating that Resource's Equivalent Demand Forced Outage Rate.

5.12.7 Availability Requirements

Subsequent to qualifying, each Installed Capacity Supplier shall, except as noted in Section 5.12.11 of this Tariff, on a daily basis: (i) schedule a Bilateral Transaction; (ii) Bid Energy in each hour of the Day-Ahead Market in accordance with the applicable provisions of Section 5.12.1 of this Tariff; or (iii) notify the ISO of any outages. The total amount of Energy

that an Installed Capacity Supplier schedules, bids, or declares to be unavailable on a given day must equal or exceed the Installed Capacity Equivalent of the Unforced Capacity it supplies.

5.12.8 Unforced Capacity Sales

Each Installed Capacity Supplier will, after satisfying the deliverability requirements set forth in the applicable provisions of Attachment X, Attachment Z and Attachment S to the ISO OATT, be authorized to supply an amount of Unforced Capacity during each Obligation Procurement Period, based on separate seasonal Unforced Capacity calculations performed by the ISO for the Summer and Winter Capability Periods. Unforced Capacity may be sold in six-month strips, or in monthly, or multi-monthly segments.

External Unforced Capacity (except External Installed Capacity associated with UDRs) may only be offered into Capability Period Auctions or Monthly Auctions for the Rest of State, and ICAP Spot Market Auctions for the NYCA, and may not be offered into a Locality for an ICAP Auction. Bilateral Transactions which certify External Unforced Capacity using Import Rights may not be used to satisfy a Locational Minimum Unforced Capacity Requirement.

If an Energy Limited Resource's, Generator's, System Resource's or Control Area System Resource's DMNC rating is determined to have increased during an Obligation Procurement Period, pursuant to testing procedures described in the ISO Procedures, the amount of Unforced Capacity that it shall be authorized to supply in that or future Obligation Procurement Periods shall also be increased on a prospective basis in accordance with the schedule set forth in the ISO Procedures provided that it first has satisfied the deliverability requirements set forth in the applicable provisions of Attachment X, Attachment Z and Attachment S to the ISO OATT.

New Generators and Generators that have increased their Capacity since the previous Summer Capability Period due to changes in their generating equipment may, after satisfying the deliverability requirements set forth in the applicable provisions of Attachment X, Attachment Z and Attachment S to the ISO OATT, qualify to supply Unforced Capacity on a foregoing basis during the Summer Capability Period based upon a DMNC test that is performed and reported to the ISO after March 1 and prior to the beginning of the Summer Capability Period DMNC Test Period. The Generator will be required to verify the claimed DMNC rating by performing an additional test during the Summer DMNC Test Period. Any shortfall between the amount of Unforced Capacity supplied by the Generator for the Summer Capability Period and the amount verified during the Summer DMNC Test Period will be subject to deficiency charges pursuant to Section 5.14.2 of this Tariff. The deficiency charges will be applied to no more than the difference between the Generator's previous Summer Capability Period Unforced Capacity and the amount of Unforced Capacity equivalent the Generator supplied for the Summer Capability Period.

New Generators and Generators that have increased their Capacity since the previous Winter Capability Period due to changes in their generating equipment may, after satisfying the deliverability requirements set forth in the applicable provisions of Attachment X, Attachment Z and Attachment S to the ISO OATT, qualify to supply Unforced Capacity on a foregoing basis during the Winter Capability Period based upon a DMNC test that is performed and reported to the ISO after September 1 and prior to the beginning of the Winter Capability Period DMNC Test Period. The Generator will be required to verify the claimed DMNC rating by performing an additional test during the Winter Capability Period DMNC Test Period. Any shortfall between the amount of Unforced Capacity certified by the Generator for the Winter Capability

Period and the amount verified during the Winter Capability Period DMNC Test Period will be subject to deficiency charges pursuant to Section 5.14.2 of this Tariff. The deficiency charges will be applied to no more than the difference between the Generator's previous Winter Capability Period Unforced Capacity and the amount of Unforced Capacity equivalent the Generator supplied for the Winter Capability Period.

Any Installed Capacity Supplier, except as noted in Section 5.12.11 of this ISO Services Tariff, which fails on a daily basis to schedule, Bid, or declare to be unavailable in the Day-Ahead Market an amount of Unforced Capacity, expressed in terms of Installed Capacity Equivalent, that it certified for that day, rounded down to the nearest whole MW, is subject to sanctions pursuant to Section 5.12.12.2 of this Tariff. If an entity other than the owner of an Energy Limited Resource, Generator, System Resource, or Control Area System Resource that is providing Unforced Capacity is responsible for fulfilling bidding, scheduling, and notification requirements, the owner and that entity must designate to the ISO which of them will be responsible for complying with the scheduling, bidding, and notification requirements. The designated bidding and scheduling entity shall be subject to sanctions pursuant to Section 5.12.12.2 of this ISO Services Tariff.

5.12.9 Sales of Unforced Capacity by System Resources

Installed Capacity Suppliers offering to supply Unforced Capacity associated with Internal System Resources shall submit for each of their Resources the Operating Data and DMNC testing data or historical data described in Sections 5.12.1 and 5.12.5 of this ISO Services Tariff in accordance with the ISO Procedures. Such Installed Capacity Suppliers will be allowed to supply the amount of Unforced Capacity that the ISO determines pursuant to the ISO Procedures to reflect the appropriate Equivalent Demand Forced Outage Rate. Installed

Capacity Suppliers offering to sell the Unforced Capacity associated with System Resources may only aggregate Resources in accordance with the ISO Procedures.

5.12.10 Curtailment of External Transactions In-Hour

All Unforced Capacity that is not out of service, or scheduled to serve the Internal NYCA Load in the Day-Ahead Market may be scheduled to supply Energy for use in External Transactions provided, however, that such External Transactions shall be subject to Curtailment within the hour, consistent with ISO Procedures. Such Curtailment shall not exceed the Installed Capacity Equivalent committed to the NYCA.

5.12.11 Responsible Interface Parties, Municipally-Owned Generation, Energy Limited Resources and Intermittent Power Resources

5.12.11.1 Responsible Interface Parties

Responsible Interface Parties may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding, scheduling, and notification requirements set forth in Section 5.12.7 of this Tariff, if their Special Case Resources: (i) are available to operate for a minimum of four (4) consecutive hours each day, at the direction of the ISO, except for those subject to operating limitations established by environmental permits, which will not be required to operate in excess of two (2) hours and which will be derated by the ISO pursuant to ISO Procedures to account for the Load serving equivalence of the hours actually available, following notice of the potential need to operate twenty-one (21) hours in advance if notification is provided by 3:00 P.M. ET, or twenty-four (24) hours in advance otherwise, and a notification to operate two (2) hours ahead; and (ii) were not operated as a Load modifier coincident with the peak upon which the LSE Unforced Capacity Obligation of the LSE that serves that customer is

based, unless that LSE's LSE Unforced Capacity Obligation is adjusted upwards to prevent double-counting.

Responsible Interface Parties supplying Unforced Capacity cannot offer the Demand Reduction associated with such Unforced Capacity in the Emergency Demand Response Program. A Resource with sufficient metering to distinguish MWs of Demand Reduction may participate as a Special Case Resource and in the Emergency Demand Response Program provided that the same MWs are not committed both as Unforced Capacity and to the Emergency Demand Response Program.

The ISO will have discretion, pursuant to ISO Procedures, to exempt distributed Generators that are incapable of starting in two (2) hours from the requirement to operate on two (2) hours notification. Distributed Generators and Loads capable of being interrupted upon demand, that are not available on certain hours or days will be derated by the ISO, pursuant to ISO Procedures, to reflect the Load serving equivalence of the hours they are actually available.

Responsible Interface Parties must submit a Minimum Payment Nomination, in accordance with ISO Procedures. The ISO may request Special Case Resource performance from less than the total number of Special Case Resources within the NYCA or a Load Zone in accordance with ISO Procedures.

Distributed Generators and Loads capable of being interrupted upon demand will be required to comply with verification and validation procedures set forth in the ISO Procedures. Such procedures will not require metering other than interval billing meters on customer Load or testing other than DMNC or sustained disconnect, as appropriate, unless agreed to by the customer, except that Special Case Resources not called to supply Energy in a Capability Period

will be required to run a test once every Capability Period in accordance with the ISO Procedures.

Unforced Capacity supplied in a Bilateral Transaction by a Special Case Resource pursuant to this subsection may only be resold if the purchasing entity or the Installed Capacity Marketer has agreed to become a Responsible Interface Party and comply with the ISO notification requirements for Special Case Resources. LSEs and Installed Capacity Marketers may become Responsible Interface Parties and aggregate Special Case Resources and sell the Unforced Capacity associated with them in an ISO-administered auction if they comply with ISO notification requirements for Special Case Resources.

Responsible Interface Parties that were requested to reduce Load in any month shall submit performance data to the NYISO, within 75 days of each called event or test, in accordance with ISO Procedures. Failure by a Responsible Interface Party to submit performance data for any Special Case Resources required to respond to the event or test within the 75-day limit will result in zero performance attributed to those Special Case Resources for purposes of satisfying the Special Case Resource's capacity obligation as well as for determining energy payments. All performance data are subject to audit by the NYISO and its market monitoring unit. If the ISO determines that it has made an erroneous payment to a Responsible Interface Party, the ISO shall have the right to recover it either by reducing other payments to that Responsible Interface Parties or by resolving the issue pursuant to other provisions of this Services Tariff or other lawful means.

Provided the Responsible Interface Party supplies evidence of such reductions in 75 days, the ISO shall pay the Responsible Interface Party that, through their Special Case Resources, caused a verified Load reduction in response to (i) an ISO request to perform due to a forecast

reserve shortage (ii) an ISO declared Major Emergency State, (iii) an ISO request to perform made in response to a request for assistance for Load relief purposes or as a result of a Local Reliability Rule, or (iv) a test called by the ISO, for such Load reduction, in accordance with ISO Procedures. Subject to performance evidence and verification, in the case of a response pursuant to clauses (i), (ii), of (iii) of this subsection, Suppliers that schedule Responsible Interface Parties shall be paid the zonal Real-Time LBMP for the period of requested performance or four (4) hours, whichever is greater, in accordance with ISO Procedures; provided, however, Special Case Resource Capacity shall settle Demand Reductions, in the interval and for the capacity for which Special Case Resource Capacity has been scheduled Day-Ahead to provide Operating Reserves, Regulation Service or Energy, as being provided by a Supplier of Operating Reserves, Regulation Service or Energy.

In the event that a Responsible Interface Party's Minimum Payment Nomination for a Special Case Resource, for the number of hours of requested performance or the minimum four (4) hour period, whichever is greater, exceeds the LBMP revenue received, the Special Case Resource will be eligible for a Bid Production Cost Guarantee to make up the difference, in accordance with Section 4.23 of this Services Tariff and ISO Procedures; provided, however, the ISO shall set to zero the Minimum Payment Nomination for Special Case Resource Capacity in each interval in which such Capacity was scheduled Day-Ahead to provide Operating Reserves, Regulation Service or Energy. Subject to performance evidence and verification, in the case of a response pursuant to clause (iv) of this subsection, payment for participation in tests called by the ISO shall be equal to the zonal Real Time LBMP for the MWh of Energy reduced within the test period.

Transmission Owners that require assistance from distributed Generators larger than 100 kW and Loads capable of being interrupted upon demand for Load relief purposes or as a result of a Local Reliability Rule, shall direct their requests for assistance to the ISO for implementation consistent with the terms of this section. Within Load Zone J, participation in response to an ISO request to perform made as a result of a request for assistance from a Transmission Owner for less than the total number of Special Case Resources, for Load relief purposes or as a result of a Local Reliability Rule, in accordance with ISO Procedures, shall be voluntary and the responsiveness of the Special Case Resource shall not be taken into account for performance measurement.

5.12.11.1.1 Special Case Resource Average Coincident Load

The ISO must receive from the Responsible Interface Party that registers a Special Case Resource the calculation of Average Coincident Load as provided below and in accordance with ISO Procedures. The Responsible Interface Party shall compute the Average Coincident Load using the SCR Load Zone Peak Hours for each Special Case Resource. The only exception to this requirement is if

(i) the Special Case Resource has not previously been enrolled with the ISO and (ii) never had interval metering Load data for each month in the Prior Equivalent Capability Period needed to compute the Special Case Resource's Average Coincident Load, in which instance the ISO must receive a Provisional Average Coincident Load as provided in Section 5.12.11.1.2 of this Services Tariff from the Responsible Interface Party, computed and received in accordance with ISO Procedures; provided, however, a Provisional Average Coincident Load shall (a) be only for a maximum of three (3) consecutive Capability Periods, and (b) apply to the resource for the entire Capability Period for which the value is established regardless of whether the resource is

later enrolled by a Responsible Interface Party other than the one which reported the Provisional Average Coincident Load to the ISO for the period.

For the Winter 2011-2012 Capability Period and thereafter, the NYISO will use the average of the highest 20 (twenty) one-hour peak Loads of the Special Case Resource taken from the SCR Load Zone Peak Hours, as adjusted to account for verified Load reductions in a Transmission Owner's demand response program in response to deployment of a Transmission Owner's demand response program in hours coincident with any of the top 40 (forty) NYCA peak Load hours, to create a Special Case Resource Average Coincident Load ("ACL ") baseline. The ISO will post to its website the SCR Load Zone Peak Hours for each zone ninety (90) days prior to the beginning of the Capability Period for which the ACL will be in effect.

For the Summer 2011 Capability Period only, the ISO will use the average of the highest 20 (twenty) one-hour peak Loads of the Special Case Resource from the top 50 (fifty) NYCA peak Load hours during the 1 P.M. to 7 P.M. time period of the Prior Equivalent Capability Period, specific to the Load Zone of the Special Case Resource and without any adjustment to Load for participation in a Transmission Owner's demand response program for hours coincident with any of the top 50 NYCA peak Load hours, to create a Special Case Resource Average Coincident Load ("ACL") baseline. The top 50 NYCA peak Load hours from the Prior Equivalent Capability Period for each zone for the Summer 2011 Capability Period are posted on the ISO's website.

In the Special Case Resource enrollment file uploaded by the RIP each month within the Capability Period, among other required information, the RIP shall state (a) the values necessary to compute the ACL for each Special Case Resource and (b) any load reduction in accordance

with reporting an SCR Change of Status as provided by 5.12.11.1.3 and in accordance with ISO Procedures.

5.12.11.1.2 Determining a Provisional Average Coincident Load

As provided in Section 5.12.11.1.1 of this Services Tariff, if a new Special Case Resource has not previously been enrolled with the ISO and never had interval billing meter data from the Prior Equivalent Capability Period, its Installed Capacity value shall be its Provisional Average Coincident Load for the Capability Period for which the new Special Case Resource is enrolled. The Provisional ACL will be based on the RIP's forecast of the ACL of the Capability Period in which the resource is enrolled.

The Provisional ACL may be applicable to a new Special Case Resource for a maximum of three (3) consecutive Capability Periods, beginning with the Capability Period in which the Special Case Resource is first enrolled. If a new Special Case Resource transfers to another RIP during the Capability Period in which it was enrolled with a Provisional ACL, the Provisional ACL provided with the initial enrollment for that Capability Period will remain in effect for the entire Capability Period.

Any Provisional Average Coincident Load will be subject to actual in-period verification using the ACL formula as defined in Section 5.12.11.1.1 of this Services Tariff. Following the Capability Period for which a resource with a Provisional Average Coincident Load was enrolled, the RIP shall provide to the ISO the data necessary to compute the ACL of the resource from the resource's interval meter data in accordance with ISO Procedures. The ISO will compare the Provisional Average Coincident Load to the ACL (calculated in accordance with the ACL formula as provided above) to determine, after applying the applicable performance factor, whether the UCAP of the Special Case Resource had been oversold. If the RIP oversold the

Special Case Resource, it shall be a shortfall under this Services Tariff pursuant to Section 5.14.2. If the RIP fails to provide the data necessary to compute the ACL of the resource enrolled with a Provisional ACL by the deadline, the ACL of the resource will be set to zero for each month in which the resource with a Provisional ACL was enrolled and the RIP may be subject to deficiency penalties in accordance with this Services Tariff.

5.12.11.1.3 Reporting an SCR Change of Status

The Responsible Interface Party shall report any SCR Change of Status in accordance with ISO Procedures. The ISO shall adjust the Average Coincident Load (or, if applicable, Provisional Average Coincident Load) of the Special Case Resource for any SCR Change of Status, in accordance with ISO Procedures, for all months to which the SCR Change of Status is applicable.

5.12.11.1.4 Average Coincident Load of an SCR Aggregation

The ISO shall compute the Average Coincident Load of an SCR Aggregation each month in accordance with ISO Procedures.

5.12.11.2 Existing Municipally-Owned Generation

A municipal utility that owns existing generation in excess of its Unforced Capacity requirement, net of NYPA-provided Capacity may, consistent with the deliverability requirements set forth in Attachment X and Attachment S to the ISO OATT, offer the excess Capacity for sale as Installed Capacity provided that it is willing to operate the generation at the ISO's request, and provided that the Energy produced is deliverable to the New York State Power System. Such a municipal utility shall not be required to comply with the requirement of Section 5.12.7 of this Tariff that an Installed Capacity Supplier bid into the Energy market or

enter into Bilateral Transactions. Municipal utilities shall, however, be required to submit their typical physical operating parameters, such as their start-up times, to the ISO. This subsection is only applicable to municipally-owned generation in service or under construction as of December 31, 1999.

5.12.11.3 Energy Limited Resources

An Energy Limited Resource may, consistent with the deliverability requirements set forth in Attachment X and Attachment S to the ISO OATT, qualify as an Installed Capacity Supplier if it Bids its Installed Capacity Equivalent into the Day-Ahead Market each day and if it is able to provide the Energy equivalent of the Unforced Capacity for at least four (4) consecutive hours each day. Energy Limited Resources shall also Bid a Normal Upper Operating Limit or Emergency Upper Operating Limit, as applicable, designating their desired operating limits. Energy Limited Resources that are not scheduled in the Day-Ahead Market to operate at a level above their bid-in upper operating limit, may be scheduled in the RTC, or may be called in real-time pursuant to a manual intervention by ISO dispatchers, who will account for the fact that Energy Limited Resource may not be capable of responding.

5.12.11.4 Intermittent Power Resources

Intermittent Power Resources that depend upon wind or solar as their fuel may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding and scheduling requirements set forth in Section 5.12.7 of this Tariff, and may, consistent with the deliverability requirements set forth in Attachment X and Attachment S to the ISO OATT, claim up to their nameplate Capacity as Installed Capacity. To qualify as Installed Capacity Suppliers, such Intermittent Power Resources shall comply with the requirements of Section 5.12.1 and the outage notification requirements of 5.12.7 of this Tariff.

5.12.12 Sanctions Applicable to Installed Capacity Suppliers and Transmission Owners

Pursuant to this section, the ISO may impose financial sanctions on Installed Capacity Suppliers and Transmission Owners that fail to comply with certain provisions of this Tariff. The ISO shall notify Installed Capacity Suppliers and Transmission Owners prior to imposing any sanction and shall afford them a reasonable opportunity to demonstrate that they should not be sanctioned and/or to offer mitigating reasons why they should be subject to a lesser sanction. The ISO may impose a sanction lower than the maximum amounts allowed by this section at its sole discretion. Installed Capacity Suppliers and Transmission Owners may challenge any sanction imposed by the ISO pursuant to the ISO Dispute Resolution Procedures.

Any sanctions collected by the ISO pursuant to this section will be applied to reduce the Rate Schedule 1 charge under this Tariff.

5.12.12.1 Sanctions for Failing to Provide Required Information

If (i) an Installed Capacity Supplier fails to provide the information required by Sections 5.12.1.1, 5.12.1.2, 5.12.1.3, 5.12.1.4, 5.12.1.7 or 5.12.1.8 of this Tariff in a timely fashion, or (ii) a Supplier of Unforced Capacity from External System Resources located in an External Control Area or from a Control Area System Resource that has agreed not to Curtail the Energy associated with such Installed Capacity, or to afford it the same Curtailment priority that it affords its own Control Area Load, fails to provide the information required for certification as an Installed Capacity Supplier established in the ISO Procedures, the ISO may take the following actions: On the first day that required information is late, the ISO shall notify the Installed Capacity Supplier that required information is past due and that it reserves the right to impose financial sanctions if the information is not provided by the end of the following day. Starting on

the third day that the required information is late, the ISO may impose a daily financial sanction of up to the higher of \$500 or \$5 per MW of Installed Capacity that the Generator, System Resource, or Control Area System Resource in question is capable of providing. Starting on the tenth day that the required information is late, the ISO may impose a daily financial sanction of up to the higher of \$1000 or \$10 per MW of Installed Capacity that the Generator, System Resource, or Control Area System Resource in question is capable of providing.

If an Installed Capacity Supplier fails to provide the information required by Subsection 5.12.1.5 of this Tariff in a timely fashion, the ISO may take the following actions: On the first calendar day that required information is late, the ISO shall notify the Installed Capacity Supplier that required information is past due and that it reserves the right to impose financial sanctions if the information is not provided by the end of that first calendar day. Starting on the second calendar day that the required information is late, the ISO may impose a daily financial sanction up to the higher of \$500 or \$5 per MW of Installed Capacity that the Generator, System Resource, or Control Area System Resource in question is capable of providing.

If a TO fails to provide the information required by Subsection 5.11.3 of this Tariff in a timely fashion, the ISO may take the following actions: On the first day that required information is late, the ISO shall notify the TO that required information is past due and that it reserves the right to impose financial sanctions if the information is not provided by the end of the following day. Starting on the third day that the required information is late, the ISO may impose a daily financial sanction up to \$5,000 a day. Starting on the tenth day that required information is late, the ISO may impose a daily financial sanction up to \$10,000.

5.12.12.2 Sanctions for Failing to Comply with Scheduling, Bidding, and Notification Requirements

On any day in which an Installed Capacity Supplier fails to comply with the scheduling, bidding, or notification requirements of Sections 5.12.1.6 or 5.12.1.10, or with Section 5.12.7 of this Tariff, or in which a Supplier of Installed Capacity from External System Resources or Control Area System Resources located in an External Control Area that has agreed not to Curtail the Energy associated with such Installed Capacity, or to afford it the same Curtailment priority that it affords its own Control Area Load, fails to comply with scheduling, bidding, or notification requirements for certification as an Installed Capacity Supplier established in the ISO Procedures, the ISO may impose a financial sanction up to the product of a deficiency charge (pro-rated on a daily basis) and the maximum number of MWs that the Installed Capacity Supplier failed to schedule or Bid in any hour in that day provided, however, that no financial sanction shall apply to any Installed Capacity Supplier who demonstrates that the Energy it schedules, bids, or declares to be unavailable on any day is not less than the Installed Capacity that it supplies for that day rounded down to the nearest whole MW. The deficiency charge may be up to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction [corresponding to where the Installed Capacity Supplier's capacity cleared, and](#) for each month in which the Installed Capacity Supplier is determined not to have complied with the foregoing requirements.

In addition, if an Installed Capacity Supplier fails to comply with the scheduling, bidding, or notification requirements of Sections 5.12.1.6 or 5.12.1.10, or with Section 5.12.7 of this Tariff, or if an Installed Capacity Supplier of Unforced Capacity from External System Resources or from a Control Area System Resource located in an External Control Area that has agreed not to curtail the Energy associated with such Unforced Capacity, or to afford it the same

curtailment priority that it affords its own Control Area Load, fails to comply with the scheduling, bidding, or notification requirements for certification as an Installed Capacity Supplier established in the ISO Procedures during an hour in which the ISO curtails Transactions associated with NYCA Installed Capacity Suppliers, the ISO may impose an additional financial sanction equal to the product of the number of MWs the Installed Capacity Supplier failed to schedule during that hour and the corresponding Real-Time LBMP at the applicable Proxy Generator Bus.

5.14 Installed Capacity Spot Market Auction and Installed Capacity Supplier Deficiencies

5.14.1 LSE Participation in the ICAP Spot Market Auction

5.14.1.1 ICAP Spot Market Auction

When the ISO conducts each ICAP Spot Market Auction it will account for all Unforced Capacity that each NYCA LSE has certified for use in the NYCA to meet its NYCA Minimum Installed Capacity Requirement or Locational Minimum Installed Capacity Requirement, as applicable, whether purchased through Bilateral Transactions or in prior auctions. The ISO shall receive offers of Unforced Capacity that has not previously been purchased through Bilateral Transactions or in prior auctions from qualified Installed Capacity Suppliers for the ICAP Spot Market Auction. The ISO shall also receive offers of Unforced Capacity from any LSE for any amount of Unforced Capacity that the LSE has in excess of its NYCA Minimum Unforced Capacity Requirement or Locational Minimum Unforced Capacity Requirement, as applicable. Unforced Capacity that will be exported from the New York Control Area during the month for which Unforced capacity is sold in an ICAP Sport Market Auction shall be certified to the NYISO by the certification deadline for that auction.

The ISO 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 ISO Procedures. All LSEs shall participate in the ICAP Spot Market Auction. In the ICAP Spot Market Auction, the ISO shall submit monthly bids on behalf of all LSEs at a level per MW determined by the ICAP Demand Curves established in accordance with this Tariff and the ISO

Procedures. The ICAP Spot Market Auction will set the LSE Unforced Capacity Obligation for each NYCA LSE in accordance with the ISO Procedures.

The ICAP Spot Market Auction will be conducted and solved simultaneously for Unforced Capacity that may 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 accordance with the ISO Procedures. LSEs that are awarded Unforced Capacity in the ICAP Spot Market Auction shall pay to the ISO the Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction using the applicable ICAP Demand Curve. The ISO shall pay each Installed Capacity Suppliers that ~~is~~are selected to provide Unforced Capacity the Market-Clearing Price determined in the ICAP Spot Market Auction using the ~~applicable~~ ICAP Demand Curve applicable to its offer.

5.14.1.2 Demand Curve and Adjustments

ICAP Demand Curves will be established to determine (a) the locational component of LSE Unforced Capacity Obligations for each Locality (b) the locational component of LSE Unforced Capacity Obligations for any New Capacity Zone, and (c) the total LSE Unforced Capacity Obligations for all LSEs. The ICAP Demand Curves for the 2010/2011, 2011/2012, 2012/2013, and 2013/2014 Capability Years shall be established at the following points:

Capability Year	5/1/2010 to 4/30/2011	5/1/2011 to 9/30/2011	10/1/2011 to 4/30/2012	5/1/2012 to 4/30/2013	5/1/2013 to 4/30/2014
NYCA	Max @ \$13.42 \$9.90 @ 100% \$0.00 @ 112%	Max @ \$13.42 \$9.90 @ 100% \$0.00 @ 112%	Max @ \$14.96 \$8.84 @ 100% \$0.00 @ 112%	Max @ \$15.22 \$8.99 @ 100% \$0.00 @ 112%	Max @ \$15.48 \$9.15 @ 100% \$0.00 @ 112%
NYC	Max @ \$27.32 \$15.99 @ 100% \$0.00 @ 118%	Max @ \$27.32 \$15.99 @ 100% \$0.00 @ 118%	Max @ \$34.84 \$19.19 @ 100% \$0.00 @ 118%	Max @ \$35.43 \$19.52 @ 100% \$0.00 @ 118%	Max @ \$36.04 \$19.85 @ 100% \$0.00 @ 118%

LI	Max @ \$24.25	Max @ \$24.25	Max @ \$31.35	Max @ \$31.88	Max @ \$32.42
	\$8.69 @ 100%	\$8.69 @ 100%	\$9.98 @ 100%	\$10.15 @ 100%	\$10.32 @ 100%
	\$0.00 @ 118%	\$0.00 @ 118%	\$0.00 @ 118%	\$0.00 @ 118%	\$0.00 @ 118%

NOTE: All dollar figures are in terms of \$/kW-month of ICAP and all percentages are in terms of the applicable NYCA Minimum Installed Capacity Requirement and Locational Minimum Installed Capacity Requirement. The defined points describe a line segment with a negative slope that will result in higher values for percentages less than 100% of the NYCA Minimum Installed Capacity Requirement or the Locational Installed Capacity Requirement (“reference point”) with the maximum value for each ICAP Demand Curve established at 1.5 times the estimated localized levelized cost per kW-month to develop a new peaking unit in each Locality or in Rest of State, as applicable.

In subsequent years, the costs assigned by the ICAP Demand Curves to the NYCA Minimum Installed Capacity Requirement, the Locational Minimum Installed Capacity Requirement, and any Indicative NCZ Minimum Installed Capacity Requirement, will be defined by the results of the independent review conducted pursuant to this section. The ICAP Demand Curves will be translated into Unforced Capacity terms in accordance with the ISO Procedures.

A periodic review of the ICAP Demand Curves shall be performed every three (3) years in accordance with the ISO Procedures to determine the parameters of the ICAP Demand Curves for the next three Capability Years. The periodic review shall assess: (i) the current localized levelized embedded cost of a peaking plant in each NYCA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements, and (ii) the likely projected annual Energy and Ancillary Services revenues of the peaking plant over the period covered by the adjusted ICAP Demand Curves, net of the costs of producing such Energy and Ancillary Services. The cost and revenues of the peaking plant used to set the reference point and maximum value for each Demand Curve shall be determined under conditions in which the available capacity is equal to the sum of (a) the minimum Installed Capacity requirement and (b) the peaking plant’s capacity equal to the number of MW specified in the periodic review and

used to determine all costs and revenues. The minimum Installed Capacity requirement for each Locality shall be equal to the Locational Minimum Installed Capacity Requirement in effect for the year in which the independent consultant's final report (referenced below in Section 5.14.1.2.6) is issued; for the NYCA, equal to the NYCA Minimum Installed Capacity Requirement based on the Installed Reserve Margin accepted by the Commission and applicable to the Capability Year which begins in the Capability Year in which the independent consultant's final report is issued; and for any New Capacity Zone, equal to the Indicative NCZ Locational Minimum Installed Capacity Requirement determined by the NYISO in accordance with Section 5.16.3. The periodic review shall also assess (i) the appropriate shape and slope of the ICAP Demand Curves, and the associated point at which the dollar value of the ICAP Demand Curves should decline to zero; (ii) the appropriate translation of the annual net revenue requirement of the peaking plant determined from the factors specified above, into monthly values that take into account seasonal differences in the amount of capacity available in the ICAP Spot Market Auctions; and (iii) the escalation factor and inflation component of the escalation factor applied to the ICAP Demand Curves. For purposes of this periodic review, 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, and a peaking plant is defined as the number of units (whether one or more) that constitute the scale identified in the periodic review.

The periodic review shall be conducted in accordance with the schedule and procedures specified in the ISO Procedures. A proposed schedule will be reviewed with the stakeholders not later than May 30 of the year prior to the year of the filing specified in (xi) below. The schedule and procedures shall provide for:

- 5.14.1.2.1 ISO development, with stakeholder review and comment, of a request for proposals to provide independent consulting services to determine recommended values for the factors specified above, and appropriate methodologies for such determination;
- 5.14.1.2.2 Selection of an independent consultant in accordance with the request for proposals;
- 5.14.1.2.3 Submission to the ISO and the stakeholders of a draft report from the independent consultant on the independent consultant's determination of recommended values for the factors specified above;
- 5.14.1.2.4 Stakeholder review of and comment on the data, assumptions and conclusions in the independent consultant's draft report, with participation by the responsible person or persons providing the consulting services;
- 5.14.1.2.5 An opportunity for the Market Monitoring Unit to review and comment on the draft request for proposals, the independent consultant's report, and the ISO's proposed ICAP Demand Curves (the responsibilities of the Market Monitoring Unit that are addressed in this section of the Services Tariff are also addressed in Section 30.4.6.3.1 of Attachment O);
- 5.14.1.2.6 Issuance by the independent consultant of a final report;
- 5.14.1.2.7 Issuance of a draft of the ISO's recommended adjustments to the ICAP Demand Curves for stakeholder review and comment;
- 5.14.1.2.8 Issuance of the ISO's proposed ICAP Demand Curves, taking into account the report of the independent consultant, the recommendations of the Market

Monitoring Unit, and the views of the stakeholders together with the rationale for accepting or rejecting any such inputs;

- 5.14.1.2.9 Submission of stakeholder requests for the ISO Board of Directors to review and adjust the ISO's proposed ICAP Demand Curves;
- 5.14.1.2.10 Presentations to the ISO Board of Directors of stakeholder views on the ISO's proposed ICAP Demand Curves; and
- 5.14.1.2.11 Filing with the Commission of ICAP Demand Curves as approved by the ISO Board of Directors incorporating the results of the periodic review, such filing to be made not later than November 30 of the year prior to the year that includes the beginning of the first Capability Year to which such ICAP Demand Curves would be applied. The filing shall specify ICAP Demand Curves for a period of three Capability Years and the inflation rate component of the escalation factor applied to the ICAP Demand Curves.

Upon FERC approval, the ICAP Demand Curves will be translated into Unforced Capacity terms in accordance with the ISO Procedures; provided that nothing in this Tariff shall be construed to limit the ability of the ISO or its Market Participants to propose and adopt alternative provisions to this Tariff through established governance procedures.

5.14.1.3 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 equal to the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction multiplied by the number of MWs the LSE needs to meet its share of the NYCA

Minimum Installed Capacity Requirement or its share of the Locational Minimum Installed Capacity Requirement.

The ISO 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; (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 ISO will give preference to Installed Capacity Suppliers that were not qualified to supply capacity prior to the ICAP Spot Market Auction.

Offers from Installed Capacity Suppliers are subject to review pursuant to the Market Monitoring Plan that is set forth in Attachment O to the Services Tariff, and the Market Mitigation Measures that are set forth in Attachment H to the Services Tariff. Installed Capacity Suppliers selected by the ISO to provide capacity after the ICAP Spot Market Auction will be paid a negotiated price, subject to the standards, procedures and remedies in the Market Mitigation Measures.

The ISO 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, or, in the case of In-City generation that is subject to capacity market mitigation measures, the annual mitigated price cap per MW of Unforced Capacity, whichever is less, pro-rated to reflect the portion of the Obligation Procurement Period for which the Installed

Capacity Supplier provides Unforced Capacity. Any remaining monies collected by the ISO pursuant to this section will be applied in accordance with Section 5.14.3 of the Services Tariff.

5.14.2 Installed Capacity Supplier Shortfalls and Deficiency Payments

In the event that an Installed Capacity Supplier sells in the Capability Period Auctions, in the Monthly Auctions, or through Bilateral Transactions more Unforced Capacity than it is qualified to sell in any specific month due to a de-rating or other cause, 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 ISO consistent with the ISO Procedures that it has covered such shortfall. If the Installed Capacity Supplier does not cover such shortfall or if it does not certify to the ISO in a timely manner, the ISO shall prospectively purchase Unforced Capacity on behalf of that Installed Capacity Supplier in the appropriate ICAP Spot Market Auction or through post ICAP Spot Market Auction Unforced Capacity purchases to cover the shortfall.

If the Installed Capacity Supplier is a Responsible Interface Party, the shortfall shall be computed for each Load Zone separately, in increments of 0.1 MW, as the total of the amount of UCAP sold for a month in a Capability Period Auction or a Monthly Auction and certified prior to that month's ICAP Spot Market Auction, the UCAP sold in that month's ICAP Spot Market Auction, and the UCAP sold as a Bilateral Transaction and certified prior to that month's ICAP Spot Market Auction that is greater than the greatest quantity MW reduction achieved during a single hour in a test or event called by the ISO in the Capability Period as confirmed by data by the ISO in accordance with ISO Procedures (or the value of zero if data is not received by the ISO in accordance with such procedures).

If the Installed Capacity Supplier is a Responsible Interface Party, after each Special Case Resource with a Provisional Average Coincident Load has its Average Coincident Load determined for the Capability Period in which it had a Provisional Average Coincident Load (such determination in accordance with ISO Procedures and without regard to whether the resource was registered to the same Responsible Interface Party at the time of the ACL determination), the ISO shall determine if there is a shortfall due to the Provisional Average Coincident Load being higher than the Average Coincident Load. This shortfall will be equal to the value, if positive, of (x) the sum of (i) the amount of UCAP a Responsible Interface Party sold in an Monthly or an ICAP Spot Market Auction or certified Bilateral Transactions for a Special Case Resource and (ii) the Special Case Resource's actual metered demand for the month in accordance with ISO Procedures, minus (y) the Special Case Resource's Average Coincident Load. If the ISO does not receive data to determine the Average Coincident Load in accordance with ISO Procedures, for each Capability Period a Special Case Resource had a Provisional Average Coincident Load, for purposes of determining the shortfall, the Average Coincident Load shall equal zero.

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 ISO a deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction for the applicable month, prorated for the number of hours in the month that External Installed Capacity Supplier is deemed to have a shortfall (i.e., $((\text{deficiency charge} \div 12 \text{ months}) \div \text{total number of hours in month when shortfall occurred}) * \text{number of hours the shortfall lasted}) * \text{number of MWs of shortfall}$).

The ISO shall submit a Bid, calculated pursuant to Section 5.14.1 of this Tariff, 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 ISO the applicable Market-Clearing Price of Unforced Capacity established in that ICAP Spot Market Auction. Immediately following the ICAP Spot Market Auction, the ISO may suspend the Installed Capacity Supplier's privileges to sell or purchase Unforced Capacity in ISO-administered Installed Capacity auctions or to submit Bilateral Transactions to the NYISO. Once the Installed Capacity Supplier pays for or secures the payment obligation that it incurred in the ICAP Spot Market Auction, the ISO shall reinstate the Installed Capacity Supplier's privileges to participate in the ICAP markets.

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 deficiency charge equal to the applicable Market-Clearing Price of Unforced Capacity determined using the applicable~~in the~~ ICAP Demand Curve for that ICAP Spot Market Auction, times the amount of its shortfall.

If an Installed Capacity Supplier is found, at any point during 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 ISO the monthly deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined [using the applicable ICAP Demand Curve for that](#)~~in the~~ ICAP Spot Market Auction for each month the Installed Capacity Supplier is deemed to have a shortfall.

Any remaining monies collected by the ISO pursuant to Section 5.14.1 and 5.14.2 will be applied as specified in Section 5.14.3.

5.14.3 Application of Installed Capacity Supplier Deficiency Charges

Any remaining monies collected by the ISO through supplemental supply fees or Installed Capacity Supplier deficiency charges pursuant to Section 5.14.1 but not used to procure Unforced Capacity on behalf of LSEs or Installed Capacity suppliers deemed to have a shortfall shall be applied as provided in this Section 5.14.3.

5.14.3.1 General Application of Deficiency Charges

Except as provided in Section 5.14.3.2, remaining monies will be applied to reduce the Rate Schedule 1 charge in the following month.

5.14.3.2 Installed Capacity Rebates

(i) New York City

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the New York City Locality allocated among all LSEs in that Locality in proportion to their

share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

(ii) Long Island

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the Long Island Locality, allocated among all LSEs in that Locality in proportion to their share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

(iii) Rest of State

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the Rest of State requirements, allocated among all LSEs in each of the two Localities, New York City and Long Island, and in Rest of State, in proportion to each LSE's share of the NYCA Minimum Installed Capacity Requirement less that LSE's Locational Minimum Installed Capacity Requirement. Rebates shall include interests accrued between the time payments were collected and the time that rebates are paid.

5.16 New Capacity Zone Study and Procedures

Capitalized terms used in this Section 5.16 and not defined in this Services Tariff shall have the meaning set forth in the Open Access Transmission Tariff.

The ISO shall conduct the New Capacity Zone study in accordance with this Section (“NCZ Study”) and provide a written report of the results to stakeholders on or before January 15 in each ICAP Demand Curve Reset Filing Year.

5.16.1 NCZ Study Methodology.

5.16.1.1 The NCZ Study, developed in accordance with ISO Procedures, will test, under summer peak system conditions, using the following assumptions and methodology:

5.16.1.1.1 The following assumptions will be applied: (i) transmission facilities (other than existing merchant transmission projects) identified as existing in the ISO’s Load and Capacity Data report most recently published prior to the NCZ Study Start Date; (ii) all firm plans for changes to transmission facilities by Transmission Owners in the ISO’s Load and Capacity Data report most recently published prior to the NCZ Study Start Date scheduled to be in-service prior to the NCZ Study Capability Period; (iii) planned generation projects or Merchant Transmission Facilities that have accepted either (a) Deliverable MW or (b) a System Deliverability Upgrade cost allocation and provided cash or posted required security pursuant to OATT Attachment S, which for (a) and (b) is from a Class Year Final Decision Round that occurs prior to the NCZ Study Start Date (subject to Section 5.16.1.1.2); (iv) System Upgrade Facilities and System Deliverability Upgrades associated with planned projects identified in (iii) above,

except that System Deliverability Upgrades where construction of the System Deliverability Upgrade has been deferred pursuant to OATT Attachment S Sections 25.7.12.2 and 25.7.12.3 will only be included if construction of the System Deliverability Upgrades has been triggered under OATT Attachment S Section 25.7.12.3; (v) all transmission retirements and derates identified in the ISO's Load and Capacity Data report most recently published prior to the NCZ Study Start Date and scheduled to occur prior to the NCZ Study Capability Period; (vi) all existing Generators with CRIS identified in, and all projects with Unforced Capacity Deliverability Rights on the date of, the ISO's Load and Capacity Data report most recently published prior to the NCZ Study Start Date; and all CRIS rights from resources considered "deactivated" as defined in OATT Attachment S Section 25.9.3.1 unless the ability to transfer those rights has expired without completing a transfer as permitted under OATT Attachment S Section 25.9.4 or 25.9.5 as of the NCZ Study Start Date; and (vii) any transfer of CRIS rights pursuant to OATT Attachment S not identified in the Load and Capacity Data report most recently published prior to the NCZ Study Start Date but is completed and the transferee is operational prior to the NCZ Study Start Date.

5.16.1.1.2 Planned generation and Merchant Transmission Facilities identified pursuant to Section 5.16.1.1.1 will be excluded and not recognized in the NCZ Study if (a) the Commission has accepted the cancellation or termination of a rate schedule consisting of an Interconnection Agreement (absent the filing of another Interconnection Agreement for the project), or (b) for projects that either do not

have an executed Interconnection Agreement or have an executed Interconnection Agreement that is (i) not required to be filed with the Commission or (ii) is required to be filed but has not yet been filed, the ISO receives written notice from the project that it is withdrawing from the interconnection queue and/or a Notice of Termination under the interconnection agreement.

5.16.1.1.3 The Load forecast used will be the NCZ Study Capability Period peak demand forecast contained in the ISO's Load and Capacity Data report most recently published prior to the NCZ Study Start Date.

5.16.1.1.4 The base case conditioning steps contained in OATT Attachment S Sections 25.7.8.2.3 (excluding and not recognizing MW of CRIS requested by Developers other than CRIS identified in Section 5.16.1.1.1 (iii)), 25.7.8.2.4, 25.7.8.2.5, 25.7.8.2.10, and 25.7.8.2.11, will be applied to the above inputs and assumptions.

5.16.1.1.5 The ISO will perform the NCZ Study by applying to the above inputs and assumptions the methodology contained in OATT Attachment S Sections 25.7.8.2.6, 25.7.8.2.7, 25.7.8.2.8, 25.7.8.2.9, 25.7.8.2.12, and 25.7.8.2.13 to Highways. Deliverability will be determined through a shift from generation to generation within each Capacity Region that contains Highways. Each such Capacity Region will be tested on an individual basis.

5.16.1.2 On or before October 1 of the year prior to an ICAP Demand Curve Reset Filing Year, the ISO will review the inputs and assumptions for the NCZ Study with stakeholders and provide an opportunity for stakeholders to comment.

5.16.1.3 The ISO shall provide an opportunity for the Market Monitoring Unit to review and comment on the NCZ Study consistent with Services Tariff Attachment O Section 30.4.6.3.2.

5.16.2 New Capacity Zone Boundary

The ISO shall identify the boundary of a New Capacity Zone if there is a constrained Highway interface into one or more Load Zones. The boundary of the New Capacity Zone may encompass a single constrained Load Zone or group of Load Zones including one or more constrained Load Zones on the constrained side of the Highway. In determining the New Capacity Zone boundary, the ISO shall consider the extent to which incremental Capacity in individual constrained Load Zones could impact the reliability and security of constrained Load Zones, taking into account interface capability between constrained Load Zones.

5.16.3 Indicative NCZ Locational Minimum Installed Capacity Requirement

For each Load Zone or groups of Load Zones identified in the NCZ Study as having a constrained Highway Interface, on or before March 1 of each ICAP Demand Curve Reset Filing Year, the ISO shall determine Indicative NCZ Locational Minimum Installed Capacity Requirement. The ISO shall provide an opportunity to stakeholders to review and comment on the Indicative NCZ Locational Minimum Installed Capacity Requirement. This Indicative NCZ Locational Minimum Installed Capacity Requirement will be used solely for establishing revised ICAP Demand Curves in accordance with 5.14.1.2.

5.16.4 NCZ Report

On or before March 31 of an ICAP Demand Curve Reset Filing Year,

- (a) If the NCZ Study identifies a constrained Highway Interface, the ISO shall file for Commission review proposed tariff revisions necessary to establish and recognize the New Capacity Zone or Zones, and shall include in the filing a report of the results of the NCZ Study. If the ISO proposes that a New Capacity Zone that is comprised of a group of Load Zones instead of a single Load Zone, the ISO shall include in the filing the basis for its determination, consistent with Section 5.16.2.
- (b) If the NCZ Study does not identify a constrained Highway interface, the ISO shall file with the Commission the ISO's determination that the NCZ Study did not indicate that any New Capacity Zone is required pursuant to this process, along with a report of the results of the NCZ Study.

The ISO shall provide an opportunity for the Market Monitoring Unit to review and comment on the NCZ Study and any proposed tariff revisions, consistent with Services Tariff Attachment O Section 30.4.6.3.2.



2013 New Capacity Zone Study Report

January 14, 2013
Revised Presentation of Table 6

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1. New Capacity Zone Study Methodology

1.1. Background

This New Capacity Zone (NCZ) Study¹ is performed in accordance with the applicable rules set forth in the NYISO Market Administration and Control Area Services Tariff (Services Tariff), chiefly in Section 5.16, which require the use of certain parameters under Attachments S of the NYISO Open Access Transmission Tariff (OATT). The rules governing the NCZ Study were accepted by the Federal Energy Regulatory Commission (Commission) in its August 30, 2012 Order on Compliance.²

This NCZ Study rules require that it be performed using in large part the Deliverability test methodology in Attachment S of the OATT to determine whether the creation of a New Capacity Zone is warranted – *i.e.*, if there is a constrained Highway interface into one or more Load Zones.

The scope of this NCZ Study is limited to the evaluation of Deliverability across the Highways, and not Byways in accordance with Section 5.16.1 of the Services Tariff.³ The methodology for evaluating and measuring Deliverability across the Highways is described below.

1.2. Transfer Capability Across Highway Interfaces

The NCZ Study was conducted by testing the transfer capability across the Highway interfaces. Generation-to-generation shifts are simulated from combinations of zones within the Rest Of State (ROS) Capacity Region (Zones A through I) from generation “upstream” of an interface to generation “downstream” of that interface (as such terms are used in the definition of “Highway” in Attachment S.) Transfer limit assessment determines the ability of the network to deliver capacity from generation in one (or more) surplus zone(s) to other deficient zone(s) within a Capacity Region.

In the actual transfer limit assessment, all transmission facilities within the NYISO are monitored. Contingencies tested in the transfer limit assessment include all “emergency transfer criteria” contingencies defined by the applicable Northeast Power Coordinating Council (NPCC) Criteria and New York State Reliability Council (NYSRC) Reliability Rules.

The concept of First Contingency Incremental Transfer Capability (FCITC) is used in the determination of deliverable capacity across ROS Highway interfaces within the Capacity Region. The FCITC measures the amount of generation in the exporting zone that can be increased to load the interface to its transmission limit.⁴ It is the *additional* generation capacity that could be exported from a given zone(s) above the base case dispatch level.

- a. All generators in the exporting zone(s) are uniformly increased (scaled) proportional up to the Pmax of all generators in the exporting zone(s) while all generators in the importing zone(s) are decreased uniformly to their minimum power levels. The FCITC and Highway transmission constraint(s) for the exporting zone(s) are noted for each export/import combination.

¹ Terms with initial capitalization used but not defined herein have the meaning set forth in the Services Tariff, and if not defined therein, then as set forth in the Open Access Transmission Tariff (“OATT”).

² *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,160 (2012) (accepting the NYISO's November 7, 2011 proposed tariff revisions to comply with the Commissions' September 8, 2011 order in Docket No. ER04-449-023).

³ Section 5.16.1 of the Services Tariff sets forth the NCZ Study Methodology.

⁴ The amount of such generation is described in Services Tariff § 5.16.1.1.1, and in Table 1.

- b. The *net generation available*⁵ is compared to the FCITC Highway transmission constraint(s) for the exporting zone(s) transfer. If the net generation available upstream is *greater* than the calculated FCITC, that amount of generation above the FCITC is considered to be constrained or “bottled” capacity and may not be fully deliverable under all conditions. (Byway constraints normally evaluated in an interconnection study are not evaluated in the NCZ Study.)

If the net generation available upstream is *less* than the FCITC (that is, there is not sufficient available generation upstream to reach the transmission limit), the difference is an indication of the available “transfer capability” to accommodate additional generation resources in the upstream area.

⁵ The “net generation available” in any defined exporting zone is the difference between the sum of the zonal generators’ Pmax and the sum of the zonal generators’ actual MW output.

2. NCZ Study Case Modeling and Assumptions

This section of the report describes the assumptions and base case conditioning steps of the NCZ Study, consistent with Section 5.16.1 of the Services Tariff.

2.1. NCZ Study Assumption Matrix

The NCZ Study case setup utilizes results from extensive NYISO studies and reports. The sources for the parameters used in the NCZ study are summarized in Table 1.

Table 1: Parameters Established in NYISO Studies and Reports

#	Parameter	Description	Reference
1	Installed Capacity Requirement	NYCA Installed Capacity Requirement to achieve LOLE less than 0.1 day per year, which is based on the Installed Reserve Margin (IRM) identified by the New York State Reliability Council (NYSRC) and accepted by the Commission	2012 NYSRC IRM report for the period May 2012 to April 2013
2	IRM Emergency Transfer Limits	Emergency transfer limits on ROS interfaces corresponding to IRM study	
3	Locational Capacity Requirements	The Locational Capacity Requirements (LCR) for the NYC (Zone J) and Long Island (Zone K) Capacity Regions approved by the Operating Committee.	2012 LCR report, approved by Operating Committee on Jan. 12, 2012
Load model			
4	Peak Load Forecast	NCZ Study Capability Period peak demand forecast contained in the latest ISO's Load and Capacity Data report (i.e., "Gold Book")	2017 Summer peak load conditions from 2012 Gold Book
5	Impact of Load Forecast Uncertainty	The impact to IRM due to uncertainty relative to forecasting NYCA loads	2012 NYSRC IRM report
Generator model			
6	Existing CRIS generators, and all projects with Unforced Capacity Deliverability Rights	Existing Capacity Resource Interconnection service ("CRIS") generators in-service on the date of the latest ISO's Load and Capacity Data report	2012 Gold Book
7	Planned generation projects or Merchant Transmission Facilities	Project that have accepted either (a) Deliverable MW or (b) a System Deliverability Upgrade cost allocation and provided cash or posted required security pursuant to OATT Attachment S, which for (a) and (b) is from a Class Year Final Decision Round that occurs prior to the NCZ Study Start Date	
8	UCAP Derate Factor (UCDF)	Convert ICAP to Unforced Capacity (UCAP) based on derated generator capacity incorporating availability	2012 NYSRC IRM report and 2012 NYISO LCR report
9	Deactivated CRIS units	Units retaining CRIS rights for three years after being considered "deactivated" unless the ability to transfer those rights has been exercised or expired	Generator units deactivated before September 1, 2009
Transmission model			
10	Existing transmission facilities	Identified as existing in the ISO's Load and Capacity Data report most recently published prior to the NCZ Study Start Date.	2012 Gold Book
11	Firm plans for changes to transmission facilities by TOs	Planned changes of facilities in the latest ISO's Load and Capacity Data report that are scheduled to be in-service prior to the NCZ Study Capability Period	
12	System Upgrade Facilities and System Deliverability Upgrades	Facilities associated with planned projects identified in (7) above, except that System Deliverability Upgrades will only be modeled if the construction is triggered	
Import/Export model			
13	External System Import/Export	NYCA scheduled imports from HQ/PJM/ISO-NE/IESO	NYISO Tariffs - OATT Section 25, Attachment S
14	Base case interchange schedules between NYCA Capacity Regions	Actual flow scheduled from ROS to NYC and LI consistent with the IRM and the LCRs for zones J and K	- ROS to NYC: Approximately 2422 MW - ROS to LIPA: Approximately 1072 MW

2.2. NCZ Study Base Case Creation

The NCZ study base case is a five-year look-ahead of the New York Control Area (NYCA) system. The base case originates from the NYISO FERC 715 2017 summer case, and is then further customized to meet the specific requirements of Section 5.16.1 of the Services Tariff. The conditioning steps are applied to the modeling of load, NYCA generation, and external system import/export.

2.2.1. Load Modeling

Load forecast is the coincident summer 2017 firm peak load before reductions for Emergency Demand Response Providers. The impact of Load Forecast Uncertainty (LFU) for each Capacity Region to the 2012 IRM is applied individually to the peak load forecast MW:

- ROS 9.97%
- NYC 4.3%
- LI 5.3%

2.2.2. NYCA Generator Modeling

The initial CRIS capability and available capacity resources are determined by the combination of various inputs, consistent with Section 5.16.1 of the Services Tariff:

- I. The CRIS (MW) capability of approved generating units is modeled according to the CRIS cap listed in 2012 Gold Book.
- II. CRIS rights terminate three years after deactivation pursuant to Attachment S to the OATT. Based on the NCZ Study Start Date of September 3, 2012 of this NCZ Study, units deactivated in and before September 2009 are thus not modeled in the NCZ Study case. Generators deactivated after September 2009 are modeled as in-service with their applicable CRIS levels, per the 2011 and 2012 Gold Book.
- III. The Pmax data for each respective resource within the NYCA Study base case power flow representation is the CRIS value derated by applicable equivalent forced outage rate below:

III.1. Derates are applied to specific types of intermittent generation resources:

- a. Small hydro 45%
- b. Large hydro 1.22%
- c. Land-based Wind 89%
- d. Off-shore Wind 70%
- e. Landfill Gas 8.99%

III.2. Derates are applied to the aggregate of all remaining generation (“Uniform Capacity”) within the exporting zone(s) for the purpose of determining the net capacity available for deliverability. These are the ICAP/UCAP translation factors for each Capacity Region consistent with the applicable NYSRC Installed Reserve Margin study:

- a. Rest of State 6.92%
- b. New York City 12.13%
- c. Long Island 11.44%

III.3. The “derated capacity,” or Pmax is available to supply load and losses within each Capacity Region and adjacent Capacity Region(s). When power transfers are simulated, all generation in the exporting zone is uniformly increased to its Pmax.

III.4. Tables 2 and 3 summarize the Resource Capacity and Capacity Derates for the NCZ Study base case:

Table 2: Summary of Resource Capacity by Type

Zone	Landfill Gas	Large Hydro	Small Hydro	Wind	Uniformed	Total CRIS Capacity
A	24.8	2700.0	3.1	210.5	2261.7	5200.1
B	13.6		54.8	6.6	732.8	807.8
C	34.9		71.0	539.4	6396.8	7042.1
D	4.8	856.0	90.2	600.7	354.5	1906.2
E	4.8		449.6	521.2	272.4	1248.0
F	7.3		350.2		4130.1	4487.6
G			98.5		2981.1	3079.6
H					2120.4	2120.4
I			1.8			1.8
ROS	90.2	3556.0	1119.1	1878.4	19249.8	25893.5
J					10609.5	10609.5
K	0.0				5723.4	5723.4
NYCA	90.2	3556.0	1119.1	1878.4	35582.7	42226.4

Table 3: Summary of Capacity Derates by Resource Type

Zone	Total CRIS Capacity	LFG derate	Large Hydro Derate	Small Hydro Derate	Wind derate	Uniform Derate	Total Capacity Derates	UCAP
A	5200.1	2.2	32.9	1.4	187.3	156.5	380.4	4819.7
B	807.8	1.2	0.0	24.7	5.9	50.7	82.5	725.3
C	7042.1	3.1	0.0	32.0	480.1	442.7	957.8	6084.3
D	1906.2	0.4	10.4	40.6	534.6	24.5	610.6	1295.6
E	1248.0	0.4	0.0	202.3	463.9	18.9	685.5	562.5
F	4487.6	0.7	0.0	157.6	0.0	285.8	444.1	4043.6
G	3079.6	0.0	0.0	44.3	0.0	206.3	250.6	2829.0
H	2120.4	0.0	0.0	0.0	0.0	146.7	146.7	1973.7
I	1.8	0.0	0.0	0.8	0.0	0.0	0.8	1.0
ROS	25893.5	8.1	43.4	503.6	1671.8	1332.1	3559.0	22334.6
J	10609.5	0.0	0.0	0.0	0.0	1286.9	1286.9	9322.6
K	5723.4	0.0	0.0	0.0	0.0	654.8	654.8	5068.6
NYCA	42226.4	8.1	43.4	503.6	1671.8	3273.8	5500.7	36725.8

Column descriptions:

- "Total CRIS Capacity" is the total from Table 2.
- Each "Derate" column is the amount of capacity reduction based on the application of the derate factor to the represented capacity.
- Uniform Capacity Derate uses the specific ICAP/UCAP translation factor for the Capacity Region; hydro and wind use the technology-specific derate factors.
- "Total All Capacity Derates" is the sum of category derates by zone.

2.2.3. Capacity Regions Import/Export Modeling

The initial generation and interchange schedules for the NYCA and the three Capacity Regions are determined via the combination of various inputs:

1. External Generation Source

I. Inter-Area external interchange schedules include the following grandfathered long-term firm power transactions for the NCZ Study base case by Tariff:

- External CRIS Right: Quebec (via Chateauguay) to NY 1090 MW
- Existing Transmission Capacity for Native Load: PJM to NYSEG 1080 MW

II. Generating capacity associated with firm export commitments are represented as follows:

- NYPA to AMP-Ohio, PA-RECs 182 MW
- NYPA to ISO-NE (Vermont) 91 MW

III. Grandfathered external firm capacity imports:

- ISO-NE to NY 50 MW
- Ontario (IESO) schedule 0 MW

IV. Generator reactive (MVar) capabilities as determined by appropriate NYISO procedures, NPCC and NYSRC Criteria, and North American Electric Reliability Corporation (NERC) Standards requirements.

V. Wheeling contracts:

- ROS to NYC via ABC/JK through PJM 1000 MW
- ROS to NYC via Lake Success/Valley Stream through LIPA 287 MW
- ROS to LIPA via Northport Norwalk Cable through ISO-NE 100 MW

The total external generation resources including items (I) to (V) are summarized in Table 4.

Table 4: Summary of External Generation Resources (MW)

From	ROS import	NYC import	LI import	NYCA
Ontario	0	0	0	0
HQ	1090	0	0	1090
PJM	-102	1000	0	899
ISO NE	-141	0	100	-41
Total External Generation Source	848	1000	100	

2. ROS Direct MW Transfer

Actual base case interchange schedules between NYCA Capacity Regions are consistent with the Installed Reserve Margin and the Locational Capacity Requirements:

- Rest of State to New York City 2422 MW
- Rest of State to Long Island 1072MW

3. Capacity Deliverability Rights (UDR)

Merchant transmission projects with Unforced Capacity Deliverability Rights (UDR) are represented at their respective UDR capacity from the external Area into the respective NYISO Zone.

- Linden VFT to New York City 315 MW
- Cross-Sound Cable to Long Island 330 MW
- Neptune HVdc to Long Island 660 MW
- Hudson Transmission Project to New York City 660 MW

To summarize, the total import of each Capacity Region including items (1) to (3) is summarized in Table 5.

Table 5: Summary of External Resources (MW)

From	ROS import	NYC import	LI import
Total External Generation Source	848	1000	100
ROS direct MW transfer		2422	1072
Total UDR		975	990

All CRIS generation within each Capacity Region is placed in service and scaled proportional to the ratio of its Pmax to the sum of the Pmax in the respective exporting or importing zone(s) or Capacity Region. Actual generation is proportionally scaled (up or down) to match the demand.⁶

Phase Angle Regulators (PARs) controlling external tie lines are set consistent with NYISO Service Tariff, Attachment M-1, NYISO-PJM Joint Operating Agreement and applicable operating procedures and agreements.

⁶ Demands include load (including load forecast uncertainty), transmission losses, and external schedule commitments

3. NCZ Study Results

The deliverability tests within the ROS Capacity Region are evaluated from west-to-east and north-to-south by exporting from one (or more) zones in upstate NY to the remaining zone(s) within the ROS Capacity Region, similar to Highway Interface Capability assessment.

Additional Transmission Capacity or Bottled Generation Capacity is calculated by FCITC less the amount of net available capacity. A summary of these interface transfer for the NCZ case is presented in Table 6. As shown in the table, all Highway interfaces have passed the deliverability test, except for the UPNY-SENY. The UPNY-SENY interface has constrained about 849 MW of generation from moving from Zones A through F to Zones G through I.

Table 6: ROS Capacity Deliverability Study Results

Highway Tested	Exporting Zone	Importing Zone	Load (incl. LFU) (1)	Base Generation Dispatch (2)	Available CRIS (3)	Available CRIS Derate (4)	UCAP (5)	Net Available Capacity (6)	FCITC (export limit) (7)	Additional Transmission Capacity (+) or Bottled Generation Capacity (-) (8)	Transfer Limit Constraint
Dysinger-East	A	BCDEFG HI	2927.8	4528.4	5200.1	380.4	4819.7	291.3	1570.5	1279.2	Stolle Rd-Sheldon 230KV @ NOR
West Central	AB	CDEFGHI	5156.3	5209.9	6007.9	462.9	5545.0	335.1	1778.0	1442.9	Stolle Rd-Sheldon 230KV @ NOR
Volney-East	ABC	DEFGHI	8332.7	10925.7	13050.0	1420.7	11629.3	703.6	2820.1	2116.5	Coopers Corners-Fraser 345KV @ NOR
Moses-South	D	ABCEFGH I	884.3	1217.3	1906.2	610.6	1295.6	78.3	1276.7	1198.4	Adirondack-Moses 230KV @ STE I/o Chateaugay-Massena-Marcy 765KV with Rej
Total East	ABCDE	FGHI	10693.0	12671.5	16204.2	2716.8	13487.4	815.9	2520.5	1704.6	Coopers Corners-Fraser 345KV @ NOR
UPNY-SENY	ABCDEF	GHI	13293.1	16470.7	20691.8	3160.8	17531.0	1060.3	211.1	-849.2	Leeds-Pleasant Valley 345KV @ STE I/o Athens-PV 345KV
UPNY-ConEdison	G	HI	2587.8	2658.0	3079.6	250.6	2829.0	171.0	1785.1	1614.1	Roseton - E. Fishkill 345KV @ NOR

Column descriptions:

1. "Load" includes the load forecast uncertainty and transmission losses within the exporting zone.
2. "Base Generation Dispatch" is the actual generation output in the exporting zone.
3. "Available CRIS" represents the total CRIS capacity in the exporting zone(s).
4. "Available CRIS derate" is the total of the generation derates (ICAP/UCAP) applied to the exporting zone.
5. "UCAP" is the difference between Available CRIS (3) and Capacity Derates (4).
6. "Net Available Capacity" is the remaining CRIS available after consideration of base generator dispatch, capacity derates, and net capacity exports. It is the difference between UCAP (5) and Base Generation Dispatch (2).
7. "FCITC" is the incremental transfer limit corresponding to the most limiting FCTTC in the Highway interface analysis calculated by the software PSS[®]MUST.
8. "Additional Transmission Capacity or Bottled Generation Capacity" is the available unused transfer capability (+) or the amount of CRIS that is bottled (-) by the interface transfer limit constraint. It is calculated by FCITC (7) less Net Available Capacity (6).

4. Conclusions

The UPNY-SENY Highway interface is bottling 849.2 MW generation from upstream (Zones A through F), thus indicating a need to create a New Capacity Zone.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.

Docket No. ER13-____-000

**AFFIDAVIT OF
TARIQ N. NIAZI**

Mr. Tariq N. Niazi declares:

1. I have personal knowledge of the facts and opinions herein and if called to testify could and would testify competently hereto.

I. Purpose of this Affidavit

2. The purpose of this Affidavit is to describe the potential consumer impacts of the New York Independent System Operator's ("NYISO") proposal to establish a New Capacity Zone ("NCZ")¹ encompassing Load Zones G, H, I, and J. This NCZ would be defined as the "G-J Locality." This affidavit describes simulations performed to provide information on projected impacts that the creation of the G-J Locality would have on ICAP Spot Market Auction prices, and thus on capacity payments by consumers, in comparison to not creating the NCZ.
3. This Affidavit also describes the NYISO's general assessment of the potential environmental and reliability benefits of the NCZ. The Affidavit of Dr. David B. Patton, Ph. D., (the "Patton Affidavit") describes the economic benefits that the proposed G-J Locality will bring, including providing more "efficient locational investment signals" that will "attract investment to the areas where investment provides the greatest reliability benefit."²

¹ Capitalized terms that are not otherwise defined in this Affidavit shall have the meaning set forth in the Market Administration and Control Area Services Tariff ("Services Tariff"), and if not defined therein, in the filing in which this Affidavit is incorporated.

² Patton Affidavit at P 8.

II. Qualifications

4. I am a Senior Manager and the Consumer Interest Liaison for, the NYISO. I have held this position for almost two years. My responsibilities include coordinating the NYISO's consumer related initiatives, analyzing market developments (and proposed market developments) from a consumer perspective, and preparing consumer-focused reports.
5. Prior to holding my current position, I worked for thirty years at the New York State Consumer Protection Board ("NYS CPB"). During my career there I served as the Director of the Utility Intervention Unit, as Chief Economist, and prior to that, as Principal Economist. While at the NYS CPB, I served as its representative to the NYISO. I also served on the New York State Energy Research and Development Authority's System Benefit Advisory Group and the New York State Public Service Commission's ("PSC") Natural Gas Advisory Group. Additionally, I have taught courses in economics at Siena College in Loudonville, New York and at the College of St. Rose in Albany, New York.
6. I have appeared as an expert witness in numerous PSC rate cases and policy-making proceedings (commonly referred to as "generic proceedings"). I have appeared as an expert witness in a proceeding before the Commission. I also have testified before the New York Assembly Energy Committee on energy related issues. I received a Master of Economics degree from the State University of New York at Albany and a Master of Public Administration degree from Punjab University in Pakistan. I passed my candidacy examination, completed all required course work and all comprehensive examinations in the Doctoral Program in Managerial Economics at Rensselaer Polytechnic Institute, in Rensselaer, New York.
7. The analyses described in this affidavit were performed with assistance from FTI Consulting, Ltd. ("FTI"), an economic consulting firm with considerable experience working on energy market issues and analyses, including capacity market design questions, and specifically those involving the NYISO capacity markets.

III. Consumer Impact Analyses of the NYISO's Proposed NCZ

A. Overview

8. I have conducted, directed, and overseen multiple analyses of the potential impacts of alternative NCZ configurations using a variety of assumptions and over a number of different timeframes.
9. Stakeholder input was considered at various stages of the analyses, and some analyses were conducted at stakeholders' request. I made presentations to and participated in extensive discussions with stakeholders at the September 11 and December 3, 2012, and the January 30, and March 28, 2013, meetings of the NYISO's ICAP Working Group. At those meetings, the analyses and their underlying inputs and assumptions, were reviewed and discussed with stakeholders. Stakeholder questions and comments were received and considered. In addition to presentations before, discussions with, and materials provided to, the ICAP Working Group, I also provided additional data and responses to stakeholder questions regarding the analyses.
10. This affidavit discusses two wholesale consumer price impact analyses. I have focused on them because I believe that they likely reflect the impacts of the proposed G-J Locality in comparison to not creating an NCZ, and therefore they will likely be more informative to the Commission and stakeholders than other scenarios discussed in stakeholder meetings.
11. The first analysis, presented in Section B, below, is a forward-looking 2013 case. The NYISO is not proposing to implement an NCZ in 2013 but the 2013 case is instructive because there are more data and therefore less need to rely on assumptions than for any future year. The NYISO is presenting this case to provide an indication of ICAP Spot Market Auction prices with and without a G-J Locality. The simulated ICAP Spot Market Auction prices are not intended to be a forecast of prices. They also do not reflect hedging or other actions Market Participants may take to manage capacity costs.
12. The second analysis, discussed in Section C, below, is a forward-looking 2018 case. It provides information on likely longer term consumer impacts. Like the results of the simulation for 2013, the 2018 results are not intended to be a forecast of prices and they

do not reflect hedging or other actions Market Participants may take to manage capacity costs. They are intended to provide information on an effect of creating the NCZ.

13. The NYISO performed other analyses but I believe that those cases are less informative than the two on which I focus in this Affidavit. Some of the other cases include assumptions regarding future conditions that have a lower degree of likelihood, while others evaluate an NCZ configuration, comprised of Load Zones G, H, I, J, and K (“G-K”), which differs from the configuration proposed by the NYISO.
14. In addition, Section D, below, summarizes the potential impacts that the NYISO’s establishment of its proposed NCZ would have on reliability and the environment.
15. Both the 2013 and 2018 forward-looking analyses show that capacity prices would increase in Load Zones G, H, and I as a result of creating the NCZ. As explained by the Patton Affidavit, a key reason for creating an NCZ is to provide the capacity price signals for investment in new and existing, and to retain, economically efficient capacity resources within the NCZ. Over the past several years, there have been a number of generation plants retiring and mothballing in these Load Zones. The creation of a G-J Locality would send a more efficient price signal which is expected to influence capacity investment decisions.³ The forward-looking analyses show no increases in capacity prices in other Load Zones from the creation of the G-J Locality.
16. The Patton Affidavit further describes the market design principles that should guide the creation and configuration of NCZs. It concludes that the establishment of the G-J Locality is consistent with sound market design principles and therefore represents a “reasonable configuration.”⁴

³ See Patton Affidavit at P 16.

⁴ See Patton Affidavit at P 16.

B. Consumer Impact Analysis for 2013

i. Price Impact Comparison with 2012

17. The 2013 impact analysis considered both summer and winter conditions by performing simulated ICAP Spot Market Auctions for the months of August 2013 and November 2013. It utilized 2012 ICAP Spot Market Auction offer data for those same months, but instead of using the 2012/2013 Locational Minimum Installed Capacity Requirements (“LCRs”) for Zones J and K, it utilized the approved 2013/2014 LCRs, and adjusted the auction capacity data for known, and expected, retirements and mothballings of capacity resources. Specifically, it assumed the following retirement or mothballing of capacity that had participated in the August and November 2012 Monthly Auctions:

- Load Zones A – F (referred to herein as “new Rest of State” and to which the NYCA ICAP Demand Curve would be applied): 390.3 MW in August 2013 (relative to August 2012) and 55.5 MW in November 2013 (relative to November 2012).
- Load Zone G: 476 MW for both August and November 2013.
- Load Zone K: 3.3 MW for both August and November 2013.

18. The retirement/mothballing estimates for the impacts on Load Zones A-F (the new Rest of State) reflect the expected mothballing of Units 3 and 4 at NRG’s Dunkirk Generating Station and of Niagara Generation LLC’s Biomass Facility which are expected to occur by August 2013. It also includes the 63 MW Carthage Energy facility, which at the time of the analysis was expected to retire by November 2013.⁵ The MW amount for Load Zone G accounts for the retirement of the Danskammer Generating Station. The MW amount for Load Zone K is based on the expected retirement of the Montauk Units #2, #3, and #4. These retirements/mothballing estimates are based on the information available at the time the impact analysis was undertaken. It is possible that the formation of the G-J Locality may ultimately reduce the actual level of retirements.

⁵ On March 14, 2013, after the NYISO completed this analysis, Carthage Energy withdrew its notice of retirement.

19. Similarly, the 2013 impact analysis assumed the following capacity additions to the quantities of UCAP offered into the August and November 2012 ICAP Spot Market Auctions:
- For August 2013: 154.6 MW with the G-J Locality and 77.0 MW if there were no NCZ.
 - For November 2013: 180.9 MW with the G-J Locality and 85.9 MW if there were no NCZ.
20. The NYISO developed the capacity addition assumptions from various publicly available data, including data from the NYISO's interconnection queue. The assumptions were also based in part on non-public information. Therefore, only aggregated quantities of capacity are identified in the impact analysis.
21. The simulated auctions for August and November 2013 yielded the results summarized in Tables 1 and 2 below. These results were based on a \$15.69 simulated reference price (*i.e.*, the average of the Load Zone J and NYCA reference prices) for the August 2013 simulation and \$15.39 reference price for the November 2013 simulation, and a 112% zero crossing point for the proposed G-J Locality, based on a G-J Locality LCR equal to 89.3% for the August 2013 simulation and 89.9% for the November 2013 simulation. The derivation of the LCRs is described below. They are different than, but close to, the Indicative NCZ LCR described in the filing letter and in the Affidavit of Dr. Henry Chao and John M. Adams ("Chao/Adams Affidavit").⁶
22. ICAP Demand Curve reference prices and zero crossing points for the G-J Locality are necessary inputs to the impact analysis. However, the actual values are not available because they are being developed in the NYISO's on-going ICAP Demand Curve reset process. The NYISO considered different combinations of reference prices and zero crossing points and selected values to use in the analysis which I believe are within the range of values that might reasonably be expected.

⁶ See Chao/Adams Affidavit at PP 35-41.

Table 1 -- August 2013 Auction Simulation Results

Scenario	NYCA	Zone J	Zone K	G-J Locality
Aug. 2012 – Actual Results	\$1.90	\$10.64	\$3.56	
Aug. 2013 without G-J Locality	\$4.56	\$15.16	\$7.59	
Aug. 2013 with G-J Locality	\$4.37	\$15.16	\$7.59	\$9.34

Table 2 -- November 2013 Auction Simulation Results

Scenario	NYCA	Zone J	Zone K	G-J Locality
Nov. 2012 – Actual Results	\$0.71	\$3.36	\$0.71	
Nov. 2013 without G-J Locality	\$2.29	\$7.91	\$3.77	
Nov. 2013 with G-J Locality	\$2.07	\$7.91	\$3.77	\$5.35

23. The simulations for 2013 show that capacity prices in Load Zones J and K would be the same with or without the G-J Locality. The capacity price impacts for Load Zones J and K include the impacts on those zones of the amount of capacity that Load Serving Entities (“LSEs”) in them are required to purchase beyond the LCR requirement. Thus, it incorporates the amount of capacity purchased at the NYCA ICAP Demand Curve reference point and any additional excess capacity that would be purchased based on the clearing price on the relevant Demand Curve. Prices in the new Rest of State would be lower with the G-J Locality than without it. Prices in Load Zones G, H, and I would be higher than NYCA ICAP Spot Market Auction prices prior to the establishment of the NCZ. As with Load Zones J and K, the G, H, and I capacity price calculations take

account of excess G-J Locality capacity that would be purchased in addition to the LCR amount.

24. A comparison of the first two rows in Tables 1 and 2, clearly demonstrates that the price increase from 2012 to 2013 is not the result of the creation of the NCZ. These prices increase in 2013 as a result of retirements and mothballings. It also reflects the 2.3% escalation of the ICAP Demand Curve from the 2011/2012 ICAP Demand Curve to the 2013/2014 ICAP Demand Curve. The third rows in these tables show prices that result from the creation of the G-J Locality. A Load Zone by Load Zone examination indicates that prices do not change in Load Zones J and K, while they decrease in Load Zones A-F (*i.e.*, the new Rest of State).

ii. 2013 Annual Impact

25. The NYISO next estimated the annual increase in UCAP payments for 2013 based on several key assumptions which are described below.
26. The LCRs for the Load Zones J and K in the August and November 2013 auctions were based on the 2013/2014 LCRs approved by the NYISO stakeholder Operating Committee for the 2013-2014 Capability Year, which were 86% for New York City and 105% and for Long Island.
27. The G-J Locality LCR analysis began with a General Electric's Multi-Area Reliability Simulation Model ("MARS" model) analysis of Load Zones G, H, I, J, and K, *i.e.*, the entire region located on the constrained side of the UPNY-SENY Highway interface. It determined that a 93% LCR would be appropriate for that region.
28. At the time the NYISO proposed the NCZ boundary of Load Zones G, H, I, and J (*i.e.*, excluding Load Zone K)⁷ the impact analyses were already well under development. Therefore, the LCR used in the impact analyses for the G-J Locality was extrapolated

⁷ The NYISO's reasons for proposing a G-J Locality are described in the Chao/Adams Affidavit at PP 16-34. In addition, the Patton Affidavit notes, at P 16, that excluding Load Zone K from the proposed NCZ is consistent with market design principles and that the G-K Locality is therefore a "reasonable configuration."

from the existing simulation data. For the August 2013 simulation, it was calculated by subtracting the Load Zone K LCR in megawatts of UCAP (5,251.6 MW) from the LCR calculated for the Load Zones G-K in megawatts of UCAP (18,289.7 MW). This calculation yielded a G-J LCR of 13,038.1 megawatts of UCAP. This corresponds to an 89.3% G-J LCR. For the November 2013 simulation it was calculated by subtracting the Load Zone K LCR in megawatts of UCAP (5,249.9 MW) from the LCR calculated for Load Zones G-K in megawatts of UCAP (18,624.8 MW). This calculation yielded a G-J LCR of 13,374.9 megawatts of UCAP. This corresponds to an 89.9% G-J LCR. These LCRs were used solely for purposes of the impact analyses.

29. Consistent with current rules, the analyses provided that LSEs in a Locality pay for the UCAP and excess (*i.e.*, the amount over the LCR that clears). Therefore, the NYISO assumed that Load Zone J would pay for Load Zone J and for additional G-J Locality UCAP up to 89.3% and 89.9% of load for August and November, respectively, plus a *pro rata* share of G-J excess, plus the remaining UCAP at the actual Summer 2013, and Winter 2013/2014 NYCA ICAP Demand Curve price, plus a *pro rata* share of the NYCA excess.
30. The NYISO also assumed that Load Zone K LSEs would pay for Load Zone K UCAP and excess, plus remaining UCAP at the NYCA ICAP Demand Curve price, plus a *pro rata* share of the NYCA excess. Load Zone G LSEs would pay for 89.3% and 89.9% of Load for August and November, respectively, at the simulated G-J Locality ICAP Demand Curve price, plus a *pro rata* share of the G-J Locality excess, plus remaining UCAP at the NYCA price, plus a *pro rata* share of NYCA excess. LSEs in Load Zones A-F would pay for UCAP at the NYCA Demand Curve price plus a *pro rata* share of NYCA UCAP excess.
31. Based on these assumptions, the NYISO estimated the annual changes in capacity payments for 2013 in both a summer and winter month, for various Load Zones, and the total dollar impact of the creation of the G- J Locality. The results are summarized in Table 3 below. It shows the expected increase in capacity payments for Load Zones G, H, and I, an expected decrease in payments for the new Rest of State, a relatively small

increase in annual payments for Load Zone J, and no change in annual payments for Load Zone K. Because of the uncertainty inherent in developing such estimates the NYISO has rounded them all to the nearest million dollars.⁸ Rounding the values for an annual estimate better reflects the purpose of the estimate, *i.e.*, to indicate the payment difference with and without the G-J Locality. For example, the Summer month and Winter month each multiplied by six will not correspond exactly to the annual value due to rounding. The information is only intended to provide an indication of the difference in payments with and without a G-J Locality. It is not intended to be a price forecast.

32. The results for the August 2013 data and the November 2013 data were used to develop an annual estimate. The annual value was calculated by multiplying the results of the one summer and one winter month each by six for the number of months in a Capability Period. Given time constraints, and the number of simulations that the NYISO conducted, it was not practicable to estimate an impact for each month. Nevertheless, I believe that this method of calculating annual impacts is reasonable for the purpose for which the annual impacts are provided: *i.e.*, to indicate the difference in UCAP payments in reasonably likely scenarios attributable to the creation of a G-J Locality.

⁸ If the NYISO had not rounded its estimate for Load Zone K to the nearest million dollars it would have shown a relatively small price decrease.

Table 3 -- Estimated Annual Impacts on Capacity Payments for 2013

2013 Dollar Impact (in Millions)					Total \$ Impact
Load	Rest of State	Zones GHI	Zone J	Zone K	
Summer with NCZ (G-J)	\$58	\$39	\$165	\$45	
Summer without NCZ (G-J)	\$60	\$22	\$164	\$45	
% Increase	-3.3%	77.3%	0.6%	0%	
\$ Impact/Month	-\$2	\$17	\$1	\$0	
Winter with NCZ (G-J)	\$29	\$23	\$90	\$23	
Winter without NCZ (G-J)	\$32	\$12	\$90	\$23	
% Increase	-9.3%	91.7%	0%	0%	
\$ Impact/Month	-\$3	\$12	\$0	\$0	
Annual \$ Impact	-\$33	\$173	\$6	\$0	
Total \$ Impact					\$146

NOTE TO TABLE: All Summer/Winter figures were calculated using the monthly value, and then rounded to the nearest million dollars. All percentages were calculated based on the rounded figures.

Reference Price is Average of Zone J and NYCA

112% Zero Crossing Point

August 2012 Derates for August 2013 Simulation

33. Table 3 shows that based on the simulation, the only Load Zones in which capacity payments increase as a result of creating the G-J Locality are G, H and I. Those Load Zones had been paying NYCA ICAP Spot Market Auction prices

C. Consumer Impact Analysis for 2018

34. The 2018 analyses estimated the range of expected future prices in all Load Zones due to the creation of a G-J Locality, based on data from past ICAP Spot Market Auctions, combined with data and assumptions on new entry, retirements, transmission expansion and projected peak load.

35. The 2018 analysis assumes that there would be 1000 MW increase in transmission system transfer capability and various capacity resource additions. Various entities have proposed transmission system projects, including projects designed to increase transmission system transfer capability in New York. The NYISO is not taking a position on the likelihood, timing, merits, or benefits of such proposals in this proceeding. The

NYISO does believe that the existence of the proposals means that considering an impact scenario that includes 1000 MW increase in transmission system transfer capability to be informative to the Commission and stakeholders. As in the above-described 2013 consumer impact analysis, the 2018 G-J Locality ICAP Spot Market Auction prices were based on a \$15.69 reference price for the August 2018 simulation and \$15.39 for the November 2108 simulation, and a 112% zero crossing point. The analysis did not escalate the 2013 simulated G-J ICAP Demand Curves. Again because of the uncertainty inherent in developing the estimates, and the purpose for which they are presented, the NYISO has rounded them all to the nearest million dollars. Like the 2013 Annual data, the information is only intended to provide an indication of the difference in payments with and without a G-J Locality, and is not intended to be a price forecast.

36. LCRs utilized in this analysis were based on 2013/14 actual Load Zone J and K LCRs, and the G-J LCR developed as described in P 28, adjusted for load growth to 2018 per the NYISO's 2012 Load and Capacity Data Report (*i.e.*, the "Gold Book").⁹ The LCRs for Zones J and K were adjusted for the projected entry and exit of new capacity resources in Load Zones G, H, and I. More specifically, LCRs for Localities J, K, and G-J were derived based on the LCRs described above.
37. The analysis then cleared the ICAP Spot Market Auction beginning with clearing Localities J and K, then clearing the G-J Locality, and then clearing the NYCA. This sequence allowed the NYISO to take account of the capacity cleared on the Demand Curves for Localities J and K in estimating NCZ prices.¹⁰ The calculation of capacity prices took account of the simulated entry of new capacity in Load Zones G, H, I and J as well as Load Zones A through F. In addition, because the entry of new generation in Load Zones G,H, and I would reduce the LCR for J and K in future capacity market auctions, it was necessary to iterate to a final LCR ratio and simulated entry outcome.

⁹ See

<http://www.nyiso.com/public/webdocs/markets_operations/services/planning/Documents_and_Resources/Planning_Data_and_Reference_Docs/Data_and_Reference_Docs/2012_GoldBook_V3.pdf >

¹⁰ I note that the two Localities and NYCA are solved simultaneously and will continue to be after the implementation of the G-J Locality.

38. The necessary iterative process for deriving LCRs for Zones J and K potentially results in distinct LCRs for Load Zones J and K for each set of assumptions regarding zero crossing points and NCZ reference prices and entry prices for the new capacity in Load Zones G, H, and I.¹¹ These adjustments are necessarily approximated since it was not practical to rerun a MARS simulation of the LCR for each level of entry in Load Zones G, H, and I. Because it was not practical to rerun MARS for the cases being evaluated for each step, an approximation was used to calculate adjusted Load Zone J, Load Zone K, and G-J Locality LCRs. It was observed that the retirement/mothballing of generation located in Load Zones G, H, and I during 2012 caused an upward effect on the Load Zones J and K LCRs from 2012 and 2013. It was calculated that 51% of the megawatt increase in UCAP LCRs would be in Zone J and 49% in Zone K. This 51%/49% ratio was used to approximate the impact of changes in Zones G, H and I capacity on Zones J and K LCRs. Hence, these ratios were applied to reduce the LCRs in Load Zones J and K to the extent that generation entered or returned to service in Load Zones G, H, and I in each specific simulation.

39. Because Load Zone K is not included in the NCZ, it was necessary to make a second adjustment to the G-J Locality, to account for the fact that when the Load Zone K LCR was reduced, it lowered the total LCRs for each of the J, K, and G-J Localities. Thus, the G-J Locality, and Load Zone J LCRs were also increased to offset the reduction in Load Zone K LCRs.

- Specifically, the following capacity resources were assumed to be added to the supply offered in auctions between August 2013 and August 2018:
- Load Zones A-F (new Rest of State): 73.1 MW with the G-J Locality established and 25.8 MW without it. The difference between these amounts is an estimate of the amount of capacity that would not participate in the capacity market absent the formation of the G-J Locality because of the lack of CRIS.

¹¹ By entry prices, I mean the capacity price at which additional new gas fired capacity in the Interconnection Queue was assumed to offer in the market.

- Load Zone J: Some generation projects were assumed to offer at 75% of the Load Zone J reference price, while new natural gas-fired capacity resources were assumed to offer at 85% of the Load Zone J reference price.
- Load Zones G, H, and I: (i) 321 MW of Bowline 2 restored capacity offered at 75% of the NCZ reference price; (ii) 1579.2 MW of new natural gas-fired capacity resources (not including Bowline 2) offered at 85% of the NCZ reference price; and (iii) three 25 MW blocks of demand response offered at 50%, 80%, and 95% respectively of the NCZ reference price.

Table 4 -- 2018 Auction Simulation Results (with 1000 MW Transmission Expansion and Generation Additions)

August 2018

Scenario	NYCA	Zone J	Zone K	NCZ
No NCZ (G-J)	\$8.42	\$15.98	\$9.85	
With NCZ (G-J)	\$8.14	\$15.98	\$9.85	\$9.08

November 2018

Scenario	NYCA	Zone J	Zone K	NCZ
No NCZ (G-J)	\$7.28	\$15.69	\$7.28	
With NCZ (G-J)	\$6.80	\$15.69	\$6.80	\$10.49

40. Thus, the simulation indicated that the creation of the proposed NCZ would result in a lower price for capacity clearing against the NYCA ICAP Demand Curve, and thus a lower payment for capacity by LSEs in Load Zones A-F. It also would result in lower payments by LSEs in Load Zone K, which includes capacity to satisfy the LCR clearing at the Load Zone K ICAP Demand Curve plus excess, and remainder clearing against the

NYCA curve plus a share of excess. The capacity prices in Load Zone J would be the same in 2018 with or without a G-J Locality.

41. Table 5 shows that based on the simulation, the creation of a G-J Locality would result in increased 2018 Capacity payments in Load Zones G, H, and I. That increase is based on the portion of payments incurred to clear the LCR requirement at the G-J Locality ICAP Demand Curve plus excess, and the remainder of the NYCA requirement plus a share of excess.

Table 5 - Estimated Annual Impacts on Capacity Payments for 2018

2018 Dollar Impact (in Millions)					Total \$ Impact
Load	Rest of State	Zones GHI	Zone J	Zone K	
Summer with NCZ (G-J)	\$106	\$42	\$191	\$61	
Summer without NCZ (G-J)	\$109	\$41	\$191	\$61	
% Increase	-2.75%	2.43%	0%	-0%	
\$ Impact/Month	-\$3	\$1	\$0	\$0	
Winter with NCZ (G-J)	\$94	\$47	\$188	\$44	
Winter without NCZ (G-J)	\$98	\$37	\$188	\$46	
% Increase	-4%	27%	0%	-8.7%	
\$ Impact/Month	-\$5	\$10	\$0	-\$3	
Annual \$ Impact	-\$48	\$66	-\$0	-\$18	
Total \$ Impact					\$0

NOTE TO TABLE: All Summer/Winter figures were calculated using the monthly value, and then rounded to the nearest million dollars. All percentages were calculated based on the rounded figures.

Reference Price Equals the Average of J and NYCA
 112% Zero Crossing Point
 1000 MW Increase in Transmission System Transfer Capability
 Additional Generation
 August 2012 Derate Factors

D. Additional Impacts of Establishing the G-J Locality

42. In addition to evaluating the wholesale capacity price and consumer capacity payment impacts of the creation of the NCZ, I have also considered potential impacts on reliability and the environment.

43. The Market Monitoring Unit’s two most recent State of the Market Reports have recommended the creation of an NCZ in the Lower Hudson Valley to retain existing capacity and to attract needed new capacity.¹² Approximately 900 MW of generation located in Load Zones G, H and I has retired since 2007 and an additional 400 MW of Bowline generation is on an extended derate. The size of the increase in the LCRs and capacity prices in Load Zones J and K from 2012/2013 to those approved for 2013/14 illustrates that the NYISO’s current capacity market configuration has the potential to mask price signals. A more efficient price signal could help to retain capacity and attract efficient new capacity and investment which would be in the long run interests of consumers. With the creation of a G-J Locality, capacity prices in the Load Zones G, H, and I are expected to attract new investment, both in existing plants and new capacity resources, and retain economic generation.
44. The Patton Affidavit reiterates that the G-J Locality would address important reliability needs that “have become increasingly apparent in recent years.”¹³ It also emphasizes that the G-J Locality will provide efficient price signals and will facilitate more efficient investment and retirement decisions.¹⁴
45. The establishment of the NYISO’s proposed NCZ would increase the likelihood that approximately 125 MW of new capacity resources proposed to be located in the new Rest of State, would be developed. The development of these resources would be more environmentally friendly and can be expected to displace and have less of a physical environmental impact than existing generation.

IV. Conclusion

46. Based on the analyses described above, some consumers will not see a payment increase, and others will, as a result of the creation of the G-J Locality. All consumers in the

¹² See *2012 State of the Market Report for the New York ISO Markets* (April 2013) available at <http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Reports/Market_Monitoring_Unit_Reports/2012/NYISO2012StateofMarketReport.pdf> .

¹³ Patton Affidavit at PP 11-12.

¹⁴ Patton Affidavit at P 13.

NYCA, including consumers in Load Zones G, H, and I will benefit from improved price signals, which will lead to enhanced system reliability and transmission security, as discussed herein and in the Patton Affidavit and the Chao/Adams Affidavit.¹⁵

This concludes my Affidavit.

¹⁵ *See, e.g.*, Patton Affidavit at PP 13, 16; Chao/Adams Affidavit at PP 33-34.

ATTESTATION

I am the witness identified in the foregoing affidavit. I have read the affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.

Tariq Niaz
Tariq N. Niaz

Subscribed and sworn to before me
this 30th day of April 2013.

Pamela J Mead
Notary Public

My commission expires: 6/24/2014



**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc. Docket No. ER13-___-000

AFFIDAVIT OF HENRY CHAO, Ph.D. AND JOHN M. ADAMS

Dr. Henry Chao and Mr. John Adams each declare:

1. I have personal knowledge of the facts and opinions herein and if called to testify could and would testify competently hereto.

I. Purpose of this Affidavit

2. The purpose of this Affidavit is to explain the process the NYISO followed to determine the boundary for the New Capacity Zone¹ (“NCZ”) that it has proposed in this proceeding and to determine the Indicative NCZ Locational Minimum Installed Capacity Requirement (“Indicative NCZ LCR”). This Affidavit also discusses the results of the analyses performed in those processes.

II. Qualifications

A. Dr. Henry Chao

3. My name is Henry Chao. I am the Vice President of System and Resource Planning for the NYISO. My business address is 10 Krey Boulevard, Rensselaer, NY 12144.

¹ Terms with initial capitalization not defined herein have the meaning set forth in the Market Administration and Control Area Services Tariff (“Services Tariff”) and if not defined therein, then in filing in which this Affidavit is incorporated.

4. My responsibilities include performing reliability and economic studies of supply (including demand side resources) and transmission facilities in New York State in accordance with the objectives and procedures of the NYISO. This includes performing planning studies and functions of resource adequacy and transmission security, load forecasting, and interconnection studies. I also lead the NYISO's participation, either directly or through overseeing NYISO personnel, various stakeholder committees, Federal Energy Regulatory Commission (the "Commission") proceedings, New York State Reliability Council ("NYSRC") matters, and Northeast Power Coordinating Council ("NPCC") and North American Electric Reliability Corporation ("NERC") committees dealing with bulk power system reliability and economics. I have been actively engaged in the NYISO's analyses for and development of the NCZ, including the determination of the proposed NCZ boundary and the Indicative NCZ LCR.
5. I have thirty years of experience in all aspects of electric system planning and operations. I have held my current position at the NYISO since April 2008. Prior to holding my current position, I was the NYISO's Director of System & Resource Planning. Before joining the NYISO in 2007, I served as Group Vice President of Utility Partner, and Director of Business Development, Electric Systems Consulting, for ABB Ltd. At ABB, my primary responsibility was to direct model development and consulting leveraging ABB's technologies, which were built to analyze bulk power markets, relieve transmission congestion, and foster improved understanding of the competitive forces underlying the changes in the electric power sector.

6. I have worked extensively with electric utilities, Independent System Operators and Regional Transmission Organizations, regulators, generation and energy trading companies, investment banks, and hedge funds. I have been a frequent participant as speaker or panel chair in industry and government sponsored industry forums and technical seminars and have authored over fifty papers for Institute of Electrical and Electronics Engineers (“IEEE”), CIGRE (the International Council on Large Electric Systems,) and other industry conferences. I have briefed the Commission and U.S. Department of Energy staff on transmission congestion and grid technology issues.
7. I hold a Ph.D. in Electrical Engineering from Georgia Institute of Technology.

B. John Adams

8. My name is John Adams. I am a Principal Electric System Planner for the NYISO. I have held my current position since 2006. My business address is 10 Krey Boulevard, Rensselaer, NY 12144.
9. I have forty years of experience in the electric utility industry primarily in electric system planning and operations. My current responsibilities include managing special studies such as the NYISO’s study of the system integration of wind generation, providing support to the annual New York Control Area (“NYCA”) Installed Capacity Requirements study, serving as one of the NYISO observers to the NYSRC since its creation as part of electric restructuring in New York State in 1999. I am a member of NERC’s Integration of Variable Generation Task Force and Chaired the task force that produced the report for “task 1.4” entitled:

“Flexibility Requirements and Metrics for Variable Generation: Implications for System Planning Studies.” I am the NYISO representative to the NPCCs Task Force on the Coordination of Planning (“TFCP”) and was the New York Power Pool (“NYPP”) representative on TFCP prior to electric restructuring. I have been actively engaged in the NYISO’s analyses for and the development of the NCZ, including the determination of the proposed NCZ boundary and the Indicative NCZ LCR.

10. I was previously Director of Planning for the New York Power Pool (“NYPP”) and became Director of Planning and Analysis at the NYISO when it succeeded the NYPP. During electricity restructuring, I directed a staff of over twenty professionals with the primary objective of transitioning NYPP processes that were directed by vertically integrated utilities to open unbundled competitive market processes while maintaining the NYPP’s culture of a strong commitment to reliability. I had major roles in: 1) converting the NYPP installed capacity requirement or BP-4 requirement to a market based Installed Capacity (“ICAP”) requirement and auction process; 2) directing the implementation of the NYISO Transmission Congestion Contract market; 3) directing the implementation and development of the NYISO generator and merchant transmission interconnection process; 4) directing the implementation of a “state-of-the-art” real time load forecasting capability; 5) directing the development of the NYISO demand response programs; 6) directing the development and implementation of a comprehensive electric systems reliability planning process for the New York Control Area, including being the primary author of the NYISO’s first and second

Reliability Needs Assessments and Comprehensive Reliability Plans; and
7) initiating the NYISO's publication of its annual "Load and Capacity Data Report" or "Gold Book." I am a Life Member of the IEEE and have coauthored several papers and articles. I have appeared before the New York State Public Service Commission as an expert witness in both electric rate and long range planning proceedings.

11. I hold a Bachelor of Science Degree in Electrical Engineering from Rensselaer Polytechnic Institute ("RPI") and a Master of Science Degree in the Management of Technology from RPI.

III. Determination of the NCZ Boundary

12. Section 5.16 of the Services Tariff states that the NYISO shall conduct the NCZ Study on or before January 15 in each ICAP Demand Curve Reset Filing Year. If the NCZ Study determines that there is a constrained Highway interface into one or more Load Zones, the NYISO must establish an NCZ. The NYISO is also required to determine the NCZ's boundary by considering "the extent to which incremental Capacity in individual constrained Load Zones could impact the reliability and security of constrained Load Zones, taking into account interface capability between constrained Load Zones."² The Services Tariff provides that the boundary of the NCZ may encompass a single constrained Load Zone or group of Load Zones including one or more constrained Load Zones on the constrained side of the Highway interface.

² Services Tariff Section 5.16.2.

13. In addition, the NYISO must determine an Indicative NCZ LCR each ICAP Demand Curve Reset Filing Year. The Indicative NCZ LCR is used solely for establishing the ICAP Demand Curve for the NCZ in accordance with Section 5.14.1.2 of the Services Tariff.³
14. As described in the Affidavit of Mr. Steven Corey, the NCZ Study determined that the UPNY-SENY Highway interface is bottling 849.2 MW of generation from Load Zones A through F to one or more of Load Zones Load Zones G through K.⁴ The NCZ Study therefore triggered the tariff requirement to create, and to define the boundary of, one or more New Capacity Zones.
15. Currently, Load Zones J and K are defined as separate Localities and each has its own Locational Minimum Installed Capacity Requirement (“LCR”). They are the only two Localities in the NYCA. Load Zones G, H, and I (“GHI”) are located on the constrained side of the UPNY-SENY Highway interface and, therefore, clearly had to be included in the NCZ. A principal question was whether Load Zones GHI should be combined with one or both of the existing Localities.
16. The Services Tariff requires that in determining the boundary, the NYISO consider the extent to which incremental capacity in individual constrained Load Zones could impact the reliability and security of constrained Load Zones while taking into account interface capability between Load Zones. Power system reliability consists of adequacy and security. Adequacy, which encompasses both capacity

³ *Id.*

⁴ The NYCA Load Zones are depicted on the map that is Attachment IX to the filing.

resources and transmission adequacy, refers to the ability of the bulk power system to supply the aggregate requirements of electricity to consumers at all times, accounting for scheduled and unscheduled outages of system components. Security refers to the ability of the bulk power system to withstand disturbances such as electric short circuits or unanticipated loss of system components.

17. The NYISO's determination of which of the Load Zones located on the constrained side of UPNY/SENY interface should be included in the NCZ began with the application of resource adequacy techniques. Because Load Zones J and K are defined as Localities with their own LCRs, the NYISO sought to determine how fungible capacity in Load Zones GHI is with capacity in Load Zones J and with capacity in Load Zone K. This was done by running simulations in which capacity was removed from Load Zones GHI and added to Load Zones J and K while monitoring whether compliance with the NYSRC rule of a loss-of-load event of not more than once in ten years (or a loss-of-load expectation ("LOLE") evaluated probabilistically of not more 0.1 days per year) would be maintained.⁵ The degree to which capacity in Load Zones J and K could substitute for capacity on a reliability basis in GHI would measure how fungible GHI capacity was with capacity in Load Zones J and K and, thus provide guidance on which Load Zones should be included in the NCZ.

⁵ See NYSRC Reliability Rule A-R1, *Statewide Installed Reserve Margin Requirements* <<http://www.nysrc.org/pdf/Reliability%20Rules%20Manuals/RR%20Manual%20V32%20Final%201-11-13%20.pdf>>, ("The NYSRC shall establish the IRM requirement for the NYCA such that the probability (or risk) of disconnecting any firm load due to resource deficiencies shall be, on average, not more than once in ten years. Compliance with this criterion shall be evaluated probabilistically, such that the loss of load expectation (LOLE) of disconnecting firm load due to resource deficiencies shall be, on average, no more than 0.1 day per year.")

18. The analysis was conducted using General Electric’s Multi-Area Reliability Simulation Model (the “MARS” model). This MARS model has been used by the NYSRC to establish the statewide installed reserve margin (“IRM”) since 2000, which was the first full year of operation for the NYISO-administered markets. The MARS model also accounts for the emergency transfer criteria for the key transmission interface between Load Zones.⁶ It is intended that the NYS Bulk Power System be operated within normal transfer criteria at all times insofar as possible. However, in the event that adequate facilities are not available to supply firm load within normal transfer criteria, emergency transfer criteria may be invoked. Under emergency transfer criteria, transfers may be increased up to, but not to exceed, emergency ratings and limits. When running the MARS simulations, the NYISO used the base case in setting the 2013/2014 IRM approved by the NYSRC Executive Committee, as adjusted by the NYISO in its determination of the 2013/2014 LCRs for the J and K Localities.
19. Because the MARS model accounts for the ability of the transmission system to transfer power, the distribution of resources relative to the capability of the transmission system and load can result in multiple sets of statewide IRM and LCRs for Localities J and K that meet the LOLE criterion. In recognition of this, a process known as the “unified methodology” was developed so that the selection of the IRM and corresponding LCRs set to establish LSE capacity requirements would be selected consistently from year-to-year. The unified methodology is also the

⁶ This is consistent with NYSRC Reliability Rule A-R1, which requires, among other things, that IRM analyses make “due allowance” for emergency transfer capability.

process used by the NYISO to set the LCRs and thus it is internally consistent with the process used by the NYSRC to set the statewide IRM.

20. The unified methodology establishes a graphical relationship or curve between statewide IRM and the LCRs. The shape of the curve tends to be convex with higher LCRs at lower IRMs and lower LCRs at higher IRMs. Beyond the inflection point of the curve, which also known as the “Tan 45” point (*i.e.*, the point where the tangent measures 45 degrees), is the point where the curve tends to flatten out. At that point, higher IRMs result in minimal reduction in LCRs.
21. In the first step of the NCZ boundary analysis, the MARS simulations in conjunction with the unified methodology indicated that close to 6,000 MW of capacity could be relocated from Load Zones GHI to Load Zone J before the LOLE criterion for the NYCA would be violated. In the case of Load Zone K, the MARS simulation and unified methodology indicated that only approximately 300 MW of capacity could be transferred from Load Zones GHI to Load Zone K without a violation. This much lower number is attributable to the limited transmission export capability from Load Zone K to Load Zones GHI.
22. Thus, capacity in Load Zones GHI is much less fungible with capacity in Load Zone K. The result shows that from the resource adequacy perspective, Load Zone K capacity provides limited support and value to Load Zones GHI, especially in comparison to the support that Load Zone J provides.
23. In the second step of the NCZ boundary analysis, the NYISO conducted resource adequacy simulations that added capacity to Load Zones J and K separately to

determine how capacity additions in them would impact the LOLE for Load Zones GHI. This approach begins with the NYISO system at LOLE criterion and adds capacity. In general, adding incremental capacity to any location in the system, either NYCA Load Zones or neighboring systems, will show an improved LOLE to some extent. Even adding capacity to a location where the capacity is bottled (*i.e.*, constrained) can result in some improvement although when such improvements occur they will usually be smaller. The LOLE ordinarily declines rapidly towards zero in an asymptotic manner until the point of diminishing returns is reached or the LOLE has dropped to essentially zero. For the case where the capacity additions become bottled, the LOLE will stop improving at a certain point.

24. Adding capacity to Load Zones J or K would affect reliability in two ways. First, it would result in a lower LOLE because the number of loss-of-load events in those zones would be reduced and there would be more capacity available to share with other Load Zones subject to transmission constraints. Second, more of the capacity that is able to flow across the UPNY-SENY constrained Highway interface would be available to provide greater support to Load Zones GHI, and to Load Zone J or K, depending on where the capacity was added. For example, if capacity is added to Load Zone J, the proportion of capacity flowing over the UPNY-SENY interface that is available to support Load Zones G, H, I, and K will increase.
25. The NYISO examined cases where large amounts of capacity (*e.g.*, 3,500 MW) were added to Load Zones J and K. When 3,500 MW was added to Load Zone J, the LOLE in Load Zones GHI dropped from 0.1 days per year to essentially zero (0.001 days per year) because this amount of capacity increased the IRM by more

than 10%, to above 27% while the Load Zone J capacity margin increased by over 33%. These changes were so substantial because the 3,500 MW would not be bottled in Load Zone J.

26. By contrast, when 3,500 MW was added to Load Zone K it results in an even greater increase in the Load Zone K capacity margin, *i.e.*, 57%. The LOLE in Load Zones GHI LOLE fell to only 0.012 and stayed at this level without any further improvement. In fact, the NYISO increased the capacity additions in Zone K beyond 3,500 MW and there was no further improvement in the LOLE for Load Zones GHI or the NYCA LOLE. This is because the 3,500 MW of incremental capacity additions in Load Zone K become bottled there at some point while no such bottling occurred in Load Zone J. This result means that, unlike Load Zone J, adding more capacity to Load Zone K provides considerably less reliability benefit because the capacity additions become bottled.
27. Thus, the second step of the analysis demonstrates that adding capacity to Load Zone J provides greater LOLE benefits per MW in Load Zones GHI and in the NYCA than adding equivalent capacity to Load Zone K. The conclusion for the case of large capacity additions is that capacity in Load Zones GHI and Load Zone J is fungible but large capacity additions in Load Zones GHI and Load Zone K are not because incremental capacity becomes bottled in Load Zone K. The second step also shows that Load Zones GHI combined with Load Zone J (“Load Zones GHIJ”) are a superior location for incremental capacity than Load Zone K given that the objective is to send a price signal for incremental capacity additions in locations that provide the greatest reliability benefit and support for maintaining the

system at least at criterion. These results are consistent with and reinforce the findings from the first step.

28. In the third step of the NCZ boundary analysis, the NYISO conducted a transmission security analysis. Such analyses are conducted deterministically through the enumeration of multiple system facility outage events. Transmission security analysis is often referred to as “N-1” analysis. The LOLE results and capacity transfer capability resulting from the MARS simulations described above are probability weighted values. The transmission system topology and its limits used in the MARS model are derived from the N-1 analysis based on emergency transfer criteria (*i.e.*, with system facilities operating at 15 minute short term emergency ratings). That is, they aggregate a set of simulated system conditions which are probability weighted loss of load occurrences that reflect various system outages, extreme weather/load conditions, *etc.* The transmission security analysis provides the deterministic perspective and information about specific operation conditions. This provides a different view of real-time system operation conditions when compared to the probability weighted measures provided by the MARS analysis.
29. Under system operation conditions, the transfer capability based on normal transfer criteria (with system facilities operating at four-hour long term emergency ratings) from Load Zone K to Load Zone I results in less transfer capacity than the probability weighted results from the MARS simulations. The NYISO’s N-1 analysis found that the maximum power that can be transferred out of Load Zone K to the rest of NYCA under normal conditions is 233 MW; and under emergency

conditions it is 344 MW. The normal and emergency transfer capacities are sensitive to the load and the generation dispatch under various facility outage conditions on the 138 kV and 69 kV transmission systems in western Load Zone K.

30. An “N-1-1” transmission security analysis was also conducted for the Load Zones on the constrained side of the UPNY/SENY interface. In an N-1-1 security analysis, individual N-1 cases are created by removing critical generator, transmission circuit, transformer, series or shunt compensating device, or HVDC pole, from the base case. Next, a set of corrective actions is developed to restore the system to normal condition for each of the first N-1 contingency cases and to be ready for the second N-1 contingency (commonly referred to “N-1-1”).
31. With the Zone K export capability at 233MW, for the next ten years, an N-1-1 transmission security analysis for the Load Zones located on the constrained side of the UPNY-SENY interface demonstrated that SENY Load Zones must seek capacity from regions other than Load Zone K. Resource shortages due to generation outages/retirements in the Load Zones on the constrained side of the interface cannot be met by the addition of incremental generation capacity to Load Zone K. This conclusion is consistent with and reinforces those found in the first two steps described above.
32. Finally, the NYISO considered the fact that Load Zone J is electrically more integrated with the transmission system in Load Zones GHI than it is with Load Zone K. In general, this is a result of the fact that the Transmission Owner, and largest LSE serving Load Zone J, also has substantial operations in Load Zones GHI and, prior to deregulation also owned a substantial amount of generation

capacity in GHI that were built to serve load in GHI as well as Zone J. As a result, much of the transmission in GHI was designed to deliver energy generated in Load Zones GHI to Load Zone J. Further, it should be noted, that the backbone transmission system serving Load Zones GHIJ is a more robust 345 kV system while the backbone transmission system serving Load Zone K is a 138 kV except for its external ties to Load Zone I.

33. In conclusion, the Service Tariff requires the NYISO to determine the NCZ's boundary and that it consider "the extent to which incremental Capacity in individual constrained Load Zones could impact the reliability and security of constrained Load Zones, taking into account interface capability between constrained Load Zones."⁷ Further the Services Tariff provides that the boundary of the NCZ may encompass a single constrained Load Zone or group of Load Zones including one or more constrained Load Zones on the constrained side of the Highway. The analyses, described above, clearly shows that the capacity needs attributable to generation retirements cannot be fully met by adding generation in Load Zone K on a one-to-one basis. It is axiomatic that sound market design should promote economic efficiency. An NCZ should send price signals that promote reliability in an economically efficient manner. Establishing an NCZ that included Load Zone K would be inconsistent with these principles because it would incent capacity additions in Load Zone K even though such additions would

⁷ Services Tariff Section 5.16.2.

provide considerably less reliability value to the other Load Zones located on the constrained side of the UPNY-SENY interface and to the NYCA as a whole.

34. NYISO's proposed NCZ encompassing Load Zones GHIJ is more consistent with these tariff requirements than any other potential NCZ configuration, including a combination with Load Zone K. Taken together, the factors described above cause the NYISO to recommend that the NCZ created in response to the constraint identified in the NCZ Study should encompass Load Zones GHIJ, and should not include Load Zone K.

IV. Determination of the Indicative NCZ LCR

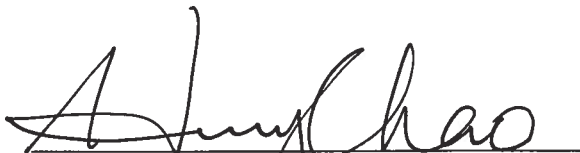
35. As stated above and in the transmittal letter, the Indicative NCZ LCR will be utilized in the determination of the ICAP Demand Curve for the NCZ. Therefore, a description of how it was calculated is provided here.
36. The NYISO calculated the Indicative NCZ LCR using the MARS model which, as described earlier, is the same tool that is used to perform the analysis determining the NYCA IRM and the LCRs.
37. As discussed above, the transmission constraints that are modeled in the MARS simulations can result in multiple sets of IRM and LCR "pairs." The "unified" or "Tan 45" methodology, was developed to determine the IRM and the LCR for Zones J and K all paired so that a balance is struck between the statewide (NYCA) IRM and the LCRs. The unified methodology has been in use since 2005 and has provided balanced levels of IRM and LCRs between upstate and downstate over time.

38. Under the unified methodology, a curve is developed that relates the statewide IRM and the LCRs. The anchor point on the curve is selected by applying a tangent of 45 degrees (“Tan 45”) at the bend (or “knee”) of the curve.⁸
39. To determine the Indicative NCZ LCR, the NYISO began by using the unified methodology to find the Tan 45 point for the statewide IRM and the 2013/2014 LCRs for Load Zones J and K. It then “layered” the proposed G-J Locality on top of load zones GHI and J at the Tan 45 point.
40. The NYISO ran simulations that shifted capacity from the Load Zones GHIJ to Load Zones A, C, and D until the LOLE criterion was satisfied. The NYISO performed that analysis because under the unified methodology, capacity from Load Zones J and K is shifted to Load Zones A, C, and D or to the Load Zones with excess and Load Zones that fully utilize the transmission system. It is at that point, where the collective capacity to Load ratio for Load Zones G-J became the Indicative NCZ LCR.
41. The application of this method resulted in a LCR for Load Zone K of 105% and a LCR of 86% for Load Zone J. The application of the methodology for NYISO’s proposed G-J Locality resulted in an Indicative NCZ LCR of 88%.
42. This concludes this affidavit.

⁸ See NYSRC Policy 5 Attachment A and B.

ATTESTATION

I am Henry Chao, a witness identified in the foregoing Affidavit of Henry Chao and John M. Adams dated April 30, 2013 (the "Affidavit"). I have read the Affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.



Henry Chao, Ph.D.
Vice President of System and Resource Planning
New York Independent System Operator, Inc.

April 30, 2013

Subscribed and sworn to before me
this 30th day of April 2013.



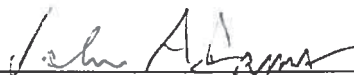
Notary Public

My commission expires: 5/31/15

THOMASINE DeSHAW
Notary Public, State of New York
Qualified in Rensselaer County
Commission Expires 5/31/15

ATTESTATION

I am John M. Adams, a witness identified in the foregoing Affidavit of Henry Chao and John M. Adams dated April 30, 2013 (the "Affidavit"). I have read the Affidavit and am familiar with its contents. The facts set forth therein are true to the best of my knowledge, information, and belief.



John Adams
Principal Electric System Planner
New York Independent System Operator, Inc

April 30, 2013

Subscribed and sworn to before me
this 30th day of April 2013.



Notary Public

My commission expires: 5/31/15

THOMASINE DeSHAW
Notary Public, State of New York
Qualified in Rensselaer County
Commission Expires 5/31/15



**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)

Docket No. ER13-1380-000

**PROTEST OF
CENTRAL HUDSON GAS & ELECTRIC CORPORATION**

Pursuant to Rule 211 of the Federal Energy Regulatory Commission's ("Commission") Rules of Practice and Procedure, 18 C.F.R. § 385.211 (2012), Central Hudson Gas & Electric Corporation ("Central Hudson") protests the tariff filing of the New York Independent System Operator, Inc. ("NYISO") on April 30, 2013 in the above-captioned proceeding ("April 30 Compliance Filing" or "Compliance Filing").¹

I. EXECUTIVE SUMMARY

As shown herein, the NYISO's filing to establish a "new capacity zone" ("NCZ") centered in the Lower Hudson Valley ("LHV") will cause the customers in Central Hudson's service territory to face multiple impacts to their rates: (1) higher capacity prices, (2) an unfair subsidy to customers of Consolidated Edison Company of New York ("Con Ed") in Capacity Zone J and customers of Long Island Power Authority ("LIPA") in Capacity Zone K, and (3) uncertain prospects for capacity rate relief even if new transmission lines are built to relieve the congested UPNY/SENY interface that has caused the need to create this NCZ in the first place.

These unjust and unreasonable results will occur because the NYISO failed to account for the impact that customers in Load Zones J and K have on the constrained UPNY/SENY interface and, correspondingly, the benefits that forming the NCZ will provide to consumers in Load

¹ Central Hudson has joined the Motion to Intervene and Protest of the Indicated New York Transmission Owner's ("Indicated NYTOs"), and the Protest of Consolidated Edison Company of New York, Inc. and Orange and Rockland Utilities, Inc., both of which have been filed in the captioned proceeding on May 21, 2013.

Zones J and K. The NYISO's fundamental mistake arose from the way it developed the Indicative Locational Capacity Requirements ("LCRs") used to establish the NCZ where it: (1) used system reliability concepts to develop the LCRs instead of system deliverability concepts as the Commission directed;² and (2) allocated a majority of the impact of the binding constraint at the UPNY/SENY interface to Load Zones G, H and I.

Thus, while the NCZ is expected to benefit customers in Load Zones J and K, those customers will not bear their proportionate share of the costs, as NYISO concedes. Worse, the flaw in the NYISO's method means that customers in the Lower Hudson Valley (Load Zones G, H, and I) may not see future rate relief even if the UPNY/SENY interface constraint is relieved because the NYISO's method does not properly account for deliverability constraints in the first place. These flaws in the NYISO's method mean that it fails to satisfy cost causation ratemaking requirements and, therefore, is unjust and unreasonable.

Central Hudson has developed an alternative LCR calculation method using deliverability concepts as presented in the attached affidavit of Mr. John J. Borchert that corrects the NYISO's errors. As Mr. Borchert shows, the flow of capacity from the new "rest of state" capacity zone (Zones A through F) to Load Zones J and K has a direct and measurable impact on the UPNY/SENY interface and subsequently the need to create the NCZ. While the NYISO considered these flows in its Highway Deliverability Test in determining the need to create the NCZ, it ignored them both in implementing the NCZ and in establishing the LCRs. Mr. Borchert recommends starting with the NYISO's computed Zone J LCR, Zone K LCR, and the corresponding NYCA (New York Control Area) Installed Reserve Margin developed using the "unified methodology" as described in the NYSRC (New York State Reliability Council) Policy

² *New York Independent System Operator, Inc.*, Docket No. ER04-449-023, at P 60 (Sept. 8, 2011) (Order On Compliance Filing).

5 to find the Tan 45 point. But Mr. Borchert, differs from the NYISO's method by proposing to link the indicative NCZ LCRs directly to the UPNY/SENY emergency transfer limit in the calculation and to allocate deliverability-based LCRs to the load zones downstream of the UPNY/SENY interface based on the incremental impact that those load zones have on the capacity flows across the UPNY/SENY interface.

Central Hudson, therefore, respectfully requests the Commission to order the NYISO to modify its method for calculating the indicative NCZ LCRs to take into account the deliverability impact across the UPNY/SENY interface as recommended in Mr. Borchert's affidavit. Alternatively, Central Hudson requests the Commission to direct its staff to convene a technical conference to address the indicative NCZ LCR calculation issue, to be followed by further comments.

II. BACKGROUND

Section 5.16.3 of the Services Tariff directs the NYISO to establish an Indicative Locational Minimum Installed Capacity Requirement ("Indicative NCZ LCR") for each Load Zone or group of Load Zones "identified in the NCZ Study as having a constrained Highway Interface, on or before March 1 of each ICAP Demand Curve Reset Filing Year." The NYISO must also provide "an opportunity for stakeholders to review and comment" NYISO uses Indicative NCZ LCRs "solely for establishing revised ICAP Demand Curves in accordance with Section 5.14.1.2."³ The NYISO satisfied the March 1 tariff deadline to establish an Indicative NCZ LCR including the stakeholder review requirements.⁴ The Commission subsequently

³ *Id.* The actual Locational Minimum Installed Capacity Requirements ("LCR") that will be used to administer market rules for the G-J Locality will be established in the same manner as, and concurrent with, the LCRs for existing Localities J and K.

⁴ See Services Tariff Section 5.16.3. The actual LCR that will be used to administer the G-J Locality capacity market rules will be established in the same manner as, and concurrent with, the LCRs for existing Localities J and K.

granted the NYISO's request for a waiver of the March 1 deadline so that the NYISO could adjust the Indicative NCZ LCR if necessary after further technical analyses. On March 28, 2013, the NYISO presented a revised proposed Indicative NCZ LCR at an ICAP (Installed Capacity) Working Group meeting. At the April 18, 2013 NYISO ICAP Working Group meeting, the NYISO made a presentation in response to stakeholder questions regarding the Indicative NCZ LCR. The Indicative NCZ LCR will be an element in the NYISO ICAP Demand Curve reset filing that will be submitted by November 30, 2013. The NYISO will continue to discuss with stakeholders the Indicative NCZ LCR, and its use, in the ICAP Demand Curve reset process.

On April 30, 2013, the NYISO submitted proposed tariff revisions to establish a NCZ that would encompass NYISO Load Zones G, H, I, and J (the "G-J Locality").⁵ The April 30 Filing includes a report of the results of the NCZ Study, which identified a Highway deliverability constraint that NYISO claims warrants creating the NCZ.⁶ The NYISO seeks to establish and implement the G-J Locality for the May 1, 2014 start of the 2014/2015 Capability Year.⁷ It argues that the NCZ is necessary to send efficient price signals, enhance reliability, mitigate potential transmission security issues, and serve the long-term interest of New York consumers.⁸ The NYISO has asked that the Commission issue an order no later than July 1, 2013, that accepts the proposed tariff revisions with an effective date of July 1, 2013, and provides later effective dates for certain proposed revisions providing for actions necessary to implement the NCZ.⁹

⁵ *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 ("April 30 Filing").

⁶ *Id.* Attachment X.

⁷ *Id.* at 1-2.

⁸ *Id.* at 1.

⁹ *Id.* at 2.

NYISO states that the NCZ will result in “expected” increases to capacity prices in Load Zones G, H, and I, but no price increases in other load zones.¹⁰ In providing illustrative calculations of consumer price impacts from the NCZ, NYISO’s witness, Mr. Niazi, relies on LCR calculations by witnesses Chao and Adams, and the assessment of NYISO’s market monitor, Dr. Patton, that the NYISO’s proposal is consistent with market design principles and therefore “reasonable.”¹¹ Although Mr. Niazi estimates price impacts on consumers in different Load Zones resulting from the NCZ, and Dr. Patton speaks generally to market design principles, none of the NYISO’s witnesses address the impact that Load Zones have on transmission constraints generally, or on the UPNY/SENY interface specifically that has triggered the need for the NCZ.¹² Thus, none of the NYISO’s witnesses address the reasonableness of the capacity cost allocation that results from the NYISO’s proposal.

The NYISO has also asked the Commission to issue an order accepting pending tariff revisions to establish market power mitigation rules in the NCZ as soon as possible.¹³ It states that it has had extensive discussions with its stakeholders regarding the NCZ Study, the proposed boundary, potential impacts of the proposed G-J Locality, the tariff revisions that would implement it, and related issues.¹⁴

¹⁰ *Id.* at 8; Niazi Aff. at 4.

¹¹ Niazi Aff. at 4, 6 (calculating “indicative” LCRs); April 30 Filing at 13 (quoting Patton testimony on market design).

¹² For example, although the NYISO performed a study that examined the support that generation located in Load Zones J and K provide to Load Zones G, H and I, the NYISO did not examine the benefits to Load Zones J and K that arise from adding generation in Load Zones G, H, or I or from building new transmission projects that resolve the UPNY/SENY constraints.

¹³ April 30 Filing at 2.

¹⁴ *Id.* at 9.

III. COMMUNICATIONS

All communications, pleadings, and orders with respect to this proceeding should be sent to the following individuals:

Raymond Wuslich
Winston & Strawn LLP
1700 K St., N.W.
Washington, DC 20006-3817

and

Central Hudson Gas & Electric Corporation
John Borchert
Senior Director of Energy Policy and
Transmission Development
284 South Avenue
Poughkeepsie, NY 12601
Email: jborchert@cenhud.com

IV. PROTEST

The Commission may approve cost allocation methods that apportion cost responsibility in rough proportion to the benefits that customers receive from utility service.¹⁵ The courts “evaluate compliance with this unremarkable principle by comparing the costs assessed against a party to the burdens imposed or benefits drawn by that party.”¹⁶ Here, although the NYISO has provided an analysis that shows why the NCZ is needed, it fails correctly to evaluate the beneficiaries of the NCZ, and thus rests on a cost allocation method that is unjust and unreasonable.

The flawed methods used to calculate and allocate the LCRs exacerbate an already immediate and substantial capacity price increase to consumers in the G-I Locality¹⁷ and according to the NYISO’s simulations will result in capacity price for customers in Load Zones

¹⁵ *Illinois Commerce Comm’n v. FERC*, 576 F.3d 470 (7th Cir. 2009); *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361 (D.C. Cir. 2004); *K N Energy, Inc. v. FERC*, 968 F.2d 1295 (D.C. Cir. 1992).

¹⁶ *Midwest ISO Transmission Owners v. FERC*, 373 F.3d 1361, 1368 (D.C. Cir. 2004).

¹⁷ Niazzi Aff. at 8 and Tables 1 and 2.

G-I to nearly double, increasing Zones G-I customer costs by \$173 million per year,¹⁸ both as a result of the NYISO's creation of the NCZ and its flawed methodology to allocate the impacts of the binding UPNY/SENY constraint. To alleviate these cost subsidization issues, Central Hudson has proposed a methodology of calculating and allocating the NCZ LCRs based on deliverability across the UPNY/SENY interface.

A. Contrary to the Rationale Supporting the Commission's Order Authorizing the NYISO to Establish the NCZ, Under the NYISO's Filing, the NCZ Locational Capacity Requirements Are Not Calculated Based on Deliverability Concepts, But Are Instead Calculated Based on Reliability Concepts.

According to the NYISO, to determine the Indicative NCZ LCR, the NYISO began by using the unified methodology to find the Tan 45 point for the statewide Installed Reserve Margin (IRM) and the 2013/2014 LCRs for Load Zones J and K. It then "layered" the proposed G-J Locality on top of load zones GHI and J at the Tan 45 point.¹⁹

This reliability based methodology resulted in an indicative LCR which is not related to the UPNY/SENY constraint. The error with the NYISO methodology is that it includes all capacity in Zones G-I and any changes in G-I generation will not affect the LCR the NYISO would calculate for the NCZ. Moreover, the addition of new generation in Load Zones G-I (which will be incented through the increase in capacity prices) will not result in a change in the LCR of the proposed NCZ; new G-I generation would, however, reduce the LCRs of Zones J and K. The flaw in the NYISO methodology is in the treatment of Load Zone G-I, and J capacity within the newly formed nested zone.²⁰

¹⁸ Niazi Aff., Table 3, states that the new capacity zone would cause capacity payments by customers in Load Zones G through I to increase from \$22 million per month in the summer and \$12 million per month in the winter, for a total annual payment of \$204 million to \$39 million per month in the summer and \$23 million per month in the winter, for a total annual payment of \$372 million, thereby causing an average increase of $(\$372 \text{ million} - \$204 \text{ million}) / \$204 \text{ million} = 82 \text{ percent}$.

¹⁹ Chao and Adams Aff. at p. 39.

²⁰ Borchert Affidavit at 11.

This NYISO reliability based methodology used to compute the NCZ LCRs are flawed because of the following reasons:

- 1) The Highway Deliverability Test was used to determine if a NCZ need to be created; therefore, deliverability concepts should be used to develop the details of the NCZ instead of using Reliability concepts that FERC had rejected as an unnecessary criteria in determining if a NCZ needed to be created.
- 2) The NYISO's NCZ LCR methodology erroneously includes all of the capacity installed in zones G-I. Should transmission be constructed that mitigates or eliminates the UPNY-SENY deliverability constraint that has resulted in the NCZ, all of the zone G-I capacity would still be included in the in the NCZ LCR calculation while the Zones J & K LCRs likely would be reduced. Because of this, even if new transmission lines are built to relieve the congested UPNY/SENY interface, capacity rate relief in zones G-I would not occur.
- 3) The NYISO erroneously did not include Zone K in the NCZ (only included Zones G, H, I, and J), even though Zone K is also downstream of the UPNY/SENY interface and the Zone K computed LCR (based on the unified methodology) will change depending if generating capacity located in Zones G, H, or I is added or is retired. For example, if new generating capacity is added in Zones G, H, or I (because of higher capacity prices in the G-J NCZ to incent new generation), this will result in lowering the computed Zone K LCR, which the NYISO's method does not take into account. Whereas, Central Hudson's proposed method is based on Deliverability concepts uses the UPNY/SENY emergency transfer limit directly to compute the

NCZ LCRs for all zones downstream of the UPNY/SENY interface (Zones G, H, I, J, and K) which accounts for the impact of new generation on capacity prices.²¹

Central Hudson's deliverability based methodology used to compute the NCZ LCRs are beneficial because of the following reasons:

- 1) The numerical accuracy of Central Hudson's proposed method to compute the NCZ LCRs based on Deliverability concepts shown in Mr. Borchert's affidavit can be easily reproduced and verified by any market participant, which provides better transparency to the market place.²²
- 2) Central Hudson's method yields similar results to the more complicated NYISO method in computing the overall LCR for the entire G-K NCZ; therefore, the computed LCR resulting from Central Hudson's method can easily and readily be used in the NYISO computed NCZ Demand Curve to determine the capacity payments from the electric capacity buyers and the capacity payments to the electric capacity sellers.

B. The April 30 Filing Is Also at Odds with the Commission's Intent to Promote More Efficient Price Signals.

The "nested" new capacity zone concept will allow for Zones J and K to shift capacity costs to Zones "G-H-I" due to the way the NYISO has designed and plans to implement this "nested" NCZ. Central Hudson estimates that recent system changes along with the proposed NYISO "nested" new capacity zone approach could increase capacity prices to Central Hudson's customers from \$19 million to as much as \$89 million annually, an increase of 475%.²³

²¹ Borchert Aff. at 16.

²² Borchert Aff. at 18.

²³ Borchert Aff. at 15. The magnitude of this rate impact is a further illustration of why the Commission should, at a minimum, grant the request of the Indicated NYTOs to phase in the rate impact of the NCZ.

The MMU states that “Because the binding UPNY-SENY interface limits supply resources from reaching Zones G-K, capacity retirement in Zones G and H has resulted in higher Locational Minimum Installed Capacity Requirements (“LCRs”) for Zones J and K. From the 2010/11 Capability Period to the 2013/14 Capability Period, the LCR for Zone J has risen from 80 percent to 86 percent. A one percent increase in the LCR translates to a \$1.30/kW-month increase in capacity prices given the current capacity demand curve and supply in New York City. Consequently, the delay in modeling a SENY capacity zone has led to higher capacity prices in Zone J.²⁴ This indicates that not only Load Zones G-I contribute to the binding of the UPNY/SENY interface; Load Zones J and K contribute as well.

The Commission has expressed its intent to promote correct price signals in connection with NCZs,²⁵ which is necessary to comply with cost causation ratemaking principles which require that costs must be allocated to customers in rough proportion to the benefits they receive. Here, however, the NYISO has not attempted to ensure that costs are allocated to the beneficiaries of the NCZ, but instead has used a method that assumes Load Zones G-I should pay all of the capacity costs attributable to the UPNY/SENY interface, whether constrained or not, seemingly indefinitely. The Commission should resolve this unjust and unreasonable result by requiring that the NCZ LCRs be based on the deliverability constraint and that the LCRs must be eliminated when the deliverability constraint is removed. This approach reflects cost causation because costs will be allocated to Load Zones based on the contribution of those Load Zones to the constraint. That approach is also more consistent with the Commission’s order authorizing

²⁴ Patton Affidavit at p. 11.

²⁵ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,165 at PP 55, 58, 60, 69-70 (2011); *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,160 at P 51 (2012).

NYISO to establish the NCZ, which assumed that the NYISO's analysis would be driven by deliverability constraints.

Although the NYISO only briefly addresses its Indicative NCZ LCR determination in this filing, and the NYISO seems to believe that it satisfied the March 1 tariff deadline to establish an Indicative NCZ LCR, including the stakeholder review requirements, the NYISO has not responded to the issues raised in the stakeholder process that the proposed methodology does not accurately reflect the needs in Load Zones G-I, shifts costs from zones J and K into zones G-I, and the methodology does not react in a logical manner to the addition of generation resources or the addition of transmission resources that relieve the deliverability constraint.

The NYISO has stated that it will continue to discuss with stakeholders the Indicative NCZ LCR, and its use,²⁶ in the ICAP Demand Curve reset process, Central Hudson remains concerned that the NYISO will not address the cost causation and cost subsidy issues. Absent a means to address these issues, the Commission should find that NYISO's cost allocation proposal is not just and reasonable, it should reject the NYISO's LCR methodology, and it should direct the NYISO to modify its methodology to be based on the deliverability constraint to allocate the impacts of the NCZ and the LCRs to the loads impacting the UPNY/SENY interface. Central Hudson has already developed and proposed such a methodology as discussed in Mr. Borchert's affidavit.²⁷ In the alternative, the Commission should order its staff to convene a technical conference to address these issues further. If the Commission chooses to order a technical conference, Central Hudson will work with the NYISO to adopt a mutually acceptable approach to achieve compliance and facilitate correct price signals.

²⁶ Niazi Aff. at 6.

²⁷ Borchert Affidavit at p. 16.

V. **CONCLUSION**

WHEREFORE, in view of the foregoing, Central Hudson Gas & Electric Corporation requests that the Commission order the NYISO to modify its filing in accordance with the comments herein, and include in any convened conference the issue of cost allocation in the NCZ as detailed above.

Respectfully submitted,

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/s/ John Borchert
John Borchert
Senior Director of Energy Policy and
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Central Hudson Gas & Electric Corporation
284 South Avenue
Poughkeepsie, NY12601
Email: jborchert@cenhud.com

Dated: May 21, 2013

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding, in accordance with Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (2012).

Dated at Washington, D.C., this 21st day of May, 2013.

/s/ Carlos L. Sisco

Carlos L. Sisco

Senior Paralegal

Winston & Strawn LLP

1700 K Street, N.W.

Washington, DC 20006-3817

202-282-5000

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.)

Docket No. ER13-1380-000

AFFIDAVIT OF JOHN J. BORCHERT

I, John J. Borchert, being duly sworn, depose and say:

1. My name is John J. Borchert. I am Senior Director of Energy Policy and Transmission Development with Central Hudson Gas & Electric Corporation, an electric and natural gas transmission and distribution company in New York State. My business address is 284 South Avenue, Poughkeepsie, New York, 12601.
2. I received a Bachelor of Engineering degree in Electric Engineering from SUNY Maritime College, Bronx New York in 1985, and an M.S. degree in Electric Engineering from Polytechnic University, Brooklyn, New York in 1992. I am a registered Professional Engineer in the State of New York.
3. Over the last 28 years, I have been an engineering and management employee of Central Hudson Gas & Electric Corporation. In my current position I monitor and provide strategic input in the technical aspects of state and federal regulatory energy policy. I serve as Central Hudson's representative on various NYISO Committees, as well as the New York State Transmission Owners Technical Committee. I represent Central Hudson in the development and formation of the NY Transco, a public-private partnership of the NY Transmission Owners to jointly develop and own transmission facilities in New York.

4. Prior to my current position, I was Manager of Electric Engineering at Central Hudson. I joined Central Hudson in 1985 as a Junior Engineer and had been promoted to several positions within the utility, including Power Quality Services Engineer, Supervisor of New Business, Manager of Customer Services, and Manager of Gas & Mechanical Engineering.
5. In the first section of this affidavit, I will demonstrate the flaws with the NYISO's April 30, 2013 filing to implement a New Capacity Zone (NCZ), the flaws with the methodology for calculating the Locational Capacity Requirement (LCR) for the NCZ¹, and the flaws with the NYISO's planned implementation of the LCRs in the Load Serving Entity Capacity Purchase Procedure.² I also will show how these changes will impact capacity prices only in the G-I capacity zones and how zones J and K will benefit from these changes.
6. In the second section of this affidavit, I will review a proposed solution to flaws in the calculation of the NYISOs NCZ LCR. This proposed deliverability based NCZ LCR calculation will not change the prior reliability based LCR calculations as established with the "unified methodology" described in NYSRC³ Policy 5. This proposed deliverability based NCZ LCR will be set after the reliability based LCRs are calculated and will not only tie the NCZ LCR more appropriately to the UPNY-SENY deliverability constraint, but will also apportion the NCZ locational capacity requirements to the capacity zones that are affecting the UPNY-SENY interface.

¹ New York Independent System Operator, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 ("April 30 Filing").

² See Services Tariff Section 5.16.3 The actual LCR that will be used to administer the G-J Locality capacity market rules will be established in the same manner as, and concurrent with the LCRs for existing Localities J and K.

³ New York State Reliability Council

NCZ LCR METHODOLOGY FLAW AND ZONE PRICE IMPACTS

7. The NYISO stated in its filing that “To determine the Indicative NCZ LCR, the NYISO began by using the unified methodology to find the Tan 45 point for the statewide Installed Reserve Margin (IRM) and the 2013/2014 LCRs for Load Zones J and K. It then “layered” the proposed G-J Locality on top of load zones GHI and J at the Tan 45 point. The NYISO ran simulations that shifted capacity from the Load Zones GHIJ to Load Zones A, C, and D until the Loss Of Load Expectation (LOLE) criterion was satisfied, however, this “shift” was just an illusion as the statewide LOLE was already at 0.1 days per year by locking in the zone J LCR and no shift would have been needed. Any additional shift in capacity would have resulted in a LOLE greater than 0.1 days per year. The NYISO performed that analysis because under the unified methodology, capacity from Load Zones J and K is shifted to Load Zones A, C, and D or to the Load Zones with excess and Load Zones that fully utilize the transmission system. It is at that point, where the collective capacity to Load ratio for Load Zones G-J became the Indicative NCZ LCR. The application of this method resulted in a LCR for Load Zone K of 105% and a LCR of 86% for Load Zone J. The application of the methodology for NYISO’s proposed G-J Locality resulted in an Indicative NCZ LCR of 88%.”⁴
8. Although I agree that the NYSRC & NYISO respectively set the statewide IRM requirement and zone J & K LCR requirements using the “Unified Methodology” described in NYSRC’s Policy 5, I do not agree that this methodology is appropriate for the proposed NCZ. The basic premise of Policy 5 is to balance local generating

⁴ Attachment XIV, page 16 (paragraph 39)

capacity with transmission capability. This is done by shifting capacity from Zones J & K to Zones A, C & D, simultaneously, until an LOLE of 0.1 days per year is reached; capacity in zones G-I is not shifted during this analysis. This shift for zones J and K is performed for various levels of IRM and two graphs are drawn (i.e., Zone J LCR vs. statewide IRM and Zone K LCR vs. IRM); each point on these graphs meet the required LOLE of 0.1 days per year. Policy 5's Tan 45 methodology then is used to draw a tangent line on each graph. These tangents are used to set the statewide IRM and Zone J & K LCR's and serve the dual purpose of meeting the reliability requirements throughout the state and in these two zones while balancing local generating capacity with transmission capability.

9. It should be noted here that, with the statewide IRM and Zone LCRs at the Tan 45 point (i.e., LOLE at requirement), the NYISO statement that it "...ran simulations that shifted capacity from the Load Zones GHIJ to Load Zones A, C, and D until the Loss Of Load Expectation (LOLE) criterion was satisfied⁵," would require the capacity shift to be 0 MW.
10. For the Lower Hudson Valley New Capacity Zone, the NYISO methodology proposes to set the G-J NCZ LCR based on the sum of the generating capacity that "remains" in the G-J zone, after sufficient generating capacity has been shifted out of the J and the K zones and into zones A, C, and D as part of the Unified methodology. Or in other words, the NYISO proposes to base the NCZ LCR on the sum of the Zones J capacity at its LCR + Zone K capacity at its LCR + Zone total of all of the G-I Capacity. In the NYISO methodology, to the extent that the Zone J & K LCRs are dependent on the UPNY/SENY emergency transfer limit, any new generation built in zones G-I will

⁵ Attachment XIV, page 16 (paragraph 40)

lower the Zone J and K LCRs; and similarly, any generation retiring from Zones G-I will raise the Zone J and K LCRs. This was seen with the recent retirement of a major unit in zone G that caused the LCRs in zones J and K to increase. In either case, the NYISO methodology includes all capacity in Zones G-I; changes in G-I generation, therefore, only will affect the zone J and K LCRs and not affect the LCR the NYISO would calculate for the NCZ. What is more troubling with the NYISO proposed methodology is that, should the expected increase in capacity prices incent large amounts of new generation to locate in zones G-I, an increase in the LCR of the proposed G-J NCZ could occur, which is the opposite effect of what one would expect. This is the case because the NYISO's NCZ LCR methodology always includes all of the capacity installed in zones G-I. Similarity, should transmission be constructed that mitigates or eliminates the UPNY-SENY deliverability constraint that has resulted in the NCZ, all of the zone G-I capacity will be included in the NCZ LCR calculation while the Zones J & K LCRs likely would instead be reduced.

11. The flaw in the NYISO methodology is in its attempt to treat zone G-I capacity similarly to zone J and K capacity. Based on the nature of the need for establishing a NCZ, there are now two differing reasons for establishing LCRs within these zones. The first is the long standing resource adequacy and reliability reason addressed through the NYSRC & NYISO respective statewide IRM requirement and zone J & K LCR requirements using the "Unified Methodology" described in NYSRC's Policy 5. The second is a new reason, which is the establishment of additional locational requirements due to the binding interface that has established the need to create a NCZ. Unfortunately, the NYISO methodology and the proposed market administration rules

attempt to solve both of these issues with a single tool and in doing so will cause cost subsidization issues among the zones. The NYISO has erred in attempting to resolve a deliverability issue by using a reliability tool through the use of the reliability based LCR rules and methodologies to establish the LCR of the NCZ.

12. With the NYISO methodology, the zones J and K LCRs are set for reliability purposes and then “locked” into place before the G-J NCZ LCR is computed. The NYISO methodology then looks at the needs for the NCZ, but fails to attribute these needs to all of the load zones downstream of the UPNY/SENY interface. Instead, it socializes these needs across the entire G-J NCZ only, , excluding the impact of zone K load on the UPNY/SENY interface, understating the impact of zone J load on the UPNY/SENY interface, and attributing most of the needs to zones G-I load.
13. The flow of capacity from the current Rest of State (ROS) to zones J and K has a direct impact on the establishment of the NCZ as can be seen in the assumptions used during the deliverability test used to establish the NCZ where the “ROS Direct MW Transfer: 2422 MW for ROS to zone J and 1072 MW for ROS to zone K” are locked.⁶ To use these capacity flows and their impacts in the establishment of the NCZ but ignore them in the implementation of the NCZ and the establishment of the LCRs and in the NYISO’s planned implementation of these LCRs in the Load Serving Entity Capacity Purchase Procedure is an error.
14. This can be seen most dramatically in the NCZ price impacts shown in the NYISO filing⁷ where the G-I zone annual impacts are \$173,000,000 and the impacts on zones J and K, also downstream of the UPNY/SENY interface are minimal or zero.

⁶ Attachment XII, page 6 (paragraph 16)

⁷ Attachment XII, page 11 (paragraph 32)

15. The cost impact to Central Hudson customers from prices experienced in capacity year 2012/2013 to the estimated prices for 2013/2014 based on recent system changes and the NYISO proposed NCZ are significant. The capacity costs for capacity year 2012/2013 were \$19 million. The capacity costs estimated for the 2013/2014 year is \$89 million. This is an estimated 475% increase in capacity costs.

DELIVERY BASED LCR PROPOSAL

16. In order to resolve these issues, Central Hudson proposes the following methodology for the establishment and allocation of the NCZ deliverability based LCRs. This proposed methodology will link the NCZ LCR computation directly to the UPNY-SENY emergency transfer limit and will allocate NCZ deliverability based LCR to all of the load zones downstream of the UPNY-SENY interface. In this methodology, the reliability based LCR calculations for the J and the K zones remain unchanged based on the NYSRC's Policy 5 unified methodology; however, the development and allocation of a deliverability based LCR for the NCZ is added to the process. In this process, the NCZ includes all zones that impact the UPNY-SENY interface, which are zones G-K. Although the NYISO states that zone K should not be included in the NCZ, zone K (which is downstream of the UPNY/SENY interface) is part of the reason why the UPNY-SENY interface is a binding constraint, and the impact of the capacity requirement in zone K on that interface proves that zone K should be included in the NCZ⁸.

17. As previously stated, if new generating capacity is added to zone G, zone H, or zone I with no other change in system conditions, zone J and zone K LCRs will decrease

⁸ Central Hudson has also joined the Consolidated Edison of New York and Orange and Rockland Corporation's Protest in this docket which was also filed on moved May 21, 2013

because zones G, H, I, J, and K are all downstream of the UPNY/SENY interface. Therefore, because the NYISO Highway Deliverability Test showed that the UPNY/SENY interface is a binding constraint (bottling 849.2 MW generation from upstream (Zones A through F))⁹ to indicate a need to create a NCZ, the NCZ that is created must include all load zones downstream of the UPNY/SENY interface (G through K).

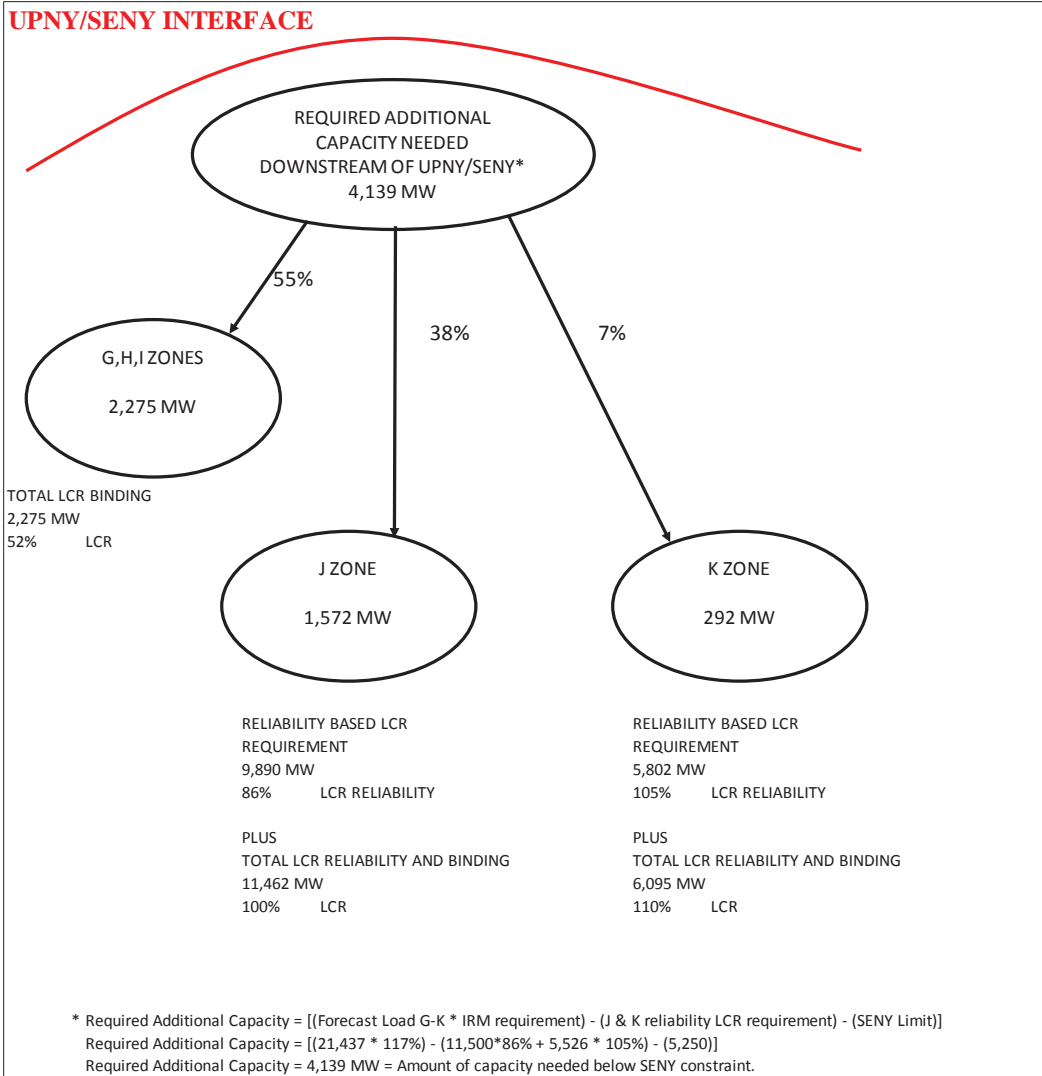
18. The calculations for the pictorial example are shown below. In this example, as the UPNY-SENY emergency transfer limit is increased, the amount of NCZ remaining capacity requirement is reduced and the NCZ deliverability based LCR will be reduced for all zones G-K. This calculation should not be used to replace the current NYISO Highway Deliverability test to establish a NCZ (or eliminate the need for the NCZ). This calculation should only be used as a way to properly assess and allocate the level of Binding LCR of the NCZ.
19. In addition, consistent with the comments filed by the indicated NYTO's¹⁰, the LCR for the NCZ should be set (or default) to zero when the UPNY/SENY deliverability constraint goes away in order to guarantee capacity price convergence between the NCZ and the new Rest of State (zones A through F) capacity zone. The NYISO's proposed reliability based method does not guarantee capacity price convergence when the UPNY/SENY deliverability problem is resolved.

⁹ Attachment X, page 13 ("Conclusions")

¹⁰ Central Hudson has joined the New York Transmission Owner's Protest and motion to intervene in this docket which was also filed on moved May 21, 2013.

Central Hudson's (CH) Proposed NCZ LCR allocation approach:								
Assumed Input Values:		NYCA ("A-K")	"G"	"H"	"T"	"J"	"K"	"G-K"
{fs1} Forecasted Summer 2012 (Non-Coincident Summer Peak Demand from 2012 NYISO Gold Book)	[MW (ICAP)]		2,287	687	1,437	11,500	5,526	21,437
{fs1} Forecasted Summer 2012 (Coincident Summer Peak Demand from 2012 NYISO Gold Book)	[MW (ICAP)]	33,295						
Based on "Unified Method":								
{a1} IRM Requirement (for Yr2013)	[%]	117%	117%	117%	117%	117%	117%	117%
{a2} LCR Requirement (for Yr2013)	[%]					86.0%	105.0%	---
{df1} Summer 2012 Derating Factor	[%]	9.18%	9.18%	9.18%	9.18%	6.79%	9.31%	
{r1} Based on IRM Requirement (for Yr2013) [{r1} = {fs1} * {a1}]	[MW (ICAP)]	38,955	2,676	804	1,681	13,455	6,465	25,081
{r2} Based on LCR Requirement (for Yr2013) [{r2} = {fs1} * {a2}]	[MW (ICAP)]					9,890	5,802	15,692
{t1} UPNY-SENY emergency transfer limit (based on the Yr2011 Deliverability Study)	[MW (ICAP)]							5,250
{t2} New Capacity Zone (NCZ) Remaining Capacity Requirement (Total) [{t2} = IRM Requirement - {r2} - {t1}]	[MW (ICAP)]							4,139
{r4} Total Capacity Requirement within Zones "G-K" [{r4} = {t2} + {r2}]	[MW (ICAP)]							19,831
{r5} Total Capacity Requirement within Zones "G-K" [{r5} = {r4} / {fs1}]	[%]							92.5%
Calculated Allocation								
{r2} Capacity Purchase needed to meet "J" and "K" LCR	[MW (ICAP)]					9,890	5,802	
{p1} Remaining Capacity Purchase needed to meet IRM requirement [{p1} = {r1} - {r2}]	[MW (ICAP)]		2,676	804	1,681	3,565	663	9,389
{p2} Remaining Capacity Purchase needed to meet IRM requirement as % allocation within Zones "G-K"	[%]		28.5%	8.6%	17.9%	38.0%	7.1%	100%
{r3} Delivery Zone Capacity Requirement (allocated)	[MW (ICAP)]		1,180	354	741	1,572	292	4,139
{r6} Total Capacity Requirement within Zones "G-K" [{r6} = {r3} + {r2}]	[MW (ICAP)]		1,180	354	741	11,462	6,095	19,831
{r7} Total Capacity Requirement within Zones "G-K" [{r7} = {r6} / {fs1}]	[%]		52%	52%	52%	100%	110%	93%
{r8} Total Capacity Requirement within Zones "G-K" in UCAP [{r8} = {r6} * (1 - {df1})]	[MW (UCAP)]		1,071	322	673	10,683	5,527	18,277

20. Below is a pictorial example of the proposed methodology to establish and allocate the NCZ deliverability based LCR. The top bubble shows the required capacity needed within zones G-K above what can be provided through the emergency transfer capability of the UPNY-SENY interface based on the total IRM requirement for the zones downstream of the UPNY-SENY interface minus the established reliability based LCR for zones J and K minus the UPNY-SENY emergency transfer capability. The additional required capacity needed downstream of the UPNY/SENY interface is 4,139 MW. This also can be called a deliverability based Binding LCR. This deliverability based Binding LCR is then allocated by the amount that each zone contributes to that Binding LCR. The deliverability based Binding LCR is added to the reliability based LCR to calculate the total LCR for each zone in the NCZ.



21. To illustrate the impact of this proposed change, I have developed an example of how the NYISO procedures would be changed in the implementation of these LCRs in the Load Serving Entity Capacity Purchase Procedure. The incremental requirements of the NCZ LCRs are added to the LCRs that come from the current reliability based method. This example is consistent with a draft example provided by the NYISO to the ICAP working group on April 18, 2013.

CHG&E Example: How much ICAP and UCAP an LSE needs to procure

		NYCA	J	K	G-I
LSE Actual Peak Load	(a)	10.0	10.0	10.0	10.0
Weather Adjusted Factor	(b)	1.03	1.03	1.03	1.03
Regional Load Growth Factor	(c)	1.02	1.02	1.02	1.02
Load Forecast	(d) = (a)*(b)*(c)	10.5	10.5	10.5	10.5
Install Reserve Margin (IRM)	(e)	117%	117%	117%	117%
NYCA ICAP Requirement	(f)=(d)*(e)	12.3	12.3	12.3	12.3
Locational Capacity Requirement (LCR)	(g)		86%	105%	
Locational ICAP Requirement	(h)=(d)*(g)		9.0	11.0	
NCZ Locational Capacity Requirement	(g1)		100%	110%	52%
NCZ Locational ICAP Requirement	(h1)=(d)*(g1)		10.5	11.6	5.5
NYCA UCAP Translation Factor	(i)	93%	93%	93%	93%
NYCA UCAP Requirement (MW)	(j)=(f)*(i)	11.4	11.4	11.4	11.4
Locational UCAP Translation Factor	(k)		90%	90%	90%
Locational UCAP Requirement (MW)	(l)=(h)*(k)		8.1	9.9	
NCZ Locational UCAP Requirement (MW)	(11)=(h1)*(k)		9.5	10.4	5.0

LSE in Zone J	MW
Procure in Zone J	8.1
Procure in G-K	1.4
Procure NYCA wide	1.9
NYCA Requirement	11.4

LSE in Zone K	MW
Procure in Zone K	9.9
Procure in G-K	0.5
Procure NYCA wide	1.0
NYCA Requirement	11.4

LSE in Zone GHI	MW
Procure in GHI	0.0
Procure in G-K	5.0
Procure NYCA wide	6.4
NYCA Requirement	11.4

22. The cost impact to Central Hudson customers from prices experienced in capacity year 2012/2013 to the estimated prices for capacity year 2013/2014 based on recent system changes and Central Hudson’s proposed NCZ with deliverability based LCRs are lower, but still significant. The capacity costs estimated for the 2013/2014 capacity year is \$71 million. This is an estimated 380% increase in capacity costs.

Conclusion

23. The NYISO’s proposed procedures will result in cost subsidization between load zones downstream of the UPNY-SENY interface and also will not correctly reflect how

generation additions within the NCZ or changes in transmission expansions that permit additional generating capacity to be delivered across the UPNY-SENY interface from zones A through F will impact the requirements in the NYISO's calculated LCR for the NCZ. The proposed NCZ Binding LCR allocation methodology addresses these issues by tying the generating capacity needs directly to the UPNY-SENY interface and ensuring the cost impacts will be consistently allocated to the loads that are impacting this interface.

24. This concludes my affidavit.

STATE OF NEW YORK

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) ss

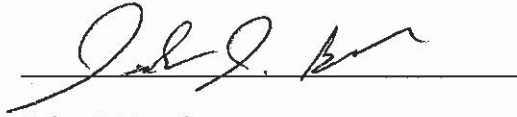
COUNTY OF DUTCHESS

)

I, JOHN J. BORCHERT, being first duly sworn on oath depose and say as follows:

I make this affidavit for the purpose of adopting as my sworn testimony in this proceeding the attached material entitled, "Affidavit of John J. Borchert."

Further affiant saith not.



John J. Borchert

On this 21st day of May, 2013, before me, the undersigned notary public, personally appeared John J. Borchert and acknowledged to me that he/she signed the forgoing document voluntarily for its stated purposes. I identified John J. Borchert to be the person whose name is signed on the forgoing document by means of the following satisfactory evidence of identity (check one):

- Identification based on my personal knowledge of his/her identity, or
- Current government-issued identification bearing his/her photographic image and signature.



Notary Public

DONNA M. GIARETTA
Notary Public, State of New York
No. 01GI5067398
Qualified in Ulster County
Commission Expires Oct. 15, 2014

My commission expires:

(SEAL)

144 FERC ¶ 61,126
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Jon Wellinghoff, Chairman;
Philip D. Moeller, John R. Norris,
Cheryl A. LaFleur, and Tony Clark.

New York Independent System Operator, Inc.

Docket No. ER13-1380-000

ORDER ACCEPTING PROPOSED TARIFF REVISIONS AND ESTABLISHING A
TECHNICAL CONFERENCE

(Issued August 13, 2013)

1. On April 30, 2013, the New York Independent System Operator, Inc. (NYISO) filed proposed revisions to its Market Administration and Control Area Services Tariff (Services Tariff) and its Open Access Transmission Tariff (OATT) to establish and recognize a new capacity zone that would encompass NYISO Load Zones G, H, I, and J (the G-J Locality). In this order, we accept NYISO's proposed tariff revisions to become effective July 1, 2013, with the exception of certain sections listed below that shall become effective January 15, 2014, and January 27, 2014, respectively, as requested. We also direct Staff to hold a technical conference, in a separate proceeding, to discuss with interested parties whether or not to model Load Zone K as an export-constrained zone for a future Demand Curve reset proceeding.

I. Background

2. NYISO's Installed Capacity (ICAP) market currently uses NYISO-determined demand curves for each of three ICAP pricing zones: New York Control Area (NYCA or Rest-of-State), New York City (NYC, comprised of Load Zone J), and Long Island (LI, comprised of Load Zone K). The entire NYCA has a reliability requirement for minimum capacity meeting a one day in ten year (0.1 day per year) Loss of Load Expectation (LOLE).¹ The NYC and LI capacity zones are referred to as "locational" zones because they each have a separate requirement that a certain minimum percentage of the zone's required generating capacity must be physically located within that zone

¹ New York State Reliability Council Reliability Rule A-R1, *available at* <http://www.nysrc.org/pdf/Reliability%20Rules%20Manuals/RR%20Manual%2027%20final-2%20July%2010-10.pdf>.

defined formally as Locational Minimum Installed Capacity Requirements (Locational Capacity Requirements).²

3. In a June 30, 2009 order,³ the Commission accepted NYISO's proposal to work with stakeholders to address dynamic changes to the NYCA that might warrant the creation of additional capacity zones within the ICAP market. In a September 8, 2011 order,⁴ in compliance with the June 30, 2009 Order, the Commission accepted in part and rejected in part NYISO's proposed criteria and considerations that would govern the evaluation and potential creation of new ICAP zones in the NYCA. In an August 30, 2012 order, the Commission accepted tariff revisions that implement Commission-approved Criteria for evaluating, identifying and, if necessary, establishing new capacity zones in the NYCA.⁵ According to those provisions, the new capacity zone process begins with a new capacity zone study (NCZ Study) in accordance with the methodology set forth in section 5.16.1 of the Services Tariff. If the NCZ Study identifies a constrained Highway⁶ interface into one or more load zones, NYISO must file with the Commission, on or before March 31, of a Demand Curve reset year, proposed tariff revisions necessary to establish and recognize the new capacity zone or zones and a report of the results of the NCZ Study.⁷ Section 5.16.1.1.5 of the Services Tariff provides that NYISO will perform the NCZ Study by applying the deliverability methodology from Attachment S of the NYISO OATT.⁸

² NYISO Services Tariff, § 2.12.

³ *New York Indep. Sys. Operator, Inc.*, 127 FERC ¶ 61,318 (2009) (June 30, 2009 Order).

⁴ *New York Indep. Sys. Operator, Inc.*, 136 FERC ¶ 61,165 (2011) (September 8, 2011 Order).

⁵ *New York Indep. Sys. Operator, Inc.*, 140 FERC ¶ 61,160 (2012) (August 30, 2012 Order).

⁶ Highway is generally defined as 115 kV and higher transmission facilities. *See* NYISO April 30, 2013 Filing Letter at 25.

⁷ NYISO Services Tariff § 5.16.4. If the NCZ Study does not identify a constrained highway interface, NYISO must file with the Commission its determination that the NCZ Study did not indicate that any new capacity zone is required pursuant to this process, along with a report of the results of the NCZ Study.

⁸ NYISO is to apply sections 25.7.8.2.6, 25.7.8.2.7, 25.7.8.2.8, 25.7.8.2.9, 25.7.8.2.12, and 25.7.8.2.13.

4. Section 5.16.3 of the Services Tariff directs NYISO to establish an Indicative NCZ Locational Minimum Installed Capacity Requirement (Indicative Locational Capacity Requirement)⁹ for each load zone or group of load zones identified in the NCZ Study as having a constrained Highway interface, on or before March 1 of each ICAP Demand Curve reset year. The Services Tariff provides that the Indicative Locational Capacity Requirement will be used solely for establishing revised ICAP Demand Curves.

5. On April 30, 2013, NYISO filed proposed tariff provisions to provide for a new capacity zone encompassing the G-J Locality and provided its NCZ Study Report. NYISO requests an effective date of July 1, 2013 with the exception of its proposed revisions to sections 2.7, 2.12, 2.18, and 23.2.1. NYISO is requesting an effective date of January 27, 2014, for these provisions because that date is sixty days after the ICAP Demand Curves are filed and thus, it will be the effective date for all ICAP Demand Curves including the Demand Curve for the G-J Locality. NYISO is also requesting an effective date of January 15, 2014, for section 26.4.3(iv), regarding credit exposures and credit requirements in a new capacity zone. On June 6, 2013, a deficiency letter (Deficiency Letter) was issued to NYISO regarding the new capacity zone. On June 12, 2013 and June 14, 2013, NYISO filed responses to the Deficiency Letter.

II. Summary of NYISO's Filing

6. NYISO states that the NCZ Study identified a Highway deliverability constraint which triggered the requirement to create a new capacity zone. NYISO proposes to establish a new capacity zone that would encompass NYISO Load Zones G, H, I, and J (the G-J Locality). NYISO states that it examined and considered the transmission system, capacity market, and economic consequences of its proposal and concluded that establishing and implementing the G-J Locality for the May 1, 2014 start of the 2014/2015 Capacity Year is necessary to send more efficient price signals, enhance reliability, mitigate potential transmission security issues, and serve the long-term interest of all consumers in New York State. NYISO also states that its Independent Market Monitoring Unit (MMU) supports NYISO's proposal.

7. To recognize the creation of the new capacity zone, NYISO proposes revisions to (1) several existing Services Tariff and OATT definitions; (2) certain tariff provisions related to the ICAP market to accommodate the fact that the new capacity zone will be a

⁹ Section 2.9 of the Services Tariff defines "Indicative NCZ Locational Minimum Installed Capacity Requirement" as "[t]he amount of capacity that must be electrically located within a New Capacity Zone, or possess an approved Unforced Capacity Deliverability Right, in order to ensure that sufficient Energy and Capacity are available in that NCZ and that appropriate reliability criteria are met."

Locality that contains another Locality,¹⁰ to specify that certain capacity cannot be used to satisfy a Locational Capacity Requirement,¹¹ and to modify language describing the payment of ICAP suppliers to specify that their compensation will be computed using the ICAP Demand Curve applicable to their offer; (3) specify a pivotal supplier threshold for the new capacity zone in Attachment H to the Services Tariff; and (4) the credit provision of Attachment K of the Services Tariff to reflect, *inter alia*, what the potential exposure will be, based on the fact that there will be a Locality contained within another Locality. NYISO also proposes a number of minor OATT revisions and certain ministerial formatting revisions.

8. NYISO further notes that, although it met the March 1 tariff deadline to establish an Indicative Locational Capacity Requirement, the Commission granted its request for a waiver of the deadline so that NYISO could adjust the Indicative Locational Capacity Requirement, if necessary, after further technical analysis. NYISO notes the application of its methodology for the proposed G-J Locality resulted in an Indicative Locational Capacity Requirement of 88 percent.¹²

III. Notice of Filing and Responsive Pleadings

9. Notice of NYISO's April 30, 2013 Filing was published in the *Federal Register*, 78 Fed. Reg. 28,210 (2013), with interventions, comments and protests due on or before May 21, 2013. Notice of NYISO's June 12, 2013 Filing was published in the *Federal*

¹⁰ Proposed G-J Locality and the existing NYC Locality (Load Zone J). NYISO's tariff defines "Locality" as a single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District or a set of adjacent Transmission Districts (or a portion of a Transmission District(s)) within which a minimum level of Installed Capacity must be maintained, and as specifically identified in this subsection to mean (1) Load Zone J and (2) Load Zone K. On June 19, 2013, in Docket No. ER12-360-003, NYISO filed to revise this definition to add "and (3) Load Zones G, H, I, and J collectively (i.e., the G-J Locality)" to its list of localities. That filing is pending before the Commission.

¹¹ NYISO states that capacity associated with External Capacity Resource Interconnection Rights (CRIS), Grandfathered External Installed Capacity Agreements listed in Attachment E of the ICAP Manual, and Existing Transmission Capacity for Native Load for the NYSEG are not eligible to satisfy a Locational Capacity Requirement. NYISO adds that the restriction would not apply to External capacity associated with Unforced Capacity Deliverability Rights (UDRs). NYISO April 30, 2013 Filing at 15.

¹² NYISO April 30, 2013 Filing Letter at 5 and notes 17-19.

Register, 78 Fed. Reg. 38,707 (2013) with a comment date of June 19, 2013. Notice of NYISO's June 14, 2012 Filing was published in the *Federal Register*, 78 Fed. Reg. 38,706 (2013) with a comment date of June 21, 2013. Calpine Corporation; TC Ravenswood, LLC; New York Association of Public Power; CPV Valley, LLC; Exelon Corporation; Transmission Developers, Inc.; Direct Energy Services, LLC; and PSEG Energy Resources & Trade LLC and PSEG Power New York LLC; Independent Power Producers of New York, Inc. (IPPNY); H.Q. Energy Services, Inc.; and NRG Companies filed motions to intervene.

10. Consolidated Edison Solutions, Inc. (ConEd Solutions); Multiple Intervenors;¹³ Entergy Nuclear Power Marketing, LLC (Entergy Nuclear); Central Hudson Gas & Electric Corporation (Central Hudson), Indicated New York Transmission Owners (Indicated NYTOs);¹⁴ and Consolidated Edison Company of New York, Inc. (ConEd), Orange and Rockland Utilities, Inc. (O&R), and Central Hudson (collectively, the Companies) filed motions to intervene and protests. New York State Public Service Commission (NYPSC) filed a notice of intervention and protest. Long Island Power Authority (LIPA) filed a motion to intervene and comments.

11. On June 5, 2013, ConEd and O&R; LIPA; Entergy Nuclear; and NYISO filed answers to various pleadings. On June 13, 2013, Indicated NYTOs filed an answer. On June 20, 2013, Central Hudson filed an answer to LIPA's and NYISO's answers. On June 18, 2013, Multiple Intervenors filed an answer. On June 19, 2013, Entergy Nuclear and the Companies each filed an answer to NYISO's June 12, 2013 Filing. On June 24, 2013, NYISO filed an answer to the Companies' June 19, 2013 answer.

IV. Discussion

A. Procedural Issues

12. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2013), the notice of intervention and timely unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

¹³ Multiple Intervenors state that they are an unincorporated association of over 55 large industrial, commercial, and institutional energy consumers with manufacturing and other facilities located throughout New York State.

¹⁴ Indicated NYTOs collectively consist of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., 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 & Electric Corporation.

13. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2013), prohibits an answer to a protest or to an answer unless otherwise ordered by the decisional authority. We will accept the answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

B. Substantive Issues

1. Need for a New Capacity Zone

a. NYISO's Filing

14. NYISO states that the NCZ Study determined that the Upstate New York/Southeast New York (UPNY/SENY) Highway interface into Load Zones G, H, and I was constrained because it was bottling¹⁵ 849.2 MW of generation from Load Zones A through F, and therefore, NYISO was required to create a new capacity zone.¹⁶ NYISO explains that the NCZ Study applied the assumptions and methodology required under section 5.16.1.1 of the Services Tariff.

b. Comments and Protests

15. LIPA supports NYISO's proposed revisions to implement and establish the G-J Locality and asserts that the proposed revisions are consistent with the requirements of NYISO's Services Tariff. LIPA states that it is not necessary for the Commission to examine issues related to the functions of NYISO's ICAP markets, such as the computation of the ICAP market Demand Curve for the new capacity zone, or the computation of the Locational Capacity Requirement in the new capacity zone.¹⁷ Rather, according to LIPA, the Commission should solely consider whether NYISO has complied with the existing provisions of the Services Tariff related to the creation of a new capacity zone.¹⁸

¹⁵ If the net generation available upstream is greater than the calculated First Contingency Incremental Transfer Capability (FCITC), that amount of generation above the FCITC is considered to be constrained or "bottled" capacity and may not be fully deliverable under all conditions, NCZ Study Report at 5.

¹⁶ NYISO April 30, 2013 Filing, NCZ Study Report at 13.

¹⁷ LIPA May 21, 2013 Comments at 4.

¹⁸ *Id.* at 5.

16. Entergy Nuclear also supports the creation of the new capacity zone and asserts that the erosion of the electric system in the Lower Hudson Valley over time provides proof of the harm that results when inaccurate price signals fail to adequately value capacity in a region. It states that the capacity price signal for the Lower Hudson Valley zones was suppressed by the excess capacity levels in the remainder of the Rest-of-State region that cleared against the NYCA curve, but were not deliverable to the Lower Hudson Valley zones due to the UPNY/SENY constrained interface.¹⁹ It asserts that the new capacity zone must be established without any further delay in order to address, among other things, reliability needs and the need to send accurate price signals.²⁰

17. The NYPSC argues, to the contrary, that the Commission should find that there is no need to implement a new capacity zone at this time and that the new capacity zone will result in unjust and unreasonable rates. The NYPSC asserts that NYISO's filing ignores the fact that the NYPSC has two proceedings underway²¹ that will result in the construction of major new transmission facilities during the 2016-2018 timeframe, thus alleviating the congestion that is leading to the creation of the new capacity zone.²² The NYPSC is concerned that implementation of NYISO's proposal at this time would cost ratepayers almost half a billion dollars over a three-year Demand Curve reset period without achieving any benefits. Further, according to the NYPSC, the benefits to ratepayers from implementing this new zone in 2014 are speculative and unlikely to materialize as the planned transmission upgrades will come into operation over the same period. The NYPSC also argues that NYISO's filing inappropriately emphasizes the MMU's contention that the lack of a price signal in the Lower Hudson Valley zones has contributed to a reduction of 1 GW of unforced capacity (UCAP) since 2006. The NYPSC states that most of the generation retirements were coal-fired units that were retired due to environmental restrictions and not because of low capacity prices.²³

¹⁹ Entergy Nuclear May 21, 2013 Comments at 10.

²⁰ *Id.* at 11.

²¹ The NYPSC states that it has solicited proposals for new generation and transmission projects that could be placed in service by the summer of 2016 in the event that Indian Point nuclear units are not relicensed, and it is seeking to secure approximately 1000 MW of AC transmission upgrades to address constraints on the UPNY/SENY and Central-East interfaces and to place such upgrades in service by 2018.

²² NYPSC May 21, 2013 Protest at 4.

²³ *Id.* at 6.

c. Answers

18. In its answer, NYISO asserts that the scope of this proceeding should be limited to the questions of whether NYISO properly conducted the NCZ Study, whether it correctly concluded that there was a constrained Highway interface, and whether the proposed new capacity zone boundary is just and reasonable.²⁴ NYISO states that the Services Tariff establishes a straightforward new capacity zone implementation “trigger,” i.e., if the NCZ Study identifies a constrained Highway interface, a new capacity zone must be created. NYISO states that the current tariff does not allow NYISO to consider other factors. NYISO contends that no party disputes that the Services Tariff contains this requirement, no party sought rehearing of the August 30, 2012 Order that accepted those tariff provisions, and there is no dispute that NYISO correctly identified a constrained Highway interface and adhered to the tariff requirements that it identify a new capacity zone boundary. NYISO argues that the NYPSC’s argument that NYISO should not create a new capacity zone despite the results of the NCZ Study is an impermissible collateral attack on the Commission’s September 8, 2011 Order and August 30, 2012 Order.

19. Entergy Nuclear asserts that the NYPSC overlooks the need to ensure that NYISO’s market design is efficient and sends accurate price signals, principles which are necessary for competitive markets to be sustainable over the long run. Furthermore, Entergy Nuclear states that, while no party has challenged the fact that severe constraints exist in the UPNY/SENY Interface, the NYPSC’s reliance on regulatory solutions to the constraints is an approach that will harm NYISO’s markets. Entergy Nuclear also states that the NYPSC fails to provide evidence to counter the MMU’s core assertions that the new capacity zone will provide incentives to properly value capacity to reflect reliability needs.

d. Commission Determination

20. For the reasons explained below, we find that NYISO has properly followed its tariff provisions for identifying a constrained Highway interface and adhered to the tariff requirement that it identify a new capacity zone boundary.

21. In the September 8, 2011 Order, the Commission found that:

NYISO should use the methodology contained in the existing Attachment S Deliverability Test in section 25.7.8 of Attachment S to the NYISO OATT in determining whether to create new [capacity] zones. That is, a new zone should be created when the total transmission transfer capability (including

²⁴ NYISO June 5, 2013 Answer at 4.

any upgrades that would be required to be built to make new resources capacity qualified) is insufficient to allow all of the capacity resources in a pre-existing zone to be deliverable throughout the pre-existing zone.²⁵

According to criteria accepted in the August 30, 2012 Order, if the NCZ Study identifies a constrained Highway interface into one or more load zones, NYISO must file with the Commission, on or before March 31, of a Demand Curve reset year, proposed tariff revisions necessary to establish and recognize the new capacity zone or zones and a report of the results of the NCZ Study.²⁶

22. NYISO's NCZ Study identified a Highway deliverability constraint, which triggered the requirement to create the proposed new capacity zone. Therefore, we find that NYISO complied with its tariff in identifying a need for and proposing a new capacity zone.

23. The NYPSC argues that there is no need to implement a new capacity zone at this time because it expects two large transmission upgrades to be built in the near future that will alleviate the existing congestion. But the criteria specified in NYISO's tariff for creating a new capacity zone does not consider whether transmission constraints will be alleviated in the future. Rather, it considers whether binding transmission constraints exist at present. As noted above, NYISO applied the Attachment S test and found that a binding transmission constraint exists. Therefore, a new capacity zone must be created under the terms of NYISO's tariff. In any event, the transmission upgrades that the NYPSC expects to result from its proceedings have not yet been built. The record in this proceeding suggests that the UPNY/SENY transmission constraint has been binding for several years. The price differential that is expected to develop when a new capacity zone is created will provide incentives to alleviate this constraint, such as by completing the transmission upgrades.

24. Further, we disagree with the NYPSC's assertions that a new capacity zone will result in unjust and unreasonable rates. The results of NYISO's application of the Attachment S Deliverability test demonstrate that a significant transmission constraint currently exists into NYISO's proposed new capacity zone. Any resulting higher capacity prices in the new capacity zone will help to encourage the development of new generation and/or transmission capacity to help alleviate the constraint. Such price changes promote efficient decisions and are not unreasonable. As noted below, a separate price signal in the G-J Locality will encourage capacity additions to a locality that is experiencing increasing reliability needs.

²⁵ September 8, 2011 Order, 136 FERC ¶ 61,165 at P 52.

²⁶ NYISO Services Tariff § 5.16.4.

25. Finally, we disagree with the NYPSC that creating a new capacity zone would provide no economic benefits and would needlessly increase customers' bills. We conclude that creating a new capacity zone is necessary to provide more accurate price signals over the long run to encourage new investment in the new capacity zone when it is needed.

26. The NYPSC is concerned that prices in the new capacity zone would be higher than in the Rest-of-State, because the higher net cost of new entry in the new capacity zone would raise the new capacity zone's ICAP Demand Curve. In the NYPSC's view, the transmission upgrades expected to be completed in the next few years would eliminate the need to create a new capacity zone and the resulting higher prices, because the upgrades would relax the transmission constraint that has bottled generation capacity. But no one argues that the upgrades would eliminate the reliability need for some capacity to be located within the new capacity zone. In order to encourage new resources to be built in the new capacity zone when they are needed, capacity prices on average over time must approximate the net cost of new entry in the new capacity zone. Otherwise, developers will be reluctant to build the new capacity that will be needed as load grows and resources retire over time. Because the net cost of new entry in the new capacity zone is higher than in the Rest-of-State, the new capacity zone needs its own ICAP Demand Curve, reflecting its higher net cost of new entry, in order to send the necessary price signals over the long run and provide the higher capacity revenue over the long run needed to encourage new investment.

2. Phase-In of the New Capacity Zone

a. NYISO's Filing

27. NYISO did not propose tariff revisions that would provide for the phase-in of a new capacity zone.

b. Protests

28. Indicated NYTOs protest that NYISO's proposal does not provide for a phase-in of the new capacity zone, even though NYISO's filing shows that the new capacity zone will likely cause an immediate and substantial capacity price increase to consumers in the G-I region.²⁷ Indicated NYTOs assert that the new capacity zone price impacts should be phased-in over a period of time consistent with the phase-in period that was applied for

²⁷ Indicated NYTOs assert that NYISO's simulations show capacity charges for customers in load zones G through I will nearly double, increasing by \$168 million per year solely as the result of the creation of the new capacity zone, and, combined with the impact of recent retirements, mothballing, and other factors, to quintuple.

the implementation of the original demand curves and the Commission should convene a technical conference to determine the price parameters of the phase-in so that they can be considered as part of the upcoming demand curve reset process.

c. Answers

29. In its answer, NYISO states that it believes that the establishment and implementation on May 1, 2014, of a G-J Locality will be in the ultimate long-term economic interests of all New York consumers, but it takes no position on whether the phase-in of capacity price impacts is warranted on non-economic grounds. NYISO states that the MMU argues against the phase-in of capacity prices in the 2012 State of the Market Report, and that a phase-in would delay the capacity markets' ability to send more efficient investment price signals.²⁸ NYISO notes that it is not yet able to evaluate if the administrative considerations of phasing-in price impacts of a new capacity zone would delay implementation of a new capacity zone.²⁹

30. Entergy Nuclear disagrees with Indicated NYTOs' argument to phase-in the price impacts of a new capacity zone and contends that the argument glosses over the fact that the value of capacity in the Lower Hudson Valley has been significantly understated for years. Entergy Nuclear states that the Commission has long emphasized the need for NYISO to create new capacity zones to send efficient price signals and, over the time period since the Commission orders were issued, the need for capacity in the Lower Hudson Valley has grown. Entergy Nuclear concludes that, given seven years of undervalued capacity in the Lower Hudson Valley, any further arbitrary diminution of the value provided by capacity in this region will only turn merchant generation investment away from the New York markets.

²⁸ NYISO June 5, 2013 Answer at 34-35 (citing Potomac Economics, *2012 State of the Market Report for the New York ISO Markets* (April 2013) at 52 available at <http://www.nyiso.com/public/webdocs/markets_operations/committees/mc/meeting_materials/2013-04-24/4_NYISO%202012%20SOM%20Report.pdf> (“2012 SOM Report”)) (“In summary, the creation of a SENY capacity zone before 2014 would have facilitated more efficient investment in both new and existing resources where the Reliability Needs Assessment has identified resources are necessary for resource adequacy over the next ten years. Nonetheless, it should remain a high priority for NYISO to move forward expeditiously to create and price the SENY zone.”).

²⁹ NYISO June 5, 2013 Answer at 34.

d. Commission Determination

31. We do not agree with Indicated NYTOs that the effect of the new capacity zone should be phased in, and thus, we will not require such a phase-in. We agree with the MMU that a phase-in would delay the capacity market's ability to send more efficient investment price signals. Moreover, stakeholder discussions about the need for a new capacity zone in the Lower Hudson Valley have been ongoing over several years and have provided notice to stakeholders of the need for a new capacity zone. We also agree with Entergy Nuclear that the Commission has long emphasized the need for NYISO to explore creating new capacity zones to send efficient price signals to influence capacity investment decisions, and over the time period since the Commission's orders were issued, the need for a new capacity zone in the Lower Hudson Valley has only become more pronounced. We also agree that these issues have been considered over a seven-year time period with extensive focus placed on them over the past two years and parties have been on notice of these impending market design changes. For example, the 2006 State of the Market Report by NYISO's MMU identified the potential need for such a new capacity zone.³⁰ The report stated that "[o]ne location where long-term reliability concerns have arisen is in the lower Hudson Valley.... Hence, we recommend that the NYISO initiate an assessment to determine whether a new capacity zone with local requirements is warranted to address the Hudson Valley reliability requirements.³¹ Additionally, NYISO's capacity deliverability tests beginning in 2008 identified that the UPNY/SENY transmission interface between the Upper Hudson Valley and the Lower Hudson Valley was overloaded.³²

3. Boundaries of the New Capacity Zone

a. NYISO's Filing

32. As noted above, NYISO's proposed new capacity zone encompasses Load Zones G, H, I, and J, but excludes Load Zone K. NYISO states that, pursuant to section 5.16.2 of the Services Tariff, if the NCZ Study identifies a constrained Highway interface into one or more load zones, NYISO is required to identify the boundary of one or more new capacity zones by considering the extent to which incremental capacity in individual constrained load zones could impact the reliability and security of the constrained load

³⁰ Entergy Nuclear, May 21, 2013 Comments, Younger Aff. ¶ 12 (citing 2006 State of the Market Report at vi).

³¹ 2006 State of the Market Report at vii.

³² *Id.*, Younger Aff. ¶ 15.

zones.³³ That is, NYISO must determine which of the load zones on the import side of the constrained interface to include in the new capacity zone. Five load zones – G, H, I, J, and K – exist on the import side of the UPNY/SENY interface.

33. NYISO states that it determined the boundary of the new capacity zone based primarily on resource adequacy assessments. In those assessments, NYISO indicates that it ran simulations using General Electric’s Multi-Area Reliability Simulation model, as well as, “unified” or “Tan 45” methodology where capacity was relocated from Load Zones G, H, and I to Load Zones J and K while monitoring compliance with New York State Reliability Council (NYSRC) LOLE requirements.³⁴ The simulations reveal that almost 6,000 MW could be relocated from Zones G, H, and I to Zone J before the LOLE criterion would be violated, but only 300 MW could be relocated from Load Zones G, H, and I to Zone K before the LOLE criterion would be violated.³⁵ The simulations also found that if 3500 MW was added to Zone J, LOLE in Zones G, H, and I dropped from 0.1 days per year to 0.001 days per year.³⁶ But when the same amount was added to Zone K, LOLE in Zones G, H, and I dropped from 0.1 to only 0.012.³⁷

34. NYISO states that these simulations indicated that capacity in Load Zones G, H, and I was more fungible with capacity in Load Zone J than it was with Load Zone K. According to NYISO, this means that capacity in Load Zone K could only provide limited support to Load Zones G, H, and I. NYISO, therefore, proposes to establish a new capacity zone that would encompass Load Zones G, H, I and J and implement this new G-J Locality for the May 1, 2014 start of the 2014/2015 Capability Year.³⁸

35. As further justification for the G-J Locality, NYISO notes that the reliability needs of the G-J Locality are significant and increasing. NYISO notes that the MMU’s 2012 State of the Market Report referenced recent generator retirements in Load Zones G and H that resulted in higher Locational Capacity Requirements for Load Zones J and K and

³³ See NYISO April 30, 2013 Filing Letter at 6. See also Chao/Adams Aff. ¶ 5.

³⁴ NYISO April 30, 2013 Filing Letter at 12.

³⁵ NYISO April 30, 2013 Filing, Chao/Adams Aff. ¶ 21.

³⁶ *Id.*, Chao/Adams Aff. ¶ 25.

³⁷ *Id.*, Chao/Adams Aff. ¶ 26.

³⁸ NYISO Load Zones G, H and I collectively are also sometimes referred to as the “Lower Hudson Valley” zone.

commensurate price increases in these Localities.³⁹ In addition, NYISO notes that the amount of UCAP in Load Zones G, H, and I has fallen by 1 GW since the summer of 2006 and NYISO asserts that this capacity reduction has occurred in part because of the lack of a separate price signal in these load zones.

36. Furthermore, NYISO states that including Load Zone K in a new capacity zone would be inconsistent with sound market design principles because it would incent capacity additions in an area with less reliability value to Load Zones G, H and I and the NYCA region. NYISO also notes that the Patton Affidavit⁴⁰ agrees with NYISO that creating the G-J Locality is consistent with market design principles and is a reasonable configuration.

37. In its June 12, 2013 response to the Deficiency Letter, NYISO states that the only direct ties between Zone K and NYCA are with Zones I and J. NYISO explains that because the NYCA minimum ICAP requirement includes the requirements of Zone K, capacity located in Zone K does in fact contribute directly to meeting the NYCA requirement. But because capacity in Zone K has very little ability to be transferred to Load Zones G, H, and I, it cannot adequately be relied on to satisfy the reliability needs of Load Zones G, H, and I. In response to Dr. Sasson's comment⁴¹ that adding 1000 MW of capacity to Zone K would reduce the LOLE of Zones G, H, and I from 0.087 to 0.012, which, according to Dr. Sasson, is a significant reliability benefit, NYISO states that most of the reduction in the Zone G, H, and I LOLE comes from the first 300 MW of capacity, since capacity in excess of 300 MW would become bottled due to transmission transfer limits.

38. The Deficiency Letter also asked about the minimum quantitative criteria to determine whether to include or exclude a load zone in a new capacity zone, and how the 300 MW from the LOLE study and the 344 MW from the transmission security analysis apply to determining whether to exclude Load Zone K. NYISO responds that its minimum quantitative criterion was whether the incremental capacity was fully fungible in the new capacity zone – that is, whether the incremental capacity would provide equivalent reliability as measured by LOLE to the other load zones on the constrained side of the Highway interface. NYISO states that the results of its simulation analysis showed that about 300 MW of incremental capacity in zone K would be fungible. NYISO also states that the 344 MW figure from the transmission security analysis is the

³⁹ NYISO April 30, 2013 Filing Letter at 7.

⁴⁰ NYISO April 30, 2013 Filing, Patton Affidavit (David B. Patton of Potomac Economics serves at the Market Monitoring Unit (MMU) for NYISO.

⁴¹ Dr. Mayer Sasson is a consultant for the Companies.

upper bound limit of the transfer capability from zone K under emergency conditions, that the lower bound is 144 MW, and that the normal transfer capability is 233 MW.

39. In response to the Deficiency Letter's question regarding the quantity of fungible transfer capacity that would have been sufficient for Zone K to be included in the proposed new capacity zone, NYISO responded that it would not be unreasonable to include Zone K in the new capacity zone if incremental capacity in Zone K equal to at least half of the total generation capacity in Zones G, H, and I (i.e., 2000-2500 MW) was fungible. NYISO's response is based on its assessment of the potential for retirements in the near future.

b. Protests and Comments

40. LIPA states that NYISO has correctly applied the provisions of the Services Tariff to establish the Zone G-J new capacity zone by: (1) properly identifying a constraint along a Highway interface; (2) establishing the boundaries of the new capacity zone based on the interface capability between load zones; and (3) providing proposed revisions to establish and recognize the new capacity zone along with the NCZ Study report.⁴² LIPA believes it is just and reasonable to create a new capacity zone that excludes Zone K because it will create a price signal to construct capacity in Zone G-J, where it is most beneficial relative to the identified constraint.

41. Multiple Intervenors state that NYISO announced, on January 30, 2013, a determination to include Zones G-K as the boundary of the new capacity zone based on analyses showing that Zone K can provide reliability and security benefits to the new capacity zone. Multiple Intervenors state that based on this determination, the requirements of section 5.16.2 of NYISO's Services Tariff call for the inclusion of Zone K in the boundary of the new capacity zone. Further, Multiple Intervenors note that, although NYISO confirmed this determination at subsequent Installed Capacity Working Group meetings and maintained this position for two months, it later decided that Zone K would be excluded from the new capacity zone boundary. Multiple Intervenors state that NYISO's decision to subjectively compare the level of reliability and security support provided by each zone under consideration for inclusion in the boundary of the new capacity zone is not provided for in NYISO's Services Tariff. Multiple Intervenors state that, therefore, NYISO's proposal to exclude Zone K from the boundary of the new capacity zone is fundamentally inconsistent with the results of its own analyses and with the requirements of section 5.16.2 of NYISO's Services Tariff.

⁴² LIPA May 21, 2013 Comments at 5-6.

42. Multiple Intervenors state that NYISO's analyses have shown that Zone K can provide 300 MW of reliability and security support to the new capacity zone and that such significant support would require inclusion of Zone K under any subjective criteria added to section 5.16.2 of NYISO's Services Tariff. Further, Multiple Intervenors note that this level of support is more than 50 percent greater than the capacity rating of the applicable ICAP Demand Curve proxy unit that would likely apply to the new capacity zone and therefore, justifies the inclusion of Zone K within the new capacity zone boundary. In addition, Multiple Intervenors state that this level of identified support available from Zone K can play a significant role in addressing reliability issues throughout the southeastern New York region. Multiple Intervenors also state that Zone K should be included in the new capacity zone boundary because it relies upon the Lower Hudson Valley region for reliability and security support, as well as for achieving 12 percent of the statewide minimum installed reserve margin.

43. Multiple Intervenors, however, state that if the Commission were to determine that the level of available support from Zone K warrants special considerations with respect to its inclusion in the new capacity zone, then the Commission should direct NYISO to further consider whether modeling Long Island as an export-constrained zone is warranted. Multiple Intervenors add that the Commission should require an examination of the costs and efforts necessary for NYISO to accomplish such modeling in order to determine if the pursuit of special considerations would be prohibitive from a cost perspective and result in imposing unnecessary costs on consumers. Further, according to Multiple Intervenors, if the Commission were to determine that: (1) modeling Zone K as an export-constrained zone is warranted, necessary, and not cost-prohibitive; and (2) NYISO is unable to implement export-constrained modeling in time for the implementation of the proposed new capacity zone, then the Commission should direct NYISO to include Zone K within the new capacity zone boundary without any restrictions in the interim and model Zone K as an export-constrained zone when, and if, the appropriate modeling capability becomes feasible.

44. Both Multiple Intervenors and the Companies argue that NYISO's proposal to exclude Load Zone K from the new capacity zone is unjust and unreasonable and not in compliance with NYISO's tariff. They state that the test in NYISO's tariff for including an additional load zone in a new capacity zone is the extent to which incremental capacity in the load zone could impact the reliability and security of the proposed new capacity zone, taking into account the interface capability between that load zone and the other load zones included in the proposed new capacity zones. Multiple Intervenors argue that the fact that New York City can provide a comparatively greater amount of reliability support to the new capacity zone than Long Island can is not only irrelevant, it is completely predictable given the size of the New York City market. They contend that the assessment must be done on a load zone by load zone basis. The Companies argue that NYISO's filing incorrectly discounts the support that Zone K could provide to the proposed new capacity zone, that the filing incorrectly determines that Zone K is

electrically isolated from the proposed new capacity zone, and that the filing incorrectly concludes that Zone K has limited ability to assist and support the proposed new capacity zone and could not fully satisfy a capacity need in the event of a generator retirement in the new capacity zone.

45. Dr. Sasson, testifying for the Companies, raises additional points. He asserts that NYISO's arguments largely rest on a comparison of the relative abilities of Zones J and K to provide capacity assistance to Zones G, H, and I. But, in Dr. Sasson's view, such a comparison is not an appropriate test; both Zones J and K could be included in the new capacity zone if they both provide sufficient assistance. Dr. Sasson agrees with NYISO that shifting more than 300 MW from Zones G, H, and I to Zone K would raise the NYCA LOLE, but he disagrees that the LOLE increase is due to a transmission limitation. Rather, in his view, it is due to the fact that the capacity shift would lower the LOLE of Zone K by less than it would raise the LOLE of Zones G, H, and I. As support for his view, Dr. Sasson presents data to show that there were flows from K to I for only 215 hours for the year and that, during those hours, the average flow from K to I was only 130 MW. The transfer capability limit flow was reached for an average of less than one hour.⁴³ Dr. Sasson states that the emergency transfer capability from Zone K to Zones G, H, and I is 530 MW. Dr. Sasson also describes another simulation test performed by NYISO in which generation capacity was added to Zone K until the transmission constraint bound. The constraint bound at a level of 3500 MW. This level of additional capacity would lower the LOLE of Zones G, H, and I from 0.087 to 0.012. In Dr. Sasson's view, these numbers are significant, and demonstrate that Zone K should be included in the new capacity zone.

c. Answers

46. NYISO asserts that the Commission should not review the proposed new capacity zone boundary as if there were only one correct configuration because the Services Tariff gives NYISO the flexibility to use its expertise and judgment to make a reasonable determination. NYISO states that its decision to exclude Zone K from the new capacity zone was based on its analyses, which showed that incremental capacity in Long Island cannot effectively provide reliability benefits to other Load Zones in the new capacity zone.⁴⁴ NYISO reiterates that its analyses included looking at Load Zone K separately from Load Zone J and jointly. However, NYISO avers that the pertinent consideration in determining the new capacity zone boundary is the impact on the one-day-in-ten-years

⁴³ The Companies May 21, 2013 Protest, Sasson Aff. ¶ 14.

⁴⁴ NYISO June 5, 2013 Answer at 19-20, 23-24.

LOLE requirement, not the potential increase in transfer capability, the factor on which ConEd's and Central Hudson's protests focus.⁴⁵

47. In response to the arguments of the Companies and their witness, Dr. Sasson, NYISO states that it is true that 530 MW is the maximum transfer limit from Load Zone K to Load Zones G, H, and I, but the actual limit will often be significantly lower because of simultaneous transfer and generator availability impacts.⁴⁶

48. NYISO witnesses Chao and Adams explain further that the fungibility test was the primary test utilized by NYISO in its new capacity zone boundary analysis, and that this test assesses whether capacity in a load zone can be substituted one-for-one with capacity in Load Zones G, H, and I. NYISO found that incremental capacity of 300 MW, equivalent to less than 7 percent of the existing capacity in load zones G, H, and I, is fungible with capacity in Load Zone K, and that such a small value confirms that excluding Load Zone K from the new capacity zone is reasonable.⁴⁷ By contrast, NYISO's analysis found that incremental capacity in Load Zone J could replace all of the capacity in Load Zones G, H, and I.⁴⁸

49. Chao and Adams also dispute Dr. Sasson's claim that transmission transfer limits did not cause the NYCA LOLE to exceed 0.1 when more than 300 MW of capacity were relocated from Load Zones G, H, and I to Load Zone K under the fungibility test. Chao and Adams also disagree with Dr. Sasson that the proper transfer limit to use between Zones G, H, and I and Zone K is the emergency limit of 530 MW. Chao and Adams argue that Dr. Sasson focused only on the transmission path between Zones G, H, and I and K. However, they state, Zone K has transmission ties to both Zones G, H, and I and Zone J. In their view, while the maximum independent transfer capability between Zones G, H, and I and Zone K (taking into account only flows between these zones) is 530 MW, the simultaneous capability limit (taking account of flows to all locations) will often be lower. They add that of the simulation cases involving excess capacity in Zone K, the excess capacity was delivered solely to Zones G, H, and I in only 5 percent of the cases. By contrast, according to Chao and Adams, in 95 percent of the simulations when Zone K had excess capacity, Zone J received part or all of the excess. Thus, they argue, it is

⁴⁵ *Id.* at 24, 28-29.

⁴⁶ *Id.* at 25.

⁴⁷ *Id.*, Chao/Adams Aff. ¶¶ 27-29.

⁴⁸ *Id.*, Chao/Adams Aff. ¶ 31.

more appropriate to consider the simultaneous transfer limit rather than the independent transfer limit.⁴⁹

50. LIPA argues for the exclusion of Zone K. It asserts that ConEd, Central Hudson and Multiple Intervenors are motivated to include Zone K in the new capacity zone because doing so will more broadly socialize the new capacity zone implementation costs and also utilize Long Island's existing capacity to offset the purchase obligation of ConEd, Central Hudson and Multiple Intervenors in the new capacity zone auction. LIPA asserts that it is illogical to include Zone K in the new capacity zone and send a price signal to construct capacity in a zone that cannot benefit the constrained zone. According to LIPA, this price signal should be focused on New York City and the Lower Hudson Valley or Zones G-J, where generation is most able to relieve the area downstream of the UPNY/SENY transmission constraint. LIPA argues that including Long Island in a new capacity zone will both dilute and misdirect the price signal away from the Lower Hudson Valley and New York City.

51. In its June 19, 2013 answer to NYISO's response to the deficiency letter, the Companies (and its witness, Dr. Sasson) argue that since Zone K's capacity counts toward the NYCA capacity requirement, it must be reasonable to count the same Zone K capacity toward the new capacity zone and Zone GHI requirements. The Companies also argue that the fungibility test is not the most useful test for determining whether to include or exclude Zone K from the new capacity zone. In the Companies' view, the fungibility test ignores lesser but important reliability benefits, especially when requiring fungibility equal to 50 percent of Zones G, H, and I's capacity requirement. The Companies argue that the appropriate test is whether Zone K can, in some meaningful respect, impact the reliability and security of the proposed new capacity zone. Finally, the Companies argue that adding capacity in Zone K will increase the transfer capability between Zone K and Zones G, H, and I, because the additional generation capacity will need to provide additional transmission capacity in order to be deliverable within Zone K.

Commission Determination

52. As discussed below, we find NYISO's proposal to be reasonable; however we will also establish a technical conference to explore the concept of modeling Zone K as an export constrained Load Zone in the next Demand Curve Reset proceeding.

53. Five Load Zones – G, H, I, J, and K – are located south of the constrained UPNY/SENY interface. Under NYISO's proposal, the new capacity zone includes four of the five load zones – G-J. Two load zones – J and K – currently are separate capacity zones with separate Locational Capacity Requirements and separate ICAP Demand

⁴⁹ *Id.*, Chao/Adams Aff. ¶¶ 37-38, and ¶ 47.

Curves based on their respective Locational Capacity Requirements. Under NYISO's proposal, although Zone J would be a part of the new capacity zone, Zone J would also continue to be a separate capacity zone with its own Locational Capacity Requirement and its own ICAP Demand Curve. Therefore, Zones G, H, and I, by themselves, would not have a separate Locational Capacity Requirement or ICAP Demand Curve. Rather, Zones G, H, I, and J together would have an aggregate Locational Capacity Requirement and ICAP Demand Curve. This means that capacity located anywhere within the G-J new capacity zone could be used to meet the Locational Capacity Requirement of the new capacity zone. It is therefore important that capacity located in Zone J (or in any other location within the proposed G-J new capacity zone) be deliverable and capable of satisfying the reliability needs of loads in Zones G, H, and I. NYISO has concluded that sufficient transmission capability exists between Zones G, H, I and J to allow any amount of capacity located in Zone J to reliably satisfy the capacity needs of Zones G, H, and I. No party disputes this conclusion.

54. However, NYISO has not proposed to include Zone K in the new capacity zone. NYISO states that, based on its "fungibility" test,⁵⁰ insufficient transmission capability exists to allow capacity located in Zone K to reliably serve the needs of loads in Zones G, H, and I. NYISO acknowledges that approximately 300 MW of generation capacity added to Zone K would be "fungible" with capacity in Zones G, H, and I – that is, 300 MW added to Zone K could displace an equal amount of capacity in Zones G, H, and I while maintaining the LOLE.⁵¹ Many commenters dispute NYISO's conclusion that Zone K should be excluded based on the idea that Zone K can provide some level of support to Zones G, H, and I. In particular, Multiple Intervenors and the Companies argue that additional amounts of capacity added to Zone K could provide lesser, but significant, reliability benefits to Zones G, H, and I, and thus, that Zone K should be included in the new capacity zone. Multiple Intervenors also suggest that, if the Commission concludes that Zone K warrants special consideration, NYISO should be directed to model Zone K as an export-constrained load zone for the new capacity zone.

⁵⁰ NYISO explains its fungibility test as, "running simulations in which capacity was removed from Load Zones GHI and added to Load Zones J and K while monitoring whether compliance with the NYSRC rule of a loss-of-load event of not more than once in ten years (or a loss-of-load expectation ("LOLE") evaluated probabilistically of not more than 0.1 days per year) would be maintained. The degree to which capacity in Load Zones J and K could substitute for capacity on a reliability basis in GHI would measure how fungible GHI capacity was with capacity in Load Zones J and K and, thus provide guidance on which Load Zones should be included in the NCZ." *See* Chao/Adams Aff. ¶ 17.

⁵¹ *See* Chao/Adams Aff. ¶ 21. *See also* NYISO June 5, 2013 Answer at 25.

55. We find NYISO's proposal to exclude Zone K from the new capacity zone to be reasonable at this time. Section 5.16.2 of the Services Tariff states: "In determining the new capacity zone boundary, the ISO shall consider the extent to which incremental Capacity in individual constrained load zones could impact the reliability and security of constrained Load Zones, taking into account interface capability between constrained Load Zones." NYISO has considered, in its NCZ Study and in the instant filing, the extent to which capacity in Zone K could impact the reliability and security of the proposed G-J Locality. Thus, we find that NYISO has reasonably complied with the requirements of its tariff with respect to the determination of the boundary of the new capacity zone. We agree with NYISO that under section 5.16.2 considering "the extent to which incremental Capacity..." does not mean that *any* Load Zone that has *any* impact in adjacent constrained zones must be included in the new capacity zone.⁵²

56. However, commenters have raised the possibility of modeling Load Zone K as an export-constrained zone. NYISO's MMU also recommends modeling export-constrained zones, in the latest State of the Market Report for NYISO.⁵³ In light of the comments, the Commission would like to explore in a separate proceeding whether and how Zone K should be modeled as an export-constrained zone for future Demand Curve reset proceedings. Due to the complex nature of this issue, the Commission believes it should be explored in a Staff-led technical conference. Therefore, we direct Commission staff to conduct a technical conference in a separate docket to discuss with interested parties whether or not to model Load Zone K as an export-constrained zone for a future Demand Curve reset proceeding. The details of such conference will follow in a subsequent notice.

4. Calculation of the Indicative Locational Capacity Requirement

a. Protests

57. Central Hudson alleges that NYISO's filing to establish a new capacity zone will impact customers of Central Hudson in several ways, including: (1) higher capacity prices, (2) an unfair subsidy to customers of ConEd in Zone J and customers of LIPA in

⁵² See NYISO June 5, 2013 Answer at 19.

⁵³ "Placing additional capacity in a nested capacity zone typically provides reliability benefits to the larger region. As described above, however, the reliability benefits of additional capacity in the nested capacity zone is sometimes limited by inter-zonal transmission limitations when an excess exists. Modeling the export constraints between zones in the capacity market limits how much capacity is sold in the nested capacity zone in order to meet the requirement in the larger region." *2012 State of the Market Report* at vii, and 53 – 54.

Zone K, and (3) uncertain prospects for capacity rate relief for customers in Zones G, H, and I even if new transmission lines are built to relieve the congested UPNY/SENY interface.⁵⁴ Central Hudson attributes these results to NYISO's failure to take into account the impact that customers in Zones J and K have on the constrained UPNY/SENY interface and the benefits they receive from formation of the new capacity zone. Central Hudson states that customers in Zones J and K will not bear their proportionate share of the costs of the new capacity zone and customers in the Lower Hudson Valley may not see future rate relief even if the UPNY/SENY interface constraint is relieved because NYISO's method of developing the new capacity zone's LCR does not properly account for deliverability constraints in the first place. As a result, Central Hudson asserts that NYISO's method fails to satisfy cost causation ratemaking requirements and is therefore unjust and unreasonable.

58. Central Hudson asserts that NYISO has incorrectly developed the Locational Capacity Requirements by: (1) using system reliability concepts to develop the Locational Capacity Requirements instead of system deliverability concepts; (2) including all of the capacity installed in zones G-I with the result that even if new transmission lines are built to relieve the congested UPNY/SENY interface, capacity rate relief in Zones G-I would not occur; and (3) excluding Zone K in the new capacity zone despite the fact that the Zone K computed Locational Capacity Requirements will change depending on the addition or retirement of generation capacity in Zones G, H, or I.⁵⁵ Central Hudson further asserts that the NYISO method is at odds with the Commission's intent to promote more efficient price signals. It asserts that NYISO's "nested" capacity zone concept will allow Zones J and K to shift capacity costs to Zones "G-H-I."⁵⁶ It states that it estimates that recent system changes along with NYISO's "nested" proposal could increase capacity prices to its customers from \$19 million to as much as \$89 million annually, an increase of 475 percent.⁵⁷ It also asserts that NYISO has not attempted to ensure that costs are allocated to the boundaries of the new capacity zone, but instead has used a method that assumes Load Zones G-I should pay all of the capacity costs attributable to the UPNY/SENY interface, whether constrained or not, presumably indefinitely.⁵⁸

⁵⁴ Central Hudson May 21, 2013 Protest at 1.

⁵⁵ *Id.* at 8.

⁵⁶ *Id.*

⁵⁷ *Id.*; Borchert Aff ¶ 15.

⁵⁸ Central Hudson May 21, 2013 Protest at 10.

59. Central Hudson states that it has developed an alternative Locational Capacity Requirement calculation method using deliverability concepts for all zones downstream of the UPNY/SENY interface (Zones G, H, I, J, and K).⁵⁹ Central Hudson's alternative method starts with NYISO's reliability based Locational Capacity Requirements, but then adds a deliverability based Locational Capacity Requirements component to reflect the impact of all zones downstream (i.e., zones G-K) on the UPNY/SENY interface. Central Hudson's witness Borchert estimates that, under Central Hudson's alternative method, the capacity cost impact to Central Hudson's customers, although still significant, would be lower than under NYISO's method, i.e., \$71 million for the 2013/2014 capacity year, compared to \$89 million.⁶⁰

60. Therefore, Central Hudson requests that the Commission reject NYISO's cost allocation method and order NYISO to modify its method for calculating the Indicative Locational Capacity Requirements to take into account the deliverability constraint across the UPNY/SENY interface using the alternative Locational Capacity Requirement calculation method discussed in the Borchert Affidavit. Further, Central Hudson states that the Commission has expressed its intent to promote correct price signals in connection with a new capacity zone, which is necessary to comply with cost causation ratemaking principles which require that costs must be allocated to customers in rough proportion to the benefits they receive. Central Hudson asserts that NYISO has not attempted to ensure that costs are allocated to the beneficiaries of the new capacity zone, but instead has used a method that assumes Load Zones G-I should pay all of the capacity costs attributable to the UPNY/SENY interface, whether constrained or not, seemingly indefinitely. Central Hudson argues that the Commission should resolve this unjust and unreasonable result by requiring that the new capacity zone Locational Capacity Requirements be based on the deliverability constraint and that the Locational Capacity Requirements must be eliminated when the deliverability constraint is removed.⁶¹ Central Hudson states that, in the alternative, the Commission should convene a technical conference where Central Hudson can work with NYISO to further address these issues.⁶²

61. Indicated NYTOs assert that the proposal reverts to a reliability approach that the Commission rejected rather than the deliverability approach that the Commission ordered. Indicated NYTOs argue that at a minimum, to the extent that reliability

⁵⁹ *Id.* at 8-9; Borchert Aff. ¶ 16.

⁶⁰ Borchert Aff. ¶ 22.

⁶¹ Central Hudson May 21, 2013 Protest at 10.

⁶² *Id.* at 11.

concerns are at issue, these concerns must be aired with Commission staff and stakeholders in a technical conference.⁶³

62. ConEd Solutions objects to NYISO's exclusion of UDRs from capacity that would satisfy the local capacity requirement. ConEd Solutions asserts that external supply not associated with UDRs, but deliverable to the new capacity zone should be allowed to satisfy the Locational Capacity Requirements of the new capacity zone. ConEd Solutions disagrees with NYISO's claim that external supply not associated with UDRs is not controllable, and therefore, must be counted as available only in Rest-of-State. ConEd Solutions believes that NYISO's position fails to recognize that capacity from ISO-NE is more deliverable to the new capacity zone as a result of the unique configuration of the NYISO transmission grid with lines such as Pleasant Valley to Long Mountain/Frost Bridge that connect directly to Load Zone G. Specifically, ConEd Solutions notes NYISO assigns a lower shift factor of 47.5 percent to imports from ISO-NE versus 92 – 93 percent shift factors applied to other external resources.⁶⁴ According to ConEd Solutions, those shift factors imply that resources from ISO-NE are twice as deliverable into the constrained Load Zones G, H, and I compared to other external resources because they use less of the constrained interface and should be eligible to satisfy Locational Capacity Requirements accordingly.⁶⁵

b. Answers

63. LIPA states that Central Hudson's alternative Locational Capacity Requirement computation proposal is unjust, unreasonable and unduly discriminatory because it uses LIPA's surplus capacity without compensating LIPA to benefit the rest of the participants in the new capacity zone and it also ignores the firm transmission rights that LIPA owns across the UPNY/SENY interface. Furthermore, according to LIPA, Central Hudson's proposal is beyond the scope of this proceeding because NYISO does not propose to modify its Locational Capacity Requirement methodology in the April 30, 2013 filing.

64. In its answer, NYISO asserts that the scope of this proceeding should be limited to the questions of whether NYISO properly conducted the NCZ Study, correctly concluded that there was a constrained Highway interface, and whether the proposed new capacity zone boundary is just and reasonable and that the current Services Tariff does not permit NYISO to consider other factors.⁶⁶ NYISO states that the Services Tariff and its filing

⁶³ Indicated NYTOs May 21, 2013 Protests at 11.

⁶⁴ ConEd Solutions May 20, 2013 Comments at 3, note 2.

⁶⁵ *Id.* at 3.

⁶⁶ NYISO June 5, 2013 Answer at 1-5.

are both very clear that the Indicative Locational Capacity Requirements are used “solely for establishing revised ICAP Demand Curves in accordance with section 5.14.1.2,” and that the Indicative Locational Capacity Requirements for the proposed G-J Locality will be an element of the November 2013 ICAP Demand Curve Reset filing.⁶⁷ Therefore, NYISO argues that arguments relating to Indicative Locational Capacity Requirements⁶⁸ are beyond the scope of this proceeding⁶⁹

65. In its answer, Central Hudson objects to NYISO’s assertion that Central Hudson’s methodology for calculating the new capacity zone Locational Capacity Requirement ignores reliability concepts. Central Hudson states that its proposed methodology is based on Locational Capacity Requirement values computed by NYISO itself and the NYCA Installed Reserve Margin, which is developed by use of the “unified” or “Tan 45” methodology.⁷⁰ Central Hudson states that, through this approach, system reliability will be maintained using Central Hudson’s proposed methodology.

c. Commission Determination

66. Central Hudson requests that the Commission direct NYISO to change its process for developing Locational Capacity Requirements in the proposed new capacity zone, resulting in a different process from that used for the existing capacity regions. We note, however, that NYISO is not proposing to change its methodology for calculating Locational Capacity Requirements in this proceeding.⁷¹ Moreover, the Indicative Locational Capacity Requirement for the new capacity zone is not used to determine whether a new capacity zone should be created or to establish the new capacity zone boundary; it is used solely for establishing an ICAP Demand Curve for the new capacity zone, in accordance with section 5.14.1.2 of the Services Tariff. Further, the Indicative Locational Capacity Requirement for the new capacity zone was only included in the April 30, 2013 filing to demonstrate to the Commission that NYISO has satisfied the

⁶⁷ *Id.* at 12.

⁶⁸ NYISO says that Indicative Locational Capacity Requirements are being discussed in the stakeholder process related to Demand Curve Reset proceedings.

⁶⁹ NYISO June 5, 2013 Answer at 12.

⁷⁰ Central Hudson June 20, 2013 Answer at 2.

⁷¹ “The actual Locational Minimum Installed Capacity Requirements that will be used to administer market rules for the G-J Locality will be established in the same manner as, and concurrent with, the [Locational Capacity Requirements] for existing Localities J and K.” NYISO April 30, 2013 Filing Transmittal Letter at note 17.

requirements under section 5.16.3 of the Services Tariff.⁷² This proceeding is narrowly focused on determining whether NYISO followed its tariff in determining that a new capacity zone should be created. We agree with NYISO that arguments regarding the computation of the Indicative Locational Capacity Requirements are beyond the scope of this proceeding.

67. We also clarify that, contrary to Central Hudson's assertions, the Commission did not in prior orders direct NYISO to develop Locational Capacity Requirements using system deliverability concepts. The Commission also did not direct a method of allocating the costs of capacity based on the impact of flows on the UPNY/SENY interface as Central Hudson argues for in this proceeding.

5. Elimination of a Capacity Zone and Mitigation

a. Summary of NYISO's Filing

68. NYISO did not propose tariff revisions that would govern the elimination of a capacity zone. Nor does NYISO's filing in the instant proceeding contain tariff revisions to establish market power mitigation rules in the new capacity zone; market power mitigation was the subject of the proceeding in Docket No. ER12-360. The Commission conditionally accepted NYISO's proposed market power mitigation measures for new capacity zones in that proceeding on June 6, 2013.⁷³

b. Protests and Comments

69. Indicated NYTOs are concerned that price separation will continue between the new capacity zone and the Rest-of-State region even after the deliverability constraints have been eliminated, resulting in consumers paying too much for capacity and sending the wrong incentives to generation and transmission developers. Indicated NYTOs also assert that the filing proposes that, even when the deliverability constraint is eliminated, new entrants will only be tested for deliverability to the boundary of the new capacity zone.⁷⁴ That is, once the new capacity zone is created, NYISO will not conduct an analysis to determine if the deliverability constraint has been removed and Rest-of-State

⁷² Section 5.16.3 of the Services Tariff directs NYISO to establish an Indicative Locational Capacity Requirement for each load zone or group of load zones "identified in the NCZ Study as having a constrained Highway Interface, on or before March 1 of each ICAP Demand Curve Reset Filing Year."

⁷³ *New York Indep. Sys. Operator, Inc.*, 143 FERC ¶ 61,217 (2013).

⁷⁴ Indicated NYTOs May 21, 2013 Protest at 16.

capacity is deliverable to the new capacity zone. Indicated NYTOs contend that not analyzing the continuing existence of the constraint at the interface is completely inconsistent with the rationale underlying the deliverability requirement. Indicated NYTOs argue that it could also eviscerate one of the objectives of the Energy Highway initiatives, which is to create additional transmission transfer capacity across key interfaces, because there will be no test to determine if new resources would once again cause the interface to bind. To the extent that new resources do cause the interface to bind, Indicated NYTOs assert that the generator should be required to fund System Deliverability Upgrades to address the impact, as required in Attachment S. Therefore, Indicated NYTOs request that the Commission order NYISO to modify its tariff to provide for a procedure in which NYISO will perform an appropriate deliverability test at the reasonable request of a market participant, and that the precise details of such a procedure should be resolved in a technical conference.

70. Indicated NYTOs also note that NYISO has not yet begun to develop a mechanism for the removal of the new capacity zone when the deliverability constraint is eliminated, which they assert is contrary to the Commission's premise when it directed NYISO to evaluate the need for new capacity zones, that price separation would cease if the deliverability constraint were eliminated.⁷⁵ Indicated NYTOs ask the Commission to direct a technical conference to address the issue of continued price separation.⁷⁶

71. Indicated NYTOs are also concerned that NYISO's failure to provide for elimination of unneeded capacity zones will perpetuate unneeded mitigation in those capacity zones. Indicated NYTOs also request that the Commission require NYISO to eliminate the mitigation measures when the deliverability constraint is removed and ask that the Commission direct a technical conference to address this issue.

72. The NYPSC also asserts that NYISO should have included a mechanism to determine when a new capacity zone is no longer necessary and should be eliminated. The NYPSC asserts that new capacity zones will remain even after the deliverability issue dissipates resulting in a permanent capacity price increase for customers in the new capacity zone.

73. The NYPSC also argues that the Commission should reject the proposed mitigation measures, which are unjust and unreasonable. The NYPSC states that NYISO seeks to apply to the new capacity zone the same buyer-side mitigation rules that were crafted for the particular circumstances facing the New York City market. However, NYISO has not adequately justified the need to impose mitigation upon new entrants in

⁷⁵ *Id.* at 9 and note 27.

⁷⁶ *Id.* at 10.

the new capacity zone, and the presumption of mitigation and the uncertainty that it entails will most likely discourage new entry and harm the competitiveness of the NYISO markets.⁷⁷

74. LIPA supports NYISO's request for prompt Commission action on the pending tariff revisions that would implement buyer-side mitigation to all new capacity zones, but only to the extent Zone K is excluded from new capacity zones, or LIPA generation capacity is exempt from buyer-side mitigation. Entergy Nuclear further supports NYISO's request that the Commission act on its new capacity zone mitigation filing by August 30, 2013.

c. Answers

75. Entergy Nuclear states that Indicated NYTOs' arguments that zone elimination criteria must be established is an argument previously pursued by National Grid more than two years ago. However, Entergy Nuclear notes that Indicated NYTOs have not pursued this issue in the stakeholder process. Entergy Nuclear asserts the stakeholder process is clearly the appropriate venue for discussion of new provisions to eliminate a new capacity zone. Entergy Nuclear also asserts that the issues surrounding elimination of capacity zones are not well suited to a technical conference. Moreover, according to Entergy Nuclear, the fact that the zone elimination issue has not been pursued in any material manner until this proceeding provides no basis, at this time, for the Lower Hudson Valley new capacity zone to be established subject to refund.

76. In response to arguments about the elimination of zones, NYISO states that the Commission's prior orders directed NYISO to put in place rules for the creation of new capacity zones and expressly authorized NYISO to defer to the stakeholder process rules pertaining to the elimination of capacity zones.⁷⁸ According to NYISO, the development of rules to eliminate capacity zones is beyond the scope of this proceeding, which focuses on new capacity zone creation. Furthermore, NYISO's external market monitor, Dr. Patton, asserts that rules to eliminate capacity zones could put NYISO in the position of having to define, un-define, and then re-define new capacity zones as system conditions change.⁷⁹ Dr. Patton continues that such rapid changes could undermine the stability of the market and introduce substantial risk for investors. Therefore, Dr. Patton urges the Commission to reject the arguments presented by Indicated NYTOs, the NYPSC and Central Hudson and allow the market to determine when price separation occurs. Dr.

⁷⁷ NYPSC May 21, 2013 Protest at 8.

⁷⁸ *Id.* at note 17.

⁷⁹ *Id.*, Patton Answering Aff. ¶ 6.

Patton further asserts that there is no reason to actively eliminate capacity zones after they are created and notes that this is consistent with what the Commission has approved in both the PJM and MISO markets.⁸⁰

77. NYISO answers that Indicated NYTOs acknowledge that the Commission expressly held that the filing was not required to “define criteria regarding the potential elimination of capacity zones.”⁸¹ According to NYISO, the September 8, 2011 Order, clearly instructed NYISO to establish rules to govern the creation of new capacity zones, and it expressly authorized NYISO to defer stakeholder discussions regarding the potential elimination of unneeded capacity zones. NYISO argues that it is therefore an impermissible collateral attack on the September 8, 2011 Order, to oppose the filing on the grounds that it does not include capacity zone elimination or price separation provisions.⁸²

78. NYISO contends that the development of rules or criteria for the elimination of a Locality (i.e., a new capacity zone that has been established) even if not a collateral attack, would be beyond the scope of this proceeding. NYISO argues that new capacity zone elimination rules would apply to more than just the proposed new Locality that is the subject of this proceeding; they would apply to the existing Localities and to any new capacity zones that result from future triennial filings in accordance with section 5.16.4(a) of the Services Tariff.⁸³

79. Indicated NYTOs answer that NYISO’s mechanism to calculate the price of capacity in the new capacity zone will not ensure the elimination of price separation between capacity zones when deliverability constraints between those zones have been removed.⁸⁴ In addition, Indicated NYTOs note that evidence has not been presented in this proceeding that demonstrates that NYISO’s mechanism will eliminate price separation when the deliverability constraint is alleviated.⁸⁵

⁸⁰ *Id.*, Patton Answering Aff. ¶ 7.

⁸¹ September 8, 2011 Order, 136 FERC ¶ 61,165 at P 70.

⁸² NYISO June 5, 2013 Answer at 7-8.

⁸³ *Id.* at 8.

⁸⁴ Indicated NYTOs June 13, 2013 Answer at 2.

⁸⁵ *Id.* at 3.

80. Indicated NYTOs note that NYISO's MMU now states that price separation may remain, even if the binding deliverability constraint is alleviated and states that the Locational Capacity Requirement should determine locational capacity pricing.⁸⁶ Indicated NYTOs state that this finding is inconsistent with the rationale the Commission used in approving the new capacity zone framework and with the deliverability criteria that govern the creation of the new capacity zone.⁸⁷ Further, Indicated NYTOs state that, since there are other inputs to the new capacity zone ICAP demand curve, the Locational Capacity Requirement alone does not govern locational capacity pricing or the conditions under which price separation is eliminated.⁸⁸

81. With respect to the development of mitigation measures for the new capacity zone, NYISO answers that the scope of this proceeding should be limited to the questions of whether NYISO properly conducted the NCZ Study, correctly concluded that there was a constrained Highway interface, and whether the proposed new capacity zone boundary is just and reasonable and that the current Services Tariff does not permit NYISO to consider other factors.⁸⁹ Therefore, NYISO says that arguments relating to buyer-side mitigation rules are beyond the scope of this proceeding and should have been submitted in Docket No. ER12-360.⁹⁰ NYISO contends that there is no need to delay issuing an order to weigh the merits of, or to allow for, such an evaluation.

d. Commission Determination

82. We do not agree with the NYPSC and Indicated NYTOs that the Commission should require at this time a mechanism for determining whether a new capacity zone is no longer needed and should be eliminated. In our September 8, 2011 Order on NYISO's proposal of criteria for the creation of a new capacity zone, we explicitly declined to require NYISO to define criteria regarding the potential elimination of capacity zones as some commenters had suggested. We held that the impact of the failure to create a zone where one is needed is much more significant than the impact of a failure to eliminate an existing unneeded zone. However, we also said that NYISO is free to discuss with its stakeholders a mechanism to eliminate an unneeded capacity zone. We reiterate here that NYISO should work with its stakeholders, and if a mechanism for zone elimination is

⁸⁶ *Id.* at 3-4.

⁸⁷ *Id.* at 4.

⁸⁸ *Id.* at 5-6.

⁸⁹ *Id.* at 1-5.

⁹⁰ *Id.* at 10-12.

deemed necessary, NYISO should file appropriate tariff revisions with the Commission. We note that the fact that NYISO did not propose a new capacity zone elimination mechanism in this proceeding has no bearing on its requirement to establish a new capacity zone. Further, because any capacity zone elimination rules would apply not only to the Locality being proposed here, but also to existing Localities, and because NYISO has not proposed any such mechanism here, we find that the record in this proceeding is insufficient on which to make a determination.

83. Indicated NYTOs are concerned that, in the absence of a mechanism for the elimination of a capacity zone, price separation will continue between the new capacity zone and the Rest-of-State region even after deliverability constraints have been eliminated. We agree that price separation may well continue after the constraint leading to a new capacity zone disappears, but we believe such potential distinction between prices is appropriate. As indicated by Dr. Patton,⁹¹ once a new capacity zone is created, price will be based upon the ICAP demand curve for the new zone, which, in turn, is based upon the Locational Capacity Requirement. In other words, price separation reflects the cost of satisfying the Locational Capacity Requirement for the new capacity zone and is based upon reliability needs as indicated by LOLE. The deliverability test, in contrast, is not designed to provide an accurate indication of the reliability needs in the new capacity zone in that it is not formulated using the LOLE. As Dr. Patton explains, as long as the cost of entry is higher in the new capacity zone than in the surrounding area, eliminating the new capacity zone and its associated higher demand curve when the deliverability constraint is temporarily eliminated, jeopardizes the market's ability to attract and maintain adequate resources for market reliability in the new capacity zone.⁹²

84. With respect to mitigation measures, we find these issues to be beyond the scope of this proceeding. On June 6, 2013, the Commission accepted, subject to conditions, NYISO's proposed revisions to its Services Tariff to implement buyer-side and supplier-side market power mitigation measures for new capacity zones.⁹³

6. Conforming Tariff Revisions

85. NYISO states that as a result of identifying the need for creation of a new capacity zone it must make several conforming changes to its tariff. Some of NYISO's proposed tariff changes are minor typographical edits and others are more substantial. For example, because the new capacity zone will be an additional Locality (Load Zones G, H,

⁹¹ Patton Answering Aff. ¶¶ 11-15.

⁹² Patton Answering Aff. ¶ 15.

⁹³ *New York Indep. Sys. Operator, Inc.*, 143 FERC ¶ 61,217 (2013).

I and J), NYISO must revise the definition of Locality accordingly.⁹⁴ NYISO also proposes to add a new defined term, “G-J Locality” to its tariff in section 2.7. In addition, NYISO proposes to set a new Pivotal Supplier Threshold in Attachment H as control over 650 MW of unforced capacity in the G-J Locality.⁹⁵ In comparison, the existing Pivotal Supplier Threshold for NYC Load Zone J is control of 500 MW. NYISO also proposes to make several other clarifying and conforming changes to its tariff to, among other things, redefine “Rest-of-State” as Load Zones A-F, revise the credit requirements in Attachment K for a Locality contained within another Locality, and update the rules regarding the Installed Capacity Requirement and the Load Serving Entities obligations regarding the new G-J Locality.

86. NYISO proposes similar definition changes in its OATT. NYISO states that the OATT definition of Locality requires revisions due to the creation of the G-J Locality. NYISO is also proposing to revise the existing OATT definition of Locational Installed Capacity Requirement to achieve consistency with the proposed Services Tariff definition. In addition, NYISO proposes revisions to Attachments S and X to change the definition of Capacity Region, the treatment of External CRIS rights and the definition of a Highway. NYISO states that the definition of a Highway is revised to remove the UPNY/SENY interface because in the new Capacity Region, the UPNY/SENY interface would no longer be considered a Highway interface, and instead, would be considered an “Other Interface.”⁹⁶ In conjunction, NYISO proposes changes to the definition of Other Interfaces. NYISO also proposes minor changes to OATT Attachments S, X and Y.

87. We accept NYISO’s conforming changes.

The Commission orders:

(A) NYISO’s proposed tariff revisions are hereby accepted, to be effective July 1, 2013, as discussed in the body of this order, with the exception of the revisions to sections 2.7, 2.12, 2.18, and 25.14.3.2(iv) and 23.2.1, which shall be effective January 27, 2014, as requested, and section 26.4.3(iv), which shall be effective January 15, 2014, as requested.

⁹⁴ NYISO April 30, 2013 Filing Letter at 13.

⁹⁵ *Id.* at 19-20.

⁹⁶ *Id.* at 25.

(B) The Commission's Staff is hereby directed to convene a technical conference, to be held at a date specified in a subsequent notice, and to report the results of the conference to the Commission, as discussed in the body of this order.

By the Commission.

(S E A L)

Kimberly D. Bose
Secretary.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)

Docket No. ER13-1380-000

**REQUEST FOR REHEARING OF
CENTRAL HUDSON GAS & ELECTRIC CORPORATION**

Pursuant to Rule 713 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. § 385.713 (2013), Central Hudson Gas & Electric Corporation (“Central Hudson”) requests rehearing of the August 13, 2013 Order issued in the above-captioned proceeding.¹

I. EXECUTIVE SUMMARY

The New York Independent System Operator, Inc. (“NYISO”) is required by its tariff to study its transmission network every three years to determine whether bottlenecks exist and, if so, the tariff requires it to develop a plan to define and subdivide the constrained area into a new capacity zone or zones. The NYISO must file its proposal to create an NCZ with the Commission under Section 205 of the Federal Power Act. This case is about the reasonableness of the NYISO’s method for establishing an NCZ in the Lower Hudson Valley portion of the NYISO region.

As Central Hudson shows below, the Commission erred by accepting the NYISO plan to create a new capacity zone in New York comprised of “load zones” G through J without evaluating the justness and reasonableness of the proposal in light of the dramatic increase that it will cause for capacity prices in Central Hudson’s service area. By the NYISO’s own estimate,

¹ *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (2013) (“August 13 Order”). In addition, Central Hudson is joining the rehearing request of the Indicated New York Transmission Owners concerning the August 13 Order, and also supports the rehearing request of the New York Power Authority.

those prices are likely to double, although Central Hudson showed without contradiction that the impact is more likely to be close to five-fold. A significant part of this increase will arise from the NYISO's failure to account properly for deliverability on constraints into the NCZ.

The Commission's error began with its ruling that the NYISO's method for calculating the indicative NCZ Locational Minimum Installed Capacity Requirement ("indicative LCR") was beyond the scope of this proceeding. In fact, the NYISO developed the indicative LCR for the NCZ as part of the tariff requirement to test the reasonableness of NCZ formation. There is no established tariff method for calculating the indicative LCR for this newly proposed NCZ, as the Commission incorrectly stated; rather, the NYISO "determined" the method for the first time in this proceeding. Given that the tariff commands that NYISO must file its NCZ determination for Commission review, along with its supporting analysis, the Commission's statutory obligation requires it to evaluate whether the proposed method will produce a just and reasonable rate.

Here, however, the Commission truncated its analysis by concluding that the NYISO had established an NCZ without analyzing whether the NYISO used a reasonable method to calculate the indicative LCR, which is an especially critical exercise given that the NYISO will use this indicative LCR method to allocate the ICAP purchase requirement for each Load Serving Entity ("LSE") within the NCZ in the ICAP demand curve reset proceedings, beginning just a few weeks from now.² This rapidly approaching rate shock adds urgency to the need for swift Commission action to correct the errors in the NYISO's rate method, which will provide the wrong incentives for generation investment, and force consumers in the Lower Hudson Valley to pay excessive capacity rates for no good reason. The Commission's failure to take the rate

² The Commission has accepted a modification to the way NYISO counts capacity to reflect the forced outage rate of generating units, called "UCAP." *Keyspan-Ravenswood, LLC v. FERC*, 474 F.3d 804 (D.C. Cir. 2007). For consistency with the August 13 Order, Central Hudson will refer to the capacity product as "ICAP."

impacts into account or to even consider phasing-in the impacts fails the requirement of reasoned decision-making. Indeed, it fails to consider whether its decision will result in “more good than harm.”³ The Commission’s failure to consider or understand the relationship of the indicative LCR to the NCZ or the resulting impacts is reason enough for the Commission to take another look at its decision.

Moreover, the Commission’s abbreviated analysis prevented it from giving serious consideration to Central Hudson’s demonstration that the NYISO’s method for “determining” the indicative LCR was unreasonable because it was inconsistent with the overriding purpose of NCZ formation, which is to use transmission constraints as the guiding criteria. The Commission thus disregarded Central Hudson’s evidence showing that the NYISO improperly relied solely on reliability criteria by focusing on whether its proposal will allow the NCZ to satisfy an improperly constructed reliability requirement, without considering how deliverability considerations impact NCZ formation and the impact this will have on investment incentives. The question of how deliverability impacts the NCZ matters because the Commission directed the NYISO to use a deliverability based approach under its “highway” test for determining if an NCZ should be created, and failing to take deliverability into account, while using only a reliability analysis to construct the indicative LCR, is both inconsistent with the logic of the “highway” test, and will lead to counter-productive results. An examination of deliverability also leads to a method to identify which customers cause the need for the NCZ, and how the higher capacity costs that result should be paid for to ensure that cost responsibility properly follows cost causation. The NYISO’s method failed to meet this bedrock ratemaking principle

³ *Electric Consumers Resource Council v. FERC*, 407 F.3d 1232, 1239 (D.C. Cir. 2005) (“*ELCON*”).

because it failed to consider how capacity deliverability impacts the key binding constraint that drives the need for the NCZ.

In failing even to consider Central Hudson's arguments concerning the indicative LCR for the NCZ, the Commission's decision allowed the NYISO's unjust and unreasonable rate method to go into effect, and in doing so the Commission failed to abide by statutory requirements to render decisions that reflect reasoned decision-making and that are not arbitrary and capricious.

II. BACKGROUND

The NYISO administers a market-type process to determine the ICAP price that LSEs, like Central Hudson, pay for the ICAP that they are required to purchase to meet the State's reliability requirements.⁴ This capacity payment compensates generators for the amount of capacity required to meet each LSE's forecasted load peak plus the installed reserve margin ("IRM") requirement, plus the additional capacity that must be purchased as a result of the NYISO's administratively determined ICAP demand curves. The IRM requirement is established by the non-profit New York State Reliability Council ("NYSRC") as the amount of capacity needed above the forecasted load peak to meet a probabilistic loss of load expectation ("LOLE") in which the risk of disconnecting any firm load due to resource deficiencies is, on average, not more than once in ten years, taking into account potential outages of system elements in the electric system used to supply and to deliver the electricity needed to serve the

⁴ The NYISO's capacity market is actually an administratively determined demand curve, which is "an entirely artificial construct that specifies the prices that must be paid for various quantities of capacity." *Maine Public Utilities Commission v. FERC*, 520 F.3d 464, 468 n. 3 (D.C. Cir. 2008) ("*Maine PUC*"). The purpose is to make capacity prices stable and predictable on the theory that this will promote investment in generation and transmission. The administrative nature of the pricing method led the United States Court of Appeals for the District of Columbia Circuit to label it a "non-demand demand curve." *Id.* As we show below, the artificial nature of this pricing construct places even greater importance on ensuring that it produces expected and reasonable results. *ELCON*, 407 F.3d at 1239.

load.⁵ For example, if the NYSRC sets the IRM to be 18 percent to meet the State’s LOLE, an LSE with a forecasted load peak of 1,000 MW would be required to purchase at least 1,180 MW of capacity in order to satisfy its forecasted load peak plus IRM requirement.

In 2003, the NYISO began to reform the way it sets electric capacity prices, first switching from the vertical demand curve method to a sloped demand curve,⁶ and then modifying the sloped demand curve to factor in a locational component to account for the deliverability of energy from purchased capacity to serve the load that may require it.⁷ The locational pricing mechanism is intended to account for price differences for capacity that is deliverable into New York’s different sub-regional capacity markets.⁸

The NYISO initially divided New York into three capacity zones, a New York City capacity zone, a Long Island capacity zone, and a third zone comprised of the “Rest of State.”⁹ The Commission, however, directed the NYISO to work with its stakeholders to examine whether deliverability considerations might require the formation of new capacity zones within the “Rest of State.”¹⁰

The NYISO filed its initial attempt to comply with the Commission’s directive two years later.¹¹ The NYISO proposed two tests to be used in conjunction with each other—a “Highway Capacity Deliverability Test” and a “Reliability Test”—and several additional “considerations” to be factored into the development of a new capacity zone. The Highway Capacity

⁵ *Keyspan-Ravenswood*, 474 F.3d at 806.

⁶ See *ELCON*, 407 F.3d at 1234-36 (explaining the pricing anomalies with the vertical demand curve that led NYISO to switch to a sloped demand curve).

⁷ See *New York Independent System Operator*, 105 FERC ¶ 61,108 (2003).

⁸ See *Maine PUC*, 520 F.3d at 468 (explaining the theory of the locational component in the sloped demand curve pricing construct).

⁹ These capacity pricing zones should not be confused with New York’s eleven “load zones” which were established for a different purpose, although the load zones do form the building blocks for the capacity zones. Here, NYISO’s NCZ is comprised of Load Zones G through I and J.

¹⁰ *New York Independent Transmission System Operator, Inc.*, 127 FERC ¶ 61,318, at P 53 (2009).

¹¹ *New York Independent Transmission system Operator, Inc.*, 136 FERC ¶ 61,165, at P 1 (2011) (“September 2011 Order”).

Deliverability Test focused on transmission constraints arising on lines rated at or above 115 kV. The Commission relied principally on the arguments of the NYISO Market Monitoring Unit (“MMU”) to reject most of the NYISO’s proposed NCZ formula, including the Reliability Test, agreeing that the NYISO’s proposal did not adequately recognize binding transmission constraints that inhibit the deliverability of energy from generating capacity across constrained zones,¹² and that the NYISO should apply the deliverability test to the market “as found.”¹³ Under the “as found” method, the NYISO would factor into the Highway Capacity Deliverability Test all generating capacity, even if surplus to system needs, whereas the NYISO’s proposed “as designed” method would have ignored any generation surplus to system needs. The MMU argued the proposed “as designed” method might overlook circumstances when surplus generation causes highway transmission constraints to bind.¹⁴ Indeed, the Commission was particularly concerned with “the importance of accurately reflecting binding transmission constraints in the capacity market clearing process.”¹⁵

The Commission subsequently accepted the NYISO’s changes to its tariff as required by the September 2011 Order.¹⁶ Under new Section 5.16.4 of the NYISO Services Tariff, the NYISO must make a Section 205 filing by March 31 of each year to propose the creation of a new capacity zone if a deliverability test shows that total transmission transfer capability on “highway” facilities cannot deliver all the capacity in a pre-existing zone throughout that zone. NYISO is required to include the basis for its determination with the filing. As a prelude to this filing, Section 5.16.3 requires the NYISO to “determine” by March 1 of each year what the indicative LCR is likely to be for a newly proposed capacity zone. The NYISO uses the

¹² *Id.* at P 52.

¹³ *Id.* at P 58.

¹⁴ *Id.* at P 21.

¹⁵ *Id.* at P 66.

¹⁶ *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,160 (2012) (“August 2012 Order”).

indicative LCR as an input to its calculation of an indicative ICAP demand curve for the NCZ so that it can assess whether formation of the NCZ makes economic sense by sending the right incentives to trigger market responses to address the constraint.¹⁷ Thus, the indicative LCR calculation is an important input to the NYISO's tariff method for setting the boundaries and testing the pricing of the NCZ.

On April 30, 2013, the NYISO submitted proposed tariff revisions to establish and recognize a new capacity zone that would encompass NYISO Load Zones G, H, I, and J (the "G-J Locality").¹⁸ The proposal to add this fourth capacity zone was based on a report of the results of the "NCZ Study," which identified a binding transmission constraint at the Upstate New York-Southeast New York ("UPNY/SENY") transmission interface that would preclude the deliverability of 849 MW of generating capacity from Load Zones A-F into Load Zones G-I, J, and K, and so NYISO proposed to create a new capacity zone comprised of current Zones G, H, I and J. The NYISO precluded the inclusion of Zone K in the NCZ even though the Zone K customer load contributes to the binding constraint. To address this deliverability issue, the NYISO proposed to implement this G-J Locality on May 1, 2014, the start of the 2014/2015 Capability Year.¹⁹ The NYISO also proposed to apply the new indicative LCR method to the ICAP demand curve reset filing, to be made by the NYISO on or before November 29, 2013, to establish the administratively determined demand curves to be used for each of the four capacity

¹⁷ September 2011 Order at P 7.

¹⁸ *New York Indep. Sys. Op.*, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 (filed April 30, 2013) ("Compliance Filing").

¹⁹ *Id.* at 1-2.

zones.²⁰ The NYISO thus made clear that its new indicative LCR method will provide the template for the upcoming ICAP demand curve reset proceedings.

The NYISO conceded that the NCZ will result in “expected” increases to capacity prices in Load Zones G, H, and I, but said there will be no price increases in other load zones.²¹ In providing illustrative calculations of consumer price impacts from the NCZ, a NYISO witness, Mr. Niazi, relied on the indicative LCR calculations by witnesses Chao and Adams, and the assessment of the MMU, Dr. Patton, to claim the method for setting the boundaries of the NCZ will produce results that will be consistent with market design principles, and will therefore be “reasonable.”²² None of the NYISO’s witnesses addressed the impact that load zones have on transmission constraints generally, or on the UPNY/SENY interface specifically that triggered the need for the NCZ.²³ Thus, none of the NYISO’s witnesses addressed the reasonableness of the capacity cost allocation expected to result from the NYISO’s proposal.

The NYISO candidly acknowledged that its proposal is expected to double capacity prices for customers located in Load Zones G, H, and I, who are expected to pay an additional \$173 million annually.²⁴ Central Hudson estimated, without contradiction, that other system changes along with the proposed NYISO “nested” new capacity zone approach could increase capacity prices to Central Hudson’s customers, a subset of Load Zone G, from \$19 million to as

²⁰ As the Commission has acknowledged, the test to establish the NCZ and the ICAP demand curve are closely linked. August 2012 Order at P 14.

²¹ Compliance Filing at 8; Attachment XII, Niazi Aff. at ¶ 15.

²² Niazi Aff. at ¶¶ 15-16, 21-22 (calculating “indicative” LCRs); Compliance Filing at 13 (quoting Patton testimony on market design).

²³ For example, although the NYISO performed a study that examined the support from adding generation in Load Zones J or K would provide to Load Zones G, H and I, the NYISO did not examine the benefits to Load Zones J and K that arise from adding generation in Load Zones G, H, or I, or from building new transmission projects that resolve the UPNY/SENY constraints.

²⁴ Niazi Aff., Table 3, states that the NCZ would cause capacity payments by customers in Load Zones G through I to increase from \$22 million per month in the summer and \$12 million per month in the winter (for a total annual payment of \$204 million) to \$39 million per month in the summer and \$23 million per month in the winter (for a total annual payment of \$372 million), thereby causing an average increase of 82% (((\$372 million – \$204 million)/\$204 million).

much as \$89 million annually, *an increase of 475%*.²⁵ Central Hudson further showed in its protest that the price increase arising from the NCZ is unjust and unreasonable because it will result from an abuse of the NYISO's discretion in performing the indicative LCR determination. In particular, Central Hudson showed that NYISO's method is flawed because (1) it failed to link the indicative LCR for the NCZ to the constrained UPNY/SENY emergency transfer limit, (2) it failed to consider the deliverability of generation into the NCZ, and (3) it improperly used reliability concepts (rejected by the Commission in the September 2011 Order) in setting up the indicative LCR. These flaws will send the wrong signals to investors about the need to construct new generation or transmission in the NCZ, and will cause consumers to pay excessive rates.

Central Hudson developed an alternative LCR calculation method using deliverability concepts as presented in the affidavit of Mr. John J. Borchert that corrected the NYISO's errors. Mr. Borchert showed that the flow of capacity from the new "rest of state" capacity zone (Zones A through F) to Load Zones J and K has a direct and measurable impact on the UPNY/SENY interface and the need to create the NCZ. While the NYISO considered these flows in its Highway Capacity Deliverability Test in determining the need to create the NCZ, it erred by ignoring them both in implementing the NCZ and in its determination of the indicative LCR. Mr. Borchert used the same starting point as the NYISO to compute the Zone J indicative LCR, Zone K indicative LCR, and the corresponding NYCA (New York Control Area) Installed Reserve Margin developed using the "unified methodology" that the NYISO followed, but Mr. Borchert differed from the NYISO's method by proposing to link the indicative NCZ LCRs directly to the UPNY/SENY emergency transfer limit in the calculation and to allocate deliverability-based LCRs to the load zones downstream of the UPNY/SENY interface based on

²⁵ Borchert Aff. at ¶¶ 13-15. Central Hudson's customers are unlikely to care that this massive rate shock that is about to affect them arises from several factors.

the incremental impact that those load zones have on the capacity flows across the UPNY/SENY interface.

The Commission rejected these arguments without substantively addressing them, and without reconciling its decision with its own precedent.

III. SPECIFICATION OF ERRORS AND STATEMENT OF ISSUES

Pursuant to Rule 713(c) of the Commission's Rules of Practice, 18 C.F.R. § 385.713(c), Central Hudson provides the following statement of issues:

- A. The Commission misconstrued the purpose of the indicative LCR and thus failed to abide by its statutory obligation to ensure that NYISO's filing to establish an NCZ in the Lower Hudson Valley is just and reasonable. *Maine Public Utilities Commission v. FERC*, 520 F.3d 464, 472 (D.C. Cir. 2008) ("Of course, FERC cannot pluck rates out of thin air; it must rely on record evidence to establish a reasonable range of rates."); *PJM Interconnection, LLC*, 106 FERC ¶ 61,253 at P 63 (2004) (acknowledging the Commission's "obligation under the Federal Power Act to ensure that proposals filed with [the Commission] result in just and reasonable rates, terms and conditions of service"); 16 U.S.C. § 824d(a).
- B. The Commission should have rejected NYISO's reliability-based indicative LCR calculation, which conflicts with the NCZ tariff and will produce unreasonable results not addressed in the August 13 Order, and should have directed NYISO to revise the method to reflect deliverability as Central Hudson proposed. *See Keyspan-Ravenswood v. FERC*, 474 F.3d 804 (D.C. Cir. 2007); *NorAm Gas Transmission Co. v. FERC*, 148 F.3d 1158 (D.C. Cir. 1998).

IV. ARGUMENT

A. **The Commission Misconstrued the Purpose of the Indicative LCR and Thus Failed to Abide by its Statutory Obligation to Ensure that NYISO’s Filing to Establish an NCZ in the Lower Hudson Valley Will Result in Just and Reasonable Rates.**

The Commission rejected Central Hudson’s objection to the way that the NYISO calculated the indicative LCR by claiming that the result of the calculation is not “used to determine whether a new capacity zone should be created or to establish a new capacity zone boundary,” but instead is “used solely for establishing an ICAP Demand Curve for the new capacity zone.”²⁶ The Commission’s reason for not giving serious consideration to Central Hudson’s objection misconstrued the role that the indicative LCR calculation plays in the NCZ equation, and how the pieces fit together to ensure that the tariff produces a just and reasonable rate. In essence, the Commission read Section 5.16.3 in isolation, rather than as part of the tariff as a whole in order to give meaning to each of its provisions.²⁷

The Commission’s overly narrow reading of Section 5.16.3 caused it to overlook the fact that the indicative LCR calculation is used in Section 5.14.1.2 to develop the indicative ICAP demand curve.²⁸ The purpose of the indicative demand curve is to “indicate the capacity prices that would be expected in the new zone” so that the NYISO can “analyze those prices in

²⁶ August 13 Order at P 66.

²⁷ *Nicole Gas Production, Ltd.*, 105 FERC ¶ 61,371, at P 9 (2003) (“Like a contract, a tariff must be interpreted to give meaning to all provisions of the tariff.”); *Columbia Gas Transmission Corp.*, 27 FERC ¶ 61,089, at p. 61,166 (1984) (“In construing what a tariff means, certain general principles apply. One looks first to the four corners of the entire tariff, considers the entire instrument as a whole, giving effect so far as possible to every word, clause and sentence, and attributes to the words used the meaning which is generally used, understood, and accepted.”); *see Pub. Serv. Co. of New Hampshire v. New Hampshire Elec. Coop., Inc.*, 86 FERC ¶ 61,174, at p. 61,598 (1999) (“It is well established in contract law that a contract should be construed so as to give effect to all of its provisions and to avoid rendering any provision meaningless.”).

²⁸ Compliance Filing, Attachment XIV, Chao & Adams Aff. at ¶ 13.

comparison to prices in the existing capacity zones in NYC, LI, and ROS zones.”²⁹ This exercise allows the NYISO to evaluate the expected value of capacity to new generation in the NCZ based on the forecasted cost of new entry because, if capacity prices will be substantially lower than in adjacent zones, that information “would militate against creating a new zone.”³⁰ Thus, the indicative LCR—as an input to the indicative demand curve—is directly relevant to the NCZ formation issue. The Commission thus erred when it observed that the indicative LCR is an input to the indicative demand curve without considering the purpose of the indicative demand curve in the NCZ formation analysis.

The Commission used its overly-narrow interpretation of the indicative LCR calculation to avoid considering its implications and whether it will produce a just and reasonable rate. In ruling that NYISO included the indicative LCR calculation in its filing simply to demonstrate that it complied with the requirement of Section 5.16.3 of the tariff to perform the calculation, the Commission did not explain why the tariff requirement is otherwise irrelevant to this proceeding.³¹ The Commission seemed to rule that it is irrelevant because the NYISO has not proposed to change the LCR method and the *actual* price of capacity for the NCZ is not at issue here; hence, no analysis of the justness and reasonableness of the NYISO’s method is necessary now.³²

The Commission erred in failing to perform the statutory just and reasonable analysis. Section 5.16.4 requires the NYISO to “file for Commission review proposed tariff revisions necessary to establish and recognize the New Capacity Zone or Zones” along with its report showing its reasoning to support NCZ formation. That filing is subject to the Commission’s

²⁹ September 2011 Order at P 7.

³⁰ *Id.*

³¹ August 13 Order at P 66.

³² *Id.*

review under Section 205 of the Federal Power Act, as the NYISO recognized in the first line of its transmittal letter.³³ That section mandates that “[a]ll rates and charges made, demanded, or received by any public utility . . . and all rules and regulations pertaining to such rate or charge shall be just and reasonable”³⁴ As shown above, the indicative LCR is a tariff provision that pertains to the capacity rates to be developed by the NYISO to determine the boundaries for the NCZ; thus, the indicative LCR must satisfy the just and reasonable standard because the tariff method is itself the “rate” for Federal Power Act purposes.³⁵ Consequently, it was not sufficient for the Commission to assert that the indicative LCR is not being used to set capacity prices that customers in the Lower Hudson Valley will pay for capacity *now* when the calculation was a key factor in the NYISO’s NCZ boundary analysis. The Commission has recognized that the NCZ formation analysis and the ICAP demand curve reset proceeding are closely linked,³⁶ and the NYISO has made no secret of its intention to apply this same method when it performs its ICAP demand curve reset calculation, which will produce *actual* rates that Central Hudson’s customers will soon be asked to pay.

Moreover, the Commission did not dispute Central Hudson’s showing that the NYISO’s indicative LCR will contribute significantly to a five-fold increase in the capacity costs paid by Central Hudson’s customers,³⁷ nor did the Commission question the NYISO’s candid admission that the NCZ alone will cause capacity prices to double.³⁸ Instead, the Commission simply ignored the issue and thus made no finding that the administratively-set capacity rates for the

³³ Compliance Filing at 1.

³⁴ 16 U.S.C. § 824d(a).

³⁵ *See, e.g., MAINE PUC*, 520 F.3d at 471-72 (In a case involving an administratively determined demand curve, the court stated: “Of course, FERC cannot pluck rates out of thin air; it must rely on record evidence to establish a reasonable range of rates.”).

³⁶ August 2012 Order at P 14.

³⁷ Borchert Aff. at ¶ 15.

³⁸ Niazi Aff., Table 3.

NCZ will fall within a zone of reasonableness if the NYISO continues to follow its method of calculating the indicative LCR.

The Commission seemed to avoid a careful review of the NYISO's indicative LCR method by "noting" that NYISO "is not proposing to change its methodology for calculating Locational Capacity Requirements in this proceeding,"³⁹ but Section 5.16.3 does not specify *any* "method" for making the calculation, so it is not clear what method the Commission had in mind.⁴⁰ The section requires only that NYISO "shall determine" the indicative LCR and then give stakeholders an opportunity to review and comment on it. By its nature this determination requires the NYISO to exercise discretion, which is not unfettered given the need for stakeholder input and, ultimately, Commission review under the statutory standard. Such discretionary rate calculations based on vague directives like "shall determine" conflict with Commission regulations that require public utilities to "clearly and specifically" set forth all "practices, rules and regulations affecting [their] rates and charges."⁴¹

Further, this is the first time that NYISO revealed its proposed method and applied the indicative LCR to a new capacity zone, and the Commission has an obligation to ensure that NYISO's application of its tariff will produce just and reasonable rates. It makes little difference if the formal application of the indicative LCR formula will not occur until the ICAP demand curve reset proceeding, to be held in a few weeks, if the NYISO's NCZ LCR method presented in this proceeding is flawed and will be repeated in the ICAP demand curve reset proceeding as the NYISO has stated, as noted above.

³⁹ August 13 Order at P 66.

⁴⁰ NYISO witnesses Chao and Adams described the method without reference to any tariff provision or directive in the NYISO Installed Capacity Manual, *available at*:

http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp#

⁴¹ 18 C.F.R. § 35.1(a) (2013); *see Keyspan-Ravenswood*, 424 F.3d at 810 (finding that NYISO's discretionary ICAP-UCAP translation method violated the filed rate doctrine because the tariff did not specify the method "clearly and specifically.")

Finally, not only did the Commission fail to consider record evidence that the NCZ will lead to excessive rates in the Lower Hudson Valley, the Commission failed to respond to arguments that the NYISO's method will cause the wrong customers to pay the substantially higher rates that will result. The Commission ignored Central Hudson's argument that NYISO's flawed method failed to evaluate correctly the source of energy flows that contribute to the binding UPNY/SENY constraint. The Commission's failure to require the NYISO to make a meaningful comparison of cost responsibility with cost-causation violated a basic ratemaking principle.⁴²

Central Hudson showed that the NYISO's proposed "nested" new capacity zone concept will allow for Load Zones J and K to shift capacity costs to Load Zones "G-H-I" due to the way the NYISO has designed and plans to implement this "nested" NCZ. As noted above, Central Hudson estimated that other system changes along with the proposed NYISO "nested" new capacity zone approach could increase capacity prices to Central Hudson's customers from \$19 million to as much as \$89 million annually, an increase of 475%.⁴³

Central Hudson urged the Commission to correct the rate mismatch and require the NYISO to modify its plan to comply with cost causation by linking the NCZ's indicative LCR to the constrained UPNY/SENY interface—the one that triggered the need for the NCZ under the NYISO's study—but the Commission refused. Instead, the Commission used Central Hudson's suggestion as a justification for not addressing the underlying problem *at all*.⁴⁴ The Commission misconstrued Central Hudson's argument that the NYISO's method will lead to an unjust and unreasonable allocation that violates cost causation principles by reading it as a claim that the

⁴² *Illinois Commerce Commission v. FERC*, 576 F.3d 470 (7th Cir. 2009).

⁴³ Borchert Aff. at ¶ 15. The magnitude of this rate impact is a further illustration of why the Commission should, at a minimum, grant the request of the Indicated NYTOs to phase in the rate impact of the NCZ.

⁴⁴ August 13 Order at P 66.

Commission previously ordered the NYISO to allocate costs based on flow impacts.⁴⁵ Central Hudson made no such argument; but instead showed that the failure to correct NYISO's error will produce results that violate cost causation. The Commission did not deny that a rate mismatch will arise, but instead reasoned, in essence, that there is no reason to address it here because the NYISO has not proposed to change the process for developing the LCR *in the NCZ*, and this case is limited solely to the question whether to create the NCZ. As shown above, however, construing the NYISO's NCZ filing as a mere zone boundary exercise fails to satisfy the Commission's statutory obligation to ensure that the way the NYISO has gone about establishing the zone boundaries will lead to a just and reasonable rate. The August 13 Order failed to meet that requirement.

Although the courts owe the Commission deference in reviewing its rate design determinations,⁴⁶ they are likely to be skeptical when the Commission accepts a new method applied for the first time without evaluating the likelihood that the result will do "more good than harm."⁴⁷ This is particularly true when the Commission refuses to answer serious criticisms that the way the NYISO has exercised its discretion to implement its tariff will produce a dramatic price increase for the wrong customers with no demonstrable benefits while failing to achieve the underlying purposes of the tariff, as we show below.⁴⁸

For the foregoing reasons, the Commission should grant rehearing to reexamine NYISO's indicative LCR method to ensure that it complies with the tariff provisions concerning NCZ formation by using deliverability to link it to the constrained interface, as we discuss below,

⁴⁵ *Id.* at P 67.

⁴⁶ *ELCON*, 407 F.3d at 1238.

⁴⁷ *Id.* at 1238-39; *see Keyspan-Ravenswood*, 474 F.3d at 812 ("We will defer to the Commission's judgment in technical matters within its expertise, but only when the Commission has in fact exercised its judgment.")

⁴⁸ *Keyspan-Ravenswood*, 474 F.3d at 812-13; *NorAm*, 148 F.3d at 1162-66; *MAINE PUC*, 520 F.3d at 472 ("Of course, FERC cannot pluck rates out of thin air; it must rely on record evidence to establish a reasonable range of rates.")

which is necessary to ensure that NYISO's implementation of its tariff produces a just and reasonable rate.

B. The Commission Should Have Rejected NYISO's Reliability-Based Indicative LCR Calculation, Which Conflicts With the NCZ Tariff and Will Produce Unreasonable Results Not Addressed in the August 13 Order, and Should Have Directed NYISO to Revise the Method to Reflect Deliverability as Central Hudson Proposed.

The Commission emphasized that “this proceeding is narrowly focused on determining whether the NYISO followed its tariff in determining that a new capacity zone should be created,”⁴⁹ but in doing so gave weight only to Section 5.16.2 of the Services Tariff, which requires the NYISO to take reliability considerations into account in setting the zone boundary,⁵⁰ while disregarding Sections 5.14.1.2 and 5.16.3 which require that the NYISO also consider the indicative LCR in the NCZ zone formation analysis. The Commission erred by misapplying the NYISO tariff in this manner because it failed to uphold its statutory obligation to ensure that the NYISO's method will lead to just and reasonable rates, as we have shown above. As a result of this oversight, the Commission failed to give serious consideration to Central Hudson's protest which showed that the NYISO's use of the indicative LCR in setting the zone boundary is contrary to the Commission's directive to use deliverability concepts to determine whether an NCZ is required, and will produce unreasonable rates.

Central Hudson did not argue, as the Commission mistakenly inferred, that the Commission had previously directed the NYISO to use deliverability concepts to develop the indicative LCR.⁵¹ Rather, Central Hudson argued that using deliverability considerations in the indicative LCR calculation is necessary to give effect to the Commission's order rejecting the NYISO's proposal to use reliability as a test for NCZ formation and to avoid sending the wrong

⁴⁹ August 13 Order at P 66.

⁵⁰ *Id.* at P 53.

⁵¹ *Id.* at P 67.

price signal to investors.⁵² Central Hudson showed that the NYISO's new method for calculating the indicative LCR will lead to unjust and unreasonable results because it failed to link the rate to be paid to the constraint that gives rise to the need for the NCZ (consistent with the rationale for creating the NCZ in the first place), thus causing customers in the Lower Hudson Valley to bear an excessive share of the costs associated with creating the NCZ in the form of higher ICAP prices under the new demand curve that the NYISO will calculate using the indicative LCR method. To see why, Central Hudson explained the problem with the NYISO's method as follows.

Following a determination by the NYISO that a capacity zone should be established for Load Zones G-J, the NYISO used the methodologies described in the NYSRC Policy 5 ("Unified Methodology" and "Selection of Tan 45 Points on the IRM/LCR Curves Established by the Unified Methodology" or "Tan 45") to calculate the LCRs for the existing J & K Capacity Zones. The "Unified Methodology" uses a General Electric computer simulation program called the "Multi-Area Reliability Simulation Model," or "MARS," to establish curves relating the J & K Capacity Zones' LCRs to the statewide IRM; each point on these curves will satisfy the LOLE criterion. The Tan 45 method is used to select the curve point that balances the use of locality capacity with the use of the transmission system. The indicative LCR for the NCZ was then determined by adding the Megawatt requirement for Capacity Zone J to the capacity modeled in Load Zones G – I (*i.e.*, all G-I capacity); this MW capacity requirement then was divided by the load modeled in Load Zones G – J to determine the percent NCZ LCR.⁵³ Central Hudson's protest focused on the indicative LCR calculation part of the analysis.

⁵² September 2011 Order at P 60.

⁵³ Chao & Adams Aff. at ¶¶ 35-42. The witnesses cited no tariff provision that dictated the rate method they used.

The NYISO explained its reasoning for settling on the indicative LCR (and the associated indicative demand curve for the NCZ) through a multi-step analysis.⁵⁴ In the first step, the NYISO used the “Unified” and “Tan 45” methods described in the NYSRC’s “Policy 5” for evaluating state-wide reliability requirements. The NYISO performed this calculation by starting with the statewide IRM and the 2013/2014 LCRs for Load Zones J and K. Since the statewide IRM and the LCRs for Zones J and K were selected to meet the LOLE criterion, the starting model for the NYISO analysis, therefore, must be at the LOLE criterion.

The NYISO then “layered” the proposed new capacity zone (the G-J Locality) on top of Load Zones G, H, I and J at the Tan 45 LCR point.⁵⁵ With the J & K Localities modeled at their LCRs, as determined by the Unified and Tan 45 methods, and with all capacity modeled in G-I, the NYISO ran MARS simulations while shifting generating capacity out of Load Zones G, H, I and J to Load Zones A, C and D until the state-wide LOLE criterion was met. Since, however, the modeled system started at the LOLE criterion, any shift out of G-J or K necessarily would have resulted in a violation of the LOLE criterion. The NYISO stated that the indicative LCR that it calculated for the NCZ in this manner was 88%.

Central Hudson showed that the flaw in this layering method using reliability considerations is that it will result in overstating the LCR that the NCZ will need to satisfy, which will lead to the addition of unneeded new capacity to Load Zones G-I. This will cause the calculated LCRs in Load Zones J and K to fall while causing the calculated LCR in the NCZ to rise. Central Hudson gave a real-world example to illustrate this unreasonable result.

The 475 MW Danskammer generating plant in Zone G retired in early 2013. That retirement caused the LCR for Load Zone J to increase from 83% to 86% (an increase of 250

⁵⁴ *Id.* at ¶ 37.

⁵⁵ *Id.* at ¶ 39.

MW), and caused the LCR for Load Zone K to increase from 102% to 105% (an increase of 150 MW). Mathematically speaking, with all other variables being equal, if the same 475 MW were added back to Load Zones G-I, the LCRs for Load Zones J and K would drop, but the capacity required to meet the LCR for the NCZ actually would increase by 75 MW. This illustrates that the NYISO proposed method is flawed, illogical, and will result in the NCZ LCR being overstated.

The Danskammer retirement is not an anomaly. The NYISO Class Year 2011 studies of the NYISO's deliverability test showed that the addition of 699 MW of generation capacity (with an associated 650 MW of UCAP) to Load Zone G would result in an approximately 111 MW reduction to the UPNY/SENY emergency transfer limit.⁵⁶ This shows that adding generating capacity to the NCZ can actually result in even *more* bottled generation, and make the UPNY/SENY constraint *worse*, contrary to the theory for creating the NCZ in the first place, which assumes that generating additions will have a beneficial effect on the constraint.

The Commission erred by accepting the NYISO's reliability-based method for calculating the indicative LCR without considering Central Hudson's argument that the method will lead to counter-productive results. It thus failed to consider whether the indicative LCR calculation used in evaluating the NCZ's boundaries will do "more good than harm."⁵⁷ The Commission could have avoided this flawed result by giving serious consideration to Central Hudson's proposed modification to the NYISO's method, which proposed to use deliverability considerations in the indicative LCR analysis, instead of reliability considerations, which would have also had the virtue of harmonizing the NYISO's method with the Commission's order

⁵⁶ "Second Round Addendum to Class Year 2011 Facilities Studies System Deliverability Study: A report from the New York Independent System Operator," Rev. 1 (September 3, 2013).

⁵⁷ *ELCON*, 407 F.3d at 1238-39.

rejecting reliability as part of the NCZ formation criteria.⁵⁸ Doing so would have addressed the Commission’s concern with “the importance of accurately reflecting binding transmission constraints in the capacity market clearing process.”⁵⁹

Central Hudson’s deliverability method proposed to link the indicative LCR to the emergency transfer limit for the UPNY/SENY interface. An indicative LCR that uses deliverability instead of reliability as its foundation will provide a much more accurate measure of the problem that actually is supposed to be solved (the proper contours of the NCZ boundary and the Load Zone customers who should be included within it), and provides a more accurate method for setting the new ICAP demand curve for the NCZ in the closely related ICAP demand curve reset proceeding that the NYISO will soon file with the Commission. Not only will Central Hudson’s NCZ LCR method provide an accurate price signal, it will provide an appropriate foundation for setting the NCZ demand curve and the subsequent NCZ capacity prices so that customers in all zones downstream of the UPNY/SENY transmission constraint (Load Zones G, H, I, J, and K) will bear their proper share of the cost of capacity needed to address the UPNY/SENY constraint. The Commission erred by failing to give serious consideration to these arguments, and by failing to provide a reasoned explanation for why the NYISO’s method produces just and reasonable rates despite Central Hudson’s showing to the contrary.⁶⁰

Moreover, the Commission failed to give serious consideration to Central Hudson’s objection that the NYISO’s method will provide a misdirected incentive to build new generation in Zone G at the same time that the New York Public Service Commission is in advanced

⁵⁸ September 2011 Order at P 60.

⁵⁹ *Id.* at P 66.

⁶⁰ *K N Energy, Inc. v. FERC*, 968 F.2d 1295, 1303 (D.C. Cir. 1992) (“It most emphatically remains the duty of this court to ensure that an agency engage the arguments raised before it—that it conduct a process of *reasoned* decisionmaking.”)

proceedings to review proposals to build new transmission lines that will relieve transmission constraints into the Lower Hudson Valley by relieving the UPNY/SENY transmission constraint. Building new transmission facilities to relieve the constraint should drive capacity prices down in the Lower Hudson Valley, thereby removing or reducing the incentive to build new generation in this locality, as the Commission acknowledged.⁶¹ Instead, as discussed above, the NYISO's miscalculated indicative LCR will provide a counter-incentive to build new generation in the locality, which may persist even after new transmission lines are built, given the Commission's refusal to require the NYISO to adopt a mechanism for either eliminating the NCZ once the underlying constraint is alleviated, or to ensure that prices on either side of the alleviated constraint converge, as predicted by the economic theory that the Commission has relied upon.⁶² And even if the indicative LCR does not lead to excessive generation construction in the Lower Hudson Valley, it will likely mean that higher capacity payments in the NCZ will simply provide a windfall to existing generators that may be forced to retire in the near future for other reasons, such as the approximately 2,000 MW Indian Point Nuclear Energy Center that appears likely to retire by the end of 2015 if its nuclear generating licenses are not renewed.

For all of these reasons, the Commission should grant rehearing, reject the NYISO's indicative LCR method, and direct the NYISO to make a compliance filing that provides a new method that conforms to the approach that Central Hudson described in its protest. Alternatively, the Commission should direct the NYISO to work with Central Hudson and other stakeholders to revise its indicative LCR method to produce just and reasonable rates, and to make a compliance filing to use the corrected method by a date certain.

⁶¹ August 13 Order at P 23.

⁶² *Id.* at PP 82-83, August 2012 Order at P 51, September 2011 Order at P 70.

V. CONCLUSION

WHEREFORE, in view of the foregoing, Central Hudson Gas & Electric Corporation requests that the Commission grant rehearing of the August 13 Order as discussed above.

Respectfully submitted,

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Dated: September 12, 2013

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding, in accordance with Rule 2010 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (2013).

Dated at Washington, D.C., this 12th day of September, 2013.

/s/ Carlos L. Sisco

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System
Operator, Inc.

Docket No. ER13-1380-003

ORDER GRANTING REHEARING FOR
FURTHER CONSIDERATION

(October 10, 2013)

Rehearing has been timely requested of the Commission's order issued on August 13, 2013, in this proceeding. *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (2013). In the absence of Commission action within 30 days from the date the rehearing request was filed, the request for rehearing (and any timely requests for rehearing filed subsequently)¹ would be deemed denied. 18 C.F.R. § 385.713 (2013).

In order to afford additional time for consideration of the matters raised or to be raised, rehearing of the Commission's order is hereby granted for the limited purpose of further consideration, and timely-filed rehearing requests will not be deemed denied by operation of law. Rehearing requests of the above-cited order filed in this proceeding will be addressed in a future order. As provided in 18 C.F.R. § 385.713(d), no answers to the rehearing requests will be entertained.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹See *San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange*, 95 FERC ¶ 61,173 (2001) (clarifying that a single tolling order applies to all rehearing requests that were timely filed).

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)

Docket No. ER13-1380-000

**REQUEST FOR PARTIAL RECONSIDERATION
OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.**

In accordance with Rule 212 of the Commission’s Rules of Practice and Procedure,¹ the New York Independent System Operator, Inc. (“NYISO”), respectfully submits this request for partial reconsideration of one element of the Commission’s *Order Accepting Proposed Tariff Revisions and Establishing a Technical Conference* (“August 13 Order”).² Specifically, the Commission should reconsider the August 13 Order’s rejection of a proposed “phase-in” of the price impacts of the G-J Locality;³ *i.e.*, the New Capacity Zone proposed by the NYISO in its April 30, 2013 filing and accepted by the August 13 Order.⁴

The NYISO continues to believe that implementing the G-J Locality by May 1, 2014 would “send more efficient price signals, enhance reliability, mitigate potential transmission security issues, and serve the long-term interest of all consumers in New York State.”⁵ But the NYISO also believes that there is a significant likelihood of short-term consumer impacts that merit action by the Commission. After considering more current information about the potential

¹ 18 C.F.R. 385.212 (2013).

² *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (2013) (“August 13 Order”).

³ Capitalized terms that are not defined herein shall have the meaning set forth in the NYISO’s Market Administration and Control Area Services Tariff.

⁴ See also *Letter Order Accepting New York Independent System Operator, Inc.’s Compliance Filing Dated 6/19/13 in Response to the Commission’s June 6, 2013 Order under ER12-360*, Docket No. ER12-360-003 (August 14, 2013).

⁵ *New York Independent System Operator, Inc., Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing*, Docket No. ER13-1380-000 (April 30, 2013) (“April 30 Filing”) at 1.

retail rate impacts of implementing the G-J Locality, the NYISO has concluded that a phase-in of the price impacts is necessary to ameliorate effects on consumers and mitigate what has been described as potential “rate shock.”⁶

After considering the information now available, the NYISO believes phasing in the capacity price increases associated with creating the G-J Locality is an equitable means to protect consumers from the risk of immediate and significant increases in their electric bills. A phase-in would provide retail customers with an opportunity to mitigate bill increases, *e.g.*, through energy efficiency and conservation measures. Further, a principal goal of creating New Capacity Zones, *i.e.*, incentivizing investment in new capacity, would not be defeated by gradually implementing the price signals over the three year duration of the initial ICAP Demand Curve for the G-J Locality. Even with a phase-in, investments in new generation, which typically have a construction cycle of two to three years, will receive the needed price signal. The NYISO also believes that existing capacity needed for reliability can be expected to be retained even with a phase-in over the three year period. Thus, a phase-in can mitigate short-term consumer impacts without suppressing desired investment signals, necessary to satisfy reliability requirements. Finally, adopting a phase-in of the first New Capacity Zone is consistent with prior Commission actions concerning NYISO ICAP Demand Curves.

The NYISO recognizes the August 13 Order’s concern that a phase-in could “delay the capacity market’s ability to send more efficient price signals,”⁷ that the creation of the G-J Locality has been anticipated for years, and that the record includes pleadings opposing a

⁶ See *Petition for Rehearing of the New York Power Authority*, Docket No. ER13-1380-003 at 17 (“A phase-in would reduce the rate shock imposed on consumers without undermining or delaying the development of the new supply in the G-J NCZ that the NCZ is intended to incentivize.”); *Request for Rehearing of the Central Hudson Gas and Electric Corp.*, Docket No. ER13-1380-003 at 2 (“rapidly approaching rate shock”) (September 12, 2013) (“*Central Hudson Request for Rehearing*”).

⁷ August 13 Order at P 31.

phase-in. Nevertheless, since the NYISO's April 30 Filing, more current information has become available concerning the potential consumer impacts of implementing the G-J Locality for the Capability Period beginning May 1, 2014. As discussed below, the consumer responsiveness requirements applicable to all Independent System Operators and Regional Transmission Organizations under Order No. 719⁸ caused the NYISO to bring this new information to the Commission's attention through this request for reconsideration.

I. BACKGROUND

In the April 30 Filing, the NYISO included analyses of potential price impacts of the G-J Locality based on information available and reasonable assumptions at that time. Specifically, the April 30 Filing included an affidavit by the NYISO's Consumer Interest Liaison, Mr. Tariq N. Niazi ("Niazi Affidavit") that focused on two forward-looking wholesale consumer impact price analyses. Mr. Niazi's affidavit indicated that his analyses were based upon a number of assumptions including the reference prices and zero crossing points that would be incorporated in the New Capacity Zone ICAP Demand Curves. Moreover, the NYISO made clear that the analyses discussed in the Niazi Affidavit were just two of many that the NYISO conducted and were not intended to be price forecasts.⁹

Mr. Niazi's simulations showed that there would be increased capacity prices in Load Zones G, H, and I over the prices likely to occur absent the creation of the G-J Locality. He quantified those increases at \$173 million per year, which would translate into approximately \$500 million over the first three years of the G-J Locality. As discussed below, a more current assessment of the price impacts utilizing information contained in the report of the NYISO's

⁸ *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, FERC Stats. & Regs. ¶ 31,281 (2008), *order on reh'g*, Order No. 719-A, FERC Stats. & Regs. ¶ 31,292 (2009), *order denying reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

⁹ April 30 Filing at n. 35.

independent ICAP Demand Curve reset consultant (“Independent Consultant”)¹⁰ and the NYISO staff’s ICAP Demand Curve proposal to the Board of Directors dated September 6, 2013, suggests the potential for even greater price impacts. Moreover, several parties, notably the New York State Public Service Commission (“NYPSC”), have now quantified the G-J Locality’s potential *retail* rate impacts to New York ratepayers.

It is important to note that the NYISO has not objected to a phase-in in this proceeding; rather it has deferred until this point, to other parties and the Commission. The Indicated New York Transmission Owners’ (“Indicated NYTOs”)¹¹ protest of the April 30 Filing requested that the Commission direct the NYISO to “phase-in the capacity price increases that will result from the creation of the NCZ over a reasonable period.”¹² The NYISO responded that it continued to support the creation of the G-J Locality but stated that it took no position on the question of “whether a phase in of capacity price increases is warranted on noneconomic grounds.”¹³

Specifically, the NYISO stated that:

The NYISO ... notes that it cannot yet evaluate whether any phase-in option would be administratively feasible or would threaten the timing of the implementation of the NCZ (or the ICAP Demand Curves). The NYISO expects that other parties will create a complete record on the equitable considerations

¹⁰ The Independent Consultant, selected in accordance with Services Tariff Section 5.14.1.2, is NERA Economic Consulting, with its subcontractor, Sargent & Lundy.

¹¹ The Indicated NYTOs are Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., 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. *See Request for Rehearing of the Indicated New York Transmission Owners*, Docket No. ER13-1380-003 (September 12, 2013.)

¹² *Motion to Intervene and Protest of the Indicated New York Transmission Owners*, Docket No. ER13-1380-000 at 2 (June 13, 2013); *NYPSC Request for Rehearing* at p. 9 (supporting Indicated NYTOs’ request for phase-in).

¹³ *Answer to Comments and Request for Leave to Answer and Answer to Protests of the New York Independent System Operator, Inc.*, Docket No. ER13-1380-000 (June 5, 2013) at 34 (quoted language capitalized in original).

posed by phase-in proposals. Accordingly, the NYISO does not believe that there is anything further for it to add to the record on this issue at this time.¹⁴

It was not until after the August 13 Order and the filing of requests for rehearing that further specific information was proffered on the retail rate impacts of the G-J Locality. For example, the NYPSC's rehearing request asserted that without a phase-in some consumer retail rates could increase by as much as 25% upon implementation.¹⁵ In addition, Central Hudson's request for rehearing emphasizes that implementing the G-J Locality would result in wholesale capacity price increases of as much as 475% to its customers.¹⁶

The NYPSC also contends on rehearing that such price increases would not send efficient long-term price signals because Governor Andrew Cuomo's "Energy Highway Blueprint"¹⁷ is expected to result in the construction of new transmission facilities that will alter the configuration of the New York State Transmission System over the next few years. The NYPSC asserts that the State programs have progressed and questions "the effectiveness of creating an NCZ *at this time*, while requiring ratepayers to pay hundreds of millions in additional Installed Capacity costs within the NCZ with no concomitant benefits to consumers."¹⁸ The NYISO notes that on October 17, 2013, the NYPSC approved several projects that were proposed in a NYPSC

¹⁴ *Id.* at 34-35.

¹⁵ *Request for Rehearing and Clarification of the New York State Public Service Commission*, Docket No. ER13-1380-001 (September 12, 2013) ("*NYPSC Request for Rehearing*") at 5, 9-10. *Central Hudson Request for Rehearing* at 8-9.

¹⁶ *Central Hudson Request for Rehearing* at 8-9, 15. *See also NYPSC Request for Rehearing* at 8, n. 16 ("As noted above, the NYPSC estimates the price impacts may be upwards of \$350 million per year, which translates to a rate increase of over 25% for some customers.")

¹⁷ *See, e.g., NYPSC Request for Rehearing* at 7-8 (describing New York State's ongoing transmission policy initiatives)

¹⁸ *See, e.g., NYPSC Request for Rehearing* at 8 *citing New York State Public Service Commission Notice of Intervention and Protest*, Docket No. ER13-1380-000 (May 21, 2013) at 3 (emphasis in original).

proceeding established to further the Energy Highway Blueprint.¹⁹ The NYPSC describes the approved projects as “three transmission projects capable of reducing capacity needs by upwards of 600 MW and extension of existing programs and creation of new programs designed to reduce downstate electricity use by 180 MW through energy efficiency and demand response.”²⁰

II. REQUEST FOR PARTIAL RECONSIDERATION

The Commission has discretion to reconsider its orders at any time.²¹ A request for reconsideration “must show new information or evidence of changed circumstances that would warrant reconsideration by the Commission.”²² There is new information not currently before the Commission that warrants reconsideration of the August 13 Order’s phase-in ruling.²³

A. Description of New Information

In the six months since the April 30 Filing, new information has developed concerning the potential severity of the capacity price impacts of implementing the G-J Locality. Most significantly, the proposed parameters of the G-J Locality’s ICAP Demand Curves for the 2014/2015 through 2016/2017 Capability Years (and therefore the prices that may result from it) have been developed by the NYISO’s Independent Consultant. The NYISO staff reviewed those parameters and, in large part, recommended them to the NYISO Board of Directors. This information was not available when Mr. Niazi performed his initial consumer analyses.

¹⁹ NYPSC Docket No. 12-E-0503, press release issued October 17, 2013, available at <[http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/Web/A0167A43AAA2952585257C07005A9F37/\\$file/pr13076.pdf?OpenElement](http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/Web/A0167A43AAA2952585257C07005A9F37/$file/pr13076.pdf?OpenElement)>, (“PSC Details Plans to Ensure Grid Reliability and Safeguard Customers”).

²⁰ *Id.*

²¹ See *Florida Power & Light Co.*, 122 FERC ¶ 61,159 at P 9 and n.19 citing *Cities of Campbell and Thayer v. FERC*, 770 F.2d 1180, 1183 (D.C. Cir. 1985).

²² *Enterprise Texas Pipeline, L.P.*, 117 FERC ¶ 61,025 at P 7 (2006).

²³ This filing does not seek reconsideration of any other element of the August 13 Order and the NYISO is not addressing any other issue raised by the requests for rehearing at this time.

Mr. Niazi's analyses were instead based on scenarios that used assumptions about the various ICAP Demand Curve reset parameters. More specifically, the NYISO's Independent Consultant completed its study of the parameters for the 2014/15 through 2016/17 ICAP Demand Curves in early August 2013.²⁴ The NYISO staff issued its own recommendations, which adopted most of the consultant's proposals on September 6, 2013.²⁵ By contrast, Mr. Niazi's analyses were undertaken in January through April when the data used in the reports was only in the initial stages of development. Thus the analyses presented in the April 30 Filing were not informed by the data used to formulate these later reports. More refined information about reference prices and zero crossing points was likewise not available when Mr. Niazi performed his initial consumer impact analyses. The more current information is consistent with the NYPSC's and other parties' assertions that there may be a severe price impact from the first-time application of a Locational Minimum Installed Capacity Requirement and implementation of a new ICAP Demand Curve for Load Serving Entities in the G-J Locality.

The NYPSC has asserted that some consumer rates would increase by 25% solely from implementing these changes in the NYISO's capacity market rules. By way of comparison, the NYISO's understanding, based on publically available information, is that recently approved

²⁴ Section 5.14.1.2 of the Services Tariff requires the NYISO to initiate an independent review of the ICAP Demand Curves every three years in accordance with the ISO Procedures to determine the parameters of the ICAP Demand Curves for the next three Capability Years. In accordance with Section 5.14.1.2, the NYISO retained the ICAP Demand Curve consultant which prepared its "*Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator*" available at http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-08-13/Demand%20Curve%20FINAL%20Report%208-2-13.pdf.

²⁵ See *New York Independent System Operator, Inc.*, "Proposed NYISO Installed Capacity Demand Curves for Capability Years 2014/2015, 2015/2016 and 2016/2017 - Final" (dated September 6, 2013) available at http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-09-11/2013%20NYISO%20Demand%20Curve%20Recommendation_9-6-13_clean.pdf.

retail electric rate increases in New York have ranged from 2.5% to 5.8%.²⁶ Thus the potential retail rate increases associated with the implementing this new capacity zone could be significantly larger than any other recent retail rate increase. The record in this proceeding contains little, if any, information discussing the potential price impacts in the context of *retail* rates.

In October 2013 the NYISO's Board of Directors received written comments and heard oral arguments from stakeholders concerning the proposed ICAP Demand Curves. The stakeholder information further highlighted the real possibility that there could be severe price increases in the G-J Locality resulting from ICAP Demand Curves based upon information in the Independent Consultant's report and the NYISO staff's proposal.²⁷

²⁶ See, e.g., *PSC Adopts 3-Year Electric Rate Plan for O&R*, NYPSC Press Release No. 12043, Case No. 11-E-0408 (June 14, 2012) (average annual rate increase of 5.8%); *PSC Sets Rate Plans for NYSEG and RG&E*, NYPSC Press Release No. 1088, Case Nos. 09-E-0715, 09-G-0716, 09-E-0717; 09-G-0718 (Sept. 16, 2010) (increasing electric rates by between 2.6 percent and 4.3 percent per year); *New Gas, Electric Rates for Central Hudson Approved*, NYPSC Press Release No. 10056, Case Nos. 09-E-0588; 09-G-0589 (June 17, 2010) (electric rate increases between 3.2 percent and 4.5 percent per year); *New 3-Year Rate Plan Approved for Con Edison*, New York Public Service Commission, NYPSC Press Release No. 10028, Case Nos. 07-E-0523, 08-E-0539, 09-E-0428 (March 25, 2010) (3.60% levelized annual rate increase); *PSC Adopts 3-Year Electric Rate Plan for O&R*, NYPSC Press Release No. 08079, Case No. 07-E-0949 (July 16, 2008) (electric rate increase of 2.5 percent per year). Copies of all NYPSC press releases are posted at <http://www3.dps.ny.gov/pscweb/WebFileRoom.nsf/PressReleases?OpenForm&Count=5000>. Individual electric case numbers may be searched at <http://www3.dps.ny.gov/W/PSCWeb.nsf/All/B428BB2B680CD9B485257687006F3890?OpenDocument>.

²⁷ See also *Comments of the Indicated New York Transmission Owners on Proposed ICAP Demand Curves for 2014-17* at 1 (arguing that the NYISO Staff Proposal would result in "a major unjustified price increase for New York State's electricity customers" and that "ICAP costs could unnecessarily increase in by approximately \$140 million annually in the LHV and more than \$350 million annually in New York City if the appropriate proxy unit for those demand curves is not selected.") available at [http://www.nyiso.com/public/webdocs/markets_operations/market_data/icap/Reference_Documents/2014-2017%20Demand%20Curve%20Reset/Demand_Curve_Reset/NYTO%20Demand%20Curve%20Reset%20Comments%20to%20Board\(final\).pdf](http://www.nyiso.com/public/webdocs/markets_operations/market_data/icap/Reference_Documents/2014-2017%20Demand%20Curve%20Reset/Demand_Curve_Reset/NYTO%20Demand%20Curve%20Reset%20Comments%20to%20Board(final).pdf).

The NYISO Board has not completed its deliberations regarding the parameters of the ICAP Demand Curves for the Capability Years 2014/15 through 2016/17.²⁸ ICAP Demand Curves that are ultimately approved by the NYISO Board of Directors will be filed with the Commission on or before November 29, 2013.²⁹

B. The NYISO’s Consideration of Consumer Impacts

The NYISO’s principal focus is to administer efficient and competitive markets without favoring any Market Participant or stakeholder group. While the New York wholesale electricity markets are designed to send long-term economically efficient price signals, the NYISO cannot be indifferent to the short-term consumer impacts resulting from its market rules. This is true even where those rules are intended to provide the correct long-term price signal that in the long term would be in consumers’ best interests.³⁰

Under Section 35.28(g)(6) of the Commission’s regulations, *i.e.*, the “responsiveness” rules promulgated by Order No. 719, the NYISO has an obligation to consider consumer impacts. This obligation includes an “ongoing responsiveness” requirement under which the NYISO must “continue over time to consider customer and other stakeholder needs as the architecture or market environment of the RTO or ISO changes.”³¹ The NYISO believes that the potential capacity price increases for the G-J Locality constitute a change in “market environment” that justifies seeking reconsideration. Given the information that is now available

²⁸ On October 17, 2013 the NYISO notified stakeholders that the Board has directed it to conduct further due diligence on the appropriate proxy unit to be used to establish the G-J Locality and other ICAP Demand Curves. The NYISO indicated that the results of the due diligence would be made public and that stakeholders would be afforded an opportunity to provide supplemental written comments to the Board.

²⁹ See Services Tariff 5.14.1.2.11.

³⁰ The *NYPSC Request for Rehearing* notes at 7 that the NYPSC “did not dispute that creating an NCZ could have long-term reliability benefits, or that the creation of a new NCZ in Zones G-J may eventually incent new generation in that location”

³¹ Order No. 719 at P 509.

to it, the NYISO cannot ignore the potentially significant consumer impacts of implementing this new capacity zone without a phase-in.³²

As noted above, the NYISO now believes that the Commission should order a phase-in over the initial Demand Curve period (*i.e.*, three years). Importantly, the NYISO believes that phasing-in the G-J Locality price increase can be accomplished in a balanced and equitable manner that will not interfere with price signals necessary to attract investment in new capacity or maintain existing efficient capacity. Further, existing economic capacity will still see a new price signal even with a phase-in, and this request for reconsideration only proposes to address dramatic short-term price increases that may occur.

It is important to recall that Commission took a similar approach when it first approved the implementation of ICAP Demand Curves in New York. In 2003, the Commission concluded that a phase-in was appropriate to “ameliorate” ratepayer impacts by gradually implementing the cost of new entry into the newly-adopted demand curves.³³ A similar situation exists today. The G-J Locality is the first new capacity zone implemented since the NYISO’s inception. As with the ICAP Demand Curves first adopted in 2003, the New Capacity Zone is a major change in the market. Given its potentially significant retail rate impact, it is a market change that should be

³² The NYISO intends to follow the August 13 Order’s suggestion that it explore with its stakeholders possible mechanisms to determine whether there is a need to eliminate “unnecessary” zones, and if so the mechanism to do so. *See* August 2013 Order at P 82 (“[w]e reiterate here that NYISO should work with its stakeholders, and if a mechanism for zone elimination is deemed necessary, NYISO should file appropriate tariff revisions with the Commission.”); *see also*, *New York Indep. Sys. Operator, Inc.*, 136 FERC ¶ 61,165 at P 70 (2011). However, no such effort would be responsive to short-term price concerns since, as the *NYPSC Request for Rehearing* states, transmission construction under the Energy Highway Blueprint may not occur until 2018. *See NYPSC Request for Rehearing* at 8.

³³ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 6 (2003).

undertaken in a measured fashion that takes into consideration the short-term implications for retail customers.³⁴

Moreover, a short-term phased approach likely would not interfere with long-term investment decisions to develop new generation in the G-J Locality because of the revenue forecast horizon utilized by developers. So long as a sufficient price signal is present in the third year of the G-J Locality ICAP Demand Curve and beyond, the NYISO expects that there will be an appropriate incentive for new investment. In other words, phasing-in capacity prices during the first three years of this new capacity zone should not materially affect investors' responses. Further, as mentioned above, existing capacity needed for reliability will still realize increased prices and revenues within this three-year period.

As an equitable matter, a phase-in would provide retail ratepayers with an opportunity to better anticipate, and take steps to respond to, potentially large price increases. Consumers generally, and retail customers in particular, are generally not poised to react quickly to wholesale price increases. Given sufficient time, however, they may be able to mitigate their exposure to a wholesale price increase through energy efficiency and other demand-side actions, and thus avoid potential rate shock.

An additional basis for reconsideration is the fact that the NYISO has now concluded that it would be administratively feasible to implement a phase-in. Specific phase-in proposals were not presented in pleadings when the NYISO first addressed the issue in June. The NYISO subsequently determined that it can administer a phase-in through structuring the ICAP Demand

³⁴ This filing brings to the Commission's attention information provided by parties on retail consumer price impacts that might result from the NYISO's market rules in the absence of a phase-in. It is possible that both the NYISO Board of Director's ultimate determination about the new ICAP Demand Curves and future market activities could result in different price impacts.

Curve for the G-J Locality.³⁵ This approach would not require significant software revisions. Based on this approach, which had not been previously considered in this proceeding, the NYISO now believes that a phase-in of capacity price increases in the G-J Locality is administratively feasible.³⁶

As noted above, the Commission accepted a very similar phase-in of the original ICAP Demand Curves in 2003 on the ground that it would “ameliorate rate impacts.”³⁷ The Commission has also traditionally accepted rate treatments designed to avoid customer rate shock, particularly in its decisions permitting the inclusion of up to 100 percent of Construction Work in Progress (“CWIP”) costs in utility rate base in order to preserve rate stability and avoid abrupt rate increases.³⁸ Thus, providing for a phase-in of capacity price increases for the G-J

³⁵ As noted above, the ICAP Demand Curve for the G-J Locality, along with the ICAP Demand Curves, will be filed on or before November 29, 2013.

³⁶ There are likely also additional administratively feasible ways that a phase-in could be implemented.

³⁷ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 (2003)

³⁸ *See, e.g., Northern Indiana Public Service Co.*, 141 FERC ¶ 61,231 at P 33 (“Furthermore, as the Commission has previously determined in prior orders, the CWIP incentive will help insulate NIPSCO’s customers from “rate shock” that might otherwise accompany use of AFUDC.”); *PJM Interconnection LLC*, 135 FERC ¶ 61,229, at P 78 (2011) (“As explained in prior orders, when certain large-scale transmission projects come on line, there is a risk that consumers may experience “rate shock” if CWIP is not permitted in rate base. By allowing CWIP in rate base, the rate impact of each of the three projects can be spread over the construction period and will help reduce rate shock.”) (footnotes omitted); *PPL Electric Utilities Corp.*, 123 FERC ¶ 61,068, at PP 40-43 (2008); *American Elec. Power Serv. Corp.*, 116 FERC ¶ 61,059, at P 59 (2006), *order on reh’g*, 118 FERC ¶ 61,041, at P 27 (2007).] *See also Promoting Transmission Investment through Pricing Reform*, Order No. 679, FERC Stats. & Regs. ¶ 31,222 at PP 29, 117 (establishing a policy that allows utilities to include, where appropriate, 100 percent of prudently-incurred transmission-related CWIP costs in rate base), *order on reh’g*, Order No. 679-A, FERC Stats. & Regs. ¶ 31,236 (2006), *order on reh’g*, 119 FERC ¶ 61,062 (2007). *Construction Work In Progress for Public Utilities; Inclusion of Costs in Rate Base*, Order No. 298, 48 Fed. Reg. 24,323 (1983), at 30,499 (“Without any CWIP in rate base, a new plant has no direct effect on consumer prices until it begins to provide service. Then, when it does come on line, consumer’s rates must be increased to give the company a cash return on both the direct cost of the plant and the capitalized [(AFUDC)] as well as a return of capital through depreciation. If the plant is large relative to the existing rate base, the result can be a rate increase that is both large and sudden, producing a so-called ‘rate shock’. In contrast, with all CWIP in rate base, the impact of new plant is spread over the entire construction period, and the rates

Locality would be consistent with Commission precedent. It would also appear to align with the Commission's recent indications of its greater willingness to accommodate "legitimate state policy objectives" within the framework of competitive capacity markets.³⁹ Accommodating consumer interests in this proceeding would not prevent the G-J Locality from having its intended market design effect.

III. COPIES OF CORRESPONDENCE

Copies of correspondence concerning this filing should be served on:

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when the plant begins to provide service are lower because they do not include a return on and of capitalized AFUDC.”).

³⁹ See *Notice Allowing Post-Technical Conference Comments*, Docket No. AD13-7-000 (October 25, 2013) (seeking written comments regarding “[a]ccommodating state policies”); *Supplemental Notice of Technical Conference*, Docket No. AD13-7-000 (August 23, 2013) (raising questions concerning whether “centralized capacity markets effectively accommodate various federal and state policies” and what might be done to ensure that the market designs do so more effectively); See also *New England States Committee on Electricity v. ISO New England, Inc.*, 142 FERC ¶ 61,108 (2013) *dissenting opinion of Chairman Wellinghoff and Commissioner Norris* (questioning whether the existing New England capacity market design does enough to accommodate “legitimate state policy goals.”).

IV. CONCLUSION

In conclusion, for the reasons set forth above, the NYISO respectfully requests that the Commission reconsider the August 13 Order's decision to reject a phase-in of the price impacts for the G-J Locality.⁴⁰

Respectfully submitted,

/s/ Robert E. Fernandez

Robert E. Fernandez
Gloria Kavanah
Ted J. Murphy, Hunton & Williams LLP
On behalf of
New York Independent System Operator, Inc.

October 28, 2013

cc: Michael A. Bardee
Gregory Berson
Anna Cochrane
Jignasa Gadani
Morris Margolis
David Morenoff
Michael McLaughlin
Daniel Nowak

⁴⁰ As noted above, the actual ICAP Demand Curves will be filed on or before November 29, 2013.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 28th day of October, 2013.

/s/ Joy A. Zimmerlin

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STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on April 18, 2013

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman
Patricia L. Acampora
Maureen F. Harris
James L. Larocca
Gregg C. Sayre

CASE 13-E-0019 - Dynegy Roseton LLC and CCI Roseton LLC -
Petition for Expedited Approval of a Transfer
Pursuant Public Service Law §70 and Related
Approvals.

CASE 13-E-0012 - Dynegy Danskammer LLC - Petition For Waiver of
the Generation Facility Retirement Notice
Period and Requesting Other Related Relief.

ORDER APPROVING TRANSFER AND AUTHORIZING A RETIREMENT
PRIOR TO EXPIRATION OF THE NOTICE PERIOD

(Issued and Effective April 22, 2013)

BY THE COMMISSION:

BACKGROUND

In a petition filed on January 16, 2013 in Case 13-E-0019, and supplemented on March 28, 2012, Dynegy Roseton LLC (Dynegy Roseton) and CCI Roseton LLC (CCIRL) (collectively, the Petitioners) request approval of a proposed transfer from Dynegy Roseton to CCIRL of the ownership of the 1,160 MW Roseton generating station, located in Newburgh, New York. In a petition filed on January 3, 2013 in Case 13-E-0012, and supplemented on March 29, 2012, Dynegy Danskammer LLC (Dynegy Danskammer) provides notice that it intends to discontinue operation of the 530 MW Danskammer generating station, which is located adjacent to the Roseton facility in Newburgh. Following

the retirement of the Danskammer facility, Dynegy Danskammer states it intends to sell the site and its fixtures to a salvage company that will demolish the facility. Dynegy Danskammer asks that it be permitted to effectuate the retirement prior to the expiration of the 180-day period for giving notice of a retirement provided for in the Generation Retirement Order.¹ Both Dynegy Roseton and Dynegy Danskammer are subsidiaries of Dynegy Holdings, LLC (Dynegy) which commenced Chapter 11 bankruptcy proceedings on November 7, 2011.

In conformance with State Administrative Procedure Act (SAPA) §202(1), notices of the petitions in Case 13-E-0019 and Case 13-E-0012 were published in the State Register on January 30 and February 6, 2013, respectively. The SAPA §202(1)(a) periods for submitting comments in response to the notices expired on March 18 and March 25, 2013, respectively. No comments have been received.

THE PETITIONS

The Filings in Case 13-E-0019

Pursuant to Bankruptcy Court confirmation of a plan for reorganizing Dynegy, the Petitioners explain, an auction of Dynegy Roseton's interests in the Roseton facility was conducted commencing on November 19, 2012. CCIRL, the Petitioners elaborate, was the winning bidder in that auction, and its purchase of the Roseton facility was approved by the Bankruptcy Court on December 26, 2012. Once approval under the PSL is obtained, the Petitioners relate, CCIRL will own and operate the Roseton facility. The Petitioners note that Dynegy Roseton is an electric corporation that operated Roseton under a sale and

¹ Case 05-E-0889, Generation Unit Retirement Policies and Procedures, Order Adopting Notice Requirements For Generation Unit Retirements (issued December 20, 2005).

leaseback arrangement where the passive participant that nominally owned the facility was not an electric corporation subject to PSL jurisdiction,² and that Dynegy Roseton has been accorded lightened ratemaking regulation under the PSL.³

CCIRL, the Petitioners report, is an indirect, wholly-owned subsidiary of Castleton Commodities International LLC (CCI). Approximately 95.5% of the membership interests in CCI are owned by Energy Trading Innovations LLC (ETI), which, in turn, is owned by a number of unaffiliated individual and fund investors.⁴

Through CCI, CCIRL is affiliated with CCI Rensselaer LLC (CCI Rensselaer), which owns and operates a 77 MW gas-fired electric generating facility located in Rensselaer, New York, and Castleton Commodities Merchant Trading, L.P., a marketer of power, natural gas and solid fuels. Except for these affiliations, the Petitioners state, neither CCIRL nor CCI and its affiliates own any electric transmission, generation or distribution facilities, other than interconnections, or natural gas pipelines or distribution facilities, situated within New York Independent System Operator (NYISO) wholesale markets.⁵

The Petitioners claim that neither CCIRL nor CCI and its affiliates will be able to exercise horizontal market power as a result of the transaction. The Petitioners note that CCI

² Case 01-E-0587, Dynegy Roseton LLC, Order Authorizing Issuance of Lease Obligation Notes (issued April 27, 2001).

³ Case 96-E-0909, Central Hudson Gas and Electric Corporation, Order Approving Transfer of the Danskammer and Roseton Generating Stations and Making Other Findings (issued December 20, 2000) (Light Regulation Order).

⁴ See Case 12-E-0442, LDH Rensselaer LLC, Declaratory Ruling on Review of an Upstream Transfer Transaction (issued December 14, 2012).

⁵ The Petitioners report that CCI and its affiliates do not own any generation capacity in markets adjacent to New York.

and its affiliates will own in NYISO markets only the 1,160 MW Roseton facility and the 77 MW Rensselaer facility, and they maintain that market concentration does not increase appreciably as a result of this affiliation. Moreover, the Petitioners calculate, CCI's combined ownership interest would amount to approximately 3.2% of the generation capacity installed in NYISO wholesale markets. The Petitioners argue that an ownership interest of that size would have only a de minimis impact on competition within NYISO markets.

The Petitioners assert that the proposed transfer will not result in any changes to the operations of the Roseton facility. CCIRL, they state, will continue to sell generation from the facility into NYISO wholesale markets as Dynegy Roseton did before. The Petitioners also ask that the lightened ratemaking regulation applicable to Dynegy Roseton be continued for CCIRL once it becomes the owner and operator of the Roseton facility.

In the Petitioners' March 28, 2013 supplemental filing, they report that CCIRL will offer to retain all of the existing employees at the Roseton facility, and that CCIRL management team possesses the necessary experience to direct the professional, efficient and reliable operation of the facility. The Petitioners also relate that CCI is an experienced participant in energy markets, understands the capital and other resources necessary to operate generation facilities effectively in such markets, and possesses sufficient financial resources to engage in that successful operation.

The Petitioners note that CCIRL and other parties have waived all rights to enforce a restriction initially included in both of the two separate Asset Purchase Agreements (APA) for the respective sales of the Roseton and Danskammer facilities. The restriction, established in ASA covenants, would have precluded

construction of another generation facility at the Danskammer site in the future.

The Filings in Case 13-E-0012

In its January 3, 2013 filing noticing its intent to retire the Danskammer facility, Dynegy Danskammer asks that it be permitted to proceed with the retirement prior to the expiration of the 180-day notice requirement provided for the Generation Retirement Order. According to Dynegy Danskammer, the facility has been unavailable for operation since Superstorm Sandy, which, it says, damaged motors and switch gear within the facility. Dynegy Danskammer asserts that the costs of repairing the damage would be significant. Following retirement, Dynegy Danskammer states that it will transfer ownership of the facility to ICS NY Holdings, LLC (ICS), which will demolish the facility while salvaging any useful equipment.

Referencing the bankruptcy of Dynegy, Dynegy Danskammer indicates that the bankruptcy filing was largely a consequence of economic difficulties attending operation of the Danskammer facility, including the substantial additional investment that would be needed to conform to current and future environmental regulatory requirements. Dynegy Danskammer states that it offered the facility for sale in an auction process approved by the Bankruptcy Court, and ICS submitted the highest and otherwise best bid premised upon its plans for demolition and salvage. The auction process it conducted, Dynegy Danskammer stresses, elicited only bids for demolition and salvage, without attracting any bidders interested in continuing operations at the facility, even though the auction process was open to such bids and was otherwise conducted in accordance with proper business practices.

Waiver of the 180-day notice period is appropriate, Dynegy Danskammer claims, because it should not be required to

wait until the end of the period to commence retirement, demolition and salvage activities. Dynegy Danskammer argues that it could not have provided the full 180-day notice under these circumstances because the closure of the facility is a consequence in part of Superstorm Sandy damage.

Dynegy Danskammer adds that the utility interconnecting with the Danskammer facility, Central Hudson Gas & Electric Corporation (Central Hudson), has entered into an agreement affording it the option to purchase any equipment it needs at the Danskammer site to reliably operate its transmission and distribution systems. Dynegy Danskammer believes that the retirement will not raise any electric system reliability issues, and that Central Hudson will not oppose the discontinuation of generation operations at Danskammer. As a result, Dynegy Danskammer asserts that the retirement is the product of a reasonable business decision, given that the facility is no longer economically viable, and will not result in any impacts adverse to the public interest.

In its supplemental filing dated March 29, 2013, Dynegy Danskammer supplied waivers of the covenant in the Danskammer APA prohibiting the development of a generation facility at the Danskammer site in the future. The covenant mirrored the restriction in the Roseton APA.

DISCUSSION AND CONCLUSION

Environmental Quality Review

Under the State Environmental Quality Review Act (SEQRA), Article 8 of the Environmental Conservation Law, and its implementing regulations (6 NYCRR §617 and 16 NYCRR §7), we must determine whether the actions we are authorized to approve may have a significant impact on the environment. Other than our approval of the actions proposed here, no additional state

or local permits are required, so a coordinated review under SEQRA is not needed. We will assume Lead Agency status under SEQRA and conduct an environmental review.

SEQRA requires applicants to submit a complete EAF describing and disclosing the likely impacts of the actions they propose.⁶ The Petitioners and Dynegy Danskammer have each submitted a narrative and short-form EAF Part 1 that substantially comply with this requirement.

The proposed actions over which we have jurisdiction are the transfer of ownership interests in the 1,160 MW Roseton generation facility to a new owner and the retirement of the Danskammer facility prior to the expiration of a 180 day notice period. The proposed actions do not meet the definition of Type 1 or Type 2 actions listed in 6 NYCRR §§617.4, 617.5 and 16 NYCRR §7.2, so they are classified as "unlisted" actions requiring SEQRA review. After review of the petition, we conclude, based on the criteria for determining significance listed in 6 NYCRR §617.7(c), that there will be no changes to the operation of the Roseton generation facility underlying the proposed transfer that will result in adverse environmental impacts. We also determine that the retirement of the Danskammer generation facility, which will end the burning of coal and its attendant air emissions at the site, will not result in adverse environmental impacts. Our Staff has completed the short-form EAF Part 2.

As Lead Agency, we determine that the proposed actions will not have significant impacts on the environment and adopt a negative declaration pursuant to SEQRA. Because no adverse environmental impacts were found, no public notice requesting comments is required or will be issued. A negative declaration

⁶ 6 NYCRR §617.6(a)(3).

concerning these unlisted actions is attached. The completed EAFs will be retained in our files.

The Transfer

Under PSL §70(1), our approval is required before an electric corporation may transfer ownership interests conveying control over electric plant. In conducting a review under §70 that pertains to a lightly-regulated electric corporation operating in wholesale electric markets, we examine any affiliations, including those with fully-regulated New York utilities or power marketers, or any other circumstances, that might afford opportunities for the exercise of market power or pose the potential for other harm detrimental to captive ratepayer interests.

When reviewed with the reduced scrutiny applicable under lightened regulation, the ownership transfer the Petitioners propose is in the public interest. The transaction does not pose the potential for the exercise of horizontal market power. While, as a result of the transaction, ownership of the 77 MW Rensselaer generation facility will become affiliated with ownership of the 1,160 MW Roseton facility, through CCI as the indirect parent of both, concentration of ownership within NYISO markets does not increase significantly as a result. Moreover, even after the transaction, CCI's ownership interests in generation operating in NYISO markets will amount to only about 3.2% of the total generation capacity available in those markets, which falls below the level that would cause concern. Since CCI and its affiliates do not own any interests in generation in markets adjacent to New York, there are no operations in those markets that could support the exercise of horizontal market power in New York.

The proposed transaction also does not pose the potential for the exercise of vertical market power. Neither

CCILR, nor CCI, nor any of their affiliates owns or controls electric delivery facilities in New York (other than interconnections), or exerts substantial influence over inputs, like fuel, into the production of generation supply within New York. As a result, those avenues to the undue exercise of vertical market power are foreclosed. While CCIRL's affiliation through CCI with a power marketer can pose the potential for the exercise of market power, that potential can be addressed through PSL §110(1) and (2), which, pursuant to the Light Regulation Order, are imposed on CCIRL and its affiliates to the extent necessary.

Moreover, the new owner of Roseton appears sufficiently capitalized, will retain personnel qualified to manage and operate the generation facility it is acquiring, and will continue the existing arrangements for the sale of the output from the generation facility into wholesale markets. One other feature of this transaction, however, could have posed the potential for impacts adverse to the public interest.

In their supplemental filings, the Petitioners and Dynegy Danskammer address the covenants in the APAs for the sales of the Roseton facility and the Danskammer facility to their respective new owners that would have prohibited use of the Danskammer site as a location for a generation facility in the future. Such a prohibition, however, would have impeded the development of a new facility at the site even if it were in the public interest. By rendering the covenants unenforceable, as reported in the supplemental filings, the parties to the APAs have properly removed that impediment.

Therefore, that aspect of the APAs no longer poses the potential for impacts adverse to the public interest. Since there are no other such impacts, the transfer transaction that the Petitioners propose is approved as in the public interest,

as reviewed with the reduced scrutiny applicable to entities participating in competitive markets under lightened ratemaking regulation.

After the transfer transaction is consummated, lightened ratemaking regulation of CCIRL as the owner of the Roseton generation facility will continue in accordance with the Light Regulation Order. CCI and CCIRL are also reminded that, under lightened regulation,⁷ the Roseton facility and the entities controlling its operations remain subject to the PSL with respect to matters such as enforcement, investigation, safety, reliability, and system improvement, and the other requirements of PSL Articles 1 and 4, to the extent discussed in the Light Regulation Order and other previous orders.⁸ Included among these requirements are the obligations to conduct tests for stray voltage on all publicly accessible electric facilities,⁹ to give notice of generation unit retirements,¹⁰ and to report personal injury accidents pursuant to 16 NYCRR Part 125.

The Retirement Authorization

⁷ Pursuant to the Order Adopting Annual Reporting Requirements Under Lightened Ratemaking Regulation issued January 23, 2013 in Case 11-M-0294, the owner of the Roseton facility is required to file an Annual Report under PSL 66(6).

⁸ See, e.g., Case 11-E-0351, Stony Creek Energy LLC, Order Granting Certificate of Public Convenience and Necessity, Providing for Lightened Ratemaking Regulation and Approving Financing (issued December 15, 2011).

⁹ Case 04-M-0159, Safety of Electric Transmission and Distribution Systems, Order Instituting Safety Standards (issued January 5, 2005) and Order on Petitions for Rehearing and Waiver (issued July 21, 2005).

¹⁰ Case 05-E-0889, Generation Unit Retirement Policies, Order Adopting Notice Requirements for Generation Unit Retirements (issued December 20, 2005).

Allowing Dynegy Danskammer to retire its Danskammer facility prior to expiration of the 180-day notice period is appropriate. As Central Hudson reports, in a letter filed on January 14, 2013 in Case 13-E-0012, the Danskammer generation facility is no longer needed to support electric system reliability, in that Central Hudson can reliably operate its transmission and distribution system without this generation facility. Central Hudson also notes that it resolved in the Dynegy bankruptcy proceeding issues related to its substation at the Danskammer site, so the demolition of the generation facility will not adversely affect utility transmission and distribution operations there. As a result, the retirement of the Danskammer facility does not pose the potential for impacts that would adversely affect electric system reliability.

In addition, the facts and circumstances surrounding Dynegy Danskammer's request demonstrate that the retirement of the facility is based on economic considerations. Most importantly, Dynegy Danskammer offered the facility for sale in an auction process supervised by the Bankruptcy Court. That auction yielded no bids premised upon continued operation of the facility. That such an auction process failed to attract a bidder willing to continue operation of the facility indicates that forecasts of its profitability are insufficient to support future operations.

Moreover, Danskammer's two largest units, sized together at approximately 400 MW out of a total facility capacity of 530 MW, are fueled with coal. That coal facilities generally confront significant environmental compliance costs associated with implementation of State and federal environmental regulations in the near and medium term is well known. Compliance costs at Danskammer would be significant, creating a substantial burden for any potential owner

considering continued operations. Some costs also would necessarily be incurred to repair the Superstorm Sandy damage and return the currently inoperable facility to service. The existence of these costs further illustrates the difficult economic circumstances confronting Dynegy Danskammer.

Once the facility is retired in response to economic circumstances, Dynegy Danskammer maintains that it may then proceed to demolition and salvage without any further review under the PSL. That interpretation of the PSL is correct under these circumstances. As of the date the retirement takes effect, the Danskammer facility would no longer constitute electric plant, as defined in PSL §2(12), which adheres to equipment and property "owned, used or to be used for or in connection with or to facilitate the generation, transmission, distribution, sale or furnishing of electricity." Dynegy Danskammer's affirmative plans for prompt transfer to a new owner, ICS, which will demolish and salvage the facility, shows that the retirement is irreversible and that the equipment will not be returned to electric service at the Danskammer site. Since, after the retirement, the Danskammer equipment and property will no longer be electric plant, its owner will no longer an electric corporation under PSL §2(13).¹¹

This interpretation of the PSL does not adversely affect the public interest. It adheres only when the owner of electric plant has demonstrated that a retirement is permanent and that the equipment at a site will not be used there in the future to supply electricity. If circumstances were different,

¹¹ If any of the equipment were re-used at another site elsewhere within New York, whatever authorization may be required under the PSL will adhere there.

our authority under the PSL is sufficient to prevent a retirement for the purpose of evading jurisdiction.¹²

During the 180-day notice period provided for in the Generation Retirement Order, we may examine all facts and circumstances surrounding a retirement. If, prior to the end of that period, we determine that there is any reason supporting a finding that a retirement would be adverse to the public interest, we may direct that the retirement be postponed and provide for such other relief as may be necessary given the circumstances.

That type of jurisdiction has already been exercised, where generation unit owners have proposed to mothball their facilities, albeit, mothballing, unlike retirement and demolition, does not end PSL jurisdiction.¹³ Mothballed equipment at a site remains electric plant under PSL §2(12), because there is the possibility that it will be returned to service there at a later time. Therefore, the owner of mothballed equipment remains an electric corporation subject to the requirements of the PSL. Just as mothballed equipment is electric plant subject to the PSL, however, where a notice to retire a facility leads to a review of the retirement, that

¹² For utilities subject to full ratemaking jurisdiction, that jurisdiction continues notwithstanding a plant retirement, until all ratemaking issues are resolved upon the final disposition of the retired plant. See Case 12-E-0025, Rochester Gas and Electric Corporation, Order Accepting Plan For Filing, Authorizing a Deferral, and Establishing Further Procedures (issued May 22, 2012) (retirement and demolition of the Russell Generating Station).

¹³ See Case 12-E-0400, Cayuga Operating Company LLC, Order Deciding Reliability Issues and Addressing Cost Allocation and Recovery (issued December 17, 2012) and Order Denying Petition For Rehearing (issued February 14, 2013); Case 12-E-0136, Dunkirk Power LLC, Order Deciding Reliability Issues and Addressing Cost Allocation and Recovery (issued August 16, 2012).

equipment would also be electric plant subject to the PSL, and its owner would remain an electric corporation until decided otherwise. As a result, the public interest can be protected, where, unlike the circumstances here, a retirement poses the potential for impacts adverse to the public interest.

Therefore, under these circumstances, including the effects of the Dynegy bankruptcy proceedings and the Superstorm Sandy damage, Dynegy Danskammer is authorized to retire the Danskammer facility prior to the expiration of the 180-day notice period. Dynegy Danskammer, however, shall provide notice of the date the retirement took effect within 7 days thereafter, upon the closing of the transaction with ICS or otherwise.

The Commission orders:

1. The transfer of the ownership interests in the generation and steam facilities described in the petition filed in this proceeding and in the body of this Order is approved.

2. Dynegy Danskammer LLC is authorized to retire the Danskammer generation facility, but shall provide notice to the Secretary of the date on which the retirement took effect, within 7 days after that date.

3. The deadline provided for in Ordering Clause No. 2 may be extended as the Secretary may require.

4. Case 13-E-0019 is closed. Case 13-E-0012 is continued but shall be closed on receipt of the compliance filing required under Ordering Clause No. 2 unless the Secretary finds good cause to continue the proceeding further.

By the Commission,

(SIGNED)

JEFFREY C. COHEN
Acting Secretary

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

CASE 13-E-0019 - Dynegy Roseton LLC and CCI Roseton LLC -
Petition for Expedited Approval of a Transfer
Pursuant Public Service Law §70 and Related
Approvals.

CASE 13-E-0012 - Dynegy Danskammer LLC - Petition For Waiver of
the Generation Facility Retirement Notice
Period and Requesting Other Related Relief.

NOTICE OF DETERMINATION OF
NON-SIGNIFICANCE

NOTICE is hereby given that an Environmental Impact Statement will not be prepared in connection with the approval by the Public Service Commission of the transfer of ownership interests in the 1,070 MW Roseton generation electric generation facility by Dynegy Roseton LLC, and the authorization of the retirement of the 530 MW Danskammer generation facility by Dynegy Danskammer LLC, based on our determination, in accordance with Article VIII of the Environmental Conservation Law, that such actions will not have significant adverse affects on the environment. The exercise of this approval and authorization constitute an "unlisted" action, as is defined in 6 NYCRR §617.2(ak).

Based on our review of the record, we find that the proposed approval, which will lead to the ownership and control of the Roseton electric generation facilities by CCI Roseton LLC instead of by Dynegy Roseton LLC, will not have a significant adverse environmental impact. A change in the identity of the owner of the generation plant will not otherwise cause any physical alterations to the generation plant or its surroundings. We also find that the proposed authorization, which will lead to the retirement of the Danskammer generation facility and will end the burning of coal and its attendant air

CASE 13-E-0019, et al.

emissions at the site, will not have a significant adverse environmental impact.

The address of the Public Service Commission, the Lead Agency for the purposes of the environmental quality review of this project, is Three Empire State Plaza, Albany, New York 12223-1350. Questions may be directed to Leonard Van Ryn at (518) 473-7136 or at the address above.

Jeffrey C. Cohen
Acting Secretary

14-

United States Court of Appeals
for the
Second Circuit

IN RE CENTRAL HUDSON GAS & ELECTRIC CORPORATION
Petitioner

**EMERGENCY MOTION FOR LIMITED STAY OF
FEDERAL ENERGY REGULATORY COMMISSION ORDERS
AUTHORIZING ELECTRIC CAPACITY AUCTIONS PENDING ACTION
ON REHEARING AND, IF NECESSARY, ON JUDICIAL REVIEW, AND
ALTERNATIVE PETITION FOR A WRIT OF MANDAMUS,
AND MEMORANDUM IN SUPPORT THEREOF**

APPENDIX – VOLUME 2

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November 27, 2013

By Electronic Delivery

The Honorable Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Re: New York Independent System Operator, Inc., *Proposed Tariff Revisions to Implement Revised ICAP Demand Curves and a New ICAP Demand Curve for Capability Years 2014/2015, 2015/2016 and 2016/2017 and Request for Partial Phase-In and for Any Necessary Tariff Waivers, Docket No. ER14-____-000; and Unrelated Ministerial Tariff Correction, Docket No. ER12-360-000*

Dear Ms. Bose:

In accordance with Section 5.14.1.2.11 of its Market Administration and Control Area Services Tariff (“Services Tariff”) and Section 205 of the Federal Power Act (“FPA”), the New York Independent System Operator, Inc. (“NYISO”) hereby submits amendments to Section 5.14.1.2 of its Services Tariff to define the Installed Capacity (“ICAP”) Demand Curves¹ for the 2014/2015, 2015/2016 and 2016/2017 Capability Years. In addition to updating the existing curves for the New York City (“NYC”), Long Island (“LI”), and New York Control Area (“NYCA”)² this filing also proposes to establish the first ICAP Demand Curve for the new “Locality”³ encompassing Load Zones G, H, I, and J (the “G-J Locality”).

¹ Capitalized terms that are not specifically defined in this filing letter shall have the meaning set forth in the Services Tariff as revised by the Commission’s acceptance of the NYISO’s filing to establish a New Capacity Zone and subsequent related filings in Docket Nos. ER12-360 and ER13-1380.. See New York Independent System Operator, Inc., *Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing*, Docket No. ER13-1380-000 (April 30, 2013) (the “April 2013 NCZ Filing”) and New York Independent System Operator, Inc., *Initial Compliance Filing and Request for Shortened Comment Period and Expedited Action by July 1, 2013*, Docket No. ER12-360-001 (June 19, 2013).

² NYC and LI are the two established “Localities” in New York. See Services Tariff Section 2.12. The term “Rest of State” refers to capacity supplies located in the part of the NYCA that is not included in a “Locality.” See Services Tariff Section 2.18.

³ Effective January 27, 2014, Section 2.12 of the Services Tariff defines “Locality” as “[a] single LBMP Load Zone or set of adjacent LBMP Load Zones within one Transmission District or a set of adjacent Transmission Districts (or a portion of a Transmission District(s)) within which a minimum level of Installed Capacity must be maintained, and as specifically identified in this subsection to mean (1) Load Zone J; and (2) Load Zone K; (3) Load Zones G, H, I, and J collectively (*i.e.*, the G-J Locality).”

The Honorable Kimberly D. Bose
November 27, 2013

As discussed in Section V of this filing letter, the NYISO is proposing a “phase-in” of the new demand curve parameters for the G-J Locality to ameliorate the potential short-term consumer impacts that result from creating the new Locality. This filing also presents the results of the periodic review of the ICAP Demand Curves specified in Section 5.14.1.2.11.

The ICAP Demand Curves have now been used for a decade in the NYISO-administered ICAP Spot Market Auctions. They are a central component in the design of the NYISO’s centralized capacity market. The NYISO’s Board of Directors (“Board”) remains fully committed to the process for developing the ICAP Demand Curves that is established in the Services Tariff and adhered to it in preparing this filing. The proposal in this filing is the product of extensive analysis by the NYISO’s staff and consultants, substantial input from stakeholders, and, ultimately, the independent judgment of the Board. It is also informed by: (i) the input of the independent Market Monitoring Unit (“MMU”); (ii) the NYISO’s experience with the currently effective and prior ICAP Demand Curves; and (iii) the guidance provided by the Commission in orders on prior ICAP Demand Curve reset filings, especially the most recent filing in 2010 (the “prior ICAP Demand Curve reset”).⁴

As is explained in greater detail below, the NYISO’s responsiveness to stakeholder input and its consideration of the most up to date information surpassed the detailed procedural requirements of the Services Tariff and *Installed Capacity Manual*.⁵ For example, at stakeholders’ request as well as at the urging of the MMU, the NYISO’s consultants assessed the costs of combined cycle units even though the Services Tariff precludes them from being used to establish ICAP Demand Curves. Similarly, and again in response to stakeholder arguments and a review of the most recently available information, the Board exercised its authority to depart from NYISO staff’s initial recommendation concerning the selection of the proxy unit for NYC, LI, and the G-J Locality. These additional efforts have helped the NYISO develop ICAP Demand Curves that will send more accurate and efficient signals regarding the need for investment in new and existing capacity to both existing market participants and potential new entrants.

For the reasons set forth in this filing letter, the proposed ICAP Demand Curves are just and reasonable, consistent with the Services Tariff, and in keeping with the underlying objectives for which ICAP Demand Curves were originally implemented. The Commission should therefore accept them without modification and make them effective on January 28, 2014.

⁴ See *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,058 (2011) (the “First 2010 Demand Curve Order”); 135 FERC ¶ 61,002 (2011); 135 FERC ¶61,170 (2011) and 137 FERC ¶ 61,218; and *New York Independent System Operator, Inc.*, 122 FERC ¶ 61,064 (2008) (“2008 Demand Curve Order”).

⁵ The current version of the *Installed Capacity Manual* (dated April 2013) is posted at <http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp>.

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November 27, 2013

In addition, to the ICAP Demand Curve related proposals that are the subject matter of this filing, the NYISO has also included proposed ministerial tariff revisions to correct a minor and non-substantive drafting error that was made in an earlier filing. This proposed ministerial correction is addressed below in Section X of this filing letter.

Finally, to facilitate the Commission's review, the NYISO has prepared a brief summary of the major features of its proposed ICAP Demand Curves. That summary is set forth in Section XI of this filing letter.

I. LIST OF DOCUMENTS SUBMITTED

1. This filing letter;
2. A clean version of the proposed revisions to the Services Tariff and of the proposed correction to a ministerial error inadvertently included in the Services Tariff in an earlier filing ("Attachment I");
3. A blacklined version of the proposed revisions to the Services Tariff and of the proposed correction to a ministerial error inadvertently included in the Services Tariff in an earlier filing ("Attachment II");
4. Affidavit of Eugene T. Meehan, NERA Economic Consulting, including the *Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator* (August 2013) (the "NERA/S&L Report") ("Attachment III");
5. *Proposed NYISO Installed Capacity Demand Curves for Capability Years 2014/2015, 2015/2016 and 2016/2017* (September 2013) (the "NYISO Staff Report") ("Attachment IV");
6. Affidavit of Mark W. Chupka, Principal, the Brattle Group (the "Chupka Affidavit"), including the *Independent Evaluation of SCR Systems for Frame-Type Combustion Turbines: Report for ICAP Demand Curve Reset* (November 2013) (the "Brattle Report") ("Attachment V");
7. *Responses to the IPPNY Questions Received by the NYISO on Tuesday November 5, 2013; Regarding the "Independent Evaluation of SCR Systems for Frame-Type Combustion Turbines – Report for ICAP Demand Curve Reset" prepared by the Brattle Group* (November 7, 2013) ("Attachment VI");
8. Affidavit of Anthony Licata, Vice President, Licata Energy & Environmental Consultants, Inc. (the "Licata Affidavit") ("Attachment VII");
9. Affidavit of Tariq N. Niazi, Senior Manager and Consumer Interest Liaison, NYISO (the "Niazi Affidavit") ("Attachment VIII");

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November 27, 2013

10. Affidavit of Rana Mukerji, Senior Vice President Market Structures, NYISO (the “Mukerji Affidavit”) (“Attachment IX”); and
11. “Class Years 2011 and 2012 GHI BSM Demand Curve” (“Attachment X”).

II. COMMUNICATIONS

Communications regarding this proceeding should be addressed to:

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⁶ The NYISO respectfully requests waiver of the Commission’s regulations (18 C.F.R. § 385.203(b)(3) (2013)) to the extent necessary to permit service on counsel for the NYISO in both Miami and Washington, DC.

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III. BACKGROUND

The ICAP obligations for New York Load Serving Entities and the spot auction market prices for the associated monthly ICAP requirement are determined using separately established downward-sloping ICAP Demand Curves. Section 5.14.1.2 of the Services Tariff requires the NYISO to perform a triennial review to determine the parameters of the ICAP Demand Curves for NYC, LI, and the NYCA for the next three Capability Years.

The triennial review incorporates the development of an ICAP Demand Curve for any newly established New Capacity Zone concurrent with the review of ICAP Demand Curves for existing Localities and the NYCA. The economic parameters of each New Capacity Zone's ICAP Demand Curve are established on the same timetable as the reset procedure.⁷ On April 30, 2013, the NYISO submitted tariff revisions, in accordance with the New Capacity Zone provisions, to implement the G-J Locality.⁸ On August 13, 2013, the Commission issued an order accepting it with a May 1, 2014 implementation date.⁹ Accordingly, the NYISO followed all applicable tariff procedures in establishing both the G-J Locality and its new ICAP Demand Curve.

Prior to the present ICAP Demand Curve review, the NYISO retained FTI Consulting to perform a comprehensive review of the New York capacity markets. FTI Consulting's final report contained three recommendations that had a direct bearing on the development of the NYISO Staff Report.¹⁰ Those recommendations related to: (i) the use of a combined-cycle combustion turbine facility instead of a simple-cycle combustion turbine to establish the cost of new entry ("CONE") used to anchor the ICAP Demand Curves; (ii) the feasibility of using a demand response resource to establish those CONE values; and (iii) the use of an incremental reliability value approach as the basis for setting zero crossing points for the ICAP Demand Curves.¹¹

In accordance with the procedure set forth in Section 5.14.1.2, the NYISO solicited proposals from qualified consultants in the third quarter of 2012 to identify appropriate

⁷ Sections 5.14.1.2 and 5.16 describe both: (i) the timing and sequence of the steps to evaluate the need for and to create a New Capacity Zone; and (ii) how the potential creation of a New Capacity Zone, is coordinated with the triennial ICAP Demand Curve reset process.

⁸ See New York Independent System Operator, Inc., *Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing*, Docket No. ER13-1380-000 (April 30, 2013).

⁹ *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (2013) ("August 2013 Order").

¹⁰ *Evaluation of the New York Capacity Market*, March 5, 2013, prepared by FTI Consulting, available at http://www.nyiso.com/public/webdocs/markets_operations/documents/Studies_and_Reports/Studies/Market_Studies/Final_New_York_Capacity_Report_3-13-2013.pdf ("FTI Report").

¹¹ See NYISO Staff Report at 7.

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methodologies and to develop the ICAP Demand Curve parameters for the three Capability Years beginning May 2014. The NYISO selected the team of National Economic Research Associates, Inc. (“NERA”), with Sargent and Lundy (“S&L”) as NERA’s subcontractor (collectively identified as “NERA/S&L”). They began their analysis in November 2012 and participated in twelve ICAP Working Group meetings between December 2012 and August 2013. NYISO stakeholders participated in these meetings and provided feedback on NERA/S&L’s assumptions, methodology, analysis, estimates, and preliminary results. NERA/S&L produced multiple drafts culminating in the release of the final version of the NERA/S&L report on August 2, 2013 (“Attachment III”).

On September 6, 2013, as amended on September 12, the NYISO staff submitted the NYISO Staff Report to the Board (“Attachment IV”). The NYISO Staff Report evaluated the NERA/S&L Report, addressed oral and written comments received through the stakeholder process and from the MMU, and set forth NYISO staff’s recommended demand curve parameters. It accepted all but two of NERA/S&L’s conclusions. Specifically, NYISO staff recommended: (i) no changes to the existing zero crossing points used for NYC, LI and NYCA; and (ii) a change in temperature and relative humidity assumptions in some locations in determining net ICAP revenues.

During the reset process, stakeholders submitted written comments to the NYISO on several occasions. On October 2, 2013 stakeholders provided written comments to the Board on the final NERA/S&L Report and the NYISO Staff Report.¹² Stakeholders also made oral arguments to the Board on October 14, 2013. The Board determined that stakeholders challenging the NYISO Staff Report’s recommendations concerning the selection of the proxy unit for the NYC, LI, and G-J Locality had made a strong case and that further review of this issue was warranted. The NYISO informed stakeholders that the Board was seeking additional information on October 17, 2013. It also explained that it would share the results of the review during the first week of November 2013 and provide additional opportunities for stakeholder input.

The NYISO retained the Brattle Group (“Brattle”) with Licata Energy & Environmental Consulting (“Licata”) to conduct further analysis. Brattle and Licata collaborated with NERA, S&L, and the NYISO staff. They also engaged in various discussions with manufacturers of gas turbines and selective catalytic reduction (“SCR”)

¹² The following stakeholders submitted written comments in response to the NYISO Staff Report: New York State Department of Public Service (“DPS”), the Indicated New York Transmission Owners (“Indicated NYTOs”) (*i.e.*, Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., 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), the Independent Power Producers of New York (“IPPNY”), Entergy Nuclear Power Marketing, LLC (“Entergy”), Multiple Intervenors jointly with the City of New York (“MI/City”), and the New York Supplier and Environmental Advocacy Group. With the exception of DPS, these stakeholders also requested the opportunity to make oral arguments.

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emissions controls in order to understand the current state of the technology and the industry. In particular, Brattle and Licata obtained a significant amount of information, from Mitsubishi Power Systems America, Inc. (“MPSA”),¹³ a prominent vendor of large scale gas turbine technology and SCRs. As a result of these discussions, detailed further in Section IV.A.3.c, below, as well as their review of the reasonableness of the cost estimates completed by S&L for the application of SCR on simple-cycle combustion turbines, Brattle and Licata produced the Brattle Report. It concluded that the Siemens SGT6-5000F(5) class frame simple-cycle combustion turbine (“F class frame”) with SCR emissions control (“F class frame with SCR”) should be the proxy unit for the NYC, LI, and G-J Locality.¹⁴

The NYISO made the Brattle Report available to stakeholders on November 1 and invited written stakeholder comments. On November 7, the NYISO posted detailed responses to sixteen written questions that IPPNY had submitted on November 5. On November 8, stakeholders submitted written comments. These comments both supported and opposed the Brattle Report’s findings.¹⁵ After considering all of the information available to it, the Board approved the Brattle Report’s conclusion regarding proxy unit selection and approved all of the other recommendations in the NYISO Staff Report. The Board therefore directed the NYISO to file proposed ICAP Demand Curves based on those determinations.

As is discussed below in Section IV.A.3.b of this filing letter, the Board had clear tariff authority to: (i) approve ICAP Demand Curves that differed from those recommended by NERA/S&L, and initially recommended by NYISO staff, and propose them to the Commission; and (ii) to seek additional input from Brattle/Licata and to base its approved ICAP Demand Curves, in part, on that input. The ICAP Demand Curves proposed in this filing are therefore consistent with the requirements of the Services Tariff and just and reasonable on their substantive merits.

IV. BASIS FOR THE PROPOSED ICAP DEMAND CURVES FOR CAPABILITY YEARS 2014/2015, 2015/2016 AND 2016/2017

A. Technologies Evaluated

The Services Tariff requires that the Demand Curve reset review “shall assess ... the current localized levelized embedded cost of a peaking unit in each NYCA Locality and the

¹³ MPSA recently designed and installed SCR applications on four Siemens SGT6-5000F(4) class frame simple-cycle combustion turbine in California at the Marsh Landing Generating Station that met BACT/LAER emissions requirements for NOx. These Siemens turbines are the preceding version of the F-class frame turbine evaluated by NERA/S&L.

¹⁴ As is discussed in Section IV.C.1, the NYISO Staff Report recommended that an autoderivative GE LMS100 be used as the peaking unit for these Localities.

¹⁵ The Indicated NYTOs and MI/City, submitted comments in support of the Brattle Report. IPPNY, Entergy, and Bayonne Energy Holdings LLC (“Bayonne”) submitted comments opposing it.

Rest of State” to meet minimum capacity requirements.¹⁶ For purposes of updating the ICAP Demand Curves, “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.”¹⁷ Commission precedent is clear that “only reasonably large scale, standard generating facilities that could be practically constructed in a particular location should be considered.”¹⁸ The criteria “could be practically constructed” and “are economically viable” dictate that a peaking unit “must be able to comply with all applicable environmental limitations and utilize commercially available, proven technology.”¹⁹

This section of the filing letter describes NERA/S&L’s and the NYISO staff’s consideration of generation technologies to serve as proxy units prior to the Board’s request for additional due diligence. It also discusses the additional work done by Brattle and Licata and the Board’s ultimate decision, based in part on the Brattle Report, that the F class frame with SCR was a technically and economically viable choice for NYC, LI, and the G-J Locality. Additional information concerning the choice of proxy units for the NYCA and the Localities is provided in Section IV.A.3 below. Finally, this section explains the NYISO staff’s evaluation of whether demand response technologies could serve as a peaking unit.

1. Initial Evaluation of Generation Technologies

After a broader review of available generation technologies, NERA/S&L focused on four distinct natural gas/fuel oil fired technologies: aeroderivative simple cycle combustion turbines, larger industrial scale, frame size simple cycle combustion turbines, frame size combined cycle combustion turbines, and reciprocating internal combustion engines. The specific unit types that NERA/S&L evaluated were the:

- General Electric LMS100 hybrid aeroderivative gas turbine (Simple Cycle) (“LMS100”);²⁰
- F class frame gas turbine (simple cycle);²¹

¹⁶ Services Tariff Section 5.14.1.2.

¹⁷ *Id.*

¹⁸ First 2010 Demand Curve Order at 37.

¹⁹ Brattle Report at iii.

²⁰ The LMS100 was selected as the basis for the reference costs for the NYC and LI ICAP Demand Curves in the last two resets. NERA/S&L considered a two unit LMS100 installation, each with SCR emissions controls, at a nominal 200 MW rating. *See* NYISO Staff Report at 15.

²¹ In previous ICAP Demand Curve resets, the NYISO’s consultants had evaluated a similar large scale gas turbine manufactured by General Electric (the “GE 7FA”). A GE 7FAs with an annual operation cap to keep the potential NO_x emissions below major source thresholds was selected as the basis for the reference cost for the NYCA in the 2007 and 2010 ICAP Demand Curve resets. As was noted above in Section III, and discussed in greater detail below in Section IV.A.3, the Board ultimately selected the simple cycle version of the Siemens SGT6-5000F(5) Gas Turbine equipped

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- F class frame gas turbine (combined cycle);²² and
- Wartsila 18V50DF/18V50SG Reciprocating Internal Combustion Engines (“Wartsila Unit”).²³

Each of these unit types are reasonably large scale, standard generating facilities that are replicable.²⁴ As is discussed in the NYISO Staff Report, important selection criteria considered by NERA/S&L included compliance with environmental requirements, efficiency, commercial availability and industry experience, operational flexibility, and scale. With respect to environmental requirements, NERA/S&L accounted for a significant change since the prior ICAP Demand Curve reset – the Environmental Protection Agency’s (“EPA”) regulation of six greenhouse gas emissions, including carbon dioxide, under the “Greenhouse Gas Tailoring Rule.”²⁵ It also considered new New York State environmental restrictions on water withdrawal establishing closed-cycle cooling requirements.²⁶

The Services Tariff specifies that the reference cost for the ICAP Demand Curves be based on a “peaking unit,” which the Services Tariff defines 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

with an SCR as the basis for the reference costs for the NYC, LI, and G-J Locality ICAP Demand Curves. As was also indicated above, this type of unit is generally referenced throughout this filing as the “F class frame with SCR.” NERA/S&L considered a single SGT6-5000F(5) simple cycle plant at a nominal 215 MW rating without SCR and a 950 hour annual operating limit (“F class frame without SCR”) to fall below project significance thresholds for NO_x found in 6 NYCRR Part 231 of the New York State Department of Environmental Conservation’s (“NYSDEC”) New Source Review regulations.

²² See NYISO Staff Report at 15. As discussed below, NERA/S&L also considered the combined cycle version of this plant (1x1x1 configuration) at a nominal 300 MW rating for informational purposes.

²³ NERA/S&L considered 12 Wartsila Units, with SCRs, nominally rated at 200 MW. See NYISO Staff Report at 15.

²⁴ NERA/S&L Report at 7-8.

²⁵ See NYISO Staff Report at 9-11 and n. 8. All proxy plants evaluated by NERA/Sargent & Lundy were determined to be “major sources” pursuant to the NYSDEC air regulations and the federal Clean Air Act as they all would be expected to exceed 100,000 tons of CO₂ annually when dispatched by NERA’s economic model. As a major source, the proxy plant must meet BACT/LAER emissions control standards by employing state of the art post combustion control technology, such as SCR, or by capping annual emissions below the project significance thresholds provided in 6 NYCRR Part 231. In the past Demand Curve Resets, the Proxy Plant selected for the NYCA was established using a large F class Frame unit that took a much higher annual operating limit to avoid exceeding the 100 tons per year major source thresholds for NO_x.

²⁶ See NYISO Staff Report at 11.

(whether one or more) that constitute the scale identified in the periodic review.²⁷ The Commission has previously been clear that a peaking unit should be used as the basis for capacity cost estimates, rather than combined cycle units, because it was more “in keeping with standard approaches to estimating the marginal cost of capacity.”²⁸

Nevertheless, NERA/S&L reviewed combined cycle technology options in response to certain conclusions in the FTI Report²⁹ and a concern raised by the MMU.³⁰ Specifically, the MMU asked that the NYISO consider basing the ICAP Demand Curves on unit types that were not peaking plants to the extent that they were the lowest net cost unit.³¹ Accordingly, NERA/S&L examined the localized levelized costs and net energy and ancillary services revenues of combined cycle version of the F class frame in all demand curve regions for informational purposes only.

2. NERA/S&L and Initial NYISO Staff Evaluation of the Technical and Economic Feasibility of the F Class Frame with SCR

NERA/S&L determined early on that all available proxy units being considered would be “major sources” under the Clean Air Act’s New Source Review requirement. As a result all technologies were evaluated to determine if they could meet the Best Available Control Technology (“BACT”) and Lowest Achievable Emission Rate (“LAER”) emissions standards applicable in New York State. The Clean Air Act’s BACT/LAER rules drive new major sources of pollutants, such as NO_x, to employ state of the art emission control technology to meet stringent air emissions limits. The most stringent emissions limitations in New York State occur in severe nonattainment areas, such as those found in the greater New York City metropolitan area and Long Island.

Accordingly, NERA/S&L determined that all new units in the NYC, LI, and G-J Locality would be required to install SCR technology. Therefore, as it had done in the prior ICAP Demand Curve reset, NERA/S&L eliminated the F class frame from consideration in the review process for those regions. This decision was driven principally by S&L, which did not view the F class frame with SCR as a feasible technology based on the information

²⁷ Services Tariff Section 5.14.1.2.

²⁸ *New York Independent System Operator, Inc.*, 111 FERC ¶ 61,117 (2005) at P 24-25.

²⁹ NYISO Staff Report at 28-29.

³⁰ *See* NYISO Staff Report at 9.

³¹ *See id.* at 12.

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available at that time.³² This led NERA/S&L to focus on LMS100 units with SCR technology throughout the State, except for the NYCA region. S&L believed that an F class frame unit could be built in the NYCA region without an SCR if it adopted an annual operational cap to limit its annual potential NOx emissions below 40 tons per year.

Importantly, however, a number of NYISO stakeholders asked that NERA/S&L continue to evaluate an F class frame with SCR as a potential peaking plant. Their requests were prompted, among other things, by the fact that the Marsh Landing Generating Station (“Marsh Landing”) was commencing operations. Marsh Landing is nominally an 800 MW, \$800 million facility composed of four similar F class frame turbines operating in simple cycle operation with SCR emissions controls for NOx. Installation of the SCR on these gas turbines have allowed Marsh Landing to meet California’s strict BACT/LAER air permit requirements, which are very similar to those in the severe nonattainment areas in New York.

Marsh Landing’s units commenced commercial operation in May and June of 2013. The existence and operation of Marsh Landing clearly demonstrates that an F class frame with SCR can be both technically and economically viable. S&L did not modify its position on technical and economic viability principally because there was relatively little Marsh Landing operating data publicly available when NERA/S&L finalized their report on August 2, 2013. As a result, the NERA/S&L Report did not recommend the F class frame with SCR in any of the Localities, despite the fact that it was by far the lowest fixed cost, highest variable cost peaking unit being evaluated.³³

Some stakeholders also noted that the PJM Interconnection, LLC’s (“PJM”) tariff required that the CONE values used in its capacity markets be based on a two-unit simple cycle GE 7FA with SCR.³⁴ They argued that the fact that the Commission had authorized PJM to rely on such a unit in 2007 for a purpose analogous to establishing ICAP Demand

³² NERA/S&L had determined early in the process that all of the generation technologies that they were evaluating would exceed major source thresholds for carbon dioxide based upon the dispatch in NERA’s econometric model. As major sources, all technology would be subject to BACT and LAER emission control requirements under the Clean Air Act’s New Source Review program, which is implemented by NYSDEC. Prior to the commercial operation of Marsh Landing, NERA/S&L identified SCR as a viable NOx emissions control technology for all unit types except for the F-class frame combustion turbines.

³³ This is clearly evidenced by the selection of F class frame turbines as the peaking plant for the NYCA for the current, and for the 2007 and 2010 ICAP Demand Curve resets. The F class frame turbine has significantly lower annual fixed costs (\$/kW) in all regions when compared to the LMS100. It has a heat rate that is approximately 15% higher than the LMS100 making it clearly the lowest fixed, highest variable cost unit. The only reason that an F class frame turbine was not initially recommended in the current reset to be the proxy plant in all locations was due to the assumption that a large F class frame turbine would emit gases at too high temperatures to work reliably with SCR emissions controls.

³⁴ See NYISO Staff Report at 13-14.

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Curves was clearly relevant to the question of the viability of an F class frame with SCR in New York.

After considering input from stakeholders, NYISO staff, and the MMU, NERA/S&L concluded that:

- The F class frame is the lowest capital and highest operating cost unit, and could be constructed practically in the NYCA. Construction of this unit in the NYCA was determined to be practicable when limited to a one unit plant that would accept a permit restriction on annual operating hours of between 1,000 and 1,100 hours to meet the emission control standards for NOx. Such a limitation would not, however, render the unit impractical or economically infeasible.
- The F class frame with an annual operating limit would not, in NERA/S&L's view be a practical, economically viable unit in NYC, LI, or the G-J Locality. The prevalence of more severe air quality issues in these Localities and, correspondingly, more stringent NOx emissions limits, would eliminate the possibility of accepting an annual operational limit to comply with applicable emission rate limitations.³⁵ NERA/S&L also believed that more stringent emissions limitations and the anticipated dual fuel requirement (which is discussed below) in the three Localities reduced the maximum number of hours that the unit could run with an annual operational limit below what would be practical or economical for a peaking plant. Without an economically acceptable annual operating limitation the unit would be required to apply emission control technology to comply with specific NOx emission rate limits.
- SCR is the post-combustion emission control technology that is most widely utilized to control NOx for combustion turbines. Notwithstanding the Marsh Landing facility, NERA/S&L concluded that at the time of their review SCR remained an unproven control technology for the larger F-class frame turbines operated in simply cycle mode, but that it could reliably operate with a simple cycle LMS100. Therefore, the LMS100 with SCR was NERA/S&L's recommended peaking plant for the NYC, LI, and G-J Localities instead of the significantly more economic F class frame turbine.

In support of this conclusion, S&L presented examples of two failures that occurred more than a decade ago when SCRs were installed on F class frame turbines: namely the Cambalache Facility in Puerto Rico and the Riverside Generation Station in Kentucky. S&L

³⁵ An annual hourly operations cap was identified as an alternative to SCR NOx emissions control for the F-class frame turbine in areas of the state that were in attainment, but this annual operations cap was not available in areas where the technology was required to operate on dual fuel or where the locality had been designated as severe nonattainment for ozone. Significant project thresholds for NOx fall from 40 tpy to 2.5 tpy in these severe ozone nonattainment areas. See 6 NYCRR Part 231-13.3, Table 3.

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reported that in both instances the SCRs failed to reliably reduce NO_x emissions from the exhaust gas in accordance with the plant's permit limits due to higher temperature exhaust gas produced by the F class frame turbine. Concerns regarding the commercial viability of hot temperature SCR applications, (*i.e.*, applications where the catalyst is exposed to gas temperatures greater than 850 °F, were not present with the LMS100, which produces lower temperature exhaust gas.

NERA/S&L acknowledged stakeholder arguments regarding the viability of Marsh Landing. They responded by pointing to the relative lack of available operating data for Marsh Landing (only two months of commercial operating data were available for the four units as of Summer 2013),³⁶ the past failures with combined frame and SCR configurations in Puerto Rico and Kentucky in the 1990s and in 2001, and the seeming lack of commercial interest in developing other plants like Marsh Landing.³⁷ Nonetheless, stakeholders requested that the Net CONE values be made available for the record based upon the vast price difference between the F class Frame without an SCR and the LMS100 proxy technology. On August 19, 2013, the NYISO incorporated the ICAP Demand Curve parameters developed by NERA/S&L for the F class frame with SCR in the NYISO Staff Report.

The NYISO Staff Report also stated that the use of GE Frame 7 technology as the proxy unit in PJM was “not relevant.”³⁸ This determination was based upon S&L's recommendation that the technology was not feasible, and was also based upon a belief that the NYISO's proxy unit evaluation process was more rigorous than what PJM had done in the past. In short, the NYISO Staff Report assumed that the PJM determination was made with the presumption that SCRs would work at the higher temperatures created by F class frame turbines without conducting any analysis to demonstrate conclusively that they had or could do so. Consequently, the NYISO Staff Report accepted NERA/S&L's view that: (i) SCRs had not (as of that time) been successfully applied to combustion turbines with higher temperatures; and (ii) “that [the] proxy unit should not be based on a simple cycle F-class CT with SCR because of technical challenges, unsuccessful projects, and lack of market acceptance.”³⁹

The NYISO Staff Report adopted NERA/S&L's recommendations. It included the ICAP Demand Curve reference price for the NYCA that was based upon a single F class frame without SCR that relied on dry low NO_x combustion for emissions control operating

³⁶ Further, there was not an in-depth analysis of what caused the SCRs installed on F class gas turbines, in Puerto Rico during the 1990s to fail. S&L attributed these failures to the inability of catalyst used in the SCR to withstand the significantly higher exhaust gas temperatures created by the F class frame turbine (1050 -1150 °F) as opposed to the 700-800 °F produced by the LMS100.

³⁷ NYISO Staff Report at 13.

³⁸ *Id.* at 14.

³⁹ *Id.*

up to 950 hours a year. This emissions-based operations limit is lower than the average annual expected estimated dispatch hours for this unit, which range from 982 to 1025 hours, but was lowered to account for the “lack of perfect foresight.”⁴⁰

3. Additional Evaluation of the Feasibility of the F Class Frame with SCR

a. *The Board’s Request for Additional Due Diligence*

In early October, a number of written stakeholder comments on the NYISO Staff Report argued that the F class frame with SCR should be the proxy unit for NYC and the G-J Locality. Among other things, they pointed to the ongoing and apparently successful operation of Marsh Landing. They noted the use of comparable technology as the proxy unit in PJM and the fact that no stakeholder that was active in both the PJM and NYISO markets had objected to PJM’s approach. They contended further that the examples of unsuccessful SCR applications on frame units identified by NERA/S&L and the NYISO Staff Report should not be dispositive because those facilities were older or otherwise dissimilar. Stakeholder comments supporting the use of the F class frame with SCR also emphasized that it was a substantially lower cost option. They warned that “ICAP costs could increase by approximately \$140 million annually in [Load Zones G, H, and I], and more than \$350 million annually in New York City . . . “if the NYISO Staff Report’s recommendation were accepted.”⁴¹ Other stakeholders, such as Entergy and IPPNY, supported NERA/S&L’s and the NYISO Staff Report’s rejection of the F class frame with SCR. Stakeholders further developed their positions in the oral arguments before the Board on October 14.

The Board carefully considered all stakeholder arguments. It determined that the proponents of using a F class frame with SCR as a proxy unit had made a strong case and that the commissioning and several months of successful operation of all four units at Marsh Landing was evidence of the viability of an F class frame with SCR. At that point, the Board was fully authorized under the Services Tariff to approve the F class frame with SCR as the proxy unit for NYC, LI, and the G-J Locality. Instead, the Board decided that it would be prudent and beneficial to conduct additional due diligence, and seek additional stakeholder input, in the time remaining before the NYISO was required to submit its proposed ICAP Demand Curves. Thus, as noted above, Brattle/Licata were retained to assist the NYISO staff in conducting an additional review of the economic and technical feasibility of that technology.

⁴⁰ *Id.*

⁴¹ See, e.g. *Comments of the Indicated New York Transmission Owners on Proposed ICAP Demand Curves for 2014-17* at 1.

b. *The Board's Authority to Conduct Additional Due Diligence Regarding the Viability of an F Class Frame with SCR*

Some stakeholders have contended that the Board lacked authority to take a more in-depth look at the proxy unit issue or to retain a new consultant to assist its review. But this is not the first time that the Board has modified ICAP Demand Curve parameters recommended by the NYISO's staff and consultants.⁴² Nor is it the first time that the NYISO has considered updated information relevant to proxy unit selection near the end of the ICAP Demand Curve process. Specifically, the 2007 ICAP Demand Curve reset the NYISO relied on updated LMS100 cost information that was not provided by its consultants until early October 2007 and not discussed with stakeholders until an October 15, 2007 Board meeting. Certain protestors argued that the use of the updated cost information violated the Services Tariff and *Installed Capacity Manual* provisions governing the triennial ICAP Demand Curve reset process because it did not allow "stakeholders 30 days to provide the Board with supplemental analysis for the Board's consideration." The Commission rejected these arguments finding that stakeholders were afforded an adequate opportunity to express their views on the cost update and their procedural rights were not violated."⁴³

Moreover, it is clear from the text of the Services Tariff, the *Installed Capacity Manual*, and the agreements establishing the NYISO that the Board had ample authority to conduct additional due diligence before making the final decision to approve recommended demand curve parameters. The Services Tariff and the *Installed Capacity Manual* place a great deal of emphasis on the role of the "independent consultant," *i.e.*, in this reset process, NERA/S&L in developing "recommended values" for use in ICAP Demand Curves. They also define an important role for stakeholders in evaluating and responding to that consultant's work. At the same time, the Services Tariff and the *Installed Capacity Manual* clearly establish that the Board, not the independent consultant, is ultimately responsible for deciding whether the "recommended values" should actually be included in the ICAP Demand Curve submitted to the Commission. For example, Section 5.14.1.2.9 of the Services Tariff specifies that stakeholders may ask the Board to "review and adjust" proposed ICAP Demand Curves developed by the independent consultant and NYISO staff. Section 5.14.1.2.11 states that the NYISO will file ICAP Demand Curves "as approved by the ISO Board of Directors."

The Board must have the ultimate decision-making in this area for the NYISO to function independently. The Board's authority to alter recommendations is also consistent with its authority to "review any matter . . . on its own motion" and with its "ultimate

⁴² See *e.g.* 2008 Demand Curve Order at 33 (affirming the Board's decision to reduce the assumed level of excess capacity in NYCA from the 2.8% assumption of the consultants to 1.5%) and at 60 (accepting the Board's decision not to include an additional risk factor, as was recommended by the consultant).

⁴³ 2008 Demand Curve Order at P 24.

responsibility for the operation of the ISO and the effective implementation of its basic responsibilities.”⁴⁴ Nothing in Section 5.14.1.2.1 of the Services Tariff or the ICAP Manual could plausibly be read to prevent the Board from exercising its independent authority.

Similarly, there should be no question concerning the Board’s authority to take into account the advice of a new consultant on a discrete question pertaining to ICAP Demand Curve parameters. Article 5.08 of the ISO Agreement empowers the Board to “appoint from time to time such employees and other agents as it deems necessary.”

In the final analysis, the Board had clear authority to accept or reject the NYISO Staff Report’s recommendation regarding the selection of a proxy unit, or any other parameter, based solely on the information available to at the conclusion of the stakeholder arguments in October. It would be irrational to contend that the Board could make a decision based solely upon stakeholder comments and oral arguments, but object to its ability to seek additional technical input so that it could make a better informed decision. Likewise it cannot reasonably be asserted that the Board’s efforts to obtain as much additional stakeholder input as possible on this issue were in any way deficient. Again, the Services Tariff permits the Board to make a decision without seeking any further stakeholder feedback. Thus the Commission should reject any arguments that the Board improperly or unfairly performed additional due diligence. The Board acted reasonably and cautiously and provided stakeholders an opportunity for input well beyond what the tariff requires.

c. *The Brattle/Licata Review*

As is discussed in detail in the Brattle Report and in the Chupka and Licata Affidavits, Brattle/Licata carefully and completely evaluated the commercial and technical viability of an F class frame with SCR in NYC, LI, and the G-J Locality. They worked collaboratively with NERA/S&L, the NYISO staff, and various manufacturers of SCRs and other equipment to better understand the performance of Marsh Landing and its relevance to selecting a proxy unit in New York.⁴⁵ Because they were focused on a single issue, instead of the hundred or more that NERA/S&L had to consider, Brattle/Licata were able to examine in greater detail the past technical failures at the Puerto Rico and Kentucky facilities to evaluate their applicability today.⁴⁶ They also reviewed the performance and characteristics of two other reasonably analogous generating stations, *i.e.*, the McCellan and McClure Facilities in California which have been operating with high temperature SCR applications based upon design principles similar to those used for Marsh Landing.⁴⁷

⁴⁴ Art. 5.07 of the ISO Agreement.

⁴⁵ See Licata Affidavit at 13-15, 16, 25.

⁴⁶ See *id.* at 16, 19, 23.

⁴⁷ See *id.* at 20. Brattle and Licata also had discussions with ATCO Emission Management, an SCR vendor. These discussions, which were held too late to be included in the Brattle Report, provided Brattle and Licata with additional useful information about the technical and commercial

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The Brattle Report fully addressed the engineering challenges associated with the configuration of SCR on simple cycle turbines with high temperature exhaust gas; the feasibility of compliance with environmental constraints in southeastern New York; the commercial availability and the technical advancement over the last decade of SCR and catalyst technologies for high temperature applications; the available operating performance of such high temperature applications on simple cycle gas turbine units; and the costs of construction, operation, and maintenance.

The Brattle Report concluded that both the F class frame and SCR emissions controls are mature and proven technologies that could be successfully and economically integrated to meet current BACT/LAER emissions requirements expected for southeastern New York. In addition, the Brattle Report concluded that S&L's estimate of additional costs to install and operate a hot temperature SCR on an F class frame was conservatively high. As a result, the Brattle Report further concluded that the F class frame with SCR is economically viable as required by the Services Tariff and therefore should be designated as the "peaking unit" – *i.e.*, "the unit with technology that results in the lowest fixed costs and highest variable costs among all other units' technology that are economically viable"⁴⁸ – for NYC, LI, and the G-J Locality.

The Chupka Affidavit and Licata Affidavit also make it clear that, notwithstanding certain unfounded allegations of "bias" made by certain stakeholders, Brattle and Licata conducted all of their work impartially and to the best of their ability without considering positions taken in prior work or the perceived interest of any other entity in their conclusions.⁴⁹

As was noted above, the NYISO solicited and reviewed stakeholder comments on the Brattle Report that both supported and opposed its conclusions. In addition, on November 5, 2013, IPPNY submitted sixteen questions to the NYISO regarding the Brattle Report. The NYISO posted its responses two days later. All written stakeholder comments that were submitted to the Board were received on November 8, 2013.

d. *The NYISO Properly Concluded that an F Class Frame with SCR Is Technically and Economically Viable for NYC, LI, and the G-J Locality*

After reviewing the Brattle Report and the stakeholder comments responding to it the NYISO staff concluded that an F class frame with SCR was a technically and economically viable proxy unit technology. It came to this conclusion for multiple reasons.

viability as well as the performance of SCR systems installed on simple cycle turbines, including F class frame turbines. *Id.* at 21.

⁴⁸ See Services Tariff Section 5.14.1.2.

⁴⁹ Licata Affidavit at 29; Chupka Affidavit at 9.

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First, the Brattle Report explained the distinguishing characteristics of the failed Puerto Rico and Kentucky SCR installations and emphasized that their failure did not mean that SCR technology was incompatible with a F class frame unit today. While NERA/S&L had concluded that the F class frame unit with SCR should not be chosen as the proxy unit, in part due to the failure of the SCR when exposed to the higher temperature gases exiting the F class turbine, the Brattle Report provided evidence of successful mid-high temperature SCR applications. The Brattle Report also looked more closely at the failures in Kentucky and Puerto Rico and determined that they were caused primarily by poor engineering design specifications, inappropriate construction and the use of catalyst that is now off the market. It thereby dispelled the notion that there are inherent limitations in SCR applications caused by gases that reach temperatures in the range associated with the F class frame unit. Moreover, the Brattle Report explained that technology has advanced during the years that have passed since the failed installations at the Cambalache and Riverside Facilities.

Second, the Brattle Report provided additional information regarding Marsh Landing's continued successful operation and compliance with applicable environmental requirements. The Brattle Report reasonably relied on Continuous Emissions Monitoring System ("CEMS") data obtained from the EPA's Clean Air Markets website. Because the relevant EPA requirements are the same in California and New York, Marsh Landing's ability to satisfy its environmental restrictions is directly relevant to the ability of new F class frames with SCR to do so in NYC, LI, and the G-J Locality.⁵⁰

Third, there is now three more months of operating data for Marsh Landing than there was when the NERA/S&L report was completed. Brattle/Licata had five months of data for all four. As NYISO stakeholders have argued, by the time that the Brattle Report was completed, Marsh Landing had nearly equaled the nine months and 587 hours of LMS100 operating history that existed at the time that the Board concluded that the LMS100 was viable in the last Demand Curve Reset. The Licata Affidavit also explains that there is every reason to expect that Marsh Landing will continue to perform well in the future.⁵¹

While the publicly available data and the information provided by MPSA show that the Marsh Landing project is operating successfully after six months, the NYISO understands that S&L continues to believe that an F class frame with SCR is not proven technology given the failures of previous projects. S&L would require twelve months of data before accepting that Marsh Landing was viable. As the Commission is aware, qualified experts can sometimes come to competing conclusions. This is especially true when it comes to predicting the future performance of technology. Nevertheless, based upon the clear

⁵⁰ As detailed in the Brattle Report, BACT/LAER emission control requirements established by the federal Clean Air Act and administered in New York State by the NYSDEC have resulted in very stringent emissions limits for major sources of criteria pollutants such as NOx. *See* Brattle Report at 8-9. Similar BACT/LAER emissions limits were established by the California Air Resources Board for Marsh Landing.

⁵¹ *See* Licata Affidavit at 28.

evidence of technical and economic viability provided by Marsh Landing, and as is discussed in further detail below, the NYISO has concluded that the Brattle Report's recommendation on the feasibility of integrating two proven and mature technologies – an F class frame turbine engineered with SCR emissions controls – should be accepted.

Beyond Marsh Landing, the Brattle Report also detailed other examples of hot temperature SCR applications functioning well in the electric generating sector. These included two existing frame-type turbine and SCR installations that date to the mid-2000s, *i.e.*, the McClelland and McClure facilities in California, as well as other applications at aeroderivative combustion turbines.⁵² Brattle/Licata examined more than 4,000 additional hours of relevant operating data for the McClelland and McClure facilities that was not considered by S&L. Brattle/Licata also gathered additional public information that indicated significant interest in high temperature SCR applications from both catalyst vendors, MPSA, and other SCR manufacturers, such as ATCO.

Fourth, in the 2007 ICAP Demand Curve reset the NYISO proposed and the Commission ultimately accepted the LMS100 as a proxy unit, even though certain stakeholders protested to the Commission that the viability of the LMS100 had not yet been demonstrated. The Commission rejected all such arguments. It emphasized that under the Services Tariff, “[e]conomic viability is a matter of judgment.” It also stated that:

The LMS100 is a relatively new technology with little operating history but its components are based on the 6FA and LM6000. In addition the CF6 gas turbine has over 100 million hours of operating experience in both aircraft engines and industrial applications. While it is accurate that this combination of the technology is new and may not follow the historic performance of the components in uncombined applications, we disagree with KeySpan's statement that this track record is inapplicable. The reliability of the components provides confidence in the combined application. This level of confidence is increased by the fact that the LMS100 has been operating without any recurring issues or major problems, with reliability trending up and availabilities in the upper 80 percent range.⁵³

The NYISO respectfully submits that essentially the same considerations support finding that the F class frame with SCR is viable today. In 2007 the NYISO relied principally on the performance record of a single LMS100 in South Dakota, where there were not environmental restrictions similar to those in NYC. Thus, the NYISO's reliance on data from Marsh Landing is consistent with precedent. Similarly, like the LMS100, the F class frame with SCR is a combination of proven and mature technologies that have relatively recently demonstrated their ability to function together in a single integrated system. As the Brattle Report and Licata affidavits emphasize, with proper design and

⁵² See Brattle Report at 11-13.

⁵³ *New York Independent System Operator, Inc.*, 125 FERC ¶ 61,299 (2008) at 22.

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engineering of exhaust gas tempering and appropriate catalyst selection, these two technologies can work together reliably. The successful operation of Marsh Landing and the McClellan and McClure facilities shows clearly that the combination can be commercially and technically viable.⁵⁴ Although the record of successful operation of the F class frame with SCR is relatively short it is highly relevant.

Fifth, as the Licata Affidavit explains, the NYISO now has better reason to believe that there is significant commercial interest in developing F class frames with SCRs than was the case at the time that the NERA/S&L Report was completed.⁵⁵

Finally, the NERA/S&L Report, Brattle Report, Meehan Affidavit, and Chupka Affidavit all affirm there is no question that F class frame with SCR units are the lowest fixed cost and highest variable costs option and are thus clearly “economically viable” In NYC, LI, and the G-J Locality. The only possible objection to their selection as the proxy unit for those regions is to argue that they are not technically viable. But the Brattle Report, Chupka Affidavit, and Licata Affidavit persuasively demonstrate that they are.

In the end, the Board properly concluded that the F class frame with SCR satisfied the tariff’s requirements and thus should be selected as the proxy unit for the environmentally constrained portions of New York State. It could not reasonably have selected the much more expensive LMS100 unit given the information presented by stakeholder arguments, the Brattle Report and the Chupka and Licata Affidavits establishing the F class frame with SCR’s technical and economic viability. This is especially true given that PJM has relied, with the Commission’s approval, on similar technology for nearly seven years to set CONE values in its capacity markets.

4. Consideration of Demand Response Technology

In the prior ICAP Demand Curve reset, the NYISO “e plored and discussed with stakeholders the possibility of using dispersed generating resources or Demand Side Resources” as the peaking technology. The NYISO reasoned that:

[D]emand response presently available generally does not have the ability to respond to longer deployments under current market rule designs. Further, there is not an established set of parameters or characteristics for a particular technology of demand response to be identified with any reasonable measure of certainty. Even if an identified technology could be ascertained with certainty, the fixed and variable costs made it unsuitable for consideration in the current Demand Curve reset review.⁵⁶

⁵⁴ Brattle Report at iv, 7-8; Licata Affidavit at 28.

⁵⁵ Licata Affidavit at 28.

⁵⁶ 2010 ICAP Demand Curve reset filing letter at 6 (Nov. 30, 2010).

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But the NYISO also committed in that filing to consider the use of demand response as the peaking unit in the current reset cycle.⁵⁷

The First 2010 Demand Curve Order accepted the NYISO's conclusion regarding demand response but also noted the NYISO's commitment to more closely study the use of demand response in this reset. The Commission stated:

[W]e will accept NYISO's uncontested assertion that demand response technologies are not practical for use because of deployment limitations of current market rule designs, the lack of parameters for demand resource technology, and the unsuitability of fixed and variable costs. We note that NYISO states that it will consider the use of demand resource technology in the next demand curve reset cycle contingent upon better definition of the process for identifying technology types, and the methodology and a means to quantify... the fixed and variable costs associated with those technologies.⁵⁸

The FTI Report recognized that demand response is an important participant in capacity markets. But it also explained that neither the cost nor the offer price of demand response was an appropriate measure of the long-run cost of capacity. Specifically, it observed that:

The cost to power consumers of reducing consumption in order to provide incremental demand response would not provide a workable basis for setting net CONE because it is inherently customer specific, reflecting the net cost of reduced consumption unique to that consumer, rather than a generic cost that can be benchmarked in the same manner as the cost of building a generating facility.⁵⁹

The FTI Report therefore concluded "that there is no well-defined exogenous cost of demand response that can be measured in advance and used as a superior benchmark for the long-run cost of capacity in NYISO markets" and that "the estimated long-run cost of physical generation used to meet firm load is a more reliable long-run benchmark for the capacity market demand curve."⁶⁰

Certain stakeholders responded to the FTI Report by suggesting that an aggregate or resource-type cost for demand response could be identified. NYISO staff concluded that it had no data that could be used for this purpose.⁶¹ The NYISO Staff Report therefore agreed

⁵⁷ *Id.*

⁵⁸ First 2010 Demand Curve Order at P 37.

⁵⁹ FTI Report at ix.

⁶⁰ FTI Report at 19.

⁶¹ *See* NYISO Staff Report at 44.

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with the FTI Report that demand response technology should not be considered as a potential peaking unit in this reset.

Accordingly, the Board endorsed the NYISO Staff Report's determination that a generation technology should be used as the peaking unit. The NYISO respectfully submits that this proposal is just and reasonable given the nature on demand response resources and asks that the Commission accept it.

B. Development of Fixed and Variable Cost Elements and Determination of Net Energy and Ancillary Services Revenues

NERA/S&L developed the fixed and variable cost elements and the determination of net energy and ancillary services revenues that were utilized as the basis for developing the ICAP Demand Curve parameters for the NERA/S&L Report, the NYISO Staff Report and the Brattle Report. Brattle evaluated the costs developed by NERA/S&L for the F class frame with SCR peaking plant and determined that they were appropriate. Utilizing NERA developed costs and revenues across all the reports ensures consistency in the results.

1. Dual Fuel Capability

In the prior ICAP Demand Curve reset it was assumed that only the NYC peaking plant would require dual fuel capability. Such capability was required by the Consolidated Edison Company of New York's gas tariff. In the current reset, NERA/S&L determined that a more stringent 45 second fuel switching requirement had developed (under certain conditions) for NYC. The LMS100 and Wartsila units could meet these requirements but the F class frame could only do so with certain modifications. A fuel switching capability cost adder was therefore established for the NYC F class frame.⁶²

Some stakeholders asked NERA/S&L to consider whether dual fuel capability should also be assumed for the peaking plants in other regions. After carefully examining the issues, NERA/S&L concluded that projects siting in LI or the G-J Locality would likely be required to have dual fuel capability. For example, the gas tariffs for the local distribution companies in LI and Load Zones G, H and I require that generating plants taking gas services have dual fuel capability. Further, NERA/S&L observed that nearly all the proposed and newly built facilities in these areas were being developed with dual fuel capability. NERA/S&L concluded that the dual fuel requirement assumed for these regions would not limit the interconnection locations for siting new plants in these regions and would facilitate the proxy plant being representative of potential new projects coming into these Localities. The NYISO Staff report agreed with this conclusion.⁶³

⁶² *See id.* at 15.

⁶³ *Id.* at 15-16.

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Thus, NERA/S&L recommended that a requirement of dual fuel capability be assumed for each Locality, (*i.e.*, the G-J Locality, NYC and LI), but that no such capability is required for the NYCA proxy plant. The NYISO Staff Report agreed with this conclusion.⁶⁴

Several stakeholders addressed the dual fuel issue in their comments on the NYISO Staff Report and their October arguments to the Board. Among the stakeholders that opposed the dual fuel requirements, DPS argued that the proxy unit in the G-J Locality could be served directly from an interstate pipeline and therefore would not need dual fuel capability.

Other stakeholders argued in favor of the assumption of dual fuel capability. IPPNY argued that dual fuel capability is necessary for economic viability for both the G-J Locality and NYC proxy units. Entergy supported the dual fuel capability requirement in the G-J Locality, as the gas transportation tariffs of the distribution companies in that Locality mandate that electric generators have dual fuel capability. Moreover, having dual fuel capability in that constrained Locality will support gas and electric market coordination issues.

The Indicated NYTOs agree that the proxy unit should be dual-fueled, but only in NYC and not in the G-J Locality, where there are no NYISO or interstate pipeline dual fuel capability requirements.

The Board accepted the NYISO Staff Report's recommendation.

2. Interconnection Costs

To determine the amount of interconnection costs to be included in the analysis, NERA/S&L developed estimates of System Upgrade Facilities ("SUF") costs based on substations with open breaker positions, as well as the bus type and voltage used in NYISO deliverability studies, using a larger contingency of 20% than was used for the plant cost estimates.⁶⁵ NERA/S&L based additional costs of protection SUFs, headroom payments, and Connecting Transmission Owner Attachment Facilities on an average of these costs for representative projects from class year (CY) studies for CY09, CY10 and CY11.

⁶⁴ *Id.* See also Licata Affidavit at 18.

⁶⁵ There are two types of interconnection service available through the NYISO's interconnection process: Energy Resource Interconnection Service (ERIS) and Capacity Resource Interconnection Service (CRIS). The NYISO evaluates new projects requesting CRIS Rights within the Class Year study process using the deliverability test defined in Sec. 25.7.8 of the NYISO OATT. The projects that are determined to be deliverable in full or in part are awarded CRIS Rights up to their MW deliverability level. For those projects deemed undeliverable in full or in part, the NYISO determines the least cost system upgrades to achieve full deliverability, which are the System Deliverability Upgrade costs.

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The NYISO's deliverability studies indicated that the gas turbine plants were deliverable at all substations in all zones. The only substantive comment by stakeholders related to interconnection costs raised the possibility that interconnections in NYC might have to include an allowance for "storm hardening" costs based on evaluations following Superstorm Sandy. A review with Con Edison of the substations selected for the interconnection estimates indicated that none of these substations required elevation.

The NYISO Staff Report agreed with NERA/S&L's conclusion,⁶⁶ and the Board accepted the NYISO Staff Report's recommendation.

3. Capital Investment and Other Plant Costs

The NYISO proposes to use the capital cost determinations that were developed by NERA/S&L. Identified capital costs include direct costs within the engineering, procurement and construction ("EPC") contracts, owner's costs not covered by the EPC including "social justice" costs, financing costs during construction and working capital and initial inventories. For locations in NYC, NERA/S&L developed and included an incremental cost of increasing plant elevations by 3.5 feet for flood protection, based on FEMA's post Superstorm Sandy inundation maps. NERA/S&L also included inlet evaporative cooling for all gas turbine technologies. For the regions where dual fuel capability is required, NERA/S&L included the associated capital costs as a separate incremental costs. For the proxy unit in NYC, NERA/S&L added 2% for the ability to swap fuel during operation. NERA/S&L also added in capital costs associated with the appropriate environmental costs for each unit and region. The capital investment costs for the plants for each Zone are included in Table A-3 of the NYISO Staff Report and in Table 3 of the NYISO Staff Report.

The NYISO Staff Report agreed with this conclusion,⁶⁷ and the Board accepted the NYISO Staff Report's recommendation.

4. Property Taxes

a. NYC Tax Abatement

The New York Legislature enacted legislation in May 2011 that amended the New York State Real Property Tax law to provide property tax abatements of 100% of the abatement base for the first 15 years to some electrical generating facilities located in NYC: peaking units, as defined by the NYISO tariffs, and units certificated before April 1, 2015 that average no more than 18 run hours per start annually.

⁶⁶ NYISO Staff Report at 16-17.

⁶⁷ *Id.* at 17-18.

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The NERA/S&L model indicated that the F class frame with SCR meets the hourly run time per start criteria for tax abatement. Further, NERA/S&L determined that it was reasonable to assume that a peaking unit in NYC that is completed for operation during the period covered by this ICAP Demand Curve reset would have received its construction permit prior to April 1, 2015.⁶⁸ Accordingly, NERA/S&L accounted for the effect of the tax abatement in the determination of levelized carrying charges for the proxy unit in NYC.

The NYISO Staff agreed with the assumption that the abatement should be applicable in developing reference prices.⁶⁹ NYISO Staff fully expects the abatement provision to be extended by the Legislature.⁷⁰

In its October comments on the NYISO Staff Report, the City expressed its strong support for the assumption that the proxy unit for the NYC Demand Curve would be fully eligible for, and therefore would receive, the tax abatement.

The Board accepted the NYISO Staff Report's recommendation.

b. *Payments in Lieu of Taxes Elsewhere*

NERA/S&L's final recommendation for a uniform property tax rate in all other regions of the state other than NYC is 0.75%. This rate, which is much lower than the initial recommended rate of 2%, takes into account stakeholder comments that many projects in other jurisdictions have been able to negotiate payments in lieu of taxes ("PILOT") agreements at rates substantially lower than 2%. NERA/S&L found that these PILOT agreements have been widely received by new power plant projects, even on LI where generation developers have very limited siting options.

The NYISO agreed with the final recommendation, finding it to be a reasonable representation of property tax rates based on available data.⁷¹

The Board accepted the NYISO Staff Report's recommendation.

⁶⁸ In contrast, NERA/S&L determined that the more efficient combined cycle plant would not qualify for the abatement, as the restriction on operating time would significantly reduce net revenues.

⁶⁹ NYISO Staff Report at 19.

⁷⁰ Although Governor Cuomo vetoed a bill that extended the abatement, along with unrelated expansion provisions, he indicated that he would sign a bill that extended the programs without the expansion provisions.

⁷¹ NYISO Staff Report at 19.

5. Fixed Operating and Maintenance Costs

To develop the fixed operating and maintenance (“O&M”) costs, which are summarized in Table A-3 of the NERA/S&L Report, associated with the proxy units, including the F NERA/S&L assumed that the land associated with the unit would be leased. Property taxes are based on typical taxes for the jurisdiction chosen in each market (NYC, LI and Capital Zone). NERA/S&L included an allowance for periodic operations and emissions testing for the units with dual fuel capability. In response to stakeholder concerns, NERA/S&L revised its initial estimate to reflect recent increases in insurance costs.

The NYISO Staff Report agreed with the recommended fixed O&M costs,⁷² and the Board accepted the NYISO Staff Report’s recommendation.

6. Performance Characteristics and Variable O&M Costs

NERA/S&L developed performance characteristics, emissions and start-up costs for the units it evaluated, which are set out in Table 4 of the NYISO Staff Report. The NYISO supplied data to NERA/S&L on the reference temperatures to use to determine capacity ratings for ICAP. The NYISO bases ICAP ratings for generating units on Dependable Maximum Net Capability tests, which are corrected to the average of the ambient temperature at the time of the NYISO seasonal peak loads over the last four years. NERA/S&L used average summer and winter conditions for each region to determine the capacity ratings used for estimating net energy revenues.

The variable O&M costs used in the model are primarily driven by the periodic maintenance cycles of each unit. Plant generating output also influences these costs.

The NYISO supports NERA/S&L’s conclusions,⁷³ and the Board accepted the NYISO Staff Report’s recommendation.

7. Development of Levelized Carrying Charges

NERA/S&L analyzed the elements to be used in developing levelized carrying charges and determined the annual carrying charge rate using the same methodology that was used for the previous Demand Curve reset study, with the exception that the current New York City property tax abatement is more appropriately treated in the levelized carrying charge than as a fixed operations and maintenance cost because the annual NYC property tax amount varies over the plant’s useful life.

NERA/S&L proposed a 50/50 ratio of debt to total capital, with a 7% interest rate on debt and a 12.5% return on equity for determining the weighted average cost of capital. The return on equity was calculated using the Capital Asset Pricing Model (“CAPM”), which

⁷² NYISO Staff Report at 19-20.

⁷³ *Id.* at 20-21.

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yielded an average expected return of 11.29%, plus a “calibration adder” of 1.21%. NERA/S&L did not use a calibration adjustment in the prior ICAP Demand Curve reset but concluded that one was warranted at this time.⁷⁴ NERA/S&L reasoned that the CAPM results appeared to be “potentially too low relative to regulated rates of return” and that “the CAPM is subject to bias at times during the interest rate cycle.”⁷⁵ NERA/S&L also were concerned that additional external factors, such as the Federal Reserve’s quantitative easing program could distort CAPM results.⁷⁶

NERA/S&L performed the calibration adjustment by applying the CAPM model to a sample of regulate utilities, including two New York transmission owners whose service territories encompassed all or portions of NYC and the G-J Locality, and comparing those expected returns to the returns allowed by regulators. On average, the CAPM model yielded an average expected return for regulated utilities of 7.72% and 7.65% for New York utilities. But in the real world, regulators are presently allowing higher returns, *e.g.*, generally between 9.5% and 10%. Allowed returns in New York State were only slightly below the average at 9.3%.⁷⁷ Accordingly, NERA/S&L applied a conservative calibration adjustment to increase the estimated return by the difference between the observed returns and a lower than average regulated return of approximately 9%.

The Meehan Affidavit provides additional explanation of why the calibration adjustment is appropriate given current financial market conditions and the inherent biases of CAPM.⁷⁸

NERA/S&L considered stakeholder input on its analysis and gave a presentation on the subject at the June 22 ICAPWG meeting. In developing the financial parameters described above, NERA/S&L used a long term inflation rate of 2.3% and a short term rate of 2.2%. NERA/S&L recommend the short term rate of 2.2% for escalating the demand curves over the three applicable capability periods.

The NYISO Staff Report concluded that the debt/equity parameters provided a reasonable balance and concurred with NERA/S&L’s recommendations. The Board accepted the NYISO Staff Report’s recommendation.

a. *Amortization Period*

The ICAP Demand Curves must be based on an assumed amortization period at the equilibrium excess point that will yield revenues to induce new entry when it is needed to

⁷⁴ Meehan Affidavit at 20.

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.* at 21.

⁷⁸ *Id.* at 22.

satisfy minimum requirements. In order to determine the amortization period for the proxy units, NERA/S&L revisited the methodology that it used in the prior ICAP Demand Curve reset, *i.e.*, it did not strictly assume a fixed period. Instead, NERA/S&L considered the risk of excess capacity, the slope of the ICAP Demand Curves and the slope of the energy and ancillary service net revenue function. This methodology, which was reviewed extensively by the Commission during the prior ICAP Demand Curve reset, internally and automatically adjusts the reference prices to reflect the zero crossing point of the Demand Curve and can account for revenue volatility associated with alternate slopes.⁷⁹

As part of its analysis in this reset process, NERA/S&L recommended an economic analysis period, *i.e.*, the period over which the economics of a generating unit investment are examined and over which an investor will recover a return of and on invested capital, of 25 years for the LMS100 and of 20 years for the F class frame. This is different from the periods used in two previous cycles, when NERA recommended 30 years for both technologies. The shortened time period reflects the possibility of changing technology, as investors will want to analyze a recovery period that is shorter than the potential physical life of the equipment to account for reduced revenues that could result from competition against new technology.⁸⁰

The shortened economic analysis period, especially for the F class frame unit, also reflects the possibility of increased environmental regulations, especially those limiting carbon emissions.⁸¹ The shortened economic analysis period is also more likely to result in prices that will attract investment, given the very real risk that generator performance will not be exactly as modeled. A period of 20 years is also consistent with the economic analysis period of 20 years that PJM uses for analogous purposes in its capacity market design.⁸²

The NYISO Staff Report determined that the amortization periods chosen by NERA/S&L provided a reasonable balance, and concurred with the recommendations of 25 years for the LMS100 and 20 years for the F class frame.⁸³

In their comments on the NYISO Staff Report, some stakeholders, including the DPS, and MI/City, criticized NERA/S&L for shortening the amortization periods, arguing that the changes are unjustified departures from past resets. Specifically, MI/City asserted that little, if any, justification has been provided to support the shorter amortization periods. MI/City claimed that the proposed adjustments to the amortization period are in fact an attempt by NERA/S&L to assume a greater level of excess capacity than the amount prescribed by the Services Tariff.

⁷⁹ Meehan Affidavit at 14.

⁸⁰ *Id.* at 16, 17.

⁸¹ *Id.* at 18.

⁸² *Id.* at 19.

⁸³ NYISO Report at 22.

On the other hand, IPPNY argued for a shorter amortization period: a 20-year period in NYC and the G-J Locality and a 15-year period in NYCA. IPPNY suggested that the risk associated with new entry has increased, and facilities will only be financed if that risk is adequately addressed. Moreover, IPPNY suggested that the excess capacity levels that NERA/S&L built into the model, discussed below in Section IV.B.9, do not adequately address the fact that capital cost recovery time increases sharply with even a small amount of excess capacity.

The Indicated NYTOs supported the use of a 30 year amortization period, as simple cycle units more than 40 years old are common in NYC, and purchasers are willing to pay significant amounts for generators that are more than 20-25 years old (citing Tenaska's purchase of US Power Generating Company for \$902 million). The Indicated NYTOs argued that there is no support for claim that investors will use a shorter time horizon in determining levelized costs or for the claim that developers will demand an accelerated recovery. The Indicated NYTOs suggested that NERA/S&L likely made the change to the amortization periods in response to the IPPNY's concern that actual excess capacity is higher than the level of excess capacity assumed in the model. The Indicated NYTOs also argued in the alternative that, if 20-25 year assumption is kept, the residual value should be changed, as it does not account for the additional net revenues that the proxy unit will receive.

The Board carefully considered all of these stakeholder arguments. It accepted the NYISO Staff Report's recommendation because it believed that it was the most reasonable for the F class frame with SCR. The economic analysis periods chosen for the evaluation were based on realistic expectations. Thus, the amortization period chosen by NERA/S&L was one of a set of reasonable financing assumptions that reflects projects associated with a larger corporate capital structure while recognizing the possibility of the development of peaking unit not associated with a larger corporate capital structure.

b. *Original Issue Discount*

In the comments on the NYISO Staff Report, IPPNY argued that some explicit original issue discount ("OID") costs must be included in the financing charges. IPPNY criticized NERA/S&L for assuming total financing costs for the proxy unit of \$5.8 million, which is substantially below the total financing costs of recent units: Astoria Energy II's total financing fees of \$37.9 million, Astoria Generating Company's total fees of \$29 million and Bayonne Energy Center's total fees. According to IPPNY, the cost of debt that is reflected in the Demand Curve model should be consistent with real world experience and thus should be calculated using financing costs that approximate the properly adjusted average of recently completed financings in New York, some of which have the OID costs embedded in the cost of debt.

A bond is issued at a discount to its par value (and thus includes an OID) if its coupon rate is less than the return the market requires, given the riskiness of the debt. The yield to maturity ("YTM") of the bond reflects the periodic coupon payments as well as the appreciation of the bond price as it approaches par value at maturity. To the extent the bond price was issued at or remains below the par value, its YTM value will reflect the cost of this

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discount. NERA estimated the 7.0% debt interest rate from the YTM values of currently-outstanding debt issues. Were those debt issues to include an OID, the associated cost would be reflected in the YTM values. However, none of the debt issues analyzed by NERA included an OID, so there was no associated cost embedded within the YTM values, and correctly so. Thus, an OID is not necessarily typical of all debt financings, contrary to IPPNY's assertion, and a further adjustment for it would not be appropriate.

Regarding the financing costs for the aforementioned projects, the financing fees were higher because the debt and equity issuances for those projects were for substantially larger dollar amounts. The total financing fees are comparable when expressed as a percent of total project debt.

The Board concurred with the NYISO Staff Report's conclusion not to include any OID costs in the financing costs.

8. Regulatory Risk

NERA/S&L indicated that "there are reasonable arguments that a market which is administrative [such as the Demand Curve] is subject to risks that can be categorized as regulatory risks." Thus, NERA considered whether a special "regulatory risk" adjustment was necessary. NERA/S&L found that the "Demand Curve construct has been operating for ten years. Efforts are constantly underway to improve the process and to refine elements that would bias the process." It concluded that a regulatory risk adjustment was not required due to the NYISO initiatives to develop tariff revisions that would improve its capacity market power mitigation measures. NERA/S&L recommended that this issue be considered again in future reset processes.

The NYISO Staff Report accepted NERA/S&L's conclusion.⁸⁴

Although most stakeholders agreed with NERA/S&L's conclusion, IPPNY argued in its October comments on the NYISO Staff Report that, because no special allowance was made for regulatory risk, the ICAP Demand Curves do not adequately account for the risks that merchant developers in New York bear. IPPNY asserted that the current mitigation measures for NYC did not prevent the entry of allegedly state-subsidized and uneconomic projects, such as 660 MW of the Hudson Transmission Partners HVDC line and the Astoria Energy II generating unit. IPPNY blamed allegedly inadequate mitigation rules on the possibility of increased excess capacity in the market and questioned if the proposed revisions to the buyer-side mitigation rules can be relied on to eliminate future regulatory risk.

The Board accepted the NYISO Staff Report's recommendation not to include a special "regulatory risk" adjustment.

⁸⁴ NYISO Staff Report at 23.

The ICAP Demand Curves accepted by the Commission in 2008 and 2011 did not include a regulatory risk adjustment. The proposed ICAP Demand Curves are reasonable without including such an adjustment. The NYISO's capacity market and its mitigation rules have evolved over time and the NYISO is engaged in a continuous process with its stakeholders to development enhancements. In any case, the Commission's recently accepted capacity market power mitigation rules (buyer-side and supplier-side) for the G-J Locality, which are substantially similar to the established ICAP market power mitigation rules in NYC. Because these rules were accepted for filing by the Commission, without substantial modification, by the Commission, it is reasonable to conclude that they are adequate to address the risks that IPPNY would address through an additional risk premium. Moreover, IPPNY's concerns with the buyer-side mitigation rules were also addressed in the Commission's 2011 order accepting in part and rejecting in part IPPNY's complaint on the buyer-side capacity market power mitigation rules in NYC,⁸⁵ and the NYISO's subsequent compliance filing. In addition, the risks facing suppliers were already considered in the development of other ICAP Demand Curve parameters, *e.g.*, in setting the duration of the amortization period and by making a calibration adjustment to its return on equity estimate to ensure that it appropriately reflected the current market risk premium.

9. Assumptions Regarding the Expected Level of Average Excess Capacity

In the First 2010 Demand Curve Order, the Commission directed that net energy revenues be determined at the locational minimum capacity requirements and the NYCA installed reserve margin plus the capacity of the reference plant. NERA/S&L incorporated the Commission's guidance into their ICAP Demand Curve model. The model establishes the installed capacity baseline around which their analysis operates to determine both capacity and net energy revenues, which are then used to determine the reference price level and effective amortization period.

The NYISO Staff Report agreed with these assumptions.⁸⁶

Certain stakeholders questioned these assumptions in context of the amortization period. IPPNY argued that the excess capacity levels built into the model do not adequately address the risk that capital cost recovery time increases sharply with a small amount of excess capacity and that it is unlikely that proxy unit could be financed.

⁸⁵ *Astoria Generating Company L.P., et al. v. New York Independent System Operator, Inc.*, 139 FERC ¶ 61,244 (2012).

⁸⁶ NYISO Staff Report at 23.

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The Board accepted the NYISO Staff Report's recommendation, finding that the NERA/S&L model and its assumptions are reasonable.

10. Energy and Ancillary Services Revenue (“Net Revenue Offsets”)

NERA/S&L used historical data from November 1, 2009 through October 31, 2012 to benchmark the operation of the NYISO system in order to determine likely projected Energy and Ancillary Services Revenues (“Net Revenue Offsets”), which were used to compute the net cost of new entry for the peaking unit. NERA/S&L's statistical model described the effect of various cost drivers on the observed zonal locational-based marginal prices (LBMP). The primary causal variables identified were load, temperature, daily natural gas prices and the addition of two major plants in NYC during the historical period. The statistical model was adjusted to reflect these additions as operating for the entire historical period.

NERA/S&L also adjusted the forecast to reflect the expected resource mix and conditions where the available capacity is equal to the minimum installed capacity requirement plus the capacity of the reference peaking plant. To make these adjustments, NERA/S&L used production cost simulations, which were by performed by GE Energy Consulting using its Multi-Area Production Simulation (MAPS) Software and which were consistent with simulations used for the most recent Congestion Assessment and Resource Integration Study (CARIS). NERA/S&L also developed the following LBMP adjustment factors:

- An adjustment to the resource mix for retirements and resource additions that occurred after the historical period;
- An adjustment to baseline conditions for the demand curve model;
- Factors for discrete capacity levels above and below this point to provide the model with the ability to adjust capacity levels in its determination of capacity and net energy revenues; and
- Factors to correct the zonal LBMP estimates in the model to nodal estimates.

NERA/S&L used the statistical model to dispatch the units to calculate both day-ahead and real-time energy revenues, while recognizing start-up parameters and operating constraints.

NERA/S&L estimated the ancillary services revenues using data supplied by the NYISO. For the peaking units, ancillary services revenues come largely from 10-minute non-spin reserves and voltage support. Currently, 10-minute non-spin reserves come in large part from older gas turbines in Eastern New York. Thus, NERA/S&L made an adjustment to the revenue date to account for the relatively high capacity factors of the LMS100. NERA/S&L also determined that the F class frame simple cycle could not reach full output in 10 minutes, so it would only qualify for 30-minute non-spin reserve. Ancillary services for the Siemens F class frame combined cycle unit come primarily from regulation and voltage support.

The NERA/S&L Report addressed several considerations and concerns raised by stakeholders, including:

- Specification of gas prices, including use of intra-day prices
- Locations selected for gas price basis
- Use of forward gas prices instead of historical gas prices
- Model specification for Astoria Energy 2 and Bayonne Energy Center
- Scarcity pricing
- Adjustment of ancillary service revenues for changes in NYISO market rules

The NYISO agrees with NERA/S&L's conclusions regarding Net Revenue Offsets and the resolution of these issues, and supports their adoption.⁸⁷ In the NYISO Staff Report, the NYISO commented that NERA/S&L's combined use of econometric modeling and the MAPS software is a significantly improved means of capturing the effects of capacity excess and is the only means to capture some of the changes in resource mix. The NYISO found the choice of locations for representation of gas prices to be consistent with CARIS, and the sensitivity results comparing historic gas prices and gas price forecasts to be comparable. The NYISO also noted that a comparison of predicted prices for the three year period showed reasonable agreement with forward electric prices.⁸⁸

In their October comments, the Indicated NYTOs suggested that scarcity pricing was not sufficiently reflected in NERA/S&L's conclusion. IPPNY argued that the Net CONE calculated for the NYC proxy unit reflects revenues that are too high, because NERA/S&L improperly assumed that the proxy unit will earn revenues annually in the 10-minute non-spin reserves market. IPPNY asserts that the proxy unit cannot operate in this way without violating emissions limitations.

The Board concurred with the NYISO Staff Report's conclusions. The Board found that NERA/S&L's methodology for determining likely Net Revenue Offsets was reasonable and effective.

C. Choice of Peaking Unit by Region

The NYISO's tariff currently requires that the demand curve reference price be based on a peaking plant, and further requires that it be based on the peaking plant with the lowest fixed cost and highest variable cost. The second requirement would translate into the alternative with the lowest fixed cost and lowest energy and ancillary services revenues, reflecting the higher variable costs.

⁸⁷ NYISO Staff Report at 23-25.

⁸⁸ *Id.* at 25.

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The NYISO's proxy plant recommendation for the CONE unit in each zone is summarized below:

Zone	CONE Unit
NYCA	F class frame without SCR with an annual hour operating limit
G-J Locality	F class frame with SCR
NYC	F class frame with SCR
LI	F class frame with SCR

The changes to key Demand Curve parameters that result from these recommendations are below.⁸⁹

⁸⁹ Brattle Report at vi.

2014/2015 Demand Curve Parameters	NYCA	NYC	LI	NCZ
September 6, NYISO Report				
ICAP Max Clearing Price (\$/kW-mo)	13.50	36.83	30.96	28.10
Reference Point (\$/kW-mo)	8.84	25.57	13.28	17.86
Zero Crossing (% of req)	112.0	118.0	118.0	115.0
Summer DMNC (MW)	210.1	185.5	188.0	186.3
Annual CONE (\$/kW-yr)	107.98	294.6	247.7	224.79
Annual EAS Revenues (\$/kW-yr)	18.48	54.5	114.6	53.06
Annual Net CONE (\$/kW-yr)	89.50	240.11	133.07	171.73
Brattle-Licata Report				
ICAP Max Clearing Price (\$/kW-mo)	13.50	26.14	20.88	18.80
Reference Point (\$/kW-mo)	8.84	18.55	7.96	12.14
Zero Crossing (% of req)	112	118	118	115
Summer DMNC (MW)	210.1	208.8	210.7	209.4
Annual CONE (\$/kW-yr)	107.98	209.14	167.02	150.44
Annual EAS Revenues (\$/kW-yr)	18.48	33.49	86.67	32.77
Annual Net CONE (\$/kW-yr)	89.50	175.65	80.35	117.67
Percent Change				
ICAP Max Clearing Price	0%	-29%	-33%	-33%
Reference Point	0%	-27%	-40%	-32%
Zero Crossing	0%	0%	0%	0%
Summer DMNC	0%	13%	12%	12%
Annual CONE	0%	-29%	-33%	-33%
Annual EAS Revenues	0%	-39%	-24%	-38%
Annual Net CONE	0%	-27%	-40%	-31%

1. For the NYCA

For the NYCA, the NYISO's proxy plant recommendation is the F class frame, with dry low NOx combustion for NOx emissions control and a cap on operating hours.

While the Generation sector and some in the Environmental sector have challenged the permissibility of an F class frame without SCR, this has been the proxy plant in the NYCA for multiple prior demand curve resets. These stakeholders dispute that this unit is permissible under New York's siting and air permitting regulations, but based upon NYISO's inquiries with the NYSDEC, the NYISO staff determined that the unit could be permitted in the NYCA region while meeting New Source Review BACT/LAER requirements. It does this by taking an annual cap on its NOx emissions that prevents it from having to conduct a BACT/LAER analysis under the federal Clean Air Act and 6 NYCRR Part 231. Therefore, the F class frame without SCR but with an annual hourly operating limit is the lowest fixed, highest variable cost peaking unit that is economically viable for NYCA. The Board accepts the NYISO staff recommendations.

2. For the NYC, LI, and G-J Locality.

Given NYISO’s agreement with Brattle/Licata that the F class frame with SCR is technically and economically viable for the regions with significant portions in severe nonattainment for the federal National Ambient Air Quality Standards for Ozone and given the F class frame with SCR’s significant lower fixed costs than the LMS100, it follows that it should be the peaking unit for NYC, LI, and G-J Locality.

The total capital cost of the LMS100 proxy plant is approximately \$100 million more than the F class frame with SCR in *all* zones. To put the fixed cost difference in perspective, the NYISO created the following table, which compares the Capital Cost Comparison of LMS100 to the F class frame with SCR by Zone.

	NYCA (Capital)		NYC		LI		LHV	
	F class frame w/SCR	LMS100	F class frame w/SCR	LMS100	F class frame w/SCR	LMS100	F class frame w/SCR	LMS100
Total Capital Cost	\$ 164,793,000	\$ 262,976,000	\$ 236,302,000	\$ 341,838,000	\$ 210,407,000	\$ 315,636,000	\$ 191,139,000	\$ 293,070,000
Cost of SCR	\$ 16,447,000		\$ 23,693,754		\$ 21,097,290		\$ 19,165,307	
As % of Total Costs	9.98%		10.03%		10.03%		10.03%	
ICAP MW	204.9	183.6	205.3	184	206.8	185.5	205.6	184.4
Total \$/kW	\$ 804.26	\$ 1,432.33	\$ 1,151.01	\$ 1,857.82	\$ 1,017.44	\$ 1,701.54	\$ 929.66	\$ 1,589.32
SCR \$/kW	\$ 80.27		\$ 115.41		\$ 102.02		\$ 93.22	
Capital Cost Difference (LMS100 less F class frame with SCR)		\$ 98,183,000		\$ 105,536,000		\$ 105,229,000		\$ 101,931,000
Estimated Value								

The NYISO finds Brattle’s conclusion that SCR and F class frame units are two mature, proven technologies that can readily be integrated with proper engineering design to be reasonable and well-supported.

The F class frame with SCR thus satisfies the Services tariff requirement “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” in all zones but Rest of State, and the Board accepts the NYISO’s recommendation.

D. Demand Curves’ Slope and Length – Zero Crossing Point

The zero crossing point is the intersection of the ICAP Demand Curve with the x-axis, corresponding to the percentage of capacity beyond the requirement which results in a capacity price of zero. The FTI Report analyzed the zero crossing point of the NYCA, NYC, LI and the G-J Locality Demand Curves. FTI concluded that, although in general the zero crossing points and linear shape of the current Demand Curves tracked the incremental reliability value of capacity, the correspondence between the Demand Curve and reliability value would be enhanced by reducing the NYC zero crossing point from 118% to 115% and increasing the NYCA zero crossing point from 112% to 115%. FTI based these recommendations on an assessment of the incremental reliability value of capacity in NYCA, NYC, LI and in Zones G-J, which was based on an analyses of loss of load expectation

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(“LOLE”) vs. incremental capacity additions using the Multi-Area Reliability Simulation (“MARS”) model. NERA/S&L recommended moving the zero crossing points for NYC and the NYCA to a point halfway between the current zero crossing point and FTI’s recommendations: to 116.5% and 113.5% respectively. For Zone K, both FTI and NERA/S&L recommended retaining the existing crossing point. For the new capacity zone, comprised of Zones G-J, NERA/S&L recommended a zero crossing point of 115%, midway between NYC and NYCA.⁹⁰

Subsequently, the MMU also independently reviewed the analyses conducted for the FTI Report, and had several discussions with FTI, NERA and the NYISO. These discussions focused on the capacity shifting methodology used by FTI in the studies to determine the incremental value of capacity. The MMU recommended that the zero crossing point analysis could be improved by adding capacity to the area of concern instead of shifting it from other areas in the NYCA. FTI, NERA and the NYISO agreed with the MMU that this methodology has certain advantages over the shifting methodology utilized in the FTI Report.

The MMU also recognized that the LOLE decreased asymptotically as more capacity was added, *i.e.* that the demand curves would not be linear if they were to reflect the incremental value of capacity over the entire range where incremental capacity was valuable. However, the MMU also recognized that the linear demand curves currently in place reasonably approximate the incremental value of capacity in the neighborhood about which the market could reasonably be expected to clear, *i.e.* between 100% and 112% of the requirement. Additionally, the MMU proposed that the zero crossing point could be set such that the line drawn between it and the reference point corresponded to the most accurate estimation of the incremental value of capacity between 100% and 112% of the requirement. The NYISO conducted additional analysis at the request of the MMU, and the MMU presented this approach and initial results to stakeholders at the August 22 Installed Capacity Working Group.

Stakeholders had several concerns regarding the analysis being introduced late in the reset process, as they asserted there was little information and time to review the sufficiency of the MMU’s methodology and assumptions – for example, the range in which the market could reasonably be expected to clear – to support the resulting changes to the zero crossing point. Stakeholders also commented, and the NYISO and the MMU concurred, that market certainty is a paramount objective in the demand curve reset process and that it is not clear at this time whether the proposed methodology would support the market certainty goal.

After reviewing these recommendations and the stakeholder concerns, the NYISO concluded that adopting any methodology to adjust the zero crossing point at this time could result in the implementation of a procedure that did not have enough time to be properly vetted and developed, and could potentially lead to fluctuations to the recommended zero

⁹⁰ Meehan Affidavit at 24.

crossing point at each Demand Curve reset, which would introduce undue volatility and uncertainty in the market.⁹¹ In particular, the NYISO found the analyses conducted were highly sensitive to methodology, input assumptions, and transmission system topology, and there was overall insufficient support for the conclusion that a revised methodology would send a more accurate market price signal or otherwise better align the ICAP Demand Curves with the system reliability. Thus, there would not necessarily be a benefit that could, in whole or part, offset the additional uncertainty that might be introduced.⁹²

Therefore, the NYISO Staff Report proposed to make no changes to the existing NYCA, NYC and LI zero crossing points, and the NYISO also recommends to establish a 115% zero crossing point for the NCZ based on the midpoint between the current NYCA and NYC zero crossing points and as recommended by NERA/S&L.⁹³ In response to the NYISO's recommendation, NERA/S&L adjusted the Demand Curves to use the existing zero crossing points for NYCA and NYC.⁹⁴

Consistent with the requirement that the NYISO assess the zero crossing point in each Demand Curve reset process, the NYISO will gather information and conduct additional analysis over the next two to three years and continue the assessment of the appropriate zero crossing methodology in the next Demand Curve reset. Table 9 of the Staff Report shows the NYISO's recommended zero crossing points.⁹⁵

In their comments on the NYISO Staff Report, the Indicated NYTOs argued that the zero crossing point of the demand curve for the G-J Locality should be set to 114% of the requirement, as there is no analysis supporting any other figure, including the 115% in the NYISO Staff Report. The NYTOs conceded that NERA/S&L's analysis might be imperfect, but stressed that it is the *only* analysis, and shows that the appropriate zero crossing point for the G-J Locality is about 114% of its requirement. The Indicated NYTOs warned that using 115% could increase capacity costs by as much as \$70 million over a three year period. The NYISO does not share this view, because the NERA Demand Curve Model already takes into account the zero crossing point when solving for the reference point, and adjusts accordingly.⁹⁶

⁹¹ NYISO Staff Report at 31-32.

⁹² *Id.* at 32.

⁹³ A comparison of the zero crossing points in the current Demand Curves and per the recommendations in the FTI Report, the NERA/S&L Report and the MMU is set out in Table 8 of the NYISO Staff Report.

⁹⁴ Meehan Affidavit at 25.

⁹⁵ NYISO Staff Report at 31-32.

⁹⁶ Meehan Affidavit at 14.

The Board concurred with the NYISO Staff Report's conclusion, agreeing that the interest of market certainty and stability supported the decision to make no changes to the zero crossing point.

E. Winter/Summer Adjustment

The NYISO ICAP market operates in two six-month Capability Periods with different amounts of capacity available in each Period. This bifurcation is a result of the greater amounts of capacity available in winter when gas turbine and combined cycle generating units generally produce higher output due to lower ambient temperature. Installed capacity imported from External Control Areas, new generation and retirements also influence the quantity of capacity available. In previous Demand Curve resets, as in this one, the NYISO proposes an upward winter/summer adjustment to the demand curves to ensure that average annual revenue is adequate given differences between winter and summer capacity.⁹⁷ The Services Tariff specifies that the translation of the annual net revenue requirement into monthly values take into account "seasonal differences in the amount of Capacity available in the ICAP Spot Market Auctions." The NYISO makes this translation using a ratio of the amount of capacity available in the winter to the amount available in summer, the Winter/Summer Capacity Ratio.

The Commission has found this adjustment to be "reasonable and consistent with the Services Tariff,"⁹⁸ but in the First 2010 Demand Curve Order, the Commission directed NYISO to revise the winter/summer adjustment to reflect the assumption for the level of excess capacity.⁹⁹

The reference value determined by NERA/S&L and recommended by NYISO¹⁰⁰ is a \$/kW-year value. The ICAP Demand Curve reference point used in monthly ICAP Spot Market Auctions must include adjustments to take the seasonal effects into account. Each monthly Demand Curve reference point 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 established by this update.

NERA/S&L also included the Summer/Winter Capacity Ratio in the Demand Curve model for a more accurate representation of the impact of seasonal capacity levels on capacity and energy and ancillary service revenues over the lifetime of the peaking unit.¹⁰¹ The model uses the same winter-to-summer capacity ratios that are used for the translation

⁹⁷ See, e.g. First 2010 Demand Curve Order at P 157, 161.

⁹⁸ 122 FERC ¶ 61,064 at P 63-66.

⁹⁹ First 2010 Demand Curve Order at P 161.

¹⁰⁰ NYISO Staff Report at 32-33.

¹⁰¹ Meehan Affidavit at 29.

into monthly reference prices. Those ratios are summarized and compared to the values used in the previous Demand Curve Reset in Table 10 of the NYISO Staff Report.

V. PROPOSED PHASE-IN OF THE PRICE IMPACTS RESULTING FROM THE ESTABLISHMENT OF AN ICAP DEMAND CURVE FOR THE G-J LOCALITY AND REQUEST FOR ANY NECESSARY TARIFF WAIVERS

The proposed ICAP Demand Curve for the G-J Locality¹⁰² would be effective for the start of the 2014/2015 Capability Year, *i.e.*, on May 1, 2014. In order to reconcile the implementation of this very significant market design change with concerns regarding its short-term consumer impacts, the NYISO is proposing the values presented on the tariff sheets enclosed with this filing. Those values are less than the full net cost of new entry of the peaking plant for the first two years of the ICAP Demand Curves for the G-J Locality. It is a phase-in of the peaking plant net cost of new entry, upon which the ICAP Demand Curves are set in order to lessen the potential price impact on consumers.

A. Background

A number of stakeholders previously requested that the Commission require some form of “phase-in” of the G-J Locality in Docket No. ER13-1380-001.¹⁰³ The NYISO submitted a *Request for Partial Reconsideration* in that docket asking the Commission to reconsider the August 2013 Order’s “decision to reject a phase-in of the price impacts of the G-J Locality.”¹⁰⁴

The *Request for Partial Reconsideration* emphasized that the G-J Locality should be implemented on May 1, 2014, the beginning of the 2014/2015 Capability Year. That implementation date is consistent with the Commission’s and stakeholders’ expectations and with the effective dates of the accepted tariff revisions by which the G-J Locality will be established.¹⁰⁵ The NYISO also emphasized, however, that a “phase-in of the price impacts is necessary to ameliorate effects on consumers and mitigate what has been described as potential ‘rate shock.’”¹⁰⁶ It further stated that “a principal goal” of creating the G-J Locality, *i.e.*, “incentivizing investment in new capacity, would not be defeated by gradually

¹⁰² See Attachments I and II.

¹⁰³ See *e.g. Requests for Rehearing of the Indicated New York Transmission Owners*, Central Hudson Gas & Electric Corporation and New York State Public Service Commission, Docket No. ER13-1380-000 (9/12/13).

¹⁰⁴ *Request for Reconsideration of the New York Independent System Operator, Inc.*, Docket No. ER13-1380-001 at 14 (October 28, 2013) (“NYISO Request for Reconsideration”).

¹⁰⁵ See *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 at P 1 (2013).

¹⁰⁶ NYISO Request for Reconsideration at 2.

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implementing the price signals over the three year duration of the initial ICAP Demand Curve for the G-J Locality.”¹⁰⁷

The NYISO continues to believe that a properly structured phase-in would not interfere with long-term investment decisions given the longer-term revenue forecast horizon typically used by developers “[s]o long as a sufficient price signal is present in the third-year of the G-J Locality ICAP Demand Curve and beyond.”¹⁰⁸ It is therefore proposing a phase-in based on the G-J Locality peaking plant cost of new entry, as escalated, for the third year of the ICAP Demand Curve period under consideration in this filing.

B. Description of Proposed Phase-In

For the first year, the 2014/2015 Capability Year, the ICAP Demand Curve is established using the G-J Locality peaking plant net cost of new entry. The reference price for the first year would be determined from 76.06% of the G-J Locality annual reference value¹⁰⁹ for the peaking plant identified in Attachment V (the Brattle Report). That determined value is equal to the annual reference value for the 2014/2015 NYCA ICAP Demand Curve. The reference price for Load Zones G, H, and I would thus be very similar to the reference price¹¹⁰ that would have applied in those Load Zones but for the creation of the G-J Locality.

Capacity prices in the G-J Locality, however, are not likely to be the same as those in the NYCA for the 2014/2015 Capability Year. Because it is anticipated that there will be a lower level of excess capacity in the G-J Locality than in the NYCA, it is reasonable to expect that clearing prices for the G-J Locality will be higher¹¹¹ than those in the NYCA for the first Capability Year notwithstanding the use of a very similar annual reference value as in the NYCA to determine the G-J Locality reference price.¹¹² Thus, customers in the G-J

¹⁰⁷ *Id.*

¹⁰⁸ *Id.* at 11.

¹⁰⁹ The “Annual Reference Value” is the value, in \$/kW-year, for which the NERA Demand Curve Model solves. In some places, such as the NYISO Demand Curve Recommendations and the Brattle Report, it is referred to as the “Annual ICAP Revenue Requirement.”

¹¹⁰ The actual monthly reference points will not be equal to each other, despite being seasonally shaped from the same annual reference value, because Locality specific parameters are used in that shaping. These parameters include the peaking plant MW at ICAP, Summer, and Winter Conditions; the Winter/Summer ratio of available supply, and the Demand Curve zero crossing point.

¹¹¹ Market Clearing Prices for the monthly ICAP Spot Market Auctions in the G-J Locality will be strictly greater than or equal to the Rest of State price. That is consistent with the NYISO’s rules and the manner in which Locality clearing prices in the ICAP Spot Market Auctions presently are set.

¹¹² The expectation of higher G-J Locality prices could be affected by changes in the supply curve, and is also dependent on the Locational Minimum Installed Capacity Requirement for the G-J

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Locality would likely experience a price increase in the first year but the magnitude would not be nearly as great as it would be if the full G-J Locality reference value were used. Although the first year price increase would be lower under the phase-in, it would not be inconsistent with the Commission's directives concerning the need to establish new capacity zones,¹¹³ *i.e.*, the need to attract new investment in this region.

For the second year, *i.e.*, the 2015/2016 Capability Year, the G-J Locality reference price would be derived using 88.03% of the G-J Locality annual reference value, which is equivalent to the average of (a) the proposed NYCA annual reference value escalated to 2015/2016 dollars using the escalation factor proposed for all ICAP Demand Curves and (b) the annual reference value identified by the Brattle Report for the G-J Locality, escalated to 2015/2016 dollars in the same manner.

For the third year, the 2016/2017 Capability Year, the proposed G-J Locality ICAP Demand Curves would be set using 100% of the inflation-adjusted annual reference value identified in the Brattle Report.

The 2014/2015 Capability Year G-J Locality annual reference value is a decrease of 7.10% or \$6.85/kW-year by comparison to the 2013/2014 NYCA annual reference value.¹¹⁴ However, even though this represents a decrease in the annual reference value, as described in the Niazi Affidavit and discussed and seen in the table in Section V.C below, the NYISO believes that it is reasonable to expect an increase from current prices for customers in Load Zones G, H, and I. The proposed annual reference value for the 2015/2016 Capability Year represents an increase of 18.29% or \$16.36/kW-year from Capability Year 2014/2015.¹¹⁵

In summary, the phase-in would reduce the potential price increase of the G-J Locality ICAP Demand Curves (by comparison to curves based on the full annual reference value) for the 2014/2015 and 2015/2016 Capability Years, while steadily increasing prices each year until the full effect is reached in the 2016/2017 Capability Year. The actual price impacts for those years would depend upon other factors, particularly changes in supply. More detail is provided below, and in the Niazi and Mukerji Affidavits, on the potential clearing price impacts of the phase-in, along with an explanation of why those price impacts

Locality ("LCR"). The LCR is not established until the first quarter of the calendar year, and after the New York State Reliability Council establishes the Installed Reserve Margin.

¹¹³ The Commission concluded that "creating a new capacity zone is necessary to provide more accurate price signals over the long run to encourage new investment in the new capacity zone when it is needed" (August 2013 Order at P 25) and "the new capacity zone needs its own ICAP Demand Curve, reflecting its higher net cost of new entry, in order to send the necessary price signals over the long run and provide the higher capacity revenue over the long run needed to encourage new investment." *Id.* at P 26.

¹¹⁴ The 2013/2014 NYCA annual reference value is equal to \$96.34/kW-year.

¹¹⁵ Nominal terms are used for these comparisons.

are reasonably expected to be sufficient to both retain existing capacity needed for reliability and attract new investment in the G-J Locality.

C. Potential Market-Clearing Price Outcomes Under Scenarios with Phase-In

As noted above, it is expected that the capacity supply in the G-J Locality will be tighter than in the Rest of State, relative to the respective requirements, and it is therefore expected that Market-Clearing Prices for capacity there will be higher than the NYCA clearing prices. As described in the Niazi Affidavit, the NYISO staff examined potential clearing prices under several different scenarios in order to inform the NYISO's consideration of a phase-in. The Niazi Affidavit is very clear that these scenario analyses are not price forecasts because the NYISO cannot predict with certainty the number of MW that will transact in any of the three capacity market auctions – *i.e.*, the Capability Period Auction, Monthly Auction, or ICAP Spot Market Auction – or certain parameters of the Demand Curve such as the LCR and load forecasts, which are subject to change each year.¹¹⁶

The NYISO staff considered each of the three Capability Years encompassed by the proposed ICAP Demand Curves, *i.e.*, 2014/2015, 2015/2016, and 2016/2017. That review included an examination of the potential clearing prices for the two years where there is a proposed reduction in the ICAP Demand Curve reference price, with and without the proposed phase-in. Key assumptions utilized in these scenarios are described in the Niazi Affidavit.¹¹⁷ The results of the scenario analyses are presented in the following table for illustrative purposes. The table also identifies an average of the Summer 2013/2014 actual ICAP Spot Market Auction prices, and an estimated average of the Winter 2013/2014 prices.¹¹⁸

¹¹⁶ See Niazi Affidavit at 13.

¹¹⁷ Niazi Affidavit at 11.

¹¹⁸ The Winter 2013/14 average price estimate was calculated considering historic patterns in the behavior of Market Participants and the results of the first two Spot Market Auctions of the Capability Period. It is not, and is not intended to be used as, a “price forecast” for the remaining four ICAP Spot Market Auctions. It is presented here with the limited purpose to act as a reasonable estimate for the purposes of this comparison.

Table 1 -- Summary of Results of G-J Locality Scenarios¹¹⁹

Capability Year – Scenario	Summer (\$/kW-month)	Winter (\$/kW-month)	Annual (\$/kW-month)
2013/14	\$ 5.80	\$ 2.85	\$ 4.33
2014/15 -- without Phase-In	\$10.65	\$ 6.11	\$ 8.38
2014/15 -- with Phase-In	\$ 8.09	\$ 4.64	\$ 6.37
2015/16 – without Phase-In	\$ 10.18	\$ 5.63	\$ 7.91
2015/16 – with Phase-In	\$ 8.95	\$ 5.00	\$ 6.98
2016/17	\$ 11.72	\$ 7.12	\$ 9.42

While it is impossible to precisely predict future clearing prices, the phased-in figures shown above would significantly reduce consumers’ cost to procure ICAP in the first two years of the G-J Locality. The NYISO believes using the phase-in to protect consumers from the risk of a sudden rate increase is both appropriate and necessary.

As noted above, ICAP market clearing prices cannot be predicted with certainty for the three year period covered by the implementation of the G-J Locality. Among other uncertainties, the NYISO does not know which resources may enter or exit the market during this period. The NYISO believes the risk of dramatic retail rate impacts identified by the New York State Public Service Commission (“NYPSC”)¹²⁰ should be ameliorated using the

¹¹⁹ Note that under the assumptions presented in the Niazi Affidavit, the potential G-J Locality clearing prices for the 2015/2016 Capability Year reflect more capacity transacted than in the 2014/2015 Capability Year. Without that additional capacity – *i.e.* if the supply stack had been held constant – prices for 2015/2016 would be higher than presented for both the scenario with phase-in and the scenario without phase-in. The same phenomena would carry forward to the 2016/2017 Capability Year.

¹²⁰ See *Request for Rehearing and Clarification of the New York State Public Service Commission*, Docket No. ER13-1380-000-001 at 4-5 (wherein the NYPSC indicated that consumers’ bills could increase by as much as 25%) (“NYPSC Rehearing Re ue st”) See also, *Request for Rehearing of Central Hudson Gas & Electric Corporation*, Docket No. ER13-1380-000-001, at 8-9 (“Central Hudson Rehearing Re ue st”).

proposed phase-in.¹²¹ The Commission should be aware, however, that consumer impacts may be materially lower if a significant volume of supply enters or re-enters the market over the next three years. One scenario that would have that effect is if the roughly 500 MW Danskammer Generating Station (“Danskammer”) returned to service.¹²²

D. Justification for the Proposed Phase-In

1. The Proposed Phase-In Would Not Unreasonably Delay the Price Signal to the G-J Locality

As stated above and in the *Request for Partial Reconsideration*, the NYISO believes that some form of phase-in is justified in order to ameliorate the potential consumer impacts of a significant change to the NYISO’s capacity market design: the introduction of an ICAP Demand Curve specific to the G-J Locality.¹²³ There are many unknown variables that could result in significantly different actual wholesale price outcomes, some of which are described in the Niazi Affidavit. Nevertheless, the NYISO has concluded that it cannot ignore the risk that implementing the G-J Locality ICAP Demand Curve could dramatically increase consumers’ retail bills, as computed by the NYPSC.¹²⁴ The Commission accepted a phase-in of the original ICAP Demand Curves for the NYC, LI, and NYCA in 2003 in order to ameliorate consumer impacts.¹²⁵ The Commission should do the same in this proceeding.

The NYISO believes that the proposed phase-in appropriately balances short-term consumer interests and the need for investment signals to the G-J Locality. As discussed above, even with a phase-in, prices in the G-J Locality are expected to increase. Assuming the supply stack is held constant with the scenarios described in the Niazi Affidavit, prices should increase by comparable amounts in the first, second, and third years. Significantly, by the third year, the ICAP Demand Curve reference price would increase to 100% of the

¹²¹ The NYISO also notes that other aspects of the proposed ICAP Demand Curves could ameliorate the effects of the price impact estimated by the NYPSC. Although the NYPSC did not identify the inputs to its retail rate impact analysis, the NYISO’s previous G-J Locality scenarios (which were included in the simulations conducted by Mr. Niazi and included in the April 2013 NCZ Filing) were based on a different proxy unit (*i.e.*, a combined cycle) than the one proposed by the NYISO in this filing (the F class frame with SCR). If the NYPSC based its retail rate impact analysis on the April 2013 NCZ Filing’s estimates of wholesale impacts then the retail impact identified by the NYPSC would reasonably be expected to be lower than 25% if it were conducted using the F class frame with SCR as the proxy unit.

¹²² Danskammer was damaged during Superstorm Sandy in October 2012 and has been non-operational since that time.

¹²³ The amount that Loads located in Load Zones G-J must purchase is the Locational Minimum Installed Capacity Requirement.

¹²⁴ See NYPSC Rehearing Request and Central Hudson Rehearing Request.

¹²⁵ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 6 (2003).

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escalated annual reference value. Thus, the proposed phase-in would not unreasonably delay the price signals necessary to attract new investment in the G-J Locality.

2. The Proposed Phase-in Is Just and Reasonable and Consistent with Prior Commission Rulings

The NYISO respectfully submits that the phase-in proposal should be accepted by the Commission as a just and reasonable implementation of both the ICAP Demand Curve and G-J Locality-related provisions of the Services Tariff.

The courts and the Commission have made clear for decades that there is no single just and reasonable rate. Instead, rates are just and reasonable so long as they fall within a “zone of reasonableness” that is bounded on the high end by the requirement to protect consumers against “e orbitant” rates and at the other by the “investor interest against confiscation.”¹²⁶ Based upon the NYPSC’s predicted retail rate impacts, the NYISO is concerned that setting the G-J Locality ICAP Demand Curve using the full net cost of new entry for the peaking plant might result in “e orbitant” short-term consumer impacts in the first two years of this new Locality. Those rates and their impacts would be lessened through the proposed phase-in, and the proposed ICAP Demand Curve rates would still fall within the zone of reasonableness.

At the same time, the NYISO sees little cause for concern that its proposed phase-in would result in “confiscatory” rates. Even with a phase-in, the new ICAP Demand Curve for the G-J Locality is expected to result in higher clearing prices starting in the 2014/2015 Capability Year. The Mukerji Affidavit concludes that it is reasonable to expect that capacity adequate to satisfy reliability requirements will be retained in the G-J Locality.¹²⁷ Mr. Mukerji explains that “[e]xisting capacity will have a pricing regime which is more attractive than the one currently in place in the first two years and will also have the expectation to get the full, escalated ICAP Demand Curve price in two years’ time. [Thus,] most existing generation will have sufficient market incentive to continue to participate in the market.”¹²⁸

Mr. Mukerji also concludes that efficient new capacity would be attracted to the G-J Locality notwithstanding the fact that the proposed reference prices for the first and second years are derived from a value lower than the full net cost of new entry. Starting in the third Capability Year, the G-J Locality reference price would be set using the full peaking plant net cost of new entry. Because the construction of new generating resources would take at least two to three years, prospective investment decisions are more likely to be influenced by prices that reflect the full net cost of entry in the third year, than by reduced prices in the two

¹²⁶ *Jersey Cent. Power & Light Co. v. FERC*, 768 F.2d 1500 at 1503 (1985) citing *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968).

¹²⁷ Mukerji Affidavit at P 17.

¹²⁸ *Id.*

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intervening years. Thus, as Mr. Mukerji states in his affidavit, “the phase-in should not affect the market entry decision of most new generating capacity.”¹²⁹ The phase-in accepted by the Commission and adopted in 2003 did not have any apparent adverse impacts on investment decisions, and the NYISO does not expect them now.¹³⁰

Importantly, the phase-in would be consistent with a primary obligation of the Commission under the FPA -- to protect consumers.¹³¹ Consequently, the NYISO believes that this short-term phase-in of the G-J Locality ICAP Demand Curve references prices is just and reasonable as a matter of law.

E. Request for Tariff Waivers That May Be Deemed Necessary by the Commission

Some parties may argue that the proposed phase-in would be inconsistent with certain Services Tariff requirements. For example, Section 5.14.1.2(i) specifies that the periodic review of revised ICAP Demand Curves “shall assess” the “current localized levelized embedded cost of a peaking plant in each NYCA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements.” Some parties may argue that basing the first two years of G-J Locality ICAP Demand Curve on a value less than the 100 percent of G-J Locality peaking plant net cost of new entry would be inconsistent with this requirement. The NYISO does not share that interpretation.

Nevertheless, if the Commission is concerned that the proposed phase-in would conflict with Section 5.14.1.2(i) or any other tariff provision the NYISO respectfully asks that it waive those provisions. Under established precedent and in similar circumstances, the Commission has granted tariff waivers when: the waiver is of limited scope; a concrete problem will be remedied by granting the requisite waiver; and the waiver does not have undesirable consequences, such as harming third parties.¹³² Each prong of the waiver analysis is satisfied in this case. The NYISO is making a good faith proposal that it believes is necessary to avoid the risk of consumer “rate shock.” The waiver would be confined to avoiding that risk by allowing for a gradual rate escalation that would continue to attract investment. Finally, while some may contend that temporarily lower capacity revenues

¹²⁹ *Id.* at 16.

¹³⁰ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 at P 6 (2003).

¹³¹ *See, e.g., Atlantic Refining Co. v. Publ. Serv. Comm’n*, 360 U.S. 378, 388 (1959) (interpreting parallel provisions of the Natural Gas Act) (“The Act was so framed as to afford consumers a complete, permanent and effective bond of protection from excessive rates and charges”); *Southwestern Electric Power Co.*, 39 FERC ¶ 61,099 at 61,293 (1987) (The “primary purpose of the [FPA] is the protection of customers from excessive rates and charges”); and *Chehalis Power Generating, L.P.*, 145 FERC ¶ 61,052 (2013).

¹³² *Midcontinent Independent System Operator, Inc.*, 145 FERC ¶ 61,070 (2013) (granting the requested tariff waiver and noting that the fourth criterion often considered by the Commission, where there was an underlying good faith error, was not relevant to its decision)

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“harm” their financial interests, the NYISO believes that such arguments are without merit and that the phased-in rates are just and reasonable.

VI. PROPOSAL TO ADDRESS THE IMPACTS OF A PHASE-IN ON THE ADMINISTRATION OF “BUYER-SIDE” CAPACITY MARKET POWER MITIGATION EXAMINATIONS

The phase-in proposed in Section V of this filing would affect the evaluations that the NYISO conducts under the “buyer-side” capacity market power mitigation rules pursuant to Attachment H to the Services Tariff (“Buyer-side Mitigation Rules”). In accordance with the Commission’s June 2013 order in Docket No. ER12-360-001, the Buyer-side Mitigation Rules (and supplier-side mitigation rules) will apply to the G-J Locality. The ICAP Demand Curve is utilized in both the “Part A”¹³³ and “Part B”¹³⁴ exemption tests, to determine the default Offer Floor, and in setting Offer Floors for projects that are subject to mitigation.¹³⁵

Accordingly, buyer-side mitigation determinations for projects in Load Zones G, H, and I in Class Years 2011 and Class Year 2012 would be affected by a phase-in.¹³⁶ The

¹³³ See Services Tariff Section 23.4.5.7.2. As the NYISO has explained, “[f]or each proposed new generating unit or UDR (“Examined Facility”), the Part A Test compares the forecasted annual ICAP Spot Market Auction revenues to the Default net CONE (DNC), which for the purposes of the Part A Test is defined as 75% of Mitigation Net CONE (MNC) ICAP Spot Market Auction revenues are forecast for one Capability Year (two Capability Periods) occurring three years from the Summer Capability Period of the Class Year. These values are compared with the DNC projected for that same time period. For instance, when examining a project in Class Year 2011, the NYISO would utilize the ICAP Demand Curves for the 2014 Capability Year to forecast ICAP prices. Under the Part A Test, the Examined Facility is exempt from [buyer-side mitigation] if the forecasted annual ICAP revenues exceed the DNC.” *Buyer Side Mitigation: Narrative and Numerical Example* (“BSM Narrative”) (Sept. 2013) at 1 (footnotes omitted) available at http://www.nyiso.com/public/webdocs/markets_operations/market_data/icap/In-City_Mitigation_Documents/In-City_Mitigation_Documents/BSM_Narrative_and_Numerical_Example%20September%202013.pdf.

¹³⁴ See Services Tariff Section 23.4.5.7.2. See also BSM Narrative at 2, “In the Part B test, the Unit Net CONE . . . is compared to the forecasted ICAP prices during the [Mitigation Study Period]. An Examined Facility is exempt from an Offer Floor if the forecasted price exceeds the Unit Net CONE.”

¹³⁵ The Offer Floor is set at the lower of Unit Net CONE or the “default Offer Floor” (*i.e.*, 75% of “Mitigation Net CONE,” a value determined with reference to the accepted ICAP Demand Curves). See Services Tariff Section 23.2.1 (definition of “Offer Floor”); see also *New York Independent System Operator, Inc.*, Compliance Filing, Docket No. ER10-2371 (Aug. 24, 2010).

¹³⁶ Projects located in Load Zone J would not be affected because the Services Tariff specifies that the buyer-side mitigation determination utilizes the ICAP Demand Curve of the “smallest” capacity zone. Therefore, the New York City ICAP Demand Curve, and not the G-J Locality ICAP

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Mitigation Study Period, *i.e.*, the Capability Periods used for the buyer-side mitigation analysis uses the three-year period beginning with the “Starting Capability Period.”¹³⁷ That period coincides in whole or in part with the three years of ICAP Demand Curves proposed in this filing.

The phase-in could impact the outcome of analyses under the “Part A” and “Part B” tests because both are based in part on forecasts of annual ICAP Spot Market Auction revenues. It is possible that these changed outcomes would be inconsistent with a key design element and underlying intent of the Buyer-side Mitigation Rules, which is to utilize as a benchmark the short term revenues available under the ICAP Demand Curves in order to determine whether the proposed project is making an economic entry decision. The NYISO believes that the implementation of a phase-in can and should be reconciled with the Buyer-side Mitigation Rules for the G-J Locality in a manner that effectuates the intent of the tariff.

Accordingly, the NYISO respectfully requests a limited waiver of the Services Tariff so that rather than utilizing the ICAP Demand Curves for 2014/2015 and 2015/2016 proposed in this filing when performing the buyer-side mitigation examination of projects in Load Zones G, H, and I in Class Years 2011 or Class Year 2012 at the time of the completion of the respective Class Years, *i.e.*, the proposed curves set forth in Attachments I and II, the NYISO would utilize for those years the ICAP demand curve information set forth in Attachment X, *i.e.*, the curves based on the full net cost of new entry of the peaking plant for the G-J Locality (“Class Years 2011 and 2012 GHI BSM Demand Curve”). If this waiver is granted, the NYISO would utilize the Class Years 2011 and 2012 GHI BSM Demand Curve for 2014/2015 and 2015/2016 instead of the Attachment I and II G-J curve, in the ICAP forecast in both the Part A and Part B test, and when determining the default Offer Floor in the described analyses.¹³⁸ The NYISO believes that evaluating these projects using ICAP revenues under the Class Years 2011 and 2012 GHI BSM Demand Curves is more consistent with the intent to examine the overall, long-term economics of an entry decision, rather than using the G-J Locality ICAP Demand Curves proposed for acceptance in this filing.

Granting such a waiver would be consistent with the waiver precedent discussed in Section V.¹³⁹ A waiver would be “of limited scope” and would address a “concrete problem” by preventing the one-time phase-in of a newly established ICAP Demand Curve from distorting the implementation of the Buyer-side Mitigation Rules by changing mitigation

Demand Curve, would be utilized in the Buyer-side Mitigation Determinations for Load Zone J projects. *See* Services Tariff Section 23.4.5.7.2.7.

¹³⁷ *See e.g.*, Services Tariff Sections 23.4.5.7.3 (defining as Mitigation Study Period as the Capability Periods of expected entry) and 23.4.5.7.2 (defining “Starting Capability Period” as the Summer Capability Period commencing three years from the start of the year of the Class Year).

¹³⁸ To be clear, the NYISO would utilize Class Years 2011 and 2012 GHI BSM Demand Curves only as it applied to the Mitigation Study Period of the particular project.

¹³⁹ *See* fn 121 and accompanying text.

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outcomes. It would not “have undesirable consequences, such as harming third parties” because it would merely be ensuring that the Buyer-side Mitigation Rules function as intended.

VII. DESCRIPTION OF REVISED TARIFF PROVISIONS

The ICAP Demand Curves are determined by the parameters specified in Section 5.14.1.2 of the Services Tariff. Accordingly, the tariff revisions submitted with this filing revise the table in Section 5.14.1.2 to add a row for the G-J Locality ICAP Demand Curve and to state the values for the G-J Locality, NYC, LI, and NYCA ICAP Demand Curves for the 2014/2015, 2015/2016 and 2016/2017 Capability Year.¹⁴⁰

VIII. REQUESTED EFFECTIVE DATE

The NYISO requests an effective date of January 28, 2014 for the tariff revisions proposed herein, *i.e.*, the standard sixty day period under Section 205 of the FPA.

IX. REQUEST FOR WAIVER OF INAPPLICABLE COST OF SERVICE REQUIREMENTS UNDER PART 35 OF THE COMMISSION’S REGULATIONS

Section 35.13 of the Commission’s regulations generally requires public utilities to file certain cost and other information related to an examination of traditional cost-of-service rates to support proposed changes to their tariffs or rate schedules. However, the tariff modifications proposed herein do not involve traditional cost-of-service “rates.” Further, the NYISO is not a traditional investor-owned utility. The Commission’s general practice has not been to apply the traditional Section 35.13 requirements to such filings. Nevertheless, to the extent necessary, the NYISO requests waiver of Section 35.13. Notwithstanding the request for waiver, the NYISO submits the additional information enumerated below is in substantial compliance with relevant provisions of Section 35.13:

- 35.13(b)(1) - Materials included herewith are listed in Section I of this filing letter.
- 35.13(b)(2) - The NYISO’s requests an effective date 60 days from the date of filing (*i.e.*, January 28, 2014 as set forth in Section VIII of this filing letter.
- 35.13(b)(3) - Service has been made as provided in Section XI of this filing letter.
- 35.13(b)(4) and (5) - A description of the materials submitted in this filing, and of the reasons for this filing, is provided throughout this filing letter, particularly in Section IV.
- 35.13(b)(6) - The NYISO’s approval of these modifications is evidenced by this filing. As discussed in Section II of this filing letter, the changes have been approved by the

¹⁴⁰ These sheets also eliminate the values for the completed Capability Years established in the prior ICAP Demand Curve reset.

NYISO’s independent Board of Directors after an extensive stakeholder review process described in Section 5.14 of the Services Tariff.

- 35.13(b)(7) - The NYISO has no knowledge of any relevant expenses or costs of service that have been alleged or judged in any administrative or judicial proceeding to be illegal, duplicative, or unnecessary costs that are demonstrably the product of discriminatory employment practices.

X. MINISTERIAL CORRECTION

The NYISO is also proposing to make a ministerial correction to Section 2.14 of the Services Tariff. That section currently contains two identical, and thus redundant, definitions of “New Capacity Zone” as a result of a drafting error in the NYISO’s November 7, 2011 compliance filing in Docket No. ER12-360-000. The tariff section affected by the error was accepted by the Commission’s August 30, 2012 order in that proceeding.¹⁴¹ The NYISO proposes to correct this inadvertent mistake. Attachments I and II include clean and redlined tariff sections that depict the NYISO’s proposed correction.

XI. SUMMARY OF 2013 DEMAND CURVE RESET FILING CONSIDERATIONS

To facilitate the Commission’s review, the NYISO prepared the following brief summary of the major features of its proposed ICAP Demand Curves.

CONSIDERATION	NYISO DECISION
<i>Selection of proxy units</i>	Agreed with NYISO Staff recommendation that a generation technology should be used as the proxy peaking unit. An F class frame unit with an annual operating limit was selected as the lowest capital and highest operating cost unit for the NYCA. An F class unit with SCR emissions controls was designated as the proxy peaking unit for the NYC, LI, and G-J localities.
<i>Dual-fuel capability of proxy unit</i>	Agreed with NERA/S&L that dual fuel capability should be, and could reasonably be, assumed for the proxy unit in each Locality (the G-J Locality, NYC and LI), but not for the NYCA proxy unit.
<i>Interconnection Costs</i>	Agreed with NERA/S&L, which developed input based on estimates of System Upgrade Facilities and System Deliverability Upgrades as necessary

¹⁴¹ *New York Independent System Operator, Inc.*, 140 FERC ¶ 61,160 (2012).

CONSIDERATION	NYISO DECISION
<i>Capital Investment and Other Plant Costs</i>	Agreed with the use of capital cost determinations that were developed by NERA/S&L. Identified capital costs include direct costs within the engineering, procurement and construction (“EPC”) contracts, owner’s costs not covered by the EPC including “social justice” costs, financing costs during construction and working capital and initial inventories.
<i>NYC Property Tax Abatement</i>	Agreed with NERA/S&L’s assumption that the abatement is applicable in developing reference prices.
<i>Payment in Lieu of Taxes Elsewhere</i>	Agreed with NERA/S&L’s recommendation for a uniform property tax rate of 0.75% in all regions of the state other than NYC.
<i>Fixed Operating and Maintenance Costs</i>	Agreed with NERA/S&L’s recommended fixed O&M costs.
<i>Performance Characteristics and Variable O&M Costs</i>	Agreed with variable O&M costs used in the model, which are primarily driven by the periodic maintenance cycles of each unit.
<i>Development of Levelized Carrying Charges</i>	Agreed with NERA/S&L’s recommendation for a 20-year amortization period for a F class frame unit. Agreed with recommendation to not include Original Issue Discount charge in model.
<i>Regulatory Risk</i>	Agreed with NERA/S&L recommendation to not include adjustment.
<i>Assumptions Regarding the Expected Level of Average Excess Capacity</i>	Agreed with NERA/S&L recommendations.
<i>Energy and Ancillary Services Revenues</i>	Agreed with NERA/S&L recommendations.
<i>Phase-in of G-J Locality Values</i>	The NYISO is proposing to phase-in for the first two years, the peaking plant cost of new entry, upon which the ICAP Demand Curves are set, in order to lessen the potential price

CONSIDERATION	NYISO DECISION
	<p>impact on consumers. The third year would be the full, escalated cost.</p> <p>The NYISO also proposes, solely for purposes of the administration of the buyer-side mitigation rules, a table of values to be used for mitigation determinations (including Offer Floor determinations) instead of the phase-in values.</p>

XII. SERVICE

The NYISO will send an electronic link to this filing to the official service list in Docket No. ER12-360-00 and to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the electric utility regulatory agency of New Jersey. In addition, the complete filing will be posted on the NYISO’s website at www.nyiso.com. This is in accordance with 18 C.F.R. § 35.2(e).¹⁴²

XIII. CONCLUSION

As a result of the processes described above, the new proposed ICAP Demand Curves are based on a thorough independent review and have been scrutinized in an extensive stakeholder process that included written submissions and oral presentations to the Board and additional due diligence at the Board’s direction. Various stakeholders have advocated revisions which would result in raising or lowering the Demand Curves proposed herein. The NYISO incorporated comments and revised the inputs and methodology as appropriate. The proposed ICAP Demand Curves set forth in the proposed tariff revisions included in this filing are fully supported as described in this letter and the affidavits attached hereto. The proposed ICAP Demand Curves are just, reasonable, and consistent with the requirements of the Services Tariff. The NYISO therefore respectfully asks that the Commission issue and order accepting the proposed ICAP Demand Curves without modification and make them effective on January 28, 2014.

¹⁴² Section 385.2010(i)(2) of the Commission’s regulations specifies that “[s]ervice of any document must be made not later than the date of the filing of the document.” The NYISO believes that providing for service on November 29 will comply with this requirement even though it is submitting this filing into the Commission’s eTariff system on November 27. Because the NYISO is submitting this filing after 5 P.M. on November 27, and because November 28 is a holiday, the filing will not be accepted by the Commission until November 29. Thus the “date of filing” for purposes of section 285.2010(i)(2) will be the same as the date of service, *i.e.*, November 29. Nevertheless, if the Commission deems it necessary, the NYISO respectfully requests a waiver of section 385.2010(i)(2). No party would be prejudiced if such a waiver were granted because service will occur on the official filing date.

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Respectfully submitted,

By: /s/ David M. Allen

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served through electronic means the foregoing document upon each person designated on the official service list compiled by the Secretary in Docket No. ER12-360-00 and, to the official representative of each of its customers, to each participant on its stakeholder committees, to the New York Public Service Commission, and to the electric utility regulatory agency of New Jersey in accordance with the requirements of Rule 2010 of the Rules of Practice and Procedure, 18 C.F.R. §385.2010.

Dated at Rensselaer, NY this 29th day of November, 2013.

/s/ John C. Cutting
John C. Cutting
New York Independent System Operator, Inc.
10 Krey Blvd.
Rensselaer, NY 12144
(518) 356-7521

2.14 Definitions - N

Native Load Customers: The wholesale and retail power customers of the Transmission Owners on whose behalf the Transmission Owners, by statute, franchise, regulatory requirement, or contract, have undertaken an obligation to construct and operate the Transmission Owners' systems to meet the reliable electric needs of such customers.

NCZ Locational Minimum Installed Capacity Requirement: The amount of Capacity that must be electrically located within an NCZ, or possess an approved Unforced Capacity Deliverability Right, designed to ensure that sufficient Energy and Capacity are available in that NCZ and that appropriate reliability criteria are met.

NCZ Study Capability Period: The Summer Capability Period that begins five years from May 1 in a calendar year including an NCZ Study Start Date.

NCZ Study Start Date: September 1 or the next business day thereafter in the calendar year prior to an ICAP Demand Curve Reset Filing Year.

~~**New Capacity Zone (“NCZ”):** A single Load Zone or group of Load Zones that is proposed as a new Locality, and for which the ISO shall establish a Demand Curve.~~

Neptune Scheduled Line: A transmission facility that interconnects the NYCA to the PJM Interconnection LLC Control Area at Levittown, Town of Hempstead, New York and terminates in Sayerville, New Jersey.

NERC: The North American Electric Reliability Council or, as applicable, the North American Electric Reliability Corporation.

Net Auction Revenue: The total amount, in dollars, as calculated pursuant to Section Part 17.5.3.1 of Attachment B, remaining after collection of all charges and allocation of all payments associated with a round of a Centralized TCC Auction or a Reconfiguration Auction. Net Auction Revenue takes into account: (i) revenues from and payments for the award of TCCs in a Centralized TCC Auction or Reconfiguration Auction, (ii) payments to Transmission Owners releasing ETCNL, (iii) payments or charges to Primary Holders selling TCCs, (iv) payments to Transmission Owners releasing Original Residual TCCs, (v) O/R-t-S Auction Revenue Surplus Payments and U/D Auction Revenue Surplus Payments, and (vi) O/R-t-S Auction Revenue Shortfall Charges and U/D Auction Revenue Shortfall Charges. Net Auction Revenue may be positive or negative.

Net Average Coincident Load (“Net ACL”): The effective Average Coincident Load calculated and used by the ISO for a Special Case Resource during a specific month in which a SCR Change of Status was reported for the resource or, beginning with the Summer 2014 Capability Period, an Incremental Average Coincident Load was reported for the resource.

Net Benefits Test: The monthly calculations performed by the ISO in accordance with Section 4.2.1.9 of the ISO Services Tariff and ISO Procedures to determine the Monthly Net Benefit

Offer Floor, the threshold price at which the dispatch of demand response resources meets the test required by Commission Order No. 745.

Net Congestion Rent: The total amount, in dollars, as calculated pursuant to Section 17.5.2.1 of Attachment B, remaining after collection of all Congestion-related charges and allocation of all Congestion-related payments associated with the Day-Ahead Market. Net Congestion Rent takes into account: (i) charges and payments for Congestion Rents, (ii) settlements with TCC Primary Holders, (iii) O/R-t-S Congestion Rent Shortfall Charges and U/D Congestion Rent Shortfall Charges, and (iv) O/R-t-S Congestion Rent Surplus Payments and U/D Congestion Rent Surplus Payments. Net Congestion Rent may be positive or negative.

Network Integration Transmission Service: The Transmission Service provided under Part 4 of the ISO OATT.

New Capacity Zone (“NCZ”): A single Load Zone or group of Load Zones that is proposed as a new Locality, and for which the ISO shall establish a Demand Curve.

New York City: The electrical area comprised of Load Zone J, as identified in the ISO Procedures.

New York Control Area (“NYCA”): The Control Area that is under the control of the ISO which includes transmission facilities listed in the ISO/TO Agreement Appendices A-1 and A-2, as amended from time-to-time, and generation located outside the NYS Power System that is subject to protocols (e.g., telemetry signal biasing) which allow the ISO and other Control Area operator(s) to treat some or all of that generation as though it were part of the NYS Power System.

New York Power Pool (“NYPP”): An organization established by agreement (the “New York Power Pool Agreement”) made as of July 21, 1966, and amended as of July 16, 1991, by and among Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Lighting Company, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., Rochester Gas and Electric Corporation, and the Power Authority of the State of New York. LIPA became a Member of the NYPP on May 28, 1998 as a result of the acquisition of the Long Island Lighting Company by the Long Island Power Authority.

New York State Power System (“NYS Power System”): All facilities of the NYS Transmission System, and all those Generators located within the NYCA or outside the NYCA, some of which may from time-to-time be subject to operational control by the ISO.

New York State Reliability Council (“NYSRC”): An organization established by agreement among the Member Systems to promote and maintain the reliability of the NYS Power System.

New York State Reliability Council Agreement (“NYSRC Agreement”): The agreement which established the NYSRC.

New York State Transmission System (“NYS Transmission System”): The entire New York State electric transmission system, which includes: (1) the Transmission Facilities Under ISO

Operational Control; (2) the Transmission Facilities Requiring ISO Notification; and (3) all remaining transmission facilities within the NYCA.

Non-Competitive Proxy Generator Bus: A Proxy Generator Bus for an area outside of the New York Control Area that has been identified by the ISO as characterized by non-competitive Import or Export prices, and that has been approved by the Commission for designation as a Non-Competitive Proxy Generator Bus. Non-Competitive Proxy Generator Buses are identified in Section 4.4.4 of the Services Tariff., as set forth in Section 4.4.2.2 of the MST

Non-Firm-Point-To-Point Transmission Service: Point-To-Point Transmission Service under the Tariff for which a Customer is not willing to pay Congestion. Such service is available absent constraint under Part 3 of the ISO OATT. Non-Firm-Point-To-Point Transmission Service is available on a stand-alone basis for individual one-hour periods not to exceed twenty-four (24) consecutive hours.

Non-Investment Grade Customer: A Customer that does not meet the criteria necessary to be an Investment Grade Customer, as set forth in Section 26.3 of Attachment K to this Services Tariff.

Non-Utility Generator ("NUG," "Independent Power Producer" or "IPP"): Any entity that owns or operates an electric generating facility that is not included in an electric utility's rate base. This term includes, but is not limited to, cogenerators and small power producers and all other non-utility electricity producers, such as exempt wholesale Generators that sell electricity.

Normal State: The condition that the NYS Power System is in when the Transmission Facilities Under ISO Operational Control are operated within the parameters listed for Normal State in the Reliability Rules. These parameters include, but are not limited to, thermal, voltage, stability, frequency, operating reserve and Pool Control Error limitations.

Normal Upper Operating Limit (UOL_N): The upper operating limit that a Generator indicates it expects to be able to reach, or the maximum amount of demand that a Demand Side Resource expects to be able to reduce, during normal conditions. Each Resource will specify its UOL_N in its Bids which shall be reduced when the Resource requests that the ISO derate its Capacity or the ISO derates the Resource's Capacity. A Normal Upper Operating Limit may be submitted as a function depending on one or more variables, such as temperature or pondage levels, in which case the Normal Upper Operating Limit applicable at any time shall be determined by reference to that schedule.

Northport-Norwalk Scheduled Line: A transmission facility that originates at the Northport substation in New York and interconnects the NYCA to the ISO New England Control Area at the Norwalk Harbor substation in Connecticut.

NPCC: The Northeast Power Coordinating Council.

NRC: The Nuclear Regulatory Commission or any successor thereto.

NYCA Installed Reserve Margin: The ratio of the amount of additional Installed Capacity required by the NYSRC in order for the NYCA to meet NPCC reliability criteria to the forecasted NYCA upcoming Capability Year peak Load, expressed as a decimal.

NYCA Minimum Installed Capacity Requirement: The requirement established for each Capability Year by multiplying the NYCA peak Load forecasted by the ISO by the quantity one plus the NYCA Installed Reserve Margin.

NYCA Minimum Unforced Capacity Requirement: The Unforced Capacity equivalent of the NYCA Minimum Installed Capacity Requirement.

NYPA: The Power Authority of the State of New York.

NYPA Tax-Exempt Bonds: Obligations of the New York Power Authority, the interest on which is not included in gross income under the Internal Revenue Code.

5.14 Installed Capacity Spot Market Auction and Installed Capacity Supplier Deficiencies

5.14.1 LSE Participation in the ICAP Spot Market Auction

5.14.1.1 ICAP Spot Market Auction

When the ISO conducts each ICAP Spot Market Auction it will account for all Unforced Capacity that each NYCA LSE has certified for use in the NYCA to meet its NYCA Minimum Installed Capacity Requirement or Locational Minimum Installed Capacity Requirement, as applicable, whether purchased through Bilateral Transactions or in prior auctions. The ISO shall receive offers of Unforced Capacity that has not previously been purchased through Bilateral Transactions or in prior auctions from qualified Installed Capacity Suppliers for the ICAP Spot Market Auction. The ISO shall also receive offers of Unforced Capacity from any LSE for any amount of Unforced Capacity that the LSE has in excess of its NYCA Minimum Unforced Capacity Requirement or Locational Minimum Unforced Capacity Requirement, as applicable. Unforced Capacity that will be exported from the New York Control Area during the month for which Unforced capacity is sold in an ICAP Sport Market Auction shall be certified to the NYISO by the certification deadline for that auction.

The ISO 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 ISO Procedures. All LSEs shall participate in the ICAP Spot Market Auction. In the ICAP Spot Market Auction, the ISO shall submit monthly bids on behalf of all LSEs at a level per MW determined by the ICAP Demand Curves established in accordance with this Tariff and the ISO

Procedures. The ICAP Spot Market Auction will set the LSE Unforced Capacity Obligation for each NYCA LSE in accordance with the ISO Procedures.

The ICAP Spot Market Auction will be conducted and solved simultaneously for Unforced Capacity that may 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 accordance with the ISO Procedures. LSEs that are awarded Unforced Capacity in the ICAP Spot Market Auction shall pay to the ISO the Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction using the applicable ICAP Demand Curve. The ISO shall pay each Installed Capacity Supplier that is selected to provide Unforced Capacity the Market-Clearing Price determined in the ICAP Spot Market Auction using the ICAP Demand Curve applicable to its offer.

5.14.1.2 Demand Curve and Adjustments

ICAP Demand Curves will be established to determine (a) the locational component of LSE Unforced Capacity Obligations for each Locality (b) the locational component of LSE Unforced Capacity Obligations for any New Capacity Zone, and (c) the total LSE Unforced Capacity Obligations for all LSEs. The ICAP Demand Curves for the 2010~~3~~/2011~~4~~, 2011~~4~~/2012~~5~~, 2012~~5~~/2013~~6~~, and 2013~~6~~/2014~~7~~ Capability Years shall be established at the following points:

Capability Year	5/1/2010 to 4/30/2011	5/1/2011 to 9/30/2011	10/1/2011 to 4/30/2012	5/1/2012 to 4/30/2013	5/1/2013 to 4/30/2014
NYCA	Max @ \$13.42 \$9.90 @ 100% \$0.00 @ 112%	Max @ \$13.42 \$9.90 @ 100% \$0.00 @ 112%	Max @ \$14.96 \$8.84 @ 100% \$0.00 @ 112%	Max @ \$15.22 \$8.99 @ 100% \$0.00 @ 112%	Max @ \$15.48 \$9.15 @ 100% \$0.00 @ 112%
NYC	Max @ \$27.32 \$15.99 @ 100%	Max @ \$27.32 \$15.99 @ 100%	Max @ \$34.84 \$19.19 @ 100%	Max @ \$35.43 \$19.52 @ 100%	Max @ \$36.04 \$19.85 @ 100%

~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~
~~LI~~ ~~Max @ \$24.25~~ ~~Max @ \$24.25~~ ~~Max @ \$31.35~~ ~~Max @ \$31.88~~ ~~Max @ \$32.42~~
~~\$8.69 @ 100%~~ ~~\$8.69 @ 100%~~ ~~\$9.98 @ 100%~~ ~~\$10.15 @ 100%~~ ~~\$10.32 @ 100%~~
~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~ ~~\$0.00 @ 118%~~

Capability Year	5/1/2013 to 4/30/2014	<u>5/1/2014 to 4/30/2015</u>	<u>5/1/2015 to 4/30/2016</u>	<u>5/1/2016 to 4/30/2017</u>
NYCA	Max @ \$15.48 \$9.15 @ 100% \$0.00 @ 112%	<u>Max @ \$13.50</u> <u>\$8.84 @ 100%</u> <u>\$0.00 @ 112%</u>	<u>Max @ \$13.79</u> <u>\$9.03 @ 100%</u> <u>\$0.00 @ 112%</u>	<u>Max @ \$14.10</u> <u>\$9.23 @ 100%</u> <u>\$0.00 @ 112%</u>
NYC	Max @ \$36.04 \$19.85 @ 100% \$0.00 @ 118%	<u>Max @ \$26.14</u> <u>\$18.55 @ 100%</u> <u>\$0.00 @ 118%</u>	<u>Max @ \$26.72</u> <u>\$ 18.95 @ 100%</u> <u>\$0.00 @ 118%</u>	<u>Max @ \$27.31</u> <u>\$19.37 @ 100%</u> <u>\$0.00 @ 118%</u>
LI	Max @ \$32.42 \$10.32 @ 100% \$0.00 @ 118%	<u>Max @ \$20.88</u> <u>\$7.96 @ 100%</u> <u>\$0.00 @ 118%</u>	<u>Max @ \$21.34</u> <u>\$ 8.12 @ 100%</u> <u>\$0.00 @ 118%</u>	<u>Max @ \$21.81</u> <u>\$8.30 @ 100%</u> <u>\$0.00 @ 118%</u>
<u>G-J</u>		<u>Max @ \$13.50</u> <u>\$9.23 @ 100%</u> <u>\$0.00 @ 115%</u>	<u>Max @ \$16.51</u> <u>\$10.92 @ 100%</u> <u>\$0.00 @ 115%</u>	<u>Max @ \$19.64</u> <u>\$12.68 @ 100%</u> <u>\$0.00 @ 115%</u>
NOTE: All dollar figures are in terms of \$/kW-month of ICAP and all percentages are in terms of the applicable NYCA Minimum Installed Capacity Requirement and Locational Minimum Installed Capacity Requirement. The defined points describe a line segment with a negative slope that will result in higher values for percentages less than 100% of the NYCA Minimum Installed Capacity Requirement or the Locational Installed Capacity Requirement (“reference point”) with the maximum value for each ICAP Demand Curve established at 1.5 times the estimated localized levelized cost per kW-month to develop a new peaking unit in each Locality or in Rest of State, as applicable.				

In subsequent years, the costs assigned by the ICAP Demand Curves to the NYCA Minimum Installed Capacity Requirement, the Locational Minimum Installed Capacity Requirement, and any Indicative NCZ Minimum Installed Capacity Requirement, will be defined by the results of the independent review conducted pursuant to this section. The ICAP Demand Curves will be translated into Unforced Capacity terms in accordance with the ISO Procedures.

A periodic review of the ICAP Demand Curves shall be performed every three (3) years in accordance with the ISO Procedures to determine the parameters of the ICAP Demand Curves

for the next three Capability Years. The periodic review shall assess: (i) the current localized levelized embedded cost of a peaking plant in each NYCA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements, and (ii) the likely projected annual Energy and Ancillary Services revenues of the peaking plant over the period covered by the adjusted ICAP Demand Curves, net of the costs of producing such Energy and Ancillary Services. The cost and revenues of the peaking plant used to set the reference point and maximum value for each Demand Curve shall be determined under conditions in which the available capacity is equal to the sum of (a) the minimum Installed Capacity requirement and (b) the peaking plant's capacity equal to the number of MW specified in the periodic review and used to determine all costs and revenues. The minimum Installed Capacity requirement for each Locality shall be equal to the Locational Minimum Installed Capacity Requirement in effect for the year in which the independent consultant's final report (referenced below in Section 5.14.1.2.6) is issued; for the NYCA, equal to the NYCA Minimum Installed Capacity Requirement based on the Installed Reserve Margin accepted by the Commission and applicable to the Capability Year which begins in the Capability Year in which the independent consultant's final report is issued; and for any New Capacity Zone, equal to the Indicative NCZ Locational Minimum Installed Capacity Requirement determined by the NYISO in accordance with Section 5.16.3. The periodic review shall also assess (i) the appropriate shape and slope of the ICAP Demand Curves, and the associated point at which the dollar value of the ICAP Demand Curves should decline to zero; (ii) the appropriate translation of the annual net revenue requirement of the peaking plant determined from the factors specified above, into monthly values that take into account seasonal differences in the amount of capacity available in the ICAP Spot Market Auctions; and (iii) the escalation factor and inflation component of the escalation factor applied

to the ICAP Demand Curves. For purposes of this periodic review, 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, and a peaking plant is defined as the number of units (whether one or more) that constitute the scale identified in the periodic review.

The periodic review shall be conducted in accordance with the schedule and procedures specified in the ISO Procedures. A proposed schedule will be reviewed with the stakeholders not later than May 30 of the year prior to the year of the filing specified in (xi) below. The schedule and procedures shall provide for:

- 5.14.1.2.1 ISO development, with stakeholder review and comment, of a request for proposals to provide independent consulting services to determine recommended values for the factors specified above, and appropriate methodologies for such determination;
- 5.14.1.2.2 Selection of an independent consultant in accordance with the request for proposals;
- 5.14.1.2.3 Submission to the ISO and the stakeholders of a draft report from the independent consultant on the independent consultant's determination of recommended values for the factors specified above;
- 5.14.1.2.4 Stakeholder review of and comment on the data, assumptions and conclusions in the independent consultant's draft report, with participation by the responsible person or persons providing the consulting services;
- 5.14.1.2.5 An opportunity for the Market Monitoring Unit to review and comment on the draft request for proposals, the independent consultant's report, and the ISO's proposed ICAP Demand Curves (the responsibilities of the Market Monitoring

Unit that are addressed in this section of the Services Tariff are also addressed in Section 30.4.6.3.1 of Attachment O;

- 5.14.1.2.6 Issuance by the independent consultant of a final report;
- 5.14.1.2.7 Issuance of a draft of the ISO's recommended adjustments to the ICAP Demand Curves for stakeholder review and comment;
- 5.14.1.2.8 Issuance of the ISO's proposed ICAP Demand Curves, taking into account the report of the independent consultant, the recommendations of the Market Monitoring Unit, and the views of the stakeholders together with the rationale for accepting or rejecting any such inputs;
- 5.14.1.2.9 Submission of stakeholder requests for the ISO Board of Directors to review and adjust the ISO's proposed ICAP Demand Curves;
- 5.14.1.2.10 Presentations to the ISO Board of Directors of stakeholder views on the ISO's proposed ICAP Demand Curves; and
- 5.14.1.2.11 Filing with the Commission of ICAP Demand Curves as approved by the ISO Board of Directors incorporating the results of the periodic review, such filing to be made not later than November 30 of the year prior to the year that includes the beginning of the first Capability Year to which such ICAP Demand Curves would be applied. The filing shall specify ICAP Demand Curves for a period of three Capability Years and the inflation rate component of the escalation factor applied to the ICAP Demand Curves.

Upon FERC approval, the ICAP Demand Curves will be translated into Unforced Capacity terms in accordance with the ISO Procedures; provided that nothing in this Tariff shall

be construed to limit the ability of the ISO or its Market Participants to propose and adopt alternative provisions to this Tariff through established governance procedures.

5.14.1.3 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 equal to the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction multiplied by the number of MWs the LSE needs to meet its share of the NYCA Minimum Installed Capacity Requirement or its share of the Locational Minimum Installed Capacity Requirement.

The ISO 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; (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 ISO will give preference to Installed Capacity Suppliers that were not qualified to supply capacity prior to the ICAP Spot Market Auction.

Offers from Installed Capacity Suppliers are subject to review pursuant to the Market Monitoring Plan that is set forth in Attachment O to the Services Tariff, and the Market Mitigation Measures that are set forth in Attachment H to the Services Tariff. Installed Capacity

Suppliers selected by the ISO to provide capacity after the ICAP Spot Market Auction will be paid a negotiated price, subject to the standards, procedures and remedies in the Market Mitigation Measures.

The ISO 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, or, in the case of In-City generation that is subject to capacity market mitigation measures, the annual mitigated price cap per MW of Unforced Capacity, whichever is less, pro-rated to reflect the portion of the Obligation Procurement Period for which the Installed Capacity Supplier provides Unforced Capacity. Any remaining monies collected by the ISO pursuant to this section will be applied in accordance with Section 5.14.3 of the Services Tariff.

5.14.2 Installed Capacity Supplier Shortfalls and Deficiency Payments

In the event that an Installed Capacity Supplier sells in the Capability Period Auctions, in the Monthly Auctions, or through Bilateral Transactions more Unforced Capacity than it is qualified to sell in any specific month due to a de-rating or other cause, 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 ISO consistent with the ISO Procedures that it has covered such shortfall. If the Installed Capacity Supplier does not cover such shortfall or if it does not certify to the ISO in a timely manner, the ISO shall prospectively purchase Unforced Capacity on behalf of that Installed Capacity Supplier in the appropriate ICAP Spot Market Auction or through post ICAP Spot Market Auction Unforced Capacity purchases to cover the shortfall.

If the Installed Capacity Supplier is a Responsible Interface Party, the shortfall shall be computed for each Load Zone separately, in increments of 0.1 MW, as the total of the amount of UCAP sold for a month in a Capability Period Auction or a Monthly Auction and certified prior to that month's ICAP Spot Market Auction, the UCAP sold in that month's ICAP Spot Market Auction, and the UCAP sold as a Bilateral Transaction and certified prior to that month's ICAP Spot Market Auction that is greater than the greatest quantity MW reduction achieved during a single hour in a test or event called by the ISO in the Capability Period as confirmed by data by the ISO in accordance with ISO Procedures (or the value of zero if data is not received by the ISO in accordance with such procedures).

Prior to the Summer 2014 Capability Period if the Installed Capacity Supplier is a Responsible Interface Party, after each Special Case Resource with a Provisional Average Coincident Load has its Average Coincident Load determined for the Capability Period in which it had a Provisional Average Coincident Load (such determination in accordance with ISO Procedures and without regard to whether the resource was registered to the same Responsible Interface Party at the time of the ACL determination), the ISO shall determine if there is a shortfall due to the Provisional Average Coincident Load being higher than the Average Coincident Load. This shortfall will be equal to the value, if positive, of (x) the sum of (i) the amount of UCAP a Responsible Interface Party sold in an Monthly or an ICAP Spot Market Auction or certified Bilateral Transactions for a Special Case Resource and (ii) the Special Case Resource's actual metered demand for the month in accordance with ISO Procedures, minus (y) the Special Case Resource's Average Coincident Load. If the ISO does not receive data to determine the Average Coincident Load in accordance with ISO Procedures, for each Capability

Period a Special Case Resource had a Provisional Average Coincident Load, for purposes of determining the shortfall, the Average Coincident Load shall equal zero.

Beginning with the Summer of 2014 Capability Period if the Installed Capacity Supplier is a Responsible Interface Party, after each SCR with a Provisional ACL has its Verified ACL determined for the Capability Period in which it had a Provisional ACL (such determination in accordance with Section 5.12.11.1 and ISO Procedures) the ISO shall determine if there is a shortfall due to the Provisional ACL being greater than the Verified ACL. This shortfall shall be equal to the value, if positive, of (x) the Provisional ACL of the SCR, minus (y) the Verified ACL of the SCR. The shortfall calculated for the SCR for a month shall not exceed the amount of Installed Capacity associated with the SCR that was sold for that month. If the ISO does not receive data to determine the SCR's Verified ACL for the Capability Period for which the SCR was enrolled with a Provisional ACL the Verified ACL shall equal zero.

If the Installed Capacity Supplier is a Responsible Interface Party that reported an Incremental ACL, the ISO shall determine there is a shortfall when the Net ACL is greater than the Verified ACL. This shortfall shall be equal to the value, if positive, of (x) the enrolled Net ACL of the SCR, minus (y) the Verified ACL of the SCR for each month in which the RIP sold the SCR's Installed Capacity. The shortfall calculated for the SCR for a month shall not exceed the amount of Installed Capacity associated with the SCR that was sold for that month. If the ISO does not receive data to determine the Verified ACL for each month within the Capability Period that the SCR was enrolled with an Incremental ACL, the Monthly ACL for each unreported month shall equal zero (0) and be used in the calculation of the Verified ACL in accordance with Section 5.12.11.1.5.

If the Installed Capacity Supplier is a Responsible Interface Party, and a SCR Change of Status occurs, the ISO shall determine if a shortfall exists, based on the RIP's reporting of the SCR Change of Status.

When a SCR Change of Status is reported by the RIP in advance and no Installed Capacity associated with the SCR has been sold, a shortfall has not occurred. If the SCR Change of Status is reported by the RIP, but the Installed Capacity associated with the SCR has already been sold for one or more months a shortfall exists for these months, the shortfall shall be equal to the reduction to the ACL reported in the SCR Change of Status, but shall not exceed the amount of Installed Capacity sold for each month.

When the RIP fails to report the SCR Change of Status during the Capability Period, for each month in which the SCR's Installed Capacity was sold and the SCR Change of Status was in effect, the ISO shall determine the shortfall MW using the maximum one hour metered Load for the month. The shortfall amount for each month in which the SCR Change of Status was in effect shall equal the SCR ACL minus the maximum one hour metered Load for the month, but shall not exceed the SCR's Installed Capacity sold for the month.

When a SCR is subject to multiple shortfall penalties for the same Capability Period, the ISO shall assess the maximum shortfall penalty to the RIP. In addition, if the shortfall results in a reduction in the performance of a SCR, the ISO may recover from the RIP any energy payments for which the SCR was ineligible to receive.

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 ISO a deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined in the ICAP Spot Market Auction for the applicable month, prorated for the number of hours in the month that External Installed Capacity Supplier is deemed to have a shortfall (i.e., $((\text{deficiency charge} \div 12 \text{ months}) \div \text{total number of hours in month when shortfall occurred}) * \text{number of hours the shortfall lasted}) * \text{number of MWs of shortfall}$).

The ISO shall submit a Bid, calculated pursuant to Section 5.14.1 of this Tariff, 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 ISO the applicable Market-Clearing Price of Unforced Capacity established in that ICAP Spot Market Auction. Immediately following the ICAP Spot Market Auction, the ISO may suspend the Installed Capacity Supplier’s privileges to sell or purchase Unforced Capacity in ISO-administered Installed Capacity auctions or to submit Bilateral Transactions to the NYISO. Once the Installed Capacity Supplier pays for or secures the payment obligation that it incurred in the ICAP Spot Market Auction, the ISO shall reinstate the Installed Capacity Supplier’s privileges to participate in the ICAP markets.

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 deficiency charge equal to the applicable Market-Clearing Price of Unforced Capacity determined using the applicable ICAP Demand Curve for that ICAP Spot Market Auction, times the amount of its shortfall.

If an Installed Capacity Supplier is found, at any point during 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 ISO the monthly deficiency charge equal to one and one-half times the applicable Market-Clearing Price of Unforced Capacity determined using the applicable ICAP Demand Curve for that ICAP Spot Market Auction for each month the Installed Capacity Supplier is deemed to have a shortfall.

Any remaining monies collected by the ISO pursuant to Section 5.14.1 and 5.14.2 will be applied as specified in Section 5.14.3.

5.14.3 Application of Installed Capacity Supplier Deficiency Charges

Any remaining monies collected by the ISO through supplemental supply fees or Installed Capacity Supplier deficiency charges pursuant to Section 5.14.1 but not used to procure Unforced Capacity on behalf of LSEs or Installed Capacity suppliers deemed to have a shortfall shall be applied as provided in this Section 5.14.3.

5.14.3.1 General Application of Deficiency Charges

Except as provided in Section 5.14.3.2, remaining monies will be applied to reduce the Rate Schedule 1 charge in the following month.

5.14.3.2 Installed Capacity Rebates

(i) New York City

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the New York City Locality allocated among all LSEs in that Locality in proportion to their share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

(ii) Long Island

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the Long Island Locality, allocated among all LSEs in that Locality in proportion to their share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

(iii) G-J

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the G-J Locality, allocated among all LSEs in that Locality in proportion to their share of the applicable Locational Minimum Installed Capacity Requirement. Rebates shall include interest accrued between the time payments were collected and the time that rebates are paid.

(iv) Rest of State

If an Unforced Capacity shortfall exists during any month, the ISO shall rebate any remaining unspent deficiency charges or supplemental supply fees collected for that month for the Rest of State requirements, allocated among all LSEs in each of the Localities and in Rest of

State, in proportion to each LSE's share of the NYCA Minimum Installed Capacity Requirement less that LSE's Locational Minimum Installed Capacity Requirement. Rebates shall include interests accrued between the time payments were collected and the time that rebates are paid.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.)

Docket No. ER14-500-000

**MOTION TO INTERVENE AND COMMENTS
OF THE NEW YORK TRANSMISSION OWNERS**

Pursuant to Rules 211, 212, and 214 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. §§ 385.211, 385.212, and 385.214 (2013), Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Power Authority, 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 (referred to herein as the “New York Transmission Owners” or “NYTOs”), individually and collectively move to intervene and comment in the above-captioned proceeding.¹

The NYTOs strongly support approval of the New York Independent System Operator, Inc.’s (“NYISO”) filing in this docket;² however, our support is conditioned upon the Commission’s approval of the filing as a whole. As discussed herein, the NYTOs have concerns about certain aspects of the filing, but the NYISO’s proposal is the result of a very lengthy and robust stakeholder process and the resulting filing, taken as a whole, appropriately balances the

¹ The New York Transmission Owners reserve the right to individually or collectively file supplemental comments in this proceeding.

² *New York Indep. Sys. Op., Inc.*, Proposed Tariff Revisions to Implement Revised ICAP Demand Curves and a New ICAP Demand Curve for Capability Years 2014/2015, 2015/2016 and 2016/2017 and Request for Partial Phase-In and for Any Necessary Tariff Waivers, Docket No. ER14-500-000 (filed Nov. 27, 2013) (“NYISO Filing”).

competing interests of different stakeholders. Therefore, taken as a whole, the NYISO proposal produces a reasonable result and should be expeditiously approved by the Commission.

I. BACKGROUND

On November 27, 2013, the NYISO submitted amendments to Section 5.14.1.2 of its Market Administration and Control Area Services Tariff to define the Installed Capacity (“ICAP”) Demand Curves for the 2014/2015, 2015/2016 and 2016/2017 Capability Years.³ In its filing, the NYISO updated the existing demand curves for New York City, Long Island, and the New York Control Area (“NYCA”) and proposed to establish the first ICAP Demand Curve for the new locality encompassing Load Zones G, H, I, and J (the “G-J Locality”).⁴ In determining the proxy unit that would be used to establish the demand curves, the NYISO chose the unit with the lowest fixed cost and highest variable cost that is economically viable for each of its regions and the NYCA. In addition, in order to reconcile the implementation of the market design change with short-term consumer impacts, the NYISO proposed a phase-in of the first two years of the new ICAP Demand Curve for the G-J Locality.⁵ The NYISO maintains that its proposed phase-in would appropriately balance short-term consumer interests and the need for investment signals in the G-J Locality.⁶

The NYISO points out that its proposed ICAP Demand Curves were developed after a thorough independent review and an extensive stakeholder process that included written submissions and oral presentations to the NYISO’s Board.⁷ It also notes that it incorporated

³ *Id.* at i.

⁴ *Id.*

⁵ *Id.* at 36.

⁶ *Id.* at 41.

⁷ *Id.* at 49.

comments and revised the inputs and methodology in response to various stakeholders.⁸ The NYISO asks that the Commission issue an order accepting the proposed ICAP Demand Curves without modification, to be effective on January 28, 2014.⁹

II. COMMUNICATIONS

All communications, pleadings, and orders with respect to this proceeding should be sent to the following individuals:

(1) ***Counsel to the New York Transmission Owners:***

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And

(2) ***Company Representatives Listed on Attachment A at the end of the filing.***¹⁰

III. COMMENTS

The NYTOs support the NYISO Filing, and urge the Commission to adopt it as filed because, as a whole, it proposes just and reasonable demand curves for the upcoming reset period. To the extent that the Commission does not approve the NYISO's proposal as filed, the demand curves would no longer be just and reasonable and the Commission should address the concerns that the NYTOs have with certain aspects of the filing.

The NYTOs commend the NYISO for conducting a vigorous process to review the various elements of the demand curve, gather input from all stakeholders, and incorporate that

⁸ *Id.*

⁹ *Id.*

¹⁰ Waiver of the Commission's Regulations (18 C.F.R. § 385.203) is requested to the extent necessary to permit the inclusion on the service list of all of the parties on Attachment A.

input as part of a comprehensive proposal that balances competing interests. The NYTOs believe in particular that the NYISO selected the appropriate proxy unit. The NYISO's most important obligation is to follow its Market Administration and Control Area Services Tariff ("MST" or Tariff) requirement that the Cost of New Entry ("CONE") be based upon the net cost of developing, constructing and operating a "peaking unit [that] 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."¹¹ The Indicated NYTOs¹² and other stakeholders pointed out that the NYISO Staff had erroneously rejected the lowest cost unit, an F class frame unit with selective catalytic reduction ("SCR"), because of concerns over its viability. The transmission owners observed that a frame unit with SCR had recently been successfully approved for siting, financed, built and constructed in California and questioned the claim by the NYISO's consultants that "past experience with SCR control on simple cycle frame units have shown that such high exhaust gas temperatures irreversibly damage the catalyst."¹³ In particular, the transmission owners highlighted that the only unsuccessful examples of frame units with SCR cited by the consultants were more than 10 years old.

The NYISO Board appropriately responded by engaging an additional consulting team, The Brattle Group and Licata Energy & Environmental Consulting (together, "Brattle"), to evaluate these criticisms. In its analysis, Brattle concluded "that the F-Class frame combustion turbine can be and has been successfully coupled with SCR to meet strict environmental

¹¹ MST § 5.14.1.2 (emphasis added).

¹² See "Comments of the Indicated New York Transmission Owners on Proposed ICAP Demand Curves for 2014-2017," filed with the NYISO on October 2, 2013, attached hereto as Attachment E.

¹³ NYISO Filing, Att. III, Exhibit B (Independent Study to Establish Parameters of the ICAP Demand Curve for the New York Independent System Operator, NERA Economic Consulting and Sargent & Lundy LLC, August 2, 2013), at 19.

standards.”¹⁴ Based on these further evaluations and the resulting report, the NYISO adopted the F class frame unit with SCR as the proxy unit.¹⁵ Given the importance of this core issue and the related customer impacts, the NYISO is to be commended for devoting the necessary effort to properly selecting the unit with the lowest fixed costs, as required by its Tariff.

The NYTOs also support the NYISO’s proposed phase-in, which mitigates the impact of the substantial increase in capacity prices that will occur when the G-J Locality is implemented. The proposed phase-in reasonably accommodates competing interests due to the limited term of the three-year demand curve proposal. For the 2014/2015 Capability Year, the NYISO proposes to multiply the reference price that it would have used for the G-J Locality in the absence of a phase-in by 76.06%,¹⁶ while for the 2015/2016 Capability Year, the NYISO proposes to multiply the reference price it would have used for the G-J Locality without a phase-in by 88.03%.¹⁷ For the 2016/2017 Capability Year, the phase-in ends. The phase-in therefore will not adversely affect the incentives that the new demand curve provides to construct new generating capacity in the G-J Locality, since it is very unlikely that any new generating capacity built there in response to the price signals provided by these demand curves, once approved by the Commission, would be in service before the 2016/2017 Capability Year, when the new demand curve will be fully phased in.

¹⁴ NYISO Filing, Att. V, Exhibit B (Independent Evaluation of SCR Systems for Frame-Type Combustion Turbines: Report for ICAP Demand Curve Reset, The Brattle Group, Nov. 1, 2013), Executive Summary at iv.

¹⁵ NYISO Filing at 10-12.

¹⁶ This value is equal to the ratio of the Annual Net Cost of New Entry (“CONE”) for the proxy unit the NYISO is proposing for the NYCA demand curve (\$89.50/kW-yr.) to the Annual Net CONE for the proxy unit the NYISO is proposing for the G-J demand curve (\$117.67/kW-yr.). (The Annual Net CONEs are provided in the NYISO Filing at 31.) Consequently, the demand curve for the G-J Locality for the first year of the phase-in would be based on the cost of developing generating capacity in the Rest of State (“ROS”) region. Nevertheless, as the NYISO points out, the price of capacity during that year in the G-J Locality would likely be higher than the price of capacity in ROS due to differences between the amount of excess supply in the regions. NYISO Filing, Att. VIII (Affidavit of Tariq N. Niazi) at ¶ 15 and Att. IX (Affidavit of Rana Mukerji) at ¶ 14.

¹⁷ This value is halfway between the 76.06% value proposed for the 2014-15 Capability Year and the 100% value (*i.e.*, no phase-in) proposed for the 2016-17 Capability Year.

The cost increases that would result from the addition of the demand curve for the new G-J Locality without a phase-in are significant,¹⁸ and a phase-in is needed to mitigate short-term consumer impacts. The Commission has consistently approved phase-ins for new market design changes when they have the potential to impose significant impacts on customers. For example, when it first approved the implementation of ICAP Demand Curves in New York in 2003, the Commission concluded that a phase-in was appropriate to “ameliorate” ratepayer impacts by gradually implementing the cost of new entry into the newly-adopted demand curves.¹⁹ The same considerations are present here. As the NYISO has aptly stated:

The NYISO’s principal focus is to administer efficient and competitive markets without favoring any Market Participant or stakeholder group. While the New York wholesale electricity markets are designed to send long-term economically efficient price signals, the NYISO cannot be indifferent to the short-term consumer impacts resulting from its market rules. This is true even where those rules are intended to provide the correct long-term price signal that in the long term would be in consumers’ best interests.²⁰

Accordingly, the NYTOs support the NYISO’s proposed phase-in as a critical aspect of the overall NYISO proposal that is consistent with past Commission practice.²¹

The NYTOs are also concerned that the NYISO’s proposal will not eliminate price separation between the new G-J Locality and the rest of the NYCA when the transmission constraint causing the need for the new capacity zone is eliminated. However, the NYISO has

¹⁸ See, e.g., *New York Indep. Sys. Op.*, Proposed Tariff Revisions to Establish and Recognize a New Capacity Zone and Request for Action on Pending Compliance Filing, Docket No. ER13-1380-000 (filed April 30, 2013), Att. XII (Affidavit of Tariq N. Niazi), at ¶ 32, Table 3.

¹⁹ Moreover, the Commission has agreed with the NYISO’s market monitor that the G-J Locality may not be set up correctly because the NYISO’s current capacity construct does not allow capacity from an export constrained load zone outside the G-J Locality to supply the G-J Locality. This is because it would result in lower prices if such export were allowed. *New York Indep. Sys. Op.*, 144 FERC ¶ 61,626 at ¶ 56 (2013). The Commission, however, stated that this issue does not have to be resolved until the next demand curve reset, providing further justification for allowing a phase-in during the current demand curve reset process.

²⁰ *New York Indep. Sys. Op.*, Request for Partial Reconsideration of the New York Independent System Operator, Inc., Docket No. ER13-1380-003 (filed October 28, 2013) (“Request for Reconsideration”) at 9.

²¹ If the Commission alters the NYISO’s proposal, in particular the proposed proxy unit, it should allow the NYISO and its stakeholders to review and potentially propose different percentages for the phase-in.

committed to work with stakeholders to address this deficiency.²² Our support herein is based in significant part on this commitment by the NYISO.

As mentioned above, the NYISO's proposal, when taken as a whole, is a reasonable accommodation of many competing interests and, therefore, the NYTOs urge the Commission to adopt it as a just and reasonable proposal. However, to the extent that the Commission does not approve the NYISO Filing as filed and determines that modifications are required, the NYTOs request that the Commission consider the concerns raised in the NYTOs' prior comments to the NYISO which are attached hereto.²³

IV. MOTION TO INTERVENE

The New York Transmission Owners, for purposes of this filing, are comprised of the eight electric systems in the State of New York that own the transmission facilities operated by the NYISO. The New York Transmission Owners recover some of the costs of operating those facilities under the NYISO's OATT and are active in the markets governed by the Tariff. The NYISO commenced operations on November 18, 1999. Because this filing will have a significant effect on the users of their transmission facilities, the New York Transmission Owners have a direct and substantial interest in the Commission's decision in this proceeding. No other party can adequately represent the New York Transmission Owners' interest. Accordingly, it is in the public interest to permit this intervention.

²² Request for Reconsideration at n.32; NYISO Filing at 27 ("The NYISO's capacity market and its mitigation rules have evolved over time and the NYISO is engaged in a continuous process with its stakeholders to development [sic] enhancements.").

²³ See: Attachment B hereto, List of Demand Curve Matters Where the New York Transmission Owners Have Concerns with the Assumptions Used by the NYISO; "Comments of the Indicated Transmission Owners" filed with the NYISO on August 30, 2013, attached hereto as Attachment C; "Comments of Con Edison" filed with the NYISO on August 30, 2013, attached hereto as Attachment D; and Attachment E.

V. CONCLUSION

WHEREFORE, in view of the foregoing, the New York Transmission Owners respectfully request that the Commission grant their motion to intervene, accept these comments and issue an order accepting the NYISO Filing.

Respectfully submitted,

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Dated: December 20, 2013

ATTACHMENT A

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ATTACHMENT B

List of Demand Curve Matters Where the New York Transmission Owners Have Concerns with the Assumptions Used by the NYISO

Economic Analysis Period

The 20-year economic analysis period for the proxy unit is incorrect; there is ample evidence that generators in New York retain significant value for 30 years or more.

Thirty years of energy and ancillary services (“E&AS”) revenues should be included in the analysis, not 20 years.

Property Taxes

The property tax rates used to calculate the net CONE for the NYCA and the G-J Locality are overstated, in particular if an economic analysis period of less than 30 years is adopted.

Gas and Electric Interconnection

It is inappropriate to assume the proxy unit would connect to the Local Distribution Company (“LDC”) in the G-J Locality and as such LDC gas transportation costs should be removed.

As there is not a universal dual fuel requirement throughout the G-J Locality, the cost of dual fuel capability should not be included in its net CONE.

Electric Interconnection Costs in New York City

These costs should not be established based on data for projects that rejected their cost allocations.

The expired (or partially depreciated) headroom costs should also be removed as well as of non-open air substations.

Zero Crossing Point

The demand curve for the G-J Locality should use the 114% zero crossing point as recommended by Potomac Economics rather than a 115% zero-crossing point, which was arbitrarily chosen.

Technology Choice

The Net CONEs for New York City and the G-J Locality should be based on a two-unit Frame plant with SCR.

If a Frame unit without SCR is the most cost-effective option in the G-J Locality, that should have been used to set its demand curve.

Modeling E&AS Revenue

The E&AS revenue offset should be adjusted upwards to recognize the additional revenues that will result from recent market rules changes (e.g., scarcity pricing, operating reserves reference levels).

The nodal price adjustment should be dropped or, alternatively, interconnection costs should be based upon the node used for determining E&AS revenue.

The inclusion of dummy variables for Astoria Energy II and Bayonne Energy Center is a methodological flaw in the energy revenue model and should be excluded.

Retirement of Astoria 2 and 4 and other retirements during the historical period should be recognized as variables in the econometric analysis.

Attachment C

August 19, 2013 NYISO Demand Curve Reset Proposal
Comments of the Indicated New York Transmission Owners
August 30, 2013

Central Hudson, Con Edison, National Grid, NYPA, and NYSEG/RG&E offer the following comments on the August 19, 2013 draft of the Proposed NYISO Installed Capacity Demand Curves for the Capability Years 2014/2015, 2015/2016 and 2016/2017 (“NYISO Proposal”). The indicated New York Transmission Owners are continuing their review of various aspects of the NYISO Proposal and the detailed assessment (“Final Report”) prepared by Sargent & Lundy (“S&L”) and National Economic Research Associates (“NERA”), and may provide additional comments at a later date.

Technology Choice

The Market Services Tariff (“MST”) requires the NYISO to determine the Cost of New Entry (“CONE”) based upon the cost of a peaking plant. It further states that 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.” (MST Section 5.14.1.2)

The NYISO Proposal would base the CONE for the statewide capacity market on the cost of a single-unit, simple cycle Frame turbine without Selective Catalytic Reduction (SCR) and for other markets on the cost of a two-unit, simple cycle LMS 100 plant. The NYISO Proposal presents the cost of a Frame turbine with SCR in various regions of the state as a supplement to the various units evaluated in the Final Report. With the exception of the plant utilized to determine the CONE for the statewide market, none of these units fulfills the requirements of the Market Services Tariff.

1. The Proposed Lower Hudson Valley Proxy Unit Is Not Economically Viable

The simple cycle GE LMS 100 plant chosen by the NYISO as the proxy unit in the Lower Hudson Valley (LHV) is not economically viable as required under the MST. As shown in the table below, at least three technologies are more cost-effective than a simple cycle GE LMS 100 plant. An LMS 100 plant would likely be unable to compete with these alternatives under equilibrium conditions. In fact, there are no projects in the interconnection queue that resemble the chosen proxy unit, except for a single project in New York City.

Table 1. Comparison of Net Costs for Potential LHV Proxy Units

Technology	Net CONE (\$/kw-year)	Difference
2 GE LMS 100 (With SCR) - Dutchess	\$171.75	
Combined Cycle - Rockland	\$156.39	-8.94%
2 Frame GTs (With SCR) – Dutchess	\$109.31	-36.36%
2 Frame GTs (With SCR) – Rockland	\$106.76	-37.84%
1 Frame GT (No SCR) – Dutchess (Interruptible Gas) ¹	\$119.47	-30.44%
1 Frame GT (No SCR)– Dutchess (Peaking Contract) ¹	\$111.11	-35.31%

¹ See Appendix for details of these calculations.

2. The Assumption That The LHV Proxy Unit Must be Dual Fuel Capable Is Flawed

The NYISO Proposal for the Lower Hudson Valley CONE rejects the use of a Frame Unit without SCR based upon the finding that the proxy unit must be dual fuel capable. While the Indicated NYTOs appreciate and support the NYISO's efforts to examine and address fuel security issues across the state, we do not believe it is reasonable to reflect the cost of dual fuel capability in the Lower Hudson Valley CONE at this time.

The NYISO Proposal appears to endorse the reasoning outlined in the Final Report for assuming the Lower Hudson Valley proxy unit will be dual fuel capable:

“[M]ore severe air quality issues in [Zones G-K] and, correspondingly more stringent NOx emission requirement, eliminates the option of accepting an annual operational limit to comply with applicable emission rate limitations. The maximum number of hours that the unit could run with an operational limit for NOx would be too low to consider the unit practical or economical in these Zones. Further, the applicable peaking plant for this area is assumed to be a dual fuel unit. Burning oil would increase NOx emissions and further reduce the allowable operating hours.” (Final Report, p. 7)

We find this reasoning to be flawed in two important respects. First, emissions requirements in most areas of the Lower Hudson Valley are no more restrictive than in Zone C or Zone F. As show in Figure II-1 of the Final Report and Tables 1 and 2 of the NYISO Proposal, Prevention of Significant Deterioration (“PSD”) emissions thresholds in Zone F and most of the Lower Hudson Valley, including Dutchess, Putnam, Sullivan, Ulster and portions of Orange counties, are effectively identical. The more restrictive emissions restrictions described in the Final Report apply only in Rockland, Westchester and lower Orange counties. Table II-6 of the Final Report acknowledges that fact a simple cycle GT could operate up to 1,056 hours per year in Dutchess County without exceeding NOx emission limits, a level that is virtually identical to the 1,075 hours per year permitted in Zone F. We note that two of the three major generation projects proposed in Zones G, H and I in recent years would be located in areas where NOx emissions of up to 40 tons per year would be permitted.

The consultants have conceded this point. At the August 13, 2013 Installed Capacity Working Group (ICAPWG) meeting, the consultants indicated that if they had not assumed that it was preferable for the proxy unit located in the Hudson Valley capacity zone to be dual fuel capable, then there was no technical reason why the simple cycle Frame turbine without SCR could not be used as the proxy unit for the Dutchess County location if it was economically viable.

Second, we question whether it is reasonable to assume that a proxy unit constructed in the Lower Hudson Valley during the three-year reset period (i.e., May 2014 through April 2017) must be dual fuel capable. At present, there is no NYISO dual fuel requirement for generators in the Lower Hudson Valley. Some LDCs – i.e., Con Edison, O&R and Central Hudson – require generators that interconnect with their gas systems to install back-up fuel capability, but the interstate pipelines serving the area, as is typical,

have no such requirement. Moreover, neither the NYISO’s interconnection requirements nor its capacity market rules require generators to be dual fuel capable, and no proposal to create such a requirement has been made. It is uncertain, at best, that such a dual fuel requirement will take effect in the next three years. Even if such a requirement were adopted during the reset period, it is unlikely that it would apply retroactively to projects already in the interconnection queue or in service before May 2017.

The NYISO Proposal contends that units must be dual fuel capable because (1) a review of gas service tariffs of the Local Distribution Companies (LDC) serving the Hudson Valley reveals that they require generators to have back-up fuel, and (2) recent projects that have been completed or have been proposed in these areas have been dual fuel capable. However, of the three projects presently seeking to interconnect in the Lower Hudson Valley, none have proposed to interconnect to an LDC gas system; each would interconnect directly to an interstate pipeline.² Additionally, although two of the projects have proposed to install back-up fuel capability, one has stated that it will be a gas-only facility.³

Table 2. LHV Projects in the Interconnection Queue (as of August 2013)

Project	Type	Summer MW	Fuel	Gas Source
CPV Valley I	CC	678	Dual	Millennium
Cricket Valley	CC	1,120	Gas only	Iroquois
Bowline Repowering	CC	775	Dual	Millennium

We suspect this is because these projects see an economic benefit to installing dual fuel capability. But, the gas-fired generation projects proposed in the Lower Hudson Valley are significantly different than the simple cycle plants reviewed in the Final Report. All are combined cycle plants and each is significantly larger than the proxy units evaluated in the report. Projects with these characteristics are likely intended to run at a much higher capacity factor than the simple cycle units evaluated in the Final Report and would potentially benefit, to a greater extent, from the protection dual fuel capability provides against fuel-related outages.

More specifically, large natural gas fired combined cycle generating facilities typically are operated as “base load” generating facilities, not as “peaking” generating facilities. Therefore, these combined cycle generating facilities would be committed and dispatched to operate throughout most of the year and would expect to receive a larger portion of their revenue from the NYISO energy market to pay for their generating facilities’ costs. As such, it may be financially worthwhile for generating companies to choose to install dual fuel capability for combined cycle generating facilities in order to continue to receive electric energy revenues during the very cold winter days (e.g., ambient temperature below 20 degrees Fahrenheit) when non-firm natural gas transportation may not be available or when it is more

² At the very least, the NYISO Proposal should exclude the cost of connecting to an LDC gas system and the associated 27¢ per dth transportation charge. Since none of the projects in the interconnection queue are seeking to interconnect with an LDC’s gas system, the cost of LDC transportation is unnecessary and should, therefore, be eliminated from the LHV unit’s costs.

³ Cricket Valley Final Environmental Impact Statement, Page 1-13. ([Link](#))

economical to dispatch oil fired generators before gas fired generators because the daily spot market natural gas price exceeds the price of oil, as occurs from time to time. However, in the absence of a comprehensive NYISO dual fuel requirement, it is not reasonable to assume that a simple cycle turbine would need to be dual fuel capable.

3. A Frame Turbine With SCR Should Serve As The Basis for The CONE Wherever It Is the Most Cost Effective Option

The NYISO Proposal provides the estimated cost of a simple cycle Frame turbine plant with SCR in various regions of the state, but recommends against using those estimates as the basis for the CONEs in those areas. The NYISO Proposal further states that the consultants were skeptical that this configuration was feasible and accepts their recommendation to base the CONEs on other units because of “technical challenges, unsuccessful projects and lack of market acceptance”. (p. 27) The Final Report states that a simple cycle Frame turbine plant with SCR was not evaluated due to problems with controlling exhaust temperatures for inclusion of SCR technology. It cites various instances when Frame turbines with SCRs have failed to operate properly.

However, there is evidence that exhaust temperatures could be reduced prior to treatment with SCR. In fact, GE has developed a design specifically to achieve that purpose. At least some market participants consider the potential technical issues identified by the consultants sufficiently resolved. The Marsh Landing Generating Station in California, which is owned by NRG Energy, Inc. (formerly owned by GenOn prior to its merger with NRG), combines Frame model turbines in simple cycle configuration with SCR. The facility commenced commercial operation on May 1, 2013. Notably, the facility utilizes the same Siemens SGT6-5000F technology that was examined by the consultants in their Final Report.

In addition, we note that the PJM tariff requires that the reference resource used to determine its demand curve be modeled as a Frame unit with SCR technology.

“Reference Resource” shall mean a combustion turbine generating station, configured with two General Electric Frame 7FA turbines with inlet air cooling to 50 degrees, Selective Catalytic Reduction technology in CONE Areas 1, 2, 3, and 4, dual fuel capability, and a heat rate of 10.096 Mmbtu/ MWh.” - PJM OATT, Attachment DD, 2.58

By failing to evaluate these options, the report fails to demonstrate that the recommended CONE is based on an economically-viable plant. We, therefore, urge the NYISO to utilize the Frame model turbine with SCR as the proxy unit in any region where that option is the most cost-effective.

Zero-Crossing Points

In the presentation made at the August 22, 2013 ICAPWG meeting, David Patton described a new approach for setting the zero-crossing points for the ICAP demand curves for 2014-17, which is based on the marginal impact that additional capacity in a capacity zone has on loss of load expectation (LOLE). Dr. Patton also “recommend[ed that] the NYISO establish [his proposal] as the methodology that will be employed in future [demand curve] resets and for new capacity zones.”

The TOs believe it would be premature to commit at this time to using this methodology in future demand curve resets. Complete data from Dr. Patton's analysis that include the LOLE at each level of capacity in a capacity zone, and the resulting change in LOLE associated with the addition of capacity in each capacity zone, have not yet been presented to market participants, much less made available to them for their review. This review may lead to other questions about the proposed approach; for example, while Dr. Patton's presentation claimed that the marginal impact on LOLE of additional capacity in a capacity zone was roughly a linear function of the amount of capacity in that capacity zone, including additional data points may make the existence of any such relationship much less clear. Moreover, Dr. Patton has not presented any evidence demonstrating that the marginal impact on LOLE of additional capacity in a capacity zone will continue to be a linear function of the amount of capacity in that capacity zone in the future.

The August 22 meeting was the first, and only time that Dr. Patton's proposal was discussed with market participants, so market participants have not had sufficient opportunity to review and critique it. Moreover, significant aspects of the proposed methodology remain unclear. For example, in Dr. Patton's analysis, capacity was added in Load Zones A, C and D (i.e., in the portion of the NYCA that is not included in another capacity zone) to determine the impact of additional capacity on the rate of change in LOLE, but in his analysis for the new G-J capacity zone, capacity was added throughout the G-J capacity zone, despite the fact that Load Zone J comprises its own capacity zone; the rationale for this inconsistency is unclear. Further, while we understand that Dr. Patton's analysis assumed that all capacity zones were originally at their respective minimum capacity requirements in the "base case," and then evaluated how the marginal impact on LOLE changed as capacity was added within each capacity zone, whether Dr. Patton's assumption was the correct "base case" assumption is open for discussion.

Accordingly, the demand curve filing that the ISO must make by Nov. 30, 2013 should not include tariff changes that would bind the ISO to use this procedure in future demand curve resets. According to Sec. 5.14.1.2 of the Services Tariff, which describes the process leading to that filing, the filing is supposed to "incorporat[e] the results of the periodic review" conducted by the NYISO, and the purpose of the periodic review is "to determine the parameters of the ICAP demand curves for the next three Capability Years." Consequently, that filing should not include tariff changes that would modify the methodology used in subsequent reviews. Instead, any such changes should go through the ISO's normal governance process, with market participants given a full opportunity to review the proposal, recommend changes to it as they wish, and conclude whether the final proposal deserves their support.

Life Cycle

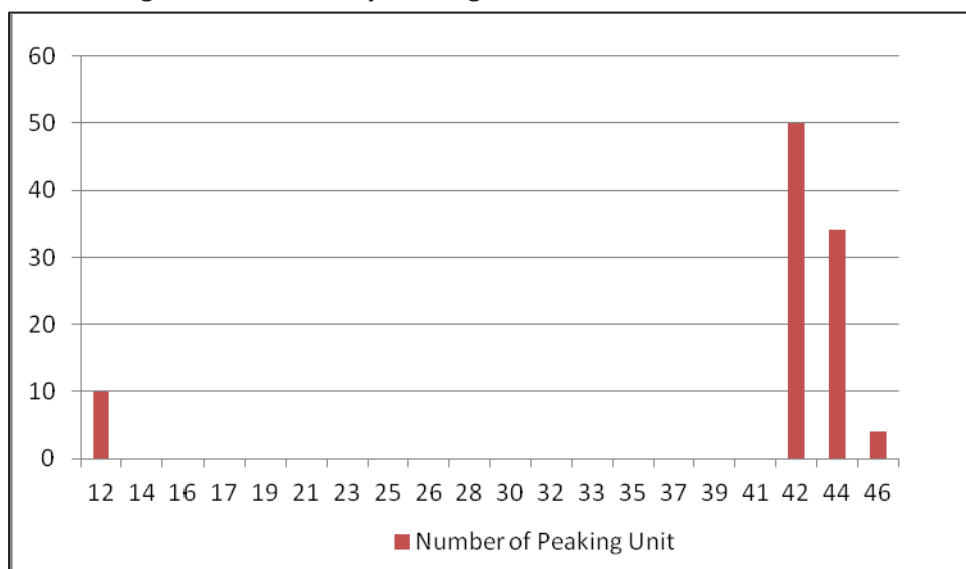
The NYISO Proposal adopts the consultants' recommendation to use a 20-25 year life cycle for the proxy units. The Final Report explains that the 20-25 years life cycle is "an economic life that represents the period over which an investor would analyze cost recovery" (Final Report, p. 91-92). The only justification offered for using a shorter term than in the past is that "although a new peaking unit will likely physically last thirty years or more, investors will use a shorter time horizon in determining the levelized cost."

In past two demand curve reset cycles, the consultants have based their CONE estimates on a 30 year life cycle. By contrast, the newly-issued report proposes a 25-year life for the combined cycle and for the LMS 100 plants and a 20-year life for the Frame model generator. This change causes the effective amortization periods for the proxy generators to be far shorter than the effective amortization periods used in the last reset. NYC has declined from 17.5 years to 14.5, NYCA has declined from 20.5 years to 17.5, and LI has declined from 20.5 years to 17.5.

No citations or sources are provided to support for the claim that investors will examine the proxy unit’s value over a 20-25 year period. Further, the report offers no explanation for the use of a shorter life cycle in the ROS region than in other areas of the state. The assumptions made by NERA regarding technological progress are the same as in the last reset, so there is no reason to believe that accelerated technological progress will make these plants economically obsolete sooner than would have been expected when the last reset was performed.

Simple cycle units older than 40 years are common in New York, as shown in the table below.

Chart 1. Age of New York City Peaking Units



The use of a 20-25 year life cycle amounts to an assertion that investors will place a value of zero on potential cash flows more than 20 or 25 years in the future. This conclusion is contradicted by the results of NERA’s financial model, which indicate that each of the plants evaluated will remain economic beyond the 20-25 year life cycle. Even if we assume that the unit will receive no energy revenues, its capacity payment (at Net CONE) will exceed its remaining O&M, site leasing, insurance, and tax costs. The NPV of the residual cash flow after year 25 (i.e., $(\text{Net CONE} - \text{O\&M} - \text{Property Tax} - \text{Ins}) \cdot (1 - \text{tax rate})$), is over \$1200/kW or over 60% of the initial investment. The high residual value demonstrates the reason why most of existing peaking units continue to operate well past 40 years. Even when many of them have low capacity factor (1% or less), they continue to receive a steady capacity payment.

At the very least, the consultants' analysis should have utilized a higher residual value for the proxy units. The proposed 5% residual value outside the ROS and 0% residual value for the ROS Frame plant do not properly recognize the additional net revenues that the proxy unit will receive during the remainder of its useful life and are not consistent with the sales price that older plants have often realized in New York.

If the NYISO retains the life cycle recommended by its consultants, it should update the proxy unit's residual value to reflect the likelihood that they will have a useful life of 40 years.

Net Energy and Ancillary Service Market Revenues

The NYISO Proposal adopts the proposed energy and ancillary service revenue estimates prepared by the consultants. We note that consultants have taken great pains to adjust their estimates of the proxy unit's revenues to reflect current conditions, e.g., by reflecting the addition of the Hudson Transmission Partners, Astoria Energy II and Hess Bayonne project. It seems only reasonable to also recognize the significant change in energy and ancillary service market rules that could affect the proxy unit's market revenues. These changes include changes to scarcity pricing and operating reserves reference level caps and, for the combined cycle option, frequency regulation market changes.

The NYISO's failure to include the impact of recent changes to scarcity pricing procedures is particularly troubling. Those changes allow for scarcity pricing to be triggered if one or more load zones experiences a reserve shortage after demand response is activated, even if all of East of Central East and the NYCA have sufficient reserves.

The Final Report contends that the revised scarcity pricing rules have already been accounted for in the consultants' analysis because they are reflected in the MAPS based adjustments to the consultants' econometric analysis (see pp. 75-76). We agree that scarcity pricing should be reflected in the MAPS analysis, but do not agree that this is a complete solution. The MAPS-based adjustments are calculated on the basis for two different comparisons: 1) a comparison of a baseline and adjusted resource mix and 2) a comparison of a baseline level of surplus and a reduced level of surplus. The results of the econometric analysis are adjusted to reflect the differences between these two sets of conditions.

The problem is that in instances where scarcity pricing would be triggered in both the baseline and the revised scenario, the MAPS output would presumably show little or no change in price. Thus, the results of the econometric analysis will not be revised. In those instances, the historical data used in the econometric analysis should be revised as if the revised scarcity pricing procedures had been in effect.

The Final Report further argues that historical real-time prices utilized as a component already reflect the impact of the scarcity pricing rules (see pg. 76). This contention is incorrect, since the revised rules were only placed into effect in July 2013 and could not have been reflected in the historical data.

Some observers have suggested that the scarcity pricing changes would only affect real-time prices, which constitute a minor part of the proxy unit's revenues. We note that although scarcity pricing is implemented in real-time, adjusting day-ahead revenues is also appropriate over the long-term, because day-ahead and real-time prices should be assumed to converge.

APPENDIX
CENTRAL HUDSON ESTIMATE
FRAME TURBINE NET CONE WITHOUT SCR IN DUTCHESS COUNTY

Market Participants from the Generator voting sector expressed concerns that without the dual fuel capability or a year round firm natural gas transportation contract, a simple cycle electric generating facility may not be able to operate during the very cold winter days when non-firm transportation natural gas delivery may be restricted or unavailable.

At the 8/13/2013 ICAPWG meeting, NERA indicated that for the Zone F area, there are approximately 540 hours over a 3-year time period (i.e.,180 hours per year) when the ambient temperature would be less than 20 degrees Fahrenheit such that non-firm natural gas transportation may be restricted or unavailable. As shown in the Appendix D table below, taken from the NYISO Proposal, the Zone G (Dutchess County) ambient temperature (19.3 degree Fahrenheit during winter) is warmer than the Zone F ambient temperature (15.3 degree Fahrenheit during winter). Therefore, there are probably less than 540 hours over a 3-year time period (less than 180 hours per year) in the Zone G (Dutchess County) area when the ambient temperature would be less than 20 degrees Fahrenheit such that non-firm transportation natural gas delivery may be restricted or unavailable.

24 Appendix D: Temperature and Relative Humidity Assumptions

Table A1 - Site Assumptions for Capacity and Heat Rate Calculations						NYISO Proposed Change Revised 8/13/2013	
Load Zone	Weather Basis	Elevation (ft)	Season	Ambient Temperature (°F)	Relative Humidity	Ambient Temperature (°F)	Relative Humidity
C - Central	Syracuse	421	Summer	79.7	67.7	92.3	48.0
			Winter	17.3	73.7		
			Spring-Fall	59.0	60.0		
			Summer DMNC	91.2	42.4		
			Winter DMNC	14.2	65.0		
			ICAP	90.0	70.0		
F - Capital	Albany	275	Summer	80.7	67.2	92.4	48.0
			Winter	15.3	70.7		
			Spring-Fall	59.0	60.0		
			Summer DMNC	92.4	42.5		
			Winter DMNC	11.9	64.5		
			ICAP	90.0	70.0		
G - Hudson Valley	Poughkeepsie (Dutchess Co.)	165	Summer	82.3	77.7	94.4	43.0
			Winter	19.3	74.0		
			Spring-Fall	59.0	60.0		
			Summer DMNC	94.4	41.0		
			Winter DMNC	18.0	57.6		
			ICAP	90.0	70.0		
G - Hudson Valley	Newburgh (Rockland Co.)	165	Summer	82.3	77.7	18.0	27.8
			Winter	19.3	74.0		
			Spring-Fall	59.0	60.0		
			Summer DMNC	95.4	40.3		
			Winter DMNC	19.3	48.5		
			ICAP	90.0	70.0		

Source: NYISO Proposal, p. 44

There are more economical options (lower cost options) that can be used to address and to price in this non-firm transportation winter natural gas supply disruption concern for the proxy unit located in the Dutchess County location than using the dual fuel capability assumption option proposed in the Final Report and in the NYISO Proposal. The following are two options that can be used to replace the dual fuel capability assumption option:

- 1) The NYISO can use the SGT6-5000F(5) combustion turbine simple cycle (“Frame GT”) electric generating facility without SCR as the proxy unit in the Dutchess County location and eliminate any net energy revenue for this generating facility on days when the maximum temperature is less than 20 degrees Fahrenheit in computing the net CONE cost. This is the conceptual approach that NERA used to compute the net CONE cost for the SGT6-5000F(5) combustion turbine simple cycle (“Frame GT”) electric generating facility without SCR for the proxy unit in the Zone F location.

Using the information provided on Table 5 and on Table 6 as reproduced on the next two pages, taken from the NYISO Proposal, the Annual Fixed Cost of \$110.08/kW-year developed for a Zone F SGT6-5000F(5) Frame GT with SCR from Table 6 (based on the 25-year Amortization Period) looks comparable to the Annual Fixed Cost of \$107.29/kW-year developed for the Zone F SGT6-5000F(5) GT from Table 5 used to compute NERA’s net CONE cost for the Zone F proxy unit. Therefore, the annual fixed cost for a Dutchess County SGT6-5000F(5) Frame GT without SCR is probably in the ballpark of \$137.94/kW-year as shown in Table 6 (based on the 25-year amortization period).⁴ Using the Energy and Ancillary Service Net Revenue for a Zone F SGT6-5000F(5) Frame GT of \$18.48/kW-year from Table 5, based on NERA’s conceptual approach of eliminating any net energy revenue for a SGT6-5000F(5) GT generating facility on days when the maximum temperature is less than 20 degrees Fahrenheit, the estimated net CONE cost for a SGT6-5000F(5) combustion turbine simple cycle (“Frame GT”) electric generating facility without SCR to be used as the proxy unit in the HV Dutchess County location would be in the ballpark of \$119.46/kW-year ([\$137.94/kW-year] - [\$18.48/kW-year]).

⁴ We further note that the capital costs of other plant configurations and technologies are also approximately 25% more expensive in Dutchess County than in Zone F.

Table 5: Demand Curve Values at Reference Point for Capacity Years 2014/2015

	2010 DC Value for 2013/2014 2013 dollars/kW-year			2013 Update for 2014/2015 2014 dollars/kW-year		
	Annual Fixed Cost	Energy and AS Net Revenues	Net Costs	Annual Fixed Cost	Energy and AS Net Revenues	Net Costs
Recommended Proxy Units						
ROS Frame 7	123.8	27.5	96.3	N/A	N/A	N/A
Zone C SGT6-5000 (F) GT	n/a	n/a	n/a	106.1	15.48	90.62
Zone F SGT-5000(F) GT	n/a	n/a	n/a	107.29	18.48	88.81
NYC LMS100	288.3	97.3	191	299.54	54.5	245.04
HV Dutchess LMS100	n/a	n/a	n/a	220.15	47.12	173.03
HV Rockland LMS100	n/a	n/a	n/a	224.8	53.06	171.75
LI LMS 100	259.4	151.8	107.6	247.62	114.64	132.98

Source: NYISO Proposal, p. 25

Table 6: Demand Curve Values at Reference Point for Capability Years 2014/2015 SGT6-5000F (5) with SCR in One and Two Unit Simple Cycle Configurations

	20-year Amortization Period 2014 dollars/kW-year			25-year Amortization Period 2014 dollars/kW-year		
	Annual Fixed Cost	Energy and AS Net Revenues	Net Costs	Annual Fixed Cost	Energy and AS Net Revenues	Net Costs
Single Unit						
Zone C	117.92	15.10	102.82	108.99	15.10	93.89
Zone F	119.10	17.76	101.34	110.08	17.76	92.32
NYC	214.86	33.49	181.37	204.86	33.49	171.37
HV Dutchess	149.22	27.93	121.29	137.94	27.93	110.01
HV Rockland	152.08	32.77	119.32	140.50	32.77	107.73
LI	166.96	86.67	80.28	152.26	86.67	65.58

Source: NYISO Proposal, p. 26

- 2) A second more sensible option to maximize its economic viability is for the NYISO to use the SGT6-5000F(5) combustion turbine simple cycle ("Frame GT") electric generating facility without SCR in Dutchess County as the proxy unit for the Lower Hudson Valley and to include the cost of purchasing natural gas peaking contracts in the Annual Fixed Cost for the proxy unit instead of eliminating some of proxy unit's net energy revenue. Such contracts typically allow the customer to purchase

delivered gas at an index price by providing notice one day in advance to the supplier during a specified number of winter days (e.g., 5, 10, 15 or 30 days).

The fixed cost to purchase natural gas peaking contracts average approximately \$0.55/dth based on Central Hudson’s past 3 years of actual purchases. These natural gas peaking contracts are for natural gas delivery to the Pleasant Valley city gate (which is in Dutchess County) using the Iroquois Gas Transmission System, LP (Iroquois) pipeline. Central Hudson has been purchasing 10-day natural gas peaking contracts for many years to serve its LDC natural gas customer load on the 5 to 10 coldest winter days in the year in combination with the purchases of year-round firm natural gas interstate pipeline transportation capacity. The purchase of these peaking contracts is more economical than if Central Hudson was to purchase year-round firm natural gas interstate pipeline transportation capacity to serve its LDC natural gas customer load on the 10 or less very cold winter days in the year when this additional natural gas pipeline transportation capacity may be used. The companies from which Central Hudson purchased these natural gas peaking contracts either hold or obtain firm transportation capacity to the Pleasant Valley city gate and have a contractual commitment to deliver the natural gas when requested by Central Hudson, with notice in accordance with the terms of these peaking service agreements.

For winter operation, it is estimated that an electric simple cycle generating facility in Zone G may be dispatched up to 12 hours per day on the very cold winter days when the electric usage is significantly higher than an average winter day. Using the generator performance data in Table 4 shown below, taken from the NYISO Proposal, purchasing 30,000 dth per day of 15-day natural gas peaking contracts should provide sufficient reliable natural gas deliveries to operate a single SGT6-5000F(5) combustion turbine generator at full output for up to 12 hours per day and be able to reliably get the natural gas deliveries during the 180 hours or less per year when non-firm transportation natural gas deliveries may be restricted or unavailable. The computation to support the natural gas peaking contract purchase requirement is shown below.

Table 4: Performance and Variable Operating and Maintenance Costs for Generating Plants Evaluated

	2x GE LMS 100	1x1x1 Siemens STG6-5000(F)*	12x Wartsila 18V50	1x Siemens STG6-5000(F)*
Zone F Albany				
Heat Rate (Summer) Btu/kWh	9,223	7,197	8,512	10,708
Heat Rate (Winter) Btu/kWh	9,056	7,097	8,512	10,248
Capacity (Summer) MW	198.41	314.11	199.40	213.70
Capacity (Winter) MW	200.91	325.34	199.40	226.20
ICAP (Summer) MW	187.97	308.11	190.82	211.70
ICAP (Winter) MW	200.81	324.24	199.40	226.20
Variable O&M \$/MWh	5.38	1.03	10.69	0.25
Variable O&M (\$/Start)		9,164		9,164

Source: NYISO Proposal, p. 20

Natural Gas Peaking Contract purchase requirement computation:

(Maximum Quantity of Natural Gas to be used by 1x SGT6-5000F(5) combustion turbine generator)	=	(12 hours / day)	*	(226.2 MW)	*	(10,248 Btu / kWh)	*	(1,000 kWh / MWh)	*	(1 dth / 1,000,000 Btu)
(Maximum Quantity of Natural Gas to be used by 1x SGT6-5000F(5) combustion turbine generator)	=	(27,818 dth / day)								

(Number of Days needed for Natural Gas Peaking Contracts)	=	(180 hours / year)	÷	(12 hours / day)
(Number of Days needed for Natural Gas Peaking Contracts)	=	(15 days / year)		

(Annual Fixed Cost of Natural Gas Peaking Contracts)	=	(\$0.55 / dth)	*	(30,000 dth / day)	*	(15 days / year)
(Annual Fixed Cost of Natural Gas Peaking Contracts)	=	(\$247,500 / year)				

(Annual Fixed Cost of Natural Gas Peaking Contracts in \$/kW-year)	=	(\$247,500 / year)	*	(1 / 226.2 MW)	*	(1 MW / 1,000 kW)
(Annual Fixed Cost of Natural Gas Peaking Contracts in \$/kW-year)	=	(\$1.10 / kW-year)				

As shown in the calculation above, it is estimated that the purchase of 30,000 dth per day of 15-day natural gas peaking contracts would increase the Annual Fixed cost for the proxy unit by a ballpark of \$1.10/kW-year. Using the Annual Fixed Cost of \$137.94/kW-year and the Energy and Ancillary Service Net Revenue of \$27.93/kW-year developed for a HV Dutchess County SGT6-5000F(5) GT from Table 6 (based on the 25-year Amortization Period), the estimated net CONE cost for this SGT6-5000F(5) combustion turbine simple cycle (“Frame GT”) electric generating facility without SCR to be used as the proxy unit in the HV Dutchess County location would be in the ballpark of \$111.11/kW-year ([\$137.94/kW-year] + [\$1.10/kW-year] - [\$27.93/kW-year]).

It should be noted that these natural gas peaking contracts can be structured in 5,000 dth blocks or in any other size blocks a natural gas fired electric generating facility may want to contract for. The 30,000 dth per day of natural gas peaking contracts can be purchased from several different companies to avoid purchasing all 30,000 dth from one specific company in order to mitigate the counterparty risk. If an electric generating facility purchased a total of 30,000 dth (in 5,000 dth blocks) of 15-day natural gas peaking contracts to be delivered on the Iroquois pipeline to a location in Dutchess County during the winter months, the electric generating facility can either (a) call for 30,000 dth per day to be delivered over a total of 15 different Gas days, or (b) call for 5,000 dth per day to be

delivered over a total of 90 different Gas days, or (c) call for any other combinations in between these 2 range points depending on the forecasted natural gas needs for a particular Gas Day based on the NYISO dispatch schedule for the Dutchess County electric generating facility and the peaking service calls made to date.

Summary of Net CONE costs for the 3 different assumption options:

The following table summarizes the net CONE costs computed using the 3 different assumption options for the proxy unit in the HV Dutchess County location:

2013 Update for 2014/2015
(2014 dollars / kW-year)

Proxy Unit in the HV Dutchess County location	Annual Fixed Cost	Energy and AS Net Revenues	Net CONE Cost
Option 1: Dual Fuel [LMS100]	\$220.15	\$47.12	\$173.03
Option 2: Eliminate Energy and AS Net Revenues on very cold Winter days [SGT6-5000F(5) GT]	\$137.94	\$18.48	\$119.46
Option 3: Natural Gas Peaking Contracts [SGT6-5000F(5) GT]	\$139.04	\$27.93	\$111.11

As shown in the table above (options 2 and 3 in comparison to option 1), the more economical option is to set the net CONE cost using the SGT6-5000F(5) combustion turbine simple cycle (“Frame GT”) electric generating facility without SCR as the proxy unit for the Dutchess County location, not the LMS100 combustion turbine electric generating facility.

This error in selecting the incorrect technology for the proxy unit will result in increased capacity costs for the zone “G-H-I” load of approximately \$160 million/year to \$230 million/year.

Attachment D

Proposed NYISO Installed Capacity Demand Curves
For Capability Years 2014/15, 2015/16, and 2016/17
Comments of Con Edison
August 30, 2013

Con Edison offers the following comments on the August 19, 2013 draft of the proposed NYISO Installed Capacity Demand Curve For Capability Years 2014/15, 2015/16, and 2016/17 (“report”).

Energy & Ancillary Services Revenues

Con Edison continues to be concerned about the magnitude of change in the Energy and Ancillary Services revenue as compared to the last demand curve reset and believes that these revenues are understated. Con Edison has consistently raised these concerns in the stakeholder process and requested that NERA provide further scenarios and detailed information to help stakeholders explore these potential issues. NERA has declined to prepare some additional analyses requested by Con Edison, such as the addition of a reserve margin variable and dummy variables reflecting the retirement of Astoria 2 and 4 to its econometric analysis. NERA has also not disclosed the full details and results of analysis comparing the outputs of the econometric analysis to forward market prices nor has it provided details on its MAPS runs, such as implied heat rates. As a result, Con Edison is continuing to analyze NERA’s model and may offer additional comments at a later date.

Zone J Interconnection Costs

Con Edison is concerned that the interconnection costs reflected in the CONE for New York City (Zone J) overstate the interconnection costs that the proxy unit would incur under equilibrium conditions:

- *Rejected Cost Allocation:* Sargent & Lundy (“S&L”) utilized projects from the CY09, CY10, and CY2011 but ignored if projects rejected their cost allocation such as the South Pier Improvement Project. In particular, it is inappropriate to include the unusually high cost of System Protection SUFs for the South Pier Improvement Project. South Pier rejected its cost allocation.
- *Headroom Payments:* It is unclear how S&L calculated headroom payments, but, based on S&L’s affidavit in the last demand curve reset, they appear to be overstated. Headroom values have depreciated significantly since the Class Year 2009/10. In addition, the facilities for which headroom payments must be made (i.e., the series reactors) would potentially not be needed at the level of capacity surplus utilized to determine the CONE.
- *Open Air Substation:* S&L established the costs of the stand-alone SUFs based on the average of costs for GIS, open air 345kV and open air 138kV substations. It is inappropriate to use the costs for GIS as the E&AS revenues are based on an open air substation, and the interconnection costs should be too.

Attachment E

**COMMENTS OF THE INDICATED
NEW YORK TRANSMISSION OWNERS
ON PROPOSED ICAP DEMAND CURVES FOR 2014-17**

Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., 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 (jointly, “Indicated NYTOs”) submit the following comments on the installed capacity (“ICAP”) demand curves for 2014-17 that were proposed to the Board.¹ We also request opportunity to participate in oral argument before the Reliability and Markets Committee of the NYISO Board on October 14th.

EXECUTIVE SUMMARY

At issue on this demand curve reset is a significant decision for New York’s wholesale electricity market and its customers. Contrary to the requirements of the NYISO tariff, the Proposal’s ICAP demand curves are not based on the unit with the lowest fixed cost for the Lower Hudson Valley (“LHV”) and New York City. The Proposal, if adopted, will result in a major unjustified price increase for New York State’s electricity customers. Indeed, ICAP costs could unnecessarily increase by approximately \$140 million annually in the LHV and more than \$350 million annually in New York City if the appropriate proxy unit for those demand curves is not selected.²

¹ Proposed NYISO Installed Capacity Demand Curves For the Capability Years 2014/2015, 2015/2016 and 2016/2017, Sept. 6, 2013 (“Proposal”).

² All estimates of the impact of changes in the ICAP demand curve on capacity costs have assumed that the amount of surplus capacity in the market is consistent with the assumptions made for 2013 by Tariq Niazi, the NYISO’s Consumer Interest Liaison, in an affidavit that accompanied the NYISO’s April 30, 2013 filing in Docket No. ER13-1380-000. The Indicated NYTOs believe, however, that it is likely that the amount of surplus capacity that will

The NYISO's Market Administration and Control Area Services Tariff ("MST" or "Tariff") requires NYISO to determine the Cost of New Entry ("CONE") based upon the net cost of developing, constructing and operating a "peaking unit [that] 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."³ Thus, NYISO's obligation under its Tariff is to choose the unit with the *lowest* fixed costs, but the Proposal fails to comply with that obligation for the LHV and New York City. In particular, the Proposal adopted the consultants' recommendation to reject a Frame unit with selective catalytic reduction ("SCR") due to technical feasibility reasons even though such a unit has already been approved for siting, financed, built, and has commenced operation in California. A Frame unit with SCR has also been the PJM proxy unit since 2007, and its use there has been approved numerous times by the Federal Energy Regulatory Commission ("FERC"). While the indicated NYTOs have other concerns, as discussed herein, this is the principal flaw in Proposal's analysis that must be corrected.⁴

The Indicated NYTOs request that the Board make the following changes to the Proposal so that the compliance filing it will make on the demand curve complies with its Tariff:

1. The ICAP demand curves for New York City and the LHV should be based on the net cost of developing a two-unit simple cycle Frame turbine plant with SCR, a technology whose feasibility is now proven. A Frame generator with an SCR is currently in operation in California, and PJM has used such a proxy unit since 2007 when setting its ICAP demand

actually be present in the market for 2014-17 will be somewhat less than the amount assumed by Mr. Niazi. Consequently, these capacity cost estimates may be conservative.

³ MST § 5.14.1.2 (emphasis added).

⁴ The NYTOs understand that there may be a need to conduct additional analysis on the Frame Unit with SCR in order to determine its precise Net CONE (although at this time it appears to meet the tariff requirement as the unit with the lowest fixed costs). As the Proposal notes (at 41), further adjustments may be necessary if a Frame unit with SCR is adopted as the proxy unit.

curves. The Indicated NYTOs propose that the Board adopt a Frame unit that is dual fueled in New York City and that is not dual fueled in the LHV.

2. The NYISO Board should also consider a single-unit Frame GT without SCR and without dual-fuel capability and adopt it as the proxy unit for the LHV zone if it is the least-cost unit. The Proposal incorrectly concludes that such a Frame unit could not be built in the LHV zone without dual-fuel capability (and a unit that is dual fueled and does not have SCR cannot meet air emissions standards). But, there currently are no NYISO or interstate pipeline dual fuel requirements on generators that locate in the LHV zone and there is at least one existing generator in the LHV that has chosen not to be dual fueled. Consequently, a new generator in the LHV would not have to be dual fueled, in which case it could meet the emissions standards that are applicable to most of the LHV zone.
3. The calculation of net CONE should continue to include 30 years' of projected energy and capacity revenue, as in past demand curve resets. The Proposal adopts the consultants' recommendation to set the demand curves at levels that assume that new generation must recover enough revenue to make the initial investment worthwhile in the first 20-25 years that the generator is in service, instead of the first 30 years as was assumed and approved by the FERC in previous demand curve resets. But purchasers are willing to pay significant amounts for generators that are more than 20-25 years old, demonstrating that it would be unreasonable to assume that energy or capacity revenues received more than 20-25 years after a generator is placed into service have little value. Likewise, it is unreasonable to assume that the developer could not finance the significant residual value of the generator.
4. The zero-crossing point ("ZCP") for the LHV zone, *i.e.*, the point on the ICAP demand curve where the price reaches zero, should be set to 114 percent of the requirement, consistent with the only analysis that has been performed of the appropriate ZCP for that zone. Dr. Patton's analysis indicates that ZCP should be set at 114 percent of the ICAP requirement for the LHV zone and there is no analysis supporting any other figure. The Proposal recommends that the ZCP for the LHV zone be set at 115 percent of the requirement, but such a recommendation is arbitrary as the Proposal provides no justification for doing so. NYISO Staff has recommended maintaining the current ZCPs for the other ICAP demand curves because, in the absence of substantial evidence indicating that changing the ZCPs would be beneficial, NYISO should maintain the status quo. There is, however, no status quo for the LHV zone, so that rationale cannot justify the proposed ZCP.⁵

⁵ We are raising these issues before the Board, but there are additional issues, which have been previously raised in other comments in the stakeholder process, that we may raise at the FERC after the NYISO files its proposed demand curves: (1) NYISO should revise its estimates of the net costs of building the generators that serve as the basis for the ICAP demand curves, to reflect, *inter alia*, increased profits from energy and ancillary services sales that will result from various market rule changes that will increase prices; and (2) Con Edison believes that the Proposal incorrectly calculates the interconnection costs of New York City generators. In addition, the Indicated NYTOs reserve their right to argue for a phase-in of the price impact in either or both New York City and the LHV

I. AS REQUIRED BY THE NYISO TARIFF, THE BOARD SHOULD ADOPT THE LEAST COST PROXY UNIT FOR THE NEW YORK CITY AND LHV ZONES.

We support the Proposal to the extent that it provides that the “proxy unit” used for the NYCA ICAP demand curve be a single-unit simple cycle Frame turbine without SCR because it appears to be the least-cost unit. The Proposal, however, uses a two-unit simple cycle LMS 100 plant as its proxy unit for two zones (New York City and the LHV), even though this proposal violates the Tariff requirement that the proxy unit be the unit with the “lowest” fixed costs. The Board should modify the Proposal by selecting the unit with the lowest fixed costs as the proxy unit as follows: (1) for the LHV, either a Frame unit with SCR that is not dual-fueled or a Frame Unit without SCR that is not dual-fueled, whichever is lower cost; and (2) for New York City, a Frame unit with SCR that is dual-fueled.⁶

A. The Proxy Unit for Zone J and the LHV Should be the Least Expensive Unit, a Frame Unit with SCR

The Proposal provides the estimated cost of a simple cycle Frame turbine plant with SCR in various regions of the state, but recommends against using those estimates as the basis for the CONEs in any of the NYCA subzones or “Localities.” SCR would be required in New York City and could be required in portions of the LHV for a gas turbine to limit its nitrogen oxide (“NOx”) emissions.⁷ The Proposal adopts the consultants’ recommendation to reject a Frame Unit with SCR in these zones because of its alleged technological infeasibility.⁸ The consultants found that a simple cycle Frame turbine plant with SCR should not be evaluated due to problems

if the unit with the lowest fixed costs is not chosen as the proxy unit. The NYISO filed for a phase-in when it originally filed to implement sloped demand curves and a similar phase-in would be justified here if the NYISO files as set forth in the Proposal.

⁶ The Indicated NYTOs also assume that, if the Board determines that a Frame unit with SCR is feasible, then it would be the proxy unit for any zone in which it is the least cost unit.

⁷ As discussed below in Point B, we do not believe that such a unit is required to have SCR, but assume it for the purposes of this section.

⁸ Proposal at 28.

with controlling exhaust temperatures that can be necessary for the SCR to operate.⁹ The generation technology consultant, in its July 9, 2013 presentation,¹⁰ stated that SCRs have not been “successfully applied” to Frame turbines with higher exhaust temperatures and cited two examples: Puerto Rico Electric Power Authority, Central Cambalache facility, and the Riverside Generating Company in Frankfurt, Kentucky.

The Board should reject the consultant’s determination. First, these two facilities were placed into operation more than 10 years ago¹¹ and are therefore not an appropriate indicator of technology available today. Second, the Central Cambalache facility was an *oil-only* facility and the evidence is that the SCR failed due to “catalyst poisoning due to high SO₂ emissions resulting in sulfuric acid mist (H₂SO₄) emissions as well as emissions of heavy metals.”¹² Third, the Riverside Generating Company facility remains in operation today and has not shown any failing due to its SCR although it appears that the SCR is no longer used in operation.¹³

Most importantly, the generation consultant ignored more recent information which shows that a Frame Unit with SCR is feasible. Specifically, there is substantial evidence that SCR is a feasible technology for a Frame turbine because exhaust temperatures could be reduced

⁹ *Id.* at 12.

¹⁰ Responses to Comments Demand Curve Reset Study Report, S&L presentation to NYISO ICAP Working Group, available at: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-07-09/SL%20Pres%20ICAP%20WG%202013.07.09.pdf

¹¹ Riverside Generating Company commenced service in 2002 (<http://www.epa.gov/airtransport/pdfs/controltechnologies.xls>); and Puerto Rico Electric Power Authority commenced service in 1997 (http://www.epa.gov/region7/air/title5/petitiondb/petitions/prepa_cambalache_petition2005.pdf).

¹² *Bridgeport Peaking Station Bridgeport, CT, Permit to Construct Application, p 4-7* (June 2007). This application concludes that “the installation of SCR at the Riverside Generating facility in Kentucky and discussions with SCR vendors indicates that the application of SCR to the project is technically feasible.” *Id.* The report is available at http://www.ct.gov/csc/lib/csc/pendingproceeds/petition_841/attachment_f_bulk_exhibit_air_permit_app_june07.pdf Notably, the developer of this project stated that it *intended* to combine a Frame turbine operated in combustion turbine mode with SCR but it appears that this project was ultimately abandoned.

¹³ *Id.*

prior to treatment with SCR. The Marsh Landing Generating Station in California, which is owned by NRG Energy, Inc. (formerly owned by GenOn prior to its merger with NRG), combines four Frame model turbines in simple cycle configuration with SCR that has a total capacity of 720 MW. The California Energy Commission decision approving construction of the plant expresses no concern with the feasibility of using SCR. It notes only that “[d]ilution air fans will temper flue gas temperatures to meet SCR catalyst temperature requirements.”¹⁴

The Marsh Landing facility utilizes the same Siemens SGT6-5000F technology that was examined by the consultant’s final report. The consultant stated with respect to the Marsh Landing facility that “[e]missions data are publicly available and will be monitored,” and it does not appear that the consultant engaged in any follow-up. Instead, the consultant based its rejection of this Frame Unit with SCR on its statement that “[o]ur experience is that clients often choose aero-derivatives or combined cycles to avoid technical and operational issues.”¹⁵ But this subjective statement is directly contrary to the Tariff requirement that NYISO choose the feasible unit with the lowest fixed costs and not what the consultant’s clients may have “often” chosen in the past.¹⁶

Moreover, PJM has required that the reference resource used to determine its demand curve be modeled as a Frame unit with SCR technology since 2007.¹⁷ In the last PJM demand curve reset, no supplier (many of whom also participate in the NYISO) protested the use of the

¹⁴ California Energy Commission, *Marsh Landing Generating Station*, Docket Number 08-AFC-03, at 8 (August 31, 2010), available at:

<http://docketpublic.energy.ca.gov/PublicDocuments/Regulatory/Non%20Active%20AFC%27s/08-AFC-3%20Marsh%20Landing/2010/August/TN%2058247%2008-31-10%20Final%20Commission%20Decision.pdf>.

¹⁵ Sargent & Lundy presentation to ICAP Working Group on July 9, 2013:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-07-09/SL%20Pres%20ICAP%20WG%202013.07.09.pdf

¹⁶ *Responses to Comments Demand Curve Reset Study Report*, Presentation to NYISO ICAP Working Group, Christopher D. Ungate (July 9, 2013).

¹⁷ PJM Interconnection, L.L.C., 117 FERC ¶ 61,331 (2006)

Frame Unit with SCR as the proxy unit for the demand curve.¹⁸ The Proposal's response to PJM's longstanding use of a Frame Unit with SCR is that NYISO uses a process that is more "rigorous" than PJM's,¹⁹ but the Proposal provides no basis in its Tariff for doing so and ignores that the FERC has on numerous occasions determined that it is just and reasonable for a proxy unit to be a Frame Unit with SCR.²⁰ The Proposal's rejection of the least cost proxy unit cannot be supported by the Proposal's unexplained claim that its process is more "rigorous" than PJM's, nor does it provide a basis for deviating from the FERC's numerous decisions approving the use of this unit.

The Proposal fails to fully consider the Frame Unit with SCR because it improperly rejected this option. But it appears that the proposal to reject a Frame model turbine with SCR as the proxy unit for the New York City and the LHV will increase capacity costs for New York State customers by more than one billion dollars over the next three years, an amount that simply cannot be justified when there is a lower cost feasible alternative. The Indicated NYTOs therefore request NYISO to utilize the Frame model turbine with SCR as the proxy unit for these regions, with the only difference being that the proxy unit should be dual-fueled for New York City and should not have dual fuel capability in the LHV.

¹⁸ The PJM tariff provides: "Reference Resource" shall mean a combustion turbine generating station, configured with two General Electric Frame 7FA turbines with inlet air cooling to 50 degrees, Selective Catalytic Reduction technology in CONE Areas 1, 2, 3, and 4, dual fuel capability, and a heat rate of 10.096 MMBtu/ MWh PJM Open Access Transmission Tariff, Attachment DD, § 2.58. The use of the Frame Unit with SCR for PJM was most recently approved by the FERC in PJM Interconnection, LLC, 138 FERC ¶ 61,062, P 19 at n. 24 (2012).

¹⁹ Proposal at 14.

²⁰ PJM Interconnection, L.L.C , 117 FERC ¶ 61,331 (2006), in PJM Interconnection, LLC, 138 FERC ¶ 61,062, P 19 at n. 24 (2012)

B. The Assumption that the Proxy Unit for the LHV Zone Must Be Dual Fueled is Incorrect, and the Board Should Consider the Adoption of a Frame Unit without SCR that does not have Dual Fuel Capability in the Lower Hudson Valley as the Proxy Unit.

The NYISO's obligation is to adopt the least-cost unit as the proxy unit. It appears that a Frame unit with SCR and no dual fuel capability would be the least-cost unit for the LHV. If, however, a Frame unit without SCR is the least cost unit in the LHV, then it should be the proxy unit for that zone. In addition, if the Board opts not to utilize a Frame turbine plant with SCR as the basis for the CONE in New York City and the LHV, it should adopt a single Frame unit without SCR for the LHV. The Proposal's assumption that the use of a Frame Unit without SCR could not meet emissions requirements because it needs to have dual fuel capability cannot withstand scrutiny.

It is unreasonable to assume that a combustion turbine constructed in the Lower Hudson Valley during the three-year reset period (i.e., May 2014 through April 2017) must have dual fuel capability. At present, there is no NYISO dual fuel requirement for generators in the Lower Hudson Valley. Some Local Distribution Companies ("LDCs") – e.g., Con Edison, O&R and Central Hudson – require generators that interconnect with their gas systems to install back-up fuel capability, but the interstate pipelines serving the area, as is typical, have no such requirement. Moreover, neither NYISO's interconnection requirements nor its capacity market rules require generators to have dual fuel capability, and there is currently no pending proposal to create such a requirement. It is uncertain, at best, that such a dual fuel requirement would take effect in the next three years and would be applicable to a combustion turbine.

The Proposal contends that units must have dual fuel capability because (1) LDC gas service tariffs require generators to have back-up fuel; (2) a "majority" of recent projects that

have been completed or proposed in these areas have had dual fuel capability; and (3) dual fuel capability expands the siting options for these generators.²¹ There are, however, three projects currently seeking to interconnect in the LHV and none have proposed to interconnect to an LDC gas system; each would interconnect directly to an interstate pipeline.²² Additionally, although two of the three projects have proposed to install back-up fuel capability, one has stated that it will be a gas-only facility.²³ The Board should reject the Proposal's reasoning that, because a "majority" has chosen to be dual-fueled, NYISO should assume that the proxy unit for the LHV must be dual-fueled. NYISO's obligation, under its Tariff, is to choose the unit with the lowest fixed costs and not what the "majority" of units may be in the interconnection queue, especially when none of those units is a combustion turbine.

Lower Hudson Valley developers that choose to install dual fuel capability likely do so because they believe the economic benefits of doing so will exceed the costs for their combined-cycle units. But this is not a reason to increase capacity costs to customers. The gas-fired combined-cycle generation projects proposed in the LHV are significantly different than the simple cycle plants reviewed in the Proposal, because they use a different technology and are significantly larger than the proxy units evaluated in the Report. Projects with these characteristics are intended to run at a much higher capacity factor than the simple cycle units evaluated in the NERA Final Report and would potentially benefit, to a greater extent, from being able to run more often economically due to fuel flexibility. In the absence of any NYISO

²¹ Proposal at 4.

²² At the very least, the NYISO Proposal should exclude the cost of connecting to an LDC gas system and the associated 27¢ per Dth transportation charge. Since none of the projects in the interconnection queue are seeking to interconnect with an LDC's gas system, the cost of LDC transportation is unnecessary and should, therefore, be eliminated from the cost of the proxy unit used for the LHV zone.

²³ Cricket Valley Final Environmental Impact Statement, Page 1-13. ([Link](#))

dual fuel requirement for the LHV, it is unreasonable to assume that a simple cycle turbine would need, or be willing to pay for, dual fuel capability.²⁴

Finally, with respect to the argument that requiring dual fuel capability will expand siting options, the Proposal has not presented any analysis demonstrating that it will not be possible to site new gas-fired generators without dual fuel capability, and there is already one generator in the interconnection queue that has not chosen to be dual-fueled. Consequently, it is highly unlikely that developers would choose to site at any locations where dual fuel capability is required, thereby increasing their costs unnecessarily.²⁵ An economically rational developer will not install dual fuel capability unless it perceives it will benefit from doing so in the form of increased energy and ancillary revenues. Including the cost of dual fuel capability in the proxy unit cost will overpay developers that choose not to install such capability given that there is no requirement to do so. Accordingly, a project of the configuration assumed by NYISO may not be economically viable, as required under the Tariff, so long as lower-cost configurations are available.

The Proposal fails to justify that a peaking unit located in the LHV must have dual fuel capability. Given this, peaking units without dual fuel capability should be eligible for consideration as the proxy unit for the LHV. As a result, a single-unit Frame GT without SCR that would not be dual fueled should be adopted if it is least-cost, as it would meet the emissions

²⁴ The Indicated NYTOs provided an appendix to their comments on the draft Staff report that describes how a peaking unit would be able to be operate without being dual fueled Comments of the Indicated New York Transmission Owners (Aug. 30, 2013) at 8-13, available at: http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-08-22/NYTO%20Demand%20Curve%20Reset%20Comments.pdf.

²⁵ IPPNY has also argued that the proxy unit used for the LHV zone should have dual fuel capability suggesting that there are similarities between the lower Hudson Valley and New England, but IPPNY fails to provide the basis for such a comparison.

standards applicable to most of the LHV zone. Emissions requirements in most areas of the LHV are no more restrictive than in Zone C or Zone F. As shown in Figure II-1 of the NERA Final Report and Tables 1 and 2 of the Proposal, Prevention of Significant Deterioration (“PSD”) emissions thresholds in Zone F and most of the Lower Hudson Valley, including Dutchess, Putnam, Sullivan, Ulster and portions of Orange counties, are effectively identical. The more restrictive emissions constraints described in the NERA Final Report apply only in Rockland, Westchester and lower Orange counties. Table II-6 of the Final Report acknowledges that a simple cycle GT could operate up to 1,056 hours per year in Dutchess County without exceeding NOx emission limits, a level that is virtually identical to the 1,075 hours per year permitted in Zone F.²⁶ Indeed, two of the three major generation projects proposed in Zones G, H and I in recent years would be located in areas where NOx emissions of up to 40 tons per year would be permitted. Consequently, a Frame unit without SCR that is not dual-fueled can be permitted and operated in the LHV. It should also be considered as the proxy unit for the LHV and should be adopted as the proxy unit for the LHV if it is the least cost unit.

The Indicated NYTOs estimate that this incorrect assumption that the Proxy Unit for the LHV zone must be dual fueled, thus preventing the less expensive Frame Unit without SCR to be used as the Proxy Unit in the LHV zone instead of the LMS 100 unit, could also unnecessarily increase capacity costs for electric customers in the G-H-I zone similar to the impact of failing to use the Frame unit with SCR, *i.e.*, by as much as \$420 million over the three-year period to which the proposed ICAP demand curves will apply.

²⁶ NERA Final Report, p. 34
http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_icapwg/meeting_materials/2013-08-13/Demand%20Curve%20FINAL%20Report%208-2-13.pdf

II. THE PROPOSAL HAS NOT PROVIDED SUFFICIENT JUSTIFICATION FOR SHORTENING THE AMORTIZATION PERIOD

The Proposal adopts the consultants' recommendation to base its calculation of the net cost of developing a proxy unit on the assumption that the developer must recover all of those costs over the first 20 years it is in service (in the case of the proxy unit used for the NYCA ICAP demand curve) or 25 years (in the case of the proxy unit used for the demand curves for the three Localities). While the NERA Final Report states only that the 20-25 years life cycle is "an economic life that represents the period over which an investor would analyze cost recovery,"²⁷ it concedes that "a new peaking unit will likely physically last thirty years or more." NERA then claims without any support that "investors will use a shorter time horizon in determining the levelized cost."²⁸

In the last two demand curve reset cycles, the consultants have based their CONE estimates on a 30-year life cycle. The proposed change results in effective amortization periods for the proxy generators that are far shorter than the effective amortization periods used in the past. The amortization period for the New York City proxy generator has declined from 17.5 years in the 2011-14 demand curve reset to 14.5 years in the Proposal, while the amortization period for the proxy unit used for the NYCA has declined from 20.5 years to 17.5 years.²⁹

Neither the NERA Final Report nor the Proposal provides any citations or sources to support the claim that investors will examine the proxy unit's value over a 20-25 year period

²⁷ NERA Final Report, pp. 91-92.

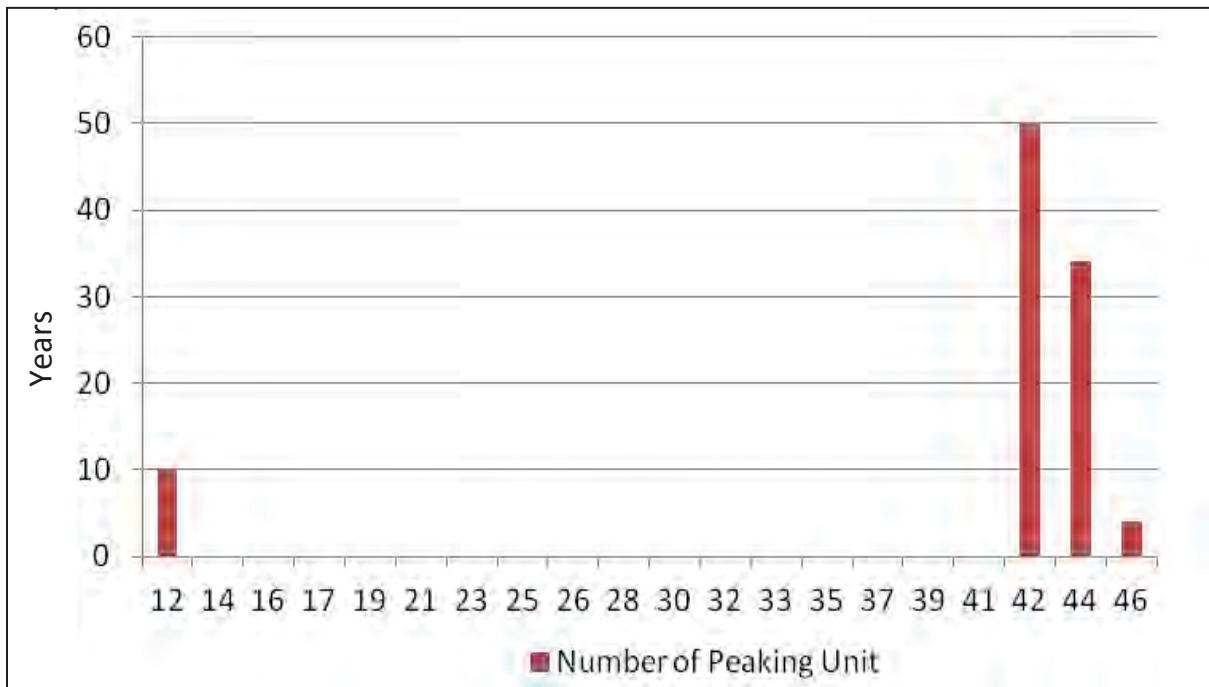
²⁸ *Id.*

²⁹ The amortization period is typically shorter than the period over which a developer must recover its investment, because the amortization period indicates the period of time over which the developer will recover its investment if the amount of capacity provided in the summer is equal to the minimum requirement. The demand curve, on the other hand, assumes that there will be some excess capacity provided in equilibrium, so it takes longer to recover the investment.

instead of 30 years. Moreover, the NERA Final Report offers no explanation as to why developers will demand an accelerated recovery of their funds for the unit that would be built in the Rest of State region (i.e., Zones A-F). The assumptions made by NERA regarding technological progress are the same as in the last reset, so there is no reason to believe that technological progress will make these plants economically obsolete sooner than would have been expected when the last reset was performed.

The use of a 20-25 year life cycle amounts to an assertion that investors will place a value of zero on potential cash flows more than 20 or 25 years in the future. This conclusion is contradicted by the results of NERA’s financial model, which indicate that each of the plants evaluated will remain economic beyond the 20-25 year life cycle. Moreover, simple cycle units older than 40 years are common in New York City, as shown in the table below.

Chart 1. Age of New York City Peaking Units



Even if one were to assume that the unit will receive no energy revenues, its capacity payment (at Net CONE) will likely exceed its remaining costs. Even when many of them have a low capacity factor (1 percent or less), they continue to receive a steady capacity payment. The net present value of the residual cash flow after year 25 (*i.e.*, Net CONE less operating and maintenance costs, property taxes and insurance times one minus the tax rate) is over \$1200/kW or over 60 percent of the initial investment. This high residual value demonstrates the reason most existing peaking units continue to operate well past 40 years.

Finally, it appears that NERA may have changed the amortization period in response to an IPPNY comment without conducting a rigorous independent analysis as to what the appropriate time period should be. In its comments on the NERA Final Report, IPPNY stated:

[I]f the market exceeds the model's assumed excess levels by a very small amount, it will cause the amount of time required to recover the proxy plant investment to rise to unreasonable levels. For example, for both the NYC and NYCA Demand Curves, recovering financing costs would take more than 35 years if the average excess level was 2.5%. Given that a 2.5% average excess level is well below the historic excess and also well below what might be expected from forecast errors alone, it is unlikely that the proxy unit could be funded based upon the proposed Demand Curves. *Therefore, the Demand Curves should be based upon shorter amortization periods to ensure a reasonable period in which to recover the investment costs over the average excess levels that are likely to occur in the market.*³⁰

The Tariff provides that “[t]he cost and revenues of the peaking plant used to set the reference point and maximum value for each Demand Curve shall be determined under conditions in which the available capacity is equal to the sum of (a) the minimum Installed Capacity requirement and (b) the peaking plant’s capacity equal to the number of MW specified

³⁰ IPPNY Comments on Final Consultant Report: NYISO Demand Curves (Aug. 16, 2013), at 9 (emphasis added).

in the periodic review and used to determine all costs and revenues.”³¹ In claiming that NYISO should assume a shorter amortization period to account for the actual excess being allegedly higher than the assumed excess, IPPNY was asking NYISO to execute an end run around the Tariff provision requiring the appropriate amount of excess.

NYISO should reject such suggestions that it violate its Tariff. Instead, given that no other rationale has been provided for the assumption that developers will disregard revenue streams more than 20-25 years after a plant goes into service, NYISO should include 30 years’ of energy and capacity revenues in these calculations, as it has done in past resets.

Alternatively, if NYISO elects to keep the unsupported 20-25 year assumption made by the consultants, it should revise the residual value for the proxy units to reflect the fact that a 20-to-25-year-old generator is more valuable than a 30-year old generator.³² The NERA Final Report and the Proposal both assume that the residual value of the LMS 100 plant is 5 percent of its original value and that the residual value of the ROS Frame GT is zero, the same values that were used for each of those units in the last demand curve reset, when the demand curves were based on a 30-year life cycle. This does not properly recognize the additional net revenues that the proxy unit will receive during the remainder of its useful life and is not consistent with the sales price that older plants have often realized in New York, as was most recently demonstrated by the announcement earlier this month that US Power Generating Company (“USPG”) will be

³¹ MST section 5.14.1.2.

³² For example, if a generator receives the same cash stream (in inflation-adjusted terms) each year, the net present value of that cash stream over 20 years is only 77 percent of the net present value of that cash stream over 40 years. Consequently, by disregarding revenues received in the 21st through 40th years of such a generator’s life, the NYISO would disregard 23 percent of the value of that generator. In comparison, disregarding revenues received over the 31st through 40th years of such a generator’s life would only cause the NYISO to disregard 8 percent of the value of that generator.

acquired by Tenaska Capital Management for \$902 million, implying a value of \$475/kW for USPG's generation.

The Indicated NYTOs estimate that assuming that developers must recover their investments over 20-25 years, instead of the more reasonable 30 years assumed in the past, could increase capacity costs by as much as \$500 million over the three-year period to which the proposed ICAP demand curves will apply.

III. THE ZERO-CROSSING POINT FOR THE LHV ZONE DEMAND CURVE SHOULD BE 114 PERCENT

The Proposal reversed changes to the zero-crossing points to the ICAP demand curves used for the NYCA, the LHV zone, and New York City that NYISO Staff had recommended in the initial draft version, which were based upon analysis performed by the Market Monitoring Unit ("MMU") of the marginal impact that additions of capacity in each of those regions would have on loss of load expectation ("LOLE"). The Proposal explained the reversal as follows:

In its review of the various methodologies and recommendations regarding the zero-crossing points, the NYISO found that the analyses conducted were highly sensitive to methodology, input assumptions and transmission system topology.... The NYISO contends that there is insufficient information to demonstrate that a revised methodology would send a more accurate price signal or otherwise better align the ICAP Demand Curve with system reliability. Thus, there would not necessarily be a benefit that could, in whole or in part, offset the additional uncertainty that might be introduced. Therefore, the NYISO proposes to make no changes to the existing NYCA, NYC and LI zero crossing points....³³

The Indicated NYTOs do not disagree with this argument, but it does not address the issue of where to set the ZCP for the LHV zone. Concerns that changing ZCPs from current levels would unnecessarily introduce uncertainty into the ICAP market may be relevant for the other ICAP demand curves, since those ZCPs have remained the same since 2003, when the

³³ Proposal at 31-32.

current demand curve-based approach to operating the ICAP market was introduced. But there is no current ZCP for the LHV zone, so such concerns do not apply and the recommendation contained in the Proposal is not based on any analysis. The NERA Final Report proposed setting the ZCP for the LHV zone at 115 percent because it is halfway between the NYCA ZCP (112 percent) and the New York City and Long Island ZCPs (118 percent). The Proposal simply repeated this recommendation without adding any analysis to support it.

Although we share some of the Proposal's concerns that the analysis conducted by the MMU may not be robust to changes in system conditions in the future, it is nevertheless the only analysis that has been performed regarding where the ZCP for the LHV zone should be set. An imperfect analysis is better than no analysis at all. Consequently, given that the MMU's analysis is the only analysis available, the Indicated NYTOs believe that the ZCP for the LHV zone should be set at 114 percent of the requirement for that Locality, consistent with the MMU's finding that the marginal impact that additional capacity in the LHV zone has on LOLE reaches zero when the amount of capacity provided in that Locality is about 114 percent of its requirement. The Indicated NYTOs estimate that setting the ZCP for the LHV zone at 115 percent of the requirement, instead of 114 percent, may increase capacity costs by as much as \$70 million over the three-year period to which the proposed ICAP demand curves will apply.³⁴

CONCLUSION

The Indicated NYTOs respectfully request that the Board modify the proposed ICAP demand curves consistent with the comments and recommendations herein: (1) the ICAP

³⁴ The Indicated NYTOs concur, however, that the NYISO should not commit to using this methodology in future demand curve resets.

demand curves for New York City and the LHV should be based on the net cost of developing a two-unit simple cycle Frame turbine plant with SCR, a technology whose feasibility is now proven; (2) a single-unit Frame GT without SCR and without dual-fuel capability should be considered and adopted as the proxy unit for the LHV zone if it is the least-cost unit; (3) the calculation of net CONE should continue to include 30 years' of projected energy and capacity revenue, as in past demand curve resets; and (4) the ZCP for the LHV zone should be set to 114 percent of the requirement, consistent with the only analysis that has been performed of the appropriate ZCP for that zone.

Dated: October 2, 2013

Respectfully submitted,

The Indicated NYTOs: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., 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.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Washington, D.C. this 20th day of December, 2013.

/s/ Carlos L. Sisco
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146 FERC ¶ 61,043
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Cheryl A. LaFleur, Acting Chairman;
Philip D. Moeller, John R. Norris,
and Tony Clark.

New York Independent System Operator, Inc.

Docket No. ER14-500-000

ORDER ACCEPTING TARIFF FILING SUBJECT TO CONDITION AND DENYING
WAIVER

(Issued January 28, 2014)

1. On November 29, 2013, the New York Independent System Operator, Inc. (NYISO) filed revisions to section 5.14.1.2 of its Market Administration and Control Area Services Tariff (Services Tariff) pursuant to section 205 of the Federal Power Act (FPA).¹ The proposed tariff revisions define the demand curves for the Installed Capacity (ICAP) market for the 2014/2015, 2015/2016, and 2016/2017 Capability Years.² The filing also proposes to establish the first ICAP demand curve for the new Locality encompassing Load Zones G, H, I and J (G-J Locality), and it proposes a phase-in of the new demand curve parameters for the G-J Locality. The filing includes the results of the periodic review of the ICAP demand curves.

2. In this Order, the Commission accepts NYISO's proposed tariff revisions, subject to NYISO refiling to reflect the Demand Curve parameters without any phase-in adjustment. The Commission rejects NYISO's proposed phase-in of the new demand curve parameters for the G-J Locality and NYISO's associated request for waivers. The following discussion addresses only protested issues, as all other non-protested factors are found to be supported, reasonable, and are accepted.

¹ 16 U.S.C. § 824d (2012).

² NYISO's capability year consists of the summer capability period and the winter capability period that runs from May 1 through October 31 and November 1 through April 30.

I. Background

3. NYISO is required to determine the amount of ICAP that each load serving entity (LSE) must acquire to ensure that adequate resources are available to meet projected load on a long-term basis taking into account reliability contingencies. The amount of ICAP, in megawatts, required to provide adequate resources to meet reliability contingencies for the New York Control Area (NYCA) includes the Installed Reserve Margin (IRM), which is currently 18 percent. The ICAP obligations for LSEs and the spot market auction prices for the associated monthly ICAP requirement are determined using separately established downward-sloping ICAP demand curves. NYISO determines the locational ICAP requirement for NYCA. There are currently separate location-specific ICAP requirements for LSEs in New York City (NYC) and Long Island (LI), which reflect the existence of transmission constraints in those areas. In this filing NYISO proposes an additional locational ICAP requirement for the new capacity zone, the G-J Locality.

4. Section 5.14.1.2 of the Services Tariff requires NYISO to perform a triennial review to determine whether the parameters for the ICAP demand curves should be adjusted. Specifically, section 5.14.1.2 of the Services Tariff requires that the periodic review assess:

(i) the current localized levelized embedded cost of a peaking plant in each NYCA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements, and (ii) the likely projected annual Energy and Ancillary Services revenues of the peaking plant over the period covered by the adjusted ICAP Demand Curves, net of the costs of producing such Energy and Ancillary Services. . . . The periodic review shall also assess (i) the appropriate shape and slope of the ICAP Demand Curves, and the associated point at which the dollar value of the ICAP Demand Curves should decline to zero; (ii) the appropriate translation of the annual net revenue requirement of the peaking plant determined from the factors specified above, into monthly values that take into account seasonal differences in the amount of capacity available in the ICAP Spot Market Auctions; and (iii) the escalation factor and inflation component of the escalation factor applied to the ICAP Demand Curves. For purposes of this periodic review, 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, and a peaking plant is

defined as the number of units (whether one or more) that constitute the scale identified in the periodic review.³

The remaining provisions of section 5.14.1.2 provide the process by which the above review takes place, and they provide that the demand curves as approved by the ISO Board of Directors incorporating the results of the periodic review, shall be filed with the Commission.

5. The demand curve values ICAP on the y-axis in \$/kW-month and ICAP quantity on the x-axis expressed as percentage of the Minimum Installed Capacity Requirement for NYCA, NYC, LI, or G-J Locality, as applicable. The maximum value for each ICAP demand curve is 1.5 times the net cost of new entry (Net CONE) or the estimated localized levelized cost per kW-month to develop a new peaking unit with energy and ancillary services revenues subtracted in each locality or in the rest of state, as applicable. The intersection of 100 percent of the ICAP requirement and an adjusted Net CONE determines the ICAP reference point. Two defined points, the ICAP reference point and the zero crossing point (set at 112 percent for NYCA, 115 percent for G-J, and 118 percent for NYC and LI), articulate a line segment with a negative slope that will result in higher values for capacity as available capacity declines.

II. Summary of the November 27, 2013 Filing

6. On November 27, 2013, NYISO filed revisions to the Services Tariff that implement revised ICAP demand curves for Capability Years 2014/2015, 2015/2016, and 2016/2017. NYISO states that the filing presents the results of the periodic review of the ICAP demand curves specified in section 5.14.1.2.11.⁴ In addition to updating the existing curves for NYC, LI, and the NYCA, NYISO states that this filing also proposed to establish the first ICAP demand curve for the new locality encompassing Load Zones G, H, I, and J (the “G-J Locality”). NYISO is also proposing a “phase-in” of the new

³ Services Tariff § 5.14.1.2.

⁴ NYISO states that prior to the present ICAP demand curve review, NYISO retained FTI Consulting to perform a comprehensive review of the New York capacity markets. FTI Consulting’s report⁴ contained three recommendations that NYISO states had a bearing on the development of the NYISO staff report (NYISO Staff Report). NYISO states that those recommendations related to: (i) the use of a combined cycle combustion turbine facility instead of a simple cycle combustion turbine to establish the cost of new entry (CONE); (ii) the feasibility of using a demand response resource to establish those CONE values; and (iii) the use of an incremental reliability value approach as the basis for setting zero crossing points.

demand curve parameters for the G-J Locality that NYISO believes will ameliorate the potential short-term consumer impacts that result from creating the new locality.

7. NYISO states that in accordance with the Services Tariff provisions, in the third quarter of 2012, it solicited proposals from qualified consultants to identify appropriate methodologies and to develop the ICAP demand curve parameters for the three Capability Years beginning May 2014. NYISO adds that it retained the team of National Economic Research Associates, Inc. (NERA), with Sargent and Lundy (S&L) as NERA's subcontractor (collectively identified as NERA/S&L). NYISO explains that NERA/S&L began their analysis in November 2012 and participated in twelve ICAP Working Group meetings between December 2012 and August 2013, during which stakeholders provided feedback on NERA/S&L's assumptions, methodologies, analysis, estimates, and preliminary results. On August 2, 2013, according to NYISO, NERA/S&L released the final version of their report.⁵

8. NYISO states that on September 6, 2013, as amended on September 12, NYISO staff submitted the NYISO Staff Report to the Board, which evaluated the NERA/S&L Report, addressed oral and written comments received through the stakeholder process and from the NYISO Market Monitoring Unit (MMU), and set forth NYISO staff's recommendation of demand curve parameters.⁶ NYISO states that the NYISO Staff Report accepted all but two of NERA/S&L's conclusions. Specifically, contrary to the NERA/S&L conclusions, the NYISO staff recommended: (i) no changes to the existing zero crossing points used for NYC, LI, and NYCA; and (ii) a change in temperature and relative humidity assumptions in some locations in determining net ICAP revenues.

9. NYISO states that on October 2, 2013, stakeholders provided written comments to the NYISO Board of Directors (Board) on the final NERA/S&L Report and the NYISO Staff Report and made oral arguments to the Board on October 14, 2013. The Board then determined that stakeholders had made a strong case that further review was warranted concerning the selection of the proxy peaking unit (proxy unit) for NYC, LI, and the G-J Locality and it explained to stakeholders that it was seeking additional information on the topic and would share the results of the review during the first week of November 2013 and provide additional opportunities for stakeholder input.

10. NYISO retained the Brattle Group (Brattle) with Licata Energy & Environmental Consulting (Licata) to conduct further analysis. NYISO states that after discussions with NERA/S&L, NYISO staff, and manufacturers and vendors of turbines and selective

⁵ NYISO Filing Attachment III.

⁶ NYISO Filing Attachment IV.

catalytic reduction emissions controls (SCR), Brattle and Licata produced the Brattle Report.⁷ It concluded that the Siemens SGT6-5000F(5) class frame simple-cycle combustion turbine (F class frame) with SCR should be the proxy unit for NYC, LI, and the G-J Locality. NYISO made this report available to stakeholders on November 1 and invited written stakeholder comments, which were submitted by November 8. On November 7, NYISO posted responses to sixteen written questions that IPPNY had submitted on November 5. NYISO states that, after considering all of the information available, the Board approved the Brattle Report's conclusion regarding proxy unit selection and approved all of the other recommendations in the NYISO Staff Report. The Board then directed NYISO to file proposed ICAP demand curves based on those determinations.

11. Section 5.14.1.2 of the Services Tariff specifies that the ICAP demand curve update shall be based upon and consider the following: (a) the current localized levelized embedded cost of a peaking plant in each NYCA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements; (b) the likely projected annual Energy and Ancillary Services revenues of the peaking plant over the period covered by the adjusted ICAP demand curves, net of the costs of producing such Energy and Ancillary Services, under conditions in which the available capacity would equal the minimum Installed Capacity requirement plus the capacity of the peaking plant; (c) the appropriate shape and slope of the ICAP demand curves, and the associated point at which the dollar value of the ICAP demand curves should decline to zero; and (d) the appropriate translation of the annual net revenue requirement of the peaking plant determined from the factors specified above, into monthly values that take into account seasonal differences in the amount of capacity available in the ICAP Spot Market Auctions.

III. Notice, Interventions, and Protests

12. Notice of NYISO's November 29, 2013 filing was published in the *Federal Register*, 78 Fed. Reg. 76,829 (2013), with interventions, and comments due on or before December 20, 2013. Motions to intervene were filed by; East Coast Power, LLC; Exelon Corporation; PSEG Energy Resources & Trade LLC and PSEG Power New York LLC; NRG Companies; Calpine Corporation; Dynegy Marketing and Trade, LLC; Brookfield Energy Marketing LP; Empire Generating Co., LLC; Invenergy LLC; New Athens Generating Company, LLC; Astoria Generating Company, L.P.; Pace Energy & Climate

⁷ Independent Evaluation of SCR Systems for Frame-Type Combustion Turbines, Report for ICAP Demand Curve Reset, The Brattle Group (November 1, 2013) ("The Brattle Report").

Center and Natural Resources Defense Council; Environmental Advocates of New York; and CPV Valley, LLC.

13. Independent Power Producers of New York, Inc. (IPPNY); Electric Power Supply Association (EPSA); TC Ravenswood, LLC (Ravenswood); Multiple Intervenors⁸ and the City of New York (collectively, Multiple Intervenors); The New York Supplier and Environmental Advocate Group⁹ (NY-SEA Group); Astoria Generating Company, L.P. and the NRG Companies (jointly, Indicated Suppliers); and Entergy Nuclear Power Marketing, LLC (Entergy) filed motions to intervene and protests. The New York Transmission Owners¹⁰ (NYTOs) filed a motion to intervene and comments.

14. The New York State Public Service Commission (NYPSC) filed a notice of intervention and comments.

15. On January 6, 2014, Multiple Intervenors and Entergy filed answers.

16. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2013), the notice of intervention and timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

17. Rule 213(a)(2) of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213(a)(2) (2013) prohibits an answer to a protest or to an answer unless otherwise

⁸ Multiple Intervenors states that it is an unincorporated association of approximately 55 large industrial, commercial and institutional energy consumers with manufacturing and other facilities located throughout New York State. In this proceeding we use the term "Multiple Intervenors" to include the City of New York in addition to these facilities.

⁹ The NY-SEA Group is comprised of Dynegy Marketing and Trade LLC; Empire Generating Co., LLC; Exelon Corp.; Invenegy LLC; The PSEG Companies; Brookfield Energy Marketing, LP; New Athens Generating Company, LLC; Environmental Advocates of New York; Natural Resources Defense Council; the Pace Energy & Climate Center; and LockPort Energy Associates, L.P. Each member of the NY-SEA Group has separately intervened in this proceeding.

¹⁰ For purposes of this intervention, the New York Transmission Owners consists of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Power Authority, New York Power Authority, New York State Electric & Gas Corporation, Niagara Mohawk Power Corporation, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

ordered by the decisional authority. We will accept the answers filed in this proceeding because they have provided information that assisted us in our decision-making process.

IV. Discussion

A. Choice of Proxy Unit

18. NYISO states that the Services Tariff requires that the demand curve reset review “shall assess... the current localized leveled embedded cost of a peaking unit in each NYCA Locality and the Rest of State” to meet minimum capacity requirements.¹¹ NYISO adds that for purposes of updating the ICAP demand curves, “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.”¹² NYISO states that, according to Commission precedent, the facilities must be able to be “practically constructed” and “economically viable,” as well as “able to comply with all applicable environmental limitations and utilize commercially available, proven technology.”¹³

19. With respect to the use of dispersed generating resources or demand side resources as the peaking technology, NYISO states that, it discussed this possibility with stakeholders in the 2010 demand curve reset and committed to considering the use of demand response as the peaking unit in the current reset cycle. NYISO states that the FTI Report recognized that demand response is an important participant in capacity markets but explained that neither the cost nor the offer price of demand response was an appropriate measure of the long-run cost of capacity. The NYISO Staff Report agreed with the FTI Report that demand response technology should not be considered as a potential peaking unit in this reset and the Board endorsed that recommendation.

1. The Selection Process

a. Comments and Protests

20. EPSA, Entergy, IPPNY, Indicated Suppliers, and Ravenswood object to the process by which the NYISO Board came to the conclusion to use the F class frame unit

¹¹ Services Tariff § 5.14.1.2.

¹² *Id.*

¹³ *New York Independent System Operator, Inc.*, 134 FERC ¶ 61,058, at 37 (2011) (2011 Demand Curve Order).

with SCR as the proxy unit technology for NYC, LI, and the G-J Locality. The parties argue that the retention of Brattle, a second consultant so late in the process, violated the spirit of the procedural requirements of NYISO's Services Tariff. They claim that because Brattle was solicited at the final stage of the stakeholder process and without the use of a stakeholder-reviewed request for proposals, the two-weeks analysis period and the one week given for stakeholder review and input were too short for meaningful review in violation of the Services Tariff requirement that NYISO provide stakeholders with the opportunity to review and comment on the consultant's data, assumptions, and conclusions. Indicated Suppliers argue that given the importance of the ICAP demand curves, the Services Tariff and ICAP Manual provide for a lengthy process that is intended to allow the proposed ICAP demand curves to be thoroughly reviewed and vetted by stakeholders. Further, according to Indicated Suppliers, the process by which NYISO retained Brattle and Licata has been shrouded in secrecy. While the Services Tariff requires NYISO to develop "with stakeholder review and comment" a request for proposals for a consultant "to provide independent consulting services to determine recommended values for the factors specified above, and appropriate methodologies for such determination,"¹⁴ according to Indicated Suppliers, NYISO has not disclosed the terms on which Brattle and Licata were retained.

21. Entergy contends that, in arriving at the conclusion that the F class frame unit with SCR is a proven technology, the Brattle Group utilized broad assumptions and sources that have not been included in this proceeding.¹⁵ IPPNY asserts that the request for proposal to choose the consultant was designed to ensure that only qualified consulting firms without any conflicts of interest could bid. However, according to IPPNY, Brattle is not truly unbiased in that Brattle could not find contrary to its recommendation of the F class frame to PJM two years earlier without damaging its reputation. IPPNY adds that Brattle's advice was rejected at the time by NYISO as lacking in rigor.

22. On the other hand, Multiple Intervenors, NYTOs, and NYPSC argue that the process of choosing the proxy unit technology was consistent with NYISO's Services Tariff. Multiple Intervenors argue that parties have been on notice of the potential use of a frame unit with SCR technology since early May 2013, when the issue was first raised. In fact, Multiple Intervenors assert that stakeholders specifically requested that NYISO staff and consultants develop cost estimates with respect to the frame unit with SCR for consideration of all parties and, ultimately, the NYISO Board. They argue further that

¹⁴ Indicated Suppliers December 20, 2013 Protest (quoting Services Tariff § 5.14.1.2.1).

¹⁵ Entergy December 20, 2013 Protest at 34.

NYISO informed all parties that those cost estimates would be included in NYISO staff's draft recommendations.

23. Multiple Intervenors argue that the actions taken by the Board are well within their authority pursuant to section 5.14.1.2.9 of the Services Tariff, which provides that the Board has the authority to review and adjust the ICAP demand curves recommended by NYISO staff. Moreover, they argue, section 5.14.1.2.11 of the Services Tariff establishes that the ICAP demand curves filed for Commission approval be those demand curves approved by the NYISO Board. Multiple Intervenors argue that the Board ensured the procedural rights of all parties by establishing the additional process not required by the Services Tariff and that the Commission has previously held that such procedural safeguards are just and reasonable and would not result in overturning a decision by the NYISO Board to review and consider supplemental information during the latter stages of the ICAP demand curve Reset process.¹⁶

b. Answers

24. NYTOs argue in their answer that the Board had a sufficient record and was fully authorized under the Services Tariff to approve the F class frame unit with SCR as the proxy unit for NYC, LI, and the G-J Locality without further due diligence, based on the stakeholder comments received in early October and the entire record before it. With the additional analysis by Brattle, stakeholders were given additional time to address an issue that had been pending for months. Multiple Intervenors also argue that the process undertaken by NYISO was open, fully transparent, consistent with the requirements of the NYISO Services Tariff, and ensured the due process rights of all interested parties.

25. With respect to claims that NYISO lacked tariff authority to select the F class frame with SCR or to retain Brattle/Licata, NYISO asserts that while section 5.14.1.2 of the Services Tariff establishes an extensive, and collaborative stakeholder process for the selection of independent consultants to develop recommended ICAP demand curve parameters, the NYISO Board is responsible for deciding what is to be proposed to the Commission. NYISO states that protestors' reading cannot be squared with: (1) the fact that section 5.14.1.2.9 of the Services Tariff empowers the Board to "review and adjust" consultant and staff recommendations after hearing stakeholder arguments; (2) section 5.14.1.2.11's unambiguous statement that NYISO will file demand curves "as approved by the ISO Board of Directors"; and (3) various other provisions in the tariffs, NYISO's

¹⁶ *New York Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,064, at P 24 (2008) (2008 Demand Curve Order).

organic agreements, and Commission precedent that make independent Boards ultimately responsible for decision making in ISOs/RTOs.¹⁷

26. NYISO also responds that the Board already had a sufficient basis to exercise its authority to select the F class frame with SCR before it retained Brattle/Licata in that certain stakeholders had made a strong case for its adoption, the Commission had authorized PJM to use a similar technology for a similar purpose, and certain units in California (Marsh Landing units) had been in commercial operation for nearly six months, with all available information indicating that they were satisfying all applicable permit requirements. NYISO adds that, given both the commercial operation of the four Marsh Landing units under California's stringent emissions requirements and the significant fixed cost savings associated with the F class frame with SCR, the Board did not believe it could reasonably ignore these considerations. NYISO adds that it would be without reason or merit to interpret the Services Tariff to deprive the Board of its ability to conduct additional due diligence.

27. NYISO asserts that the Board went above and beyond the tariff's requirements by providing the greatest practicable transparency and opportunity for stakeholder input on the report produced by Brattle/Licata. Further, NYISO states that because Brattle/Licata was not retained for the purpose specified in section 5.14.1.2.1 of the Services Tariff, its selection was not subject to the request for proposal requirements.

28. NYISO also responds that allegations of bias in favor the F Class Frame with SCR technology are unsupported and irresponsible. NYISO states that it is a not-for-profit, impartial, and independent entity and Brattle/Licata personnel testify to the fact that they were directed to provide an independent review of a single issue, and to base their judgment on the ascertainable facts. NYISO's filing includes supplemental affidavits from Mr. Chupka and from Mr. Licata that state that further review and additional discussions with SCR manufacturers have reinforced and confirmed their initial judgment regarding the viability of the F class frame with SCR technology.¹⁸

¹⁷ NYISO cites to the 2008 Demand Curve Order where the Commission accepted modifications to NERA recommendations. 2008 Demand Curve Order, 122 FERC ¶ 61,064 at PP26, 31, 60-61.

¹⁸ NYISO January 9, 2014 Answer, Supplemental Licata Aff. ¶¶ 36-39 and Supplemental Chupka Aff. ¶ 5.

c. Commission Determination

29. Several protestors object to the process by which NYISO chose to use the F class frame unit with SCR as the proxy unit technology for NYC, LI, and the G-J Locality. While we agree with the protestors that NYISO's change to the unit it selected could have been done in a timelier manner, we find that NYISO did not violate its Services Tariff. We agree that the process by which NYISO develops the demand curves is designed to allow for meaningful stakeholder review and input. The Board ordered NYISO to conduct further due diligence in response to stakeholder input. This action allowed the Board and stakeholders to review all of the most up-to-date information possible and gather more stakeholder input to this information before the Board made its final decision. The Services Tariff gives the Board clear authority to accept or reject any of the recommendations in the NYISO Staff Report based on the information available to them at the conclusion of stakeholder arguments.¹⁹ In this instance, the Board gave stakeholders an additional opportunity to provide input before acting on the choice of a proxy unit. Therefore, we find that the Board acted within its authority to conduct additional due diligence regarding the viability of the F class frame unit with SCR and their authority to reject a recommendation contained in the NYISO Staff Report. Furthermore, we note that stakeholders have the opportunity to pursue their positions in the instant proceeding and indeed have done so. We therefore conclude that stakeholders' procedural rights have not been violated. While we conclude that NYISO did not violate the Services Tariff or the procedural rights of stakeholders, we suggest that in the future NYISO perform this process with more transparency in order to avoid any appearance of impropriety and allow adequate time throughout the entire process for stakeholders to voice their opinions and concerns.

2. Selection of the F Class Frame Unit with SCR for Long Island, NYC, and G-J Localities

a. NYISO's Proposal

30. NYISO states that after reviewing the Brattle Report and the stakeholder response, NYISO staff concluded that an F class frame with SCR was a technically and economically viable proxy unit technology for the following reasons: (1) the Brattle Report distinguished the failed F class frame with SCR installations from today's technology,²⁰ which is more advanced; (2) the Brattle Report provided additional

¹⁹ Services Tariff Section 5.14.1.2.11.

²⁰ NYISO states that the Brattle Report determined that the prior failures were due to poor engineering design specifications, inappropriate construction, and the use of a catalyst that is now off the market.

information regarding the continued successful operation and compliance with applicable environmental requirements by an existing F class frame unit with SCR, the Marsh Landing Station in California; and (3) Marsh Landing now has three additional months of operating data and this nearly equals the data that existed on the LMS100 at the time that the Board concluded that the LMS100 was viable in the 2007 demand curve reset,²¹ thus, according to NYISO, the reasons the Commission relied upon then, i.e., that it was a combination of mature and proven technologies, support finding that the F class frame with SCR is viable today; (4) the Brattle Report detailed other examples of hot temperature SCR applications functioning well in the electric generating sector; (5) NYISO's reliance on data from Marsh Landing is consistent with Commission precedent;²² (6) NYISO has more reason to believe that there is significant commercial interest in developing F class frames with SCRs than was the case at the time that the NERA/S&L Report was completed; and (7) the NERA/S&L Report, the Brattle Report, Meehan Affidavit, and Chupka Affidavit all affirm that there is no question that the F class frame with SCR units are the lowest fixed cost and highest variable costs option and are thus "economically viable" in NYC, LI, and the G-J Locality.

31. NYISO states that given its agreement with Brattle/Licata that the F class frame with SCR is technically and economically viable, it should be the peaking unit for NYC, LI, and the G-J Locality. NYISO adds that the total capital cost of the LMS100 proxy plant is approximately \$100 million more than the F class frame with SCR in all zones. NYISO asserts that Brattle's conclusion that SCR and F class frame units are two mature, proven technologies that can readily be integrated with proper engineering and design is reasonable and well-supported. NYISO states that the F class frame with SCR satisfies the Services Tariff requirement "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," and the Board accepted NYISO's recommendation.

b. Comments and Protests

32. EPSA, Entergy, NY-SEA, Ravenswood, IPPNY, and Indicated Suppliers protest NYISO's proposal to select a proxy unit that utilizes the F class frame unit with SCR technology for the Long Island, NYC, and G-J Localities. Protestors state that the

²¹ NYISO states that in the 2007 ICAP Demand Curve reset NYISO proposed and the Commission ultimately accepted the LMS100 as a proxy unit, even though certain stakeholders protested to the Commission that the viability of the LMS100 had not yet been demonstrated.

²² NYISO Filing at 15 (citing *New York Indep. Sys. Operator, Inc.*, 125 FERC ¶ 61,299, at P 22 (2008)).

Services Tariff requires utilization of an economically viable technology and a proven technology²³ and they argue that NYISO has failed to show that the F class frame unit meets these requirements.

33. Protestors disagree with NYISO's reliance on the Marsh Landing Station as evidence of viability. First, IPPNY and Indicated Suppliers argue that the Brattle Report failed to provide critical operating data related to Marsh Landing, such as "ammonia slip" data, which is a necessary prerequisite for a finding that the F class frame with SCR is economically viable. IPPNY states that while Marsh Landing operated 82 hours during the peak operating season in the third quarter of 2013, peaking plants in New York are expected to operate more than 1500 hours during the peak season. Second, IPPNY argues, the Marsh Landing operating data is not probative because that data is not representative of the hours that a peaking plant in New York is expected to operate. Third, IPPNY contends that the NOx emissions data from Marsh Landing suggest that the SCR systems are already struggling to perform based on the fact that their nitrogen oxide or NOx emissions are close to or above the permit limit about half of the time. Fourth, IPPNY argues that the Brattle Report fails to provide any data regarding the amount of excess ammonia that exits the stack at Marsh Landing, which IPPNY explains, is a key indicator of SCR performance.

34. Indicated Suppliers assert that consistent with the NERA Report and the NYISO Staff Report, an F class frame with SCR does not, at this time, meet the Services Tariff requirements for a proxy unit. Indicated Suppliers state that the conclusions in these reports reflect concerns regarding the feasibility of operating an SCR with high exhaust temperatures, the short track record of Marsh Landing, and the prior failures of F class frames with SCR in Kentucky and Puerto Rico.

35. Indicated Suppliers argue that in the second demand curve reset order,²⁴ the Commission approved the LMS100, which while not yet widely adopted, had sold eleven units and had five units in the NYISO interconnection queue. By contrast, Indicated Suppliers argue, NYISO has not provided any evidence that there have been any purchases of additional F class frame units with SCR or that anyone is even taking initial steps to install such technology in southeastern New York.

²³ Entergy December 20, 2013 Protest at 32; IPPNY December 20, 2013 Protest at 2 (citing 2008 Demand Curve Order, 122 FERC ¶ 61,064, at P 23 (2008)); NY-SEA December 20, 2013 Protest at 7-8.

²⁴ *New York Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,064 (2008).

36. Indicated Suppliers also argue that there is no indication that NERA/S&L engaged in any analysis of whether an F class frame with SCR is capable of switching fuel within the prescribed 45-second timeframe. Indicated Suppliers point out that although the Licata affidavit states that he was able to verify the ability to switch fuels with the manufacturer, Siemens, there is no documentation to support the claim. Indicated Suppliers assert that NYISO has not been able to point to an F class frame, with or without SCR, in operation anywhere that has demonstrated the 45-second fuel switching capability, and as a result, suppliers argue, the Commission should find that NYISO has not adequately proven that the F class frame with SCR is a viable proxy unit for NYC and the G-J Locality.

37. Indicated Suppliers further argue that NYISO's cost calculations for an F class frame with SCR are unsupported and erroneous. First, Indicated Suppliers argue that even if an F class frame with SCR facility is feasible, it is difficult to verify the accuracy of the cost estimates. Also, Indicated Suppliers assert, certain aspects of the cost analysis could not be completed due to the lack of available data and the fact that NYISO staff was not recommending the F class frame with SCR as the proxy unit at the time of the initial report. Second, Indicated Suppliers argue, NYISO has provided no evidentiary support that the 2 percent adder represents the actual cost of the fuel switching capability.

38. Third, Indicated Suppliers argue that the weighted average cost of capital estimates prepared by NERA/S&L that were used in developing net CONE did not account for the risk premium that would be required if an F class frame unit with SCR were used. Indicated Suppliers cite reasons why a developer of an F class frame with SCR will face more risk than with an LMS100 or an F class frame without SCR. These risks include the uncertainty of the technical feasibility of this technology, increased risk of cost overruns related to NYISO estimates, the fact that the F class frame is less efficient and less flexible than the LMS100, and the additional risk from future capital cost reductions and maturation of the technology. Indicated Suppliers argue that while the Brattle Report concluded that S&L's cost estimates for the F class frame unit were acceptably accurate and conservatively high, Indicated Suppliers do not believe there was enough information for S&L or Brattle to make such a conclusion.

39. In addition, protestors reject the Brattle Report's reliance upon operating data from two other examples of hot temperature SCR applications, the McClellan power plant and the McClure power plant, both located in California. Indicated Suppliers and IPPNY argue that reliance on the McClellan and McClure power plants is misplaced because they are GE Frame turbines of a different class that are much smaller and have much lower exhaust temperatures than the F class frame unit. Also, IPPNY argues, the McClellan power plant only operates approximately 50 hours per year, which is not representative of the thousands of hours a year a peaking plant in New York is expected to operate.

40. Entergy and Indicated Suppliers argue that NYISO has failed to prove that the F class frame unit with SCR is a proven technology because evidence demonstrating successful operation of the F class frame technology on oil or gas is not available. Entergy notes that this finding was echoed in the analysis conducted by NERA/S&L along with NERA/S&L's recommendation that the LMS100 unit with SCR technology be used as the proxy unit for the three NYISO Localities.²⁵ Indicated Suppliers state that NYISO's November 29, 2013 filing does not identify a single facility, existing or planned, that combines an F class frame with SCR and the required dual fuel capability, much less with the additional capability required in New York. Indicated Suppliers also state that in NYC, in order to maintain reliability, Con Edison requires that fuel switching be automatically accomplished within just 45 seconds of experiencing low system gas pressure or loss of gas.²⁶ They question whether the F class frame with SCR is capable of switching fuel within the prescribed 45-second timeframe and assert that there is no documentation provided to support Licata's statement that it verified such a capability through conversations with the manufacturer. They argue that there is no indication that NERA/S&L engaged in any analysis of whether an F class frame with SCR is capable of switching fuel. Further, IPPNY states that the Brattle Report provides no evidence regarding whether an F class frame unit with SCR burning fuel oil can control NOx emissions to levels required under New York State law. The SCR system at Marsh Landing, IPPNY argues, is distinguishable because it burns natural gas only.

41. IPPNY also observes that the emissions limits in NYC, LI, and the G-J Locality are more stringent than the emissions limits applicable to all of the generating plants that were reviewed in the Brattle Report.

42. IPPNY argues that the fact that S&L confirms that the F class frame with SCR has a significant cost advantage yet there are no orders being placed for this type of unit, means that the market has rejected the F class frame with SCR because its fixed cost advantage is outweighed by its operational uncertainty. This is in stark contrast, IPPNY points out, to the position of the LMS100 in 2007, which had many units sold and in the queue.

43. On the other hand, Multiple Intervenors argue that the Commission should adopt NYISO's proposed proxy unit technology. For the G-J Locality, LI, and NYC demand curves, Multiple Intervenors argue that the F class frame unit merely represents the

²⁵ Entergy December 20, 2013 Protest at 33.

²⁶ Indicated Suppliers December 20, 2013 Protest at 26 (citing Consolidated Edison Co. of New York, Inc., EP-7100-10. Transmission Planning Criteria, § 1.13 (November 22, 2011)).

combination of two very mature and viable technologies. They argue that the Commission previously recognized the viability of the technology when it approved PJM's proposal to base its demand curves on the very same technology.²⁷ Multiple Intervenors assert that the NOx emissions limits that apply in California, where the Marsh Landing Station operates, are equivalent to the most restrictive limits that apply in New York (2.5 tons per year), and that the Marsh Landing Station has demonstrated its ability to maintain emissions within the applicable permit limitations.

44. Multiple Intervenors assert that the Commission has previously determined that an alternative technology with a limited historical track record may qualify as a proxy unit in New York in connection with the 2008-2011 demand curve reset process. In 2007, they argue, NYISO proposed the use of the LMS100 technology despite the fact that only a single LMS100 unit was in commercial operation in the U.S. They explain that when the Commission approved the use of the LMS100 unit during the previous reset process for 2008-2011, only a single such unit was in operation, and had only operated 587 hours, compared to the over 4000 hours of operational experience for the three frame units with SCR technology facilities. Multiple Intervenors contend that these figures demonstrate the viability of the frame unit with SCR technology and prove it should be used as the proxy unit for NYC and the G-J Locality.

45. Moreover, Multiple Intervenors argue that the Brattle Study distinguishes the prior examples of SCR deployments with frame units that were relied upon by NYISO consultants in recommending not using the technology for purposes of this ICAP demand curve reset process. Specifically, they explain, NYISO consultants noted the unsuccessful deployments of the technology at the Central Cambalache facility in Puerto Rico and the Riverside Generating Company facility in Kentucky. Multiple Intervenors state that that Brattle Report distinguishes those unit failures for several reasons. First, they explain, those projects were undertaken in the late 1990s and early 2000s and thus do not represent the technological advancements over the intervening years, which are reflected in newer installations like the Marsh Landing Station. Additionally, the Brattle Study found that those unsuccessful deployments were the result of improper design and/or use and therefore do not undermine the viability of the technology as a general matter.

46. Multiple Intervenors further argue that selection of the frame unit with SCR technology is also mandated by section 5.14.1.2 of the Services Tariff, which requires the peaking unit to be one with the lowest fixed costs and highest variable costs. They argue that this is because the fixed costs of the LMS100 are 70 percent higher than the fixed costs of the frame unit with SCR in the Lower Hudson Valley and more than 60 percent

²⁷ *PJM Interconnection, L.L.C.*, 117 FERC ¶ 61,331 (2006).

higher than a frame unit with SCR in New York City. They contend that continued reliance on LMS100 technology would result in artificially inflated ICAP demand curves for the G-J Locality and NYC and impair their ability to provide appropriate price signals regarding the need for, and value of, additional capacity within those regions.

47. Multiple Intervenors explain that the Marsh Landing Station was constructed as a result of California's statutorily mandated long-term resource planning requirements, which, although it is a very different resource planning paradigm than that of New York, it does not undermine the significance of the Marsh Landing Station in demonstrating the commercial viability of the frame unit with SCR technology. In response to the argument that the risk of the Marsh Landing Station is less than that of a unit in New York, Multiple Intervenors argue that the Marsh Landing Power Purchase Agreement has a term of only 10 years, compared to the expected operational life of a generation facility, which is likely 30 years or more, meaning the power purchase agreement offsets only a limited portion of the risk that would otherwise be borne by the generator, NRG, had the facility been constructed on purely a merchant basis. In conclusion, they assert that the competitive procurement process through which the Marsh Landing Station was selected further demonstrates its viability.

48. The NYPSC argues that the use of an F class frame unit with SCR technology is appropriate in light of strict environmental regulations in NYC and the G-J Locality. The NYPSC contends that it is viable technology because the two technologies have been successfully coupled to meet those strict standards, as demonstrated by the successful operation of the Marsh Landing Station in California. The NYPSC also asserts that there is precedent in selecting this technology as a proxy unit in PJM, citing to the fact that PJM bases its demand curves on this same technology.

c. Answers

49. NYTOs argue that it is legally insufficient for the protestors to assert that their preferred proxy unit is better or more appropriate than the one filed by NYISO. They assert that the NYISO proposal is clearly within the zone of reasonableness outcomes and the protestors have not met their burden to establish that the rates produced by NYISO's proxy units are unjust and unreasonable.

50. Multiple Intervenors argue that given its demonstrated technical viability, selection of the frame unit with SCR is mandated by section 5.14.1.2 of the NYISO Services Tariff. The fixed costs of the LMS100 are more than 70 percent higher than the fixed costs of the frame unit with SCR in the Lower Hudson Valley, and more than 60 percent higher than a frame unit with SCR located in New York City. They further argue that continued reliance on the LMS100 technology would result in artificially inflated ICAP demand curves for the G-J Locality and NYC capacity regions and significantly impair the ability of such ICAP demand curves to provide appropriate price signals regarding the need for, and the value of, additional capacity within such regions.

51. NYISO asserts that claims that Brattle/Licata did not have sufficient time to prepare a reliable analysis are inaccurate and misleading. NYISO adds that, in contrast to NERA/S&L, Brattle/Licata focused on a single issue and was able to build on the work of NERA/S&L. According to NYISO, Brattle/Licata approached the exhaust temperature issue as a primary question for their evaluation and also more closely investigated the causes of the failed SCR applications in Kentucky and Puerto Rico with an effort to determine if those failures were caused by inherent technical challenges for SCR presented by the F class frame turbines and how SCR and catalyst may have subsequently evolved to address these issues. NYISO asserts that the successful operation of the four Marsh Landing units is relevant in this proceeding and there is ample data showing that the units have been meeting their permit requirements going back to their initial startup.²⁸ NYISO states that Marsh Landing complied with permit conditions, with NOx emissions of 2 ppm demonstrated.²⁹ With respect to ammonia slip data,³⁰ NYISO states that the data provided shows ammonia slip values well below the 10 ppm levels specified in the Marsh Landing air permit.³¹

52. NYISO responds to protestors' assertion that the McClellan and McClure facilities are not valid references for the viability of the F class frame with SCR and that neither is an F class frame. NYISO asserts that both are clearly relevant to the engineering design issues of operating high temperature SCR applications, including those with dual fuel capability. Further, according to NYISO, Mr. Licata provides additional information showing that there are multiple SCRs on frame units in the United States and Japan that have operated for years above 900 degrees Fahrenheit.

53. Further, the Supplemental Licata affidavit describes the numerous design flaws and engineering failures that contributed to the problems at the Kentucky facility and why it is reasonable to conclude that the various errors would not be repeated today.

²⁸ NYISO specifies that this includes EPA data from the commercial operation of the first unit in May 2013 through the end of September 2013 as well as compliance testing data going back to January 2013. NYISO adds that although the facility did not run frequently in the third quarter, there is nothing to suggest this is attributable to SCR performance but rather to a lack of demand for the units' output at the time.

²⁹ The Supplemental Licata Affidavit cites a report submitted to the California Air Pollution control Board's Bay Area Air Quality Management District on June 6, 2013 (Compliance Report).

³⁰ See IPPNY December 20, 2013 Protest at 16-17.

³¹ Supplemental Licata Aff. ¶ 36

54. NYISO also argues that economic viability is not necessarily the same as widespread market acceptance but rather the term refers to technologies that can supply capacity and energy to the market and that while S&L believes that the F class frame should not be found to be viable until at least twelve months of operating data was available, the Services Tariff imposes no such requirement. NYISO states that other parties isolate individual factors that the Commission considered in its orders accepting the LMS100, but, according to NYISO, there is, at a minimum, as much reason to conclude that the F class frame with SCR is economically viable today as there was for the LMS100 in 2007-2008.³² NYISO states that according to IPPNY consultant Mr. Younger, NYISO should err on the side of selecting a proxy unit that is known with certainty to be economically viable in order to avoid the alleged risks that the cost of market suppression and out-of-market subsidies will be borne by consumers. NYISO responds that the Services Tariff does not allow, and does not require, NYISO to mitigate the risk of market suppression by a bias toward more expensive proxy units and higher demand curves. Further, according to NYISO, Mr. Younger's argument fails to recognize the risks associated with selecting a proxy unit that reflects an unrealistically high cost of new entry.³³

55. NYISO argues that its cost calculations for the F class frame with SCR were accurate, well-supported, and consistent with calculations approved in prior ICAP demand curve reset orders. It also argues that there is no need to include an additional risk premium in the capital costs for the F class Frame with SCR because this is not a "first-of-a-kind" technology.

56. NYISO responds to the assertion by Indicated Suppliers that the Marsh Landing units and other F class frames with SCR are unable to switch from firing natural gas to firing ultra-low sulfur diesel within 45 seconds, a requirement established by Consolidated Edison for all units interconnected in New York City. NYISO provides the Licata affidavit, including an email from a Siemens engineer, attesting to the fact that the Siemens turbine could meet the 45-second requirement.

³² NYISO January 9, 2014 Answer at 24.

³³ NYISO states that ICAP demand curves that significantly exceed the actual cost of new entry in a Locality could result in the construction of more capacity in that Locality than actually require, and such an overbuild, would artificially increase the excess capacity of any other Localities in which the Locality was nested and in the NYCA as a whole.

d. Commission Determination

57. We find that NYISO's proposal to use the F class frame unit with SCR technology peaking unit for developing the capital cost estimate for NYC, LI, and the G-J Locality is reasonable. With regard to this choice, protestors first argue that the dual fuel requirement in NYC and proposed for the G-J Locality undermines the viability of the frame unit with SCR to serve as the proxy unit in these Localities. On the record before us, NYISO states that there is no technical difference between the design of SCR technology for burning both gas and oil for the LMS100 and a frame unit.³⁴ NYISO's technical expert concludes that performance of the SCR burning Ultra Low Sulfur Diesel (ULSD) can be expected to be equivalent or even better than its performance achieved burning natural gas.³⁵ It is true that the Marsh Landing units do not have dual fuel capability. However, NYISO's consultant points out that the designer of the SCR technology for Marsh Landing stated that the SCR design "would not have to change if it were to burn ULSD."³⁶ Therefore, we find that NYISO's conclusion that an F class frame unit with SCR will be able to comply with dual fuel requirements is a reasonable one.

58. Protestors including Entergy, EPSA, IPPNY, and Indicated Suppliers argue that there is insufficient industry experience to conclude that the F class frame with SCR is a viable technology. However, as stated by Multiple Intervenors and the NYPSC, through September 2007, the Marsh Landing units nearly equaled the operation of the LMS100 unit that provided an adequate basis upon which the Commission concluded such technology was viable in the 2008-2011 demand curve reset. NYISO and commenters also cite the McClellan and McClure power plants, which are Frame units equipped with SCR technology. These units provide more than 4,000 hours of additional operating experience. McClellan and McClure power plants are not F class units and they are smaller than the F class frame unit, but they are evidence of SCR technology working as intended on a Frame unit. The Commission does not look for a minimum number of hours in order to determine whether a technology is considered viable. In this case, there is a difference of opinion as to whether the Marsh Landing Station provided enough hours, and we find the record of evidence presented in support of the frame unit with SCR is adequate in order to find that NYISO reasonably concluded that the F class frame with SCR is a viable technology and able to serve as the proxy unit in NYC, LI, and the G-J Locality.

³⁴ Licata Affidavit at 11.

³⁵ *Id.* at 11-12.

³⁶ *Id.*

59. Protestors further argue that the examples of failed units are probative to determine that the F class frame with SCR is not a viable technology. We disagree. NYISO and their consultants distinguished these units from the technology in question in this proceeding. The Brattle Report attributed the failed incidents to outdated technology and poor engineering design and NYISO states that technology has advanced since those failures and there is now evidence of successful high and mid-high temperature SCR applications. We believe that NYISO sufficiently distinguished the failed units in Puerto Rico and Kentucky, both of which occurred over 10 years ago,³⁷ in order to reasonably determine that these failed units did not have a bearing on whether an F class unit with SCR would be able to successfully operate today.

60. Protestors also argue that because the F class frame unit with SCR does not have proposed units in the queue, it is not considered commercially accepted, and is therefore not a viable option. We find that this argument is misplaced. The Commission stated in the 2008 demand curve reset that the Services Tariff does not specify a definition of “economic viability.”³⁸ An economically viable technology must be physically able to supply capacity to the market, but other than this requirement, the Commission stated that economic viability determinations are a “matter of judgment.”³⁹ NYISO states that it believes that an F class frame unit with SCR could be “practically constructed” in southeastern New York, and that it would supply both energy and capacity economically into the market. NYISO also states that the F class frame unit with SCR satisfies the five criteria that NERA/S&L uses to determine viability.⁴⁰ While protestors argue that

³⁷ The Cambalache Unit in Puerto Rico was fitted with SCR technology that failed to operate as expected from 1999 to 2001. The failures were attributed to catalyst poisoning arising from a grade of fuel oil which did not meet the manufacturers’ requirements. The Riverside Facility in Kentucky was fitted with SCR in 2001 and was not successful. This failure was attributed to improper installation and engineering. Brattle Report at 15-16.

³⁸ *New York Indep. Sys. Operator, Inc.*, 125 FERC ¶ 61,299, at P 20 (2008).

³⁹ *Id.*

⁴⁰ See Supplemental Chupka Affidavit at P 6 (citing NERA/S&L Report at 18). The five criteria that NERA uses to determine viability are: (1) The technology can comply with applicable Federal and New York State environmental requirements; (2) The technology is commercially available, i.e., it is not in a pilot or demonstration phase of development, and it has been successfully operated to generate electricity; and it is replicable; (3) The technology is utility plant scale, i.e., it can be interconnected at transmission rather than distribution voltages; (4) The technology is available to most

(continued...)

“market acceptance” is material to the question of economic viability, we find that NYISO’s method of judging economic viability is a reasonable one. NYISO provided information sufficient to conclude that the F class frame unit with SCR can be practically constructed in each Locality and is economically viable. We find that there is enough information in the record to conclude that NYISO’s proposal to use the F class frame unit with SCR as the proxy unit in NYC, LI, and the G-J Locality is a reasonable one.

3. Selection of the F Class Frame Unit Without SCR for NYCA

a. NYISO’s Proposal

61. NYISO’s proxy plant recommendation for the NYCA is the F class frame with dry low NOx combustion for NOx emissions control and a cap on operating hours. NYISO asserts that the cap on annual operating hours prevents the facility from having to conduct an analysis under the Clean Air Act and it could therefore be permitted in the NYCA region while meeting all emissions requirements. NYISO adds that this has been the proxy plant in the NYCA for multiple prior demand curve resets. The Board accepted the NYISO staff recommendation.

b. Comments and Protests

62. The NY-SEA Group, IPPNY, and Indicated Suppliers protest the NYISO proposal’s choice of proxy unit for the NYCA Locality. The NY-SEA Group, IPPNY, and Indicated Suppliers assert that developers would not be willing to develop an F class frame unit without SCR in the NYCA Locality due to environmental permitting and commercial risks and, as a result, the proposed proxy unit for the NYCA Locality cannot be considered “economically viable” and cannot be constructed.

63. Specifically, the NY-SEA Group and IPPNY argue that the F class frame unit without SCR cannot be accepted by the Siting Board under New York State’s Article 10 permitting process that requires a cumulative air quality impact analysis to determine compliance with the 1-hour NO₂ National Ambient Air Quality Standards, as well as Article 10’s Environmental Justice requirements.⁴¹ The NY-SEA Group notes that power

developers, i.e., there are no commercial terms restricting the ability of a developer to acquire or license the technology and fuel for the technology is not restricted or limited in availability; and (5) The technology is dispatchable by the NYISO to meet the daily or peak load demands. It has peaking or cycling characteristics and is capable of cycling off during off-peak hours on a daily basis. The technology can be started and achieve minimum load within an hour.

⁴¹ NY-SEA Group December 20, 2013 Protest at 16.

plants without SCR technology have not been permitted in New York State since 1993 and thus, claims that permitting of a generator in the NYCA Locality without an SCR to minimize NOx emissions is “improbable, if not impossible.”⁴² The NY-SEA Group argues that requirements such as these add risk for developers by introducing permitting timing issues and as well as affecting the economic viability of the project.

64. Further, the NY-SEA Group asserts that the proposed proxy unit for the NYCA Locality is not likely to comply with the applicable Greenhouse Gas Best Available Control Technology (BACT) determination requirements under the Federal Clean Air Act.⁴³ The NY-SEA Group contends that NYISO would have to limit operation of the proposed proxy unit further from 950 hours/year to roughly 781 hours/year in order to stay below the major source threshold for greenhouse gases and avoid triggering a BACT analysis.⁴⁴ The NY-SEA Group states that this further limitation would also reduce the proposed unit’s capacity factor by 2 percentage points, as well as bring about other economic and financing obstacles.

65. The NY-SEA Group also asserts that NYISO has failed to consider potential upcoming state and federal regulations which have a direct impact on the economic viability of a new unit within a 20-year investment cycle.⁴⁵ As an example, the NY-SEA Group states that the U.S. Environmental Protection Agency is currently considering amending certain ozone regulations which could result in more stringent state Reasonably Available Control Technology requirements and in turn, existing combustion units would require uneconomic retrofits to lower emissions. The NY-SEA Group states that risks associated with possible retrofits, and other emission controls in the near future will create issues for a developer seeking financing and demonstrate that the proposed proxy unit for the NYCA Locality cannot be considered an economically viable unit.⁴⁶

66. To the extent the Commission does not direct NYISO to select a proxy unit with an unlimited run time, the NY-SEA Group requests that the Commission require NYISO to select a proxy unit that can at least qualify as an Energy Limited Resource in accordance with the Services Tariff. The NY-SEA Group states that the Services Tariff

⁴² *Id.*

⁴³ *Id.* at 19.

⁴⁴ *Id.* at 20.

⁴⁵ *Id.* at 21-22.

⁴⁶ *Id.* at 22.

requires that an Energy Limited Resource must be able to operate for at least four consecutive hours each day of the year or at least 1,460 hours/year.⁴⁷ The NY-SEA contends that a selected proxy unit must be capable of operating enough hours to qualify, at a minimum, as an Energy Limited Resource.

67. The NY-SEA Group requests that the Commission reject the F class frame without SCR for the NYCA Locality and instead approve NERA/S&L's recommendation of the LMS100 unit with SCR as the proxy unit.⁴⁸ In the alternative, the NY-SEA Group requests that the Commission set these issues for a full evidentiary hearing. Also in the alternative, the NY-SEA Group requests that the F class frame unit with SCR be utilized in the NYCA Locality.⁴⁹

68. Multiple Intervenors and the NYPSC support the proposal to use an F class frame unit without SCR in NYCA. The NYPSC asserts that this is the most economically viable technology for this region. Multiple Intervenors assert that the only substantive difference between the last reset and the present one is the level of emissions limitations, i.e., the implications of the 40 tons/year of carbon dioxide or CO₂ emissions limitation, which was not in effect during the last reset process.⁵⁰ They argue that even with this change, consultant's modeling indicates that the average annual economic dispatch of the unit would be minimally impacted (with dispatch ranging from 982 hours to 1025 hours),⁵¹ which demonstrates the continued viability of the non-SCR proxy unit for purposes of the present reset. They argue that, given all of this information, the frame unit without SCR is clearly a viable technology and, as required by the NYISO tariff, is clearly the technology that results in the lowest fixed costs and highest variable costs: the LMS100's fixed costs are nearly double the fixed costs of the frame unit without SCR.⁵²

⁴⁷ NY-SEA Group December 20, 2013 Protest at 26.

⁴⁸ *Id.* at 28.

⁴⁹ *Id.*

⁵⁰ Change from 100 tons/year of NO_x to 40 tons/ year. Multiple Intervenors December 20, 2013 Protest at 19-20.

⁵¹ NYISO Staff Recommendation at 14.

⁵² NYISO Staff Recommendation at 18.

c. Answers

69. NYTOs argue that the protesting suppliers have failed to provide any actual evidence that the F class frame unit without SCR is not a viable choice for the NYCA. They further argue that protestors rely on an unproven and speculative assertion that a frame unit without SCR could not be permitted in New York or, even if it were permitted, would not be built due to concerns that future regulatory changes would require modifications that would effectively shut the units down. NYTOs assert that these arguments ignore the due diligence performed by NYISO regarding environmental standards and that speculation about future regulations is inappropriate.

70. Multiple Intervenors argue that capacity suppliers make purely speculative claims as to the manner in which Article 10 theoretically could impact the siting of such a facility in New York, while flatly acknowledging that: (a) no fossil fuel-fired facility, such as the frame unit without SCR, has ever been reviewed under the recently-enacted provisions of Article 10; and (b) no party can accurately predict how the provisions of Article 10 are likely to be applied in practice given the absence of any precedent. They also argue that consideration of the annual operating cap placed on the frame unit demonstrates that it is likely to result in lower CO₂e (a unit of measurement of greenhouse gases) emissions than the LMS100, thereby invalidating any claims that the LMS100 would be required by BACT due to its higher efficiency.

71. NYISO responds that protestors fail to show that the F Class Frame without SCR would be unable to comply with currently applicable environmental regulations. NYISO states that accepting a federally enforceable annual operating limit ensures that the emission of NO_x will be below the applicable regulatory significance levels and allows the “major source” to avoid the installation of state-of-the-art emission control technology. NYISO states that it confirmed with the Division of Air Resources of the New York State Department of Environmental conservation that this would be a legitimate permitting approach. NYISO states that it also analyzed the compliance of the F class frame without SCR with New York’s CO₂ performance standards for major electric generating facilities and confirmed that it would comply.⁵³

72. NYISO states that the possibility that potential future environmental regulation might impact the long-term operational viability of the unit does not suffice to rebut NYISO’s conclusion based on known facts that the F class frame without SCR will be viable through the three-year ICAP demand curve reset period. NYISO adds that for this

⁵³ NYISO states that it confirmed that the permitting of the F class frame without SCR would not be obstructed by a BACT determination because there is no commercially available post-combustion control technology for CO₂.

and previous ICAP demand curve reset studies, environmental control assumptions for the proxy unit have been based on the regulations currently in force, as it is impossible to know what regulatory requirements will be in the future and what controls might be needed to meet them.⁵⁴ NYISO also rejects the argument that Article 10 of the New York Public Service Law would be an insurmountable hurdle for the F class frame without SCR because, according to NYISO, is based on speculation and a misreading of Article 10. NYISO also states that the NY-SEA Groups argument that the proxy unit could not comply with the one-hour NO₂ standard when modeled with nearby facilities is speculative as these units are more readily able to demonstrate compliance with the one-hour NO₂ standard during start-up than units with higher combustion NO_x emissions that rely on SCR systems for additional NO_x control.

73. NYISO further states that the NY-SEA Group's concern that the F class frame without SCR may not be an eligible "Energy Limited Resource" is misplaced. First, according to NYISO, the Services Tariff does not require Energy Limited Resource status for the proxy unit or for a unit to sell capacity in the NYISO market. Second, the limit on the proxy unit's operating hours is not significantly less than the average annual expected estimated dispatch hours for this type of unit,⁵⁵ which indicates the unit would not need to participate in NYISO's energy markets as an Energy Limited Resource in order to comply with its operating limits.

d. Commission Determination

74. We are not persuaded by NY-SEA's, IPPNY's, or the Indicated Suppliers' arguments that the frame unit without SCR is not economically viable because of potential future emissions regulations. While there is always a risk that regulations will change in the future, we cannot base the finding of viability on speculation that the EPA or New York State regulators will act at some point in the future. A demand curve reset process takes place every three years so that changed circumstances, such as new regulations can be taken into account. A future reset process would be a more appropriate forum to consider any future developments.

⁵⁴ NYISO January 9, 2014 Answer at 30.

⁵⁵ NYISO states that the average annual expected estimated dispatch hours for a peaking unit ranges from 982 to 1025 hours. The average consists of units with annual operations that are well under this level as well as units with operations well in excess of 1075 hours per year. The proxy unit's annual operating limitation is 950 hours. NYISO Answer at 34 (*citing* NYISO November 29, 2013 Filing, Attachment IV at 14).

75. With regard to whether the frame unit without SCR can meet emissions requirements and satisfies the Services Tariff requirement of being the lowest fixed cost, highest variable cost unit that is economically viable, we find that it does. The NY-SEA Group argues that the F class frame unit without SCR will not be able to comply with the BACT emission rates required under the Clean Air Act's New Source Review requirements. NYISO states that accepting a federally enforceable annual operating limit ensures that the emissions of NO_x will be below the applicable regulatory significant levels (i.e., 40 tons per year) and allows the "Major Source" to avoid the installation of state-of-the-art emission control technology necessary to meet BACT/LAER emission rates typically required under the Clean Air Act's New Source Review preconstruction permitting requirements. We agree. IPPNY and the NY-SEA Group also argue that Article 10 of the New York Public Service Law would preclude the development and siting of the F class frame unit without SCR. NYISO states that this is a new law so the manner in which it would apply to the F class frame unit without SCR is purely speculative at this point. However, as NYISO states, Article 10 requires that, if the facility is likely to result in "any significant and adverse disproportionate environmental impact," the developer must identify specific measures it will take to avoid that impact. NYISO states that the F class frame unit without SCR was designed to comply with such regulations. We are persuaded by the argument and believe that with the cap on operating hours, NYISO has reasonably chosen a proxy unit that best fits the requirements of a peaking unit while taking into account all current environmental regulations.

76. Therefore, NYISO's determination that the frame unit without SCR is economically viable for use as the proxy unit in NYCA is reasonable. NY-SEA also argues that the frame unit without SCR cannot be chosen as the proxy unit because it does not qualify as an Energy Limited Resource. We find that this argument is irrelevant as to the question of what the proxy unit technology should be because there is no such requirement in the Services Tariff.

77. While there are obvious differences of opinion as to what the appropriate proxy unit technology should be for NYCA, there is enough information in the record from NYISO and NERA/S&L for the Commission to conclude that NYISO acted reasonably in proposing an F class frame unit without SCR as the proxy unit in NYCA.

B. Need for Dual Fuel Capability in the G-J Locality

1. NYISO's Proposal

78. NYISO states that in the prior ICAP demand curve reset it was assumed that only the NYC peaking plant would require dual fuel capability. In the current reset, NERA/S&L determined that dual fuel capability was also required for the G-J Locality. The NYISO Staff Report agreed with this conclusion and the Board accepted the NYISO Staff Report's recommendation.

2. Comments and Protests

79. Multiple Intervenors, NYTOs, and the NYPSC argue that the Commission should reject the proposed dual fuel requirement assumption for the proxy unit for the G-J Locality. They assert that NYISO disregards the fact that a generation facility's direct connection to a natural gas pipeline, thereby bypassing the local distribution system, would render any such dual fuel capability unnecessary. Moreover, they observe the generation projects proposed in the NYISO interconnection queue to be added to the Lower Hudson Valley clearly demonstrate that a new natural gas fired facility would be highly unlikely to connect directly to the local distribution system and, instead, would connect directly to a pipeline. The NYPSC cites, for example, the prospective Cricket Valley Energy Project that is seeking to locate in the G-J Locality as a gas-only unit connected directly to the interstate pipeline. Further, NYTOs assert that neither NYISO's interconnection requirements nor its capacity market rules require generators to have dual fuel capability, and there is currently no pending proposal to create such a requirement.

80. Multiple Intervenors further argue that small peaking facilities, in contrast to larger combined-cycle baseload units, would expect to operate on a fairly limited basis and are not heavily reliant on energy and ancillary services revenues to justify their economic viability. In fact, they argue, the analysis demonstrates that the expected annual energy and ancillary services revenue offset for a peaking unit in the Lower Hudson Valley is approximately 50 percent less than the expected offset for a combined-cycle facility in the region. Therefore, they assert, a peaking unit does not possess the same incentive to electively implement dual fuel capability and would be unlikely to do so for economic reasons.

81. In contrast, IPPNY asserts that the consultants and NYISO staff properly concluded that the proxy unit for the G-J Locality must be equipped with dual fuel capability. IPPNY states that both Con Edison's and National Grid's gas tariffs require dual fuel capability to qualify for transportation service. IPPNY asserts that NYISO's approach is reasonable in that new generators in the G-J Locality will install dual fuel capability rather than pay extraordinary rates to secure firm interstate pipeline capacity. IPPNY also argues that as reliance on natural gas as the predominant fuel for generators continues to grow, the proxy unit must include dual fuel capability to be viable. IPPNY also believes that NYISO was correct to require dual fuel capability because the G-J Locality is a highly constrained part of the state with growing concerns about the adequacy of electric system and gas system coordination and the electric system's flexibility to address gas shortages. Entergy also notes its support of the NYISO determination that the proxy unit for the G-J Locality be equipped with dual fuel capability.

a. Answers

82. NYISO states that proxy units in the NYC, LI, and G-J Locality would be subject to the dual fuel capability requirement as a contingency in the event of a system loss of gas supply if the operators purchase gas pursuant to a tariff or a local distribution company. NYISO adds that the Commission should accept NYISO's dual fuel assumption in order to expand the options for the economical siting of the proxy unit because without this capability, the unit could not be on the network of a local distribution company and would have to seek a site within a reasonable distance from an interstate pipeline, obtain firm pipeline capacity from that pipeline, and construct a lateral pipeline to connect to the interstate pipeline at a cost of \$2-3 million a mile. Further, according to NYISO, natural gas peaking contracts are not a viable option for the proxy units because these types of contracts have limited availability, are typically not available to units the size of the proxy unit, and often include a provision that requires the purchaser to re-supply the gas purchased on this basis, often within a short period of time.

3. Commission Determination

83. We find that the NERA/S&L determination and NYISO's proposal to assume dual fuel capability in NYC, LI, and the G-J Locality is a reasonable one. NERA stated that while new entrants locating outside NYC and LI have the option of connecting directly to interstate gas pipelines, recently installed and proposed gas-fired generating units in and around NYC have opted for and announced they will both directly interconnect to the interstate pipeline and install dual fuel capability.⁵⁶ While NYTOs, NYPSC, and Multiple Intervenors argue that it is unreasonable to assume that a generator constructed in the G-J Locality would interconnect to the local distribution system, NYISO and their Consultant believe otherwise. They assert that, because obtaining new firm gas transportation would be expected to be expensive, for a peaker, *i.e.*, a unit without a high capacity factor, a new peaking unit would realistically choose dual fuel capability over primary firm pipeline capacity. We agree. If a proxy unit did not have dual fuel capability, it could not be sited in the network of a local distribution company. The unit would then have to find a site that was close enough to an interstate pipeline and pay fees to obtain firm capacity and to build pipeline in order to connect. NYISO states that these costs could be prohibitively expensive and that the incremental costs of dual fuel capability would be more economical than the estimated cost of interconnecting to an interstate pipeline.⁵⁷ For these reasons, and the fact that reliance on natural gas as the

⁵⁶ NERA/S&L Report at p. 42, fn. 39.

⁵⁷ NYISO Answer at 36.

predominant fuel for generators continues to grow, we find that NYISO's assumption of dual fuel capability is a reasonable one.

C. New York City Property Tax Abatement

1. NYISO's Proposal

84. NYISO states that the New York State Legislature enacted legislation in May 2011 that provided property tax abatements of 100 percent of the abatement base for the first 15 years to some electrical generating facilities located in NYC that are either peaking units, as defined by the NYISO tariffs, or units certificated before April 1, 2015 that average no more than 18 run hours per start annually. NYISO states that NERA/S&L indicated that the F class frame unit with SCR meets the hourly run time start criteria for tax abatement and that it is reasonable to assume that a peaking unit in NYC that is completed for operation during the period covered by this demand curve reset would have received its construction permit prior to April 1, 2015. Therefore, NYISO agreed with NERA/S&L's conclusion that the effect of the tax abatement should be accounted for in the determination of the Net CONE for the proxy unit in NYC. The Board accepted the NYISO Staff Report's recommendation.

2. Comments and Protests

85. Indicated Suppliers argue that the proposed ICAP demand curves for NYC are improperly based on the assumption that the existing property tax abatement for electric generating facilities in NYC will continue through the entirety of the current reset period, i.e., through April 30, 2017. Indicated Suppliers argue that assuming the New York Legislature will extend the existing property tax abatement is at odds with the 2011 demand curve reset order,⁵⁸ where the Commission ordered NYISO to exclude tax abatement from its calculation of NYC Net CONE because the law at that time meant that tax abatement was "discretionary" and "not a matter of right."⁵⁹ Indicated Suppliers argue that because the availability of property tax abatement and the extension of the existing program will be entirely at the discretion of the New York legislature, the Commission must ensure that the ICAP demand curves adopted in this proceeding reflect existing law, not speculation about what the New York legislature may or may not do in the future.

⁵⁸ *New York Indep. Sys. Operator, Inc.*, 134 FERC ¶ 61,058 (2011).

⁵⁹ *Id.* at P 88.

86. Conversely, Multiple Intervenors and the NYPSC argue that the Commission should adopt the proposed treatment for the New York City tax abatement. They assert that because the proxy unit is assumed to operate during the entirety of the three year period encompassed by the current reset process, and it typically takes two years for new generation facilities to be constructed, to be operational as of May 1, 2014 (the beginning of the 3-year demand curve reset period), the proxy unit would have to obtain a building permit by the April 1, 2015 deadline, and therefore, it would be eligible for the 15-year tax abatement.

87. Multiple Intervenors along with the NYPSC also anticipate that the abatement will be extended in the near future. Multiple Intervenors explain that a measure to extend the current expiration was approved by the New York Legislature earlier this year, but was vetoed by Governor Cuomo because the bill expanded the current tax abatement instead of merely extending it. They state that Governor Cuomo indicated that he would sign a bill that extended the programs without the expansion provisions.

a. Answers

88. Multiple Intervenors assert that regardless of whether the current abatement is eventually extended, the proxy unit for the NYC ICAP demand curve would qualify to receive the as-of-right tax abatement so long as it obtains a building permit prior to April 1, 2015 or in the event that a building permit were not required, commences construction prior to April 1, 2015. By definition, one of those preconditions would have to occur in this case, thereby ensuring the eligibility of the NYC ICAP demand curve proxy unit for the tax abatement.

89. NYISO argues the inclusion of the assumption of NYC property tax abatement is reasonable because it is very likely that the abatement will be legislatively extended, and even if the abatement program is not extended, a unit that has been completed and is in commercial operation during the period in which the ICAP demand curves will be in effect would have necessarily received its permit in time to qualify for the existing abatement.

3. Commission Determination

90. We find that NYISO was reasonable in concluding that the property tax abatement should be assumed in developing the proxy unit Net CONE in NYC. We find it reasonable to conclude that a generator operating during the three year period encompassed by the current reset process (May 1, 2014 through April 30, 2017) would have to obtain a building permit well before the April 1, 2015 deadline in order to be operational by the start of the 3-year demand curve reset period, i.e., May 1, 2014.

91. The issue of whether the tax abatement is extended is irrelevant to the applicability of the abatement to this proceeding because the proxy unit for the NYC ICAP demand

curve would have to have obtained a building permit prior to the April 1, 2015 deadline of the existing statute in order to be constructed and in service for the 3-year demand curve reset that begins May 1, 2014. Therefore, the proxy unit qualifies for the abatement regardless of whether such abatement is ultimately extended.

D. Payments in Lieu of Taxes

1. NYISO's Proposal

92. NYISO states that NERA/S&L recommended a uniform property tax rate in all regions of the state other than NYC of 0.75 percent. This rate, NYISO explains, takes into account the many projects in other jurisdictions that have been able to negotiate agreements on payments in lieu of taxes (PILOT) at rates substantially lower than the originally recommended rate of 2 percent. NYISO agreed with the recommendation and the Board accepted the NYISO Staff Report's recommendation.

2. Comments and Protests

93. IPPNY argues that NYISO erred in modeling the levelized carrying charge with the assumption that the agreed upon tax level will continue for the entire life of an asset. IPPNY asserts that agreements on payments in lieu of taxes typically last for 15 or 20 years at which point the facility goes on the general tax rolls. IPPNY contends that NYISO's error results in understating the levelized fixed charges for anything beyond the normal 15 to 20 year agreement. IPPNY urges the Commission to require NYISO to correct this error.

3. Commission Determination

94. We accept NYISO's proposal to use a uniform tax rate of 0.75 percent in all regions of the state except NYC. We reject IPPNY's argument that NYISO's consultants erred in assuming a 0.75 percent level of taxes over the life of the plant in their model for levelized carrying charges. NERA/S&L found that four projects were able to negotiate PILOT agreements at rates substantially below rates paid in other parts of the state. Three of these projects had escalating tax rates over twenty years. NYISO states that the consultants used a rate that was a balance between the reduced rates that some tax jurisdictions used and the full tax rates from others.⁶⁰ The 0.75 percent rate that the consultants arrived at was not an average tax rate, but rather a rate that the consultants determined in order to accurately represent the fact that some generating facilities have reduced tax rates with the localities, while others do not. NYISO states that the property

⁶⁰ NYISO Staff Report at 19.

tax rate of 0.75 percent does, in fact, take into account the fact that property taxes will increase after the PILOT Agreements end contrary to IPPNY's assertion. While IPPNY may have estimated a different rate than the one proposed by NYISO, it has not shown that NYISO's or NERA/S&L's assumptions were unreasonable. We find that NYISO's proposal is a reasonable means of using a uniform tax rate while accurately representing available data from all jurisdictions in the state.

E. Development of Levelized Carrying Charges

95. Regarding the levelized carrying charge rate used in developing the levelized Net CONE, NYISO explains that NERA/S&L determined that the rate should be developed using the same methodology used for the previous demand curve reset study, with the exception that the NYC property tax abatement is more appropriately treated as a levelized carrying charge than as a fixed operations and maintenance cost because the tax varies over the plant's useful life (i.e., variable cost).

1. Return on Equity (ROE)

a. NYISO's Proposal

96. NYISO proposes a 50/50 ratio of debt to total capital, a 7.0 percent interest rate on debt, and a 12.5 percent ROE in determining the 9.75 percent weighted average cost of capital. NYISO's proposed ROE was calculated using the Capital Asset Pricing Model (CAPM) (Pricing Model), which, based upon the consultants' original inputs, yielded an average expected ROE of 11.29 percent.⁶¹ Then a 1.21 percent calibration adjustment was added based on the consultants' conclusion that the result yielded by the Pricing Model analysis appeared too low relative to allowed regulated rates of return. Additionally, the consultants noted the potential for the Federal Reserve quantitative easing program to change the historical relationship between government debt costs and market equity costs in a way that may distort the Pricing Model results. Accordingly, the consultants recommended, and NYISO concurred, that a calibration adjustment was necessary to increase the original Pricing Model results.

97. The NYISO Staff Report determined that the cost of capital parameters provided a reasonable balance between what the Pricing Model yields and what other regulated

⁶¹ NERA/S&L Report at pp. 83-88. NYISO estimated this 11.29 percent ROE using a risk-free rate of 3.68 percent (based upon 30-year U.S. Treasury bonds), an equity risk premium of 6.62 percent (based upon historical returns from 1926-2011), and an equity beta of 1.15 (based upon the publicly-traded stocks of merchant generators).

utilities have been allowed and therefore agreed with NERA/S&L's recommendations. The NYISO Board accepted this conclusion.

98. The consultants calculated the calibration adjustment by applying the Pricing Model to a sample of regulated utilities and comparing their expected returns under the Pricing Model to the returns actually allowed by regulators. The consultants determined that the Pricing Model yielded an average expected ROE of 7.72 percent for regulated utilities overall and 7.65 percent for New York utilities, while the allowed ROEs for regulated utilities overall are between 9.5 and 10.0 percent and in New York State are slightly below average at 9.3 percent. The consultants applied the calibration adjustment to increase the Pricing Model return to reflect the difference between the observed Pricing Model returns and the lower-end regulated ROE of about 9.0 percent.⁶²

99. NYISO further contends that the equity market premium can deviate from its long-term average, which is likely why the Pricing Model yields ROEs for regulated entities lower than the prevailing ROEs allowed by regulators. As evidence for this deviation, NYISO cites the fact that quantitative easing is keeping long-term government bond yields low, but does not similarly reduce equity costs, meaning the equity market risk premium input used in the Pricing Model will be understated when it is based on the long-term historic average. This bias, NYISO asserts, must be corrected for by utilizing the 1.21 percent calibration adjustment to the Pricing Model results.

100. NYISO contends the calibration adjustment is not a change to NYISO's ROE calculation, but is instead an additional step necessary to conform Pricing Model results to data observed from current financial market conditions.

b. Comments and Protests

101. Multiple Intervenors assert that the Commission should direct NYISO to reduce the ROE input to the 11.29 percent actually calculated by the consultants' original conclusions. The NYPSC asserts that the ROE should be set no higher than 11.3 percent. In support, protestors assert that the ROE calculated by the Pricing Model adequately accounted for the financial risk associated with investment given current market conditions. Therefore, Multiple Intervenors and the NYPSC contend, the calibration adjustment amounts to a duplicative accounting of that risk.

102. Multiple Intervenors further assert that NYISO's proposed ROE value is a significant departure from ROE values recently approved for New York utilities by the NYPSC. Multiple Intervenors note that ROE values approved by the NYPSC and/or

⁶² NYISO November 27, 2013 Filing, Meehan Aff. ¶ 21.

recommended by NYPSC staff for adoption in currently active rate proceedings range from 8.7 to 9.4 percent. Multiple Intervenors further note that the 11.29 percent ROE initially calculated by the Pricing Model was 219 basis points above the 9.1 percent average approved/recommended ROE for regulated utilities in New York. Moreover, the NYPSC argues, the calibration adjustment would add over 100 basis points to the Pricing Model's calculation.

103. The NY-SEA Group argues that NYISO's financing assumptions and the 12.5 percent ROE are impractical in determining the economic viability of the proposed proxy units and will give rise to inefficient capacity price signals needed for new development and thus, the reliability of the system. Similarly, Indicated Suppliers contend that the weighted average cost of capital estimates did not account for the risk premium that would be required because the F class frame unit with SCR is a comparatively new technology when compared to the LMS 100 technology. Moreover, Indicated Suppliers argue that the risks associated with this newer technology bring into question whether financing could be secured at a cost that would make the project economically viable.

c. Answers

104. NYISO states that the protestors incorrectly conclude that the 1.21 percent increase was an arbitrary and unjustified adder. NYISO asserts that the addition of 1.21 percent was not to account for risk but, rather, was an adjustment that calibrates the ROE that resulted from the Pricing Model analysis to the regulated ROE, which is much higher. NYISO states that its calibration adjustment is conservative and a higher adjustment could easily be justified, as the regulated ROE in New York is among the lowest in the country.

d. Commission Determination

105. We find that NYISO's proposed ROE value of 12.5 percent is adequately supported by substantial evidence. NYISO argues that unique current conditions in financial markets created a downward bias in the CAPM results, necessitating a calibration adjustment of 1.21 percent to the calculated return on equity of 11.29 percent. Specifically, NYISO argues that the result yielded by the CAPM analysis "appeared potentially too low relative to regulated rates of return and as the CAPM is subject to bias at times during the interest rate cycle" because of the potential impact on the historic relationship between the market returns for government debt and common equities.⁶³ Given the recent trends of near-historic low yields for long-term U.S. Treasury bond

⁶³ NYISO November 27, 2013 Filing, Meehan Aff. ¶ 20.

rates, the CAPM's input for the "risk-free" rate, we find that it is a reasonable assumption that the current equity risk premium (which is added to the risk-free rate to calculate the cost of equity data point that determines the slope of the CAPM curve) exceeds the 86-year historical average used as the consultants' CAPM input. The current low treasury bond rate environment creates a need to adjust the CAPM results, consistent with the financial theory that the equity risk premium exceeds the long-term average when long-term U.S. Treasury bond rates are lower than average, and vice-versa. Further, we disagree with the protestors who assert that the calibration adjustment amounts to a duplicative accounting of the risks associated with merchant generation, because the adjustment is tied to how the unique current conditions may distort the results derived from CAPM generally. Contrary to protestors' assertions, NYISO does not argue that the risks of merchant generators, as measured by the beta input, are understated. Instead, NYISO suggests that due to the abnormally low interest rate environment, the CAPM line itself should be redrawn at a higher level and with a steeper slope by raising the equity risk premium input. However, we do not agree that the higher ROE argued for by some generators due to the changed reference unit technology is consistent with the application of the CAPM model.

2. Amortization Period

a. NYISO's Proposal

106. NYISO states that NERA/S&L revisited the methodology used in previous ICAP demand curve resets, in that it did not strictly assume a fixed amortization period. Specifically, NYISO states that its methodology considers the risk of excess capacity, the slope of the ICAP demand curves and the slope of the energy and ancillary service revenue function. NYISO asserts that a primary benefit of this methodology is that it automatically adjusts the reference price to reflect the slope of the demand curve and therefore can account for revenue volatility associated with alternate slopes.⁶⁴ Accordingly, NERA/S&L recommended an economic analysis period of 25 years for the LMS100 unit and of 20 years for the F class frame, a reduction from the periods used in the two previous demand curve resets, which were 30 years. NYISO states that the shortened time period accounts for numerous risks.⁶⁵

⁶⁴ NYISO November 27, 2013 Filing at 24 (citing Meehan Aff. ¶ 14).

⁶⁵ NERA Report at 83. NERA/S&L note that the results produced using the recommended shape and slope of the Demand Curves show implied amortization periods of 17.5 years in NYCA and LI, 18.5 years in the G-J Locality, and 14.5 years in NYC. The 25 and 20 year economic analysis period imply these amortization periods used to establish reference prices. For example, were the zero crossing point closer to the origin,

(continued...)

107. First, NYISO states NERA/S&L identified the possibility of technological change, embodied by the recommended change of peaking unit technology, which could result in lower than expected revenue. Such abrupt changes in technology are not accounted for in the 0.25 percent per year adjustment in the current ICAP demand curve model. NYISO notes the technological change from the higher cost LM 6000 to the LMS100 resulting from the 2008 demand curve reset process, as evidence of such an abrupt technology change.⁶⁶ NYISO asserts that in the face of such technology changes, investors will want to analyze a recovery period or economic life that is shorter than the physical life of the plant to allow for the potential reduced revenue from competing against new technology.

108. Second, NYISO states that the shortened economic analysis period reflects the possibility of increased environmental regulations. NYISO specifically notes potential for carbon regulations that will apply to what are now new units and will more heavily impact higher heat rate alternatives. NYISO states that this is a consideration in using a shorter, 20-year economic analysis period for the less efficient frame units than the more efficient aeroderivative and combined-cycle units.

109. Third, NYISO states that the demand curve revenue model reflects only a limited set of uncertainties, or deviation from forecast conditions. NYISO further states that the F class frame technology is a less efficient and higher emitting technology than the aeroderivative or combined-cycle units, which increases the risk that generator performance will not be as modeled, and that therefore a shorter amortization period of 20 years is necessary to attract investment. Lastly, NYISO notes that PJM has used an economic analysis period of 20 years for purposes analogous to those cited by NYISO in its own capacity market design.⁶⁷

b. Comments and Protests

110. Multiple Intervenors contend that NYISO and NERA/S&L provide little justification for reducing the 30-year amortization period approved in previous demand curve reset processes. Multiple Intervenors allege that NERA/S&L have articulated only two possible justifications for the proposed 10-year reduction. First, Multiple Intervenors point to NERA/S&L's vague reference to the need to address the risk of merchant generation investment through a reduced amortization period. Multiple Intervenors

the amortization periods would decrease, raising the reference price to reflect added merchant risk.

⁶⁶ NYISO November 27, 2013 Filing, Meehan Aff. ¶ 17.

⁶⁷ NYISO November 27, 2013 Filing, Meehan Aff. ¶ 19.

contend that this risk is already addressed by the “risk premium” achieved by the NERA/S&L’s proposed ROE value that exceeds 300 basis points.

111. Multiple Intervenors next point to NERA/S&L’s assertion that the level of excess capacity assumed in the demand curve presents an additional risk that the amortization period should reflect. Multiple Intervenors and the NYTOs argue that the level of excess capacity is prescribed by the Services Tariff, meaning NYISO’s proposal to adopt the NERA/S&L methodology is a tariff violation because NYISO appears to be revising the Services Tariff by adjusting the amortization period. Multiple Intervenors further argue that in the last demand curve reset, NYISO revised section 5.14.1.2 of the Services Tariff to prescribe the level of excess capacity assumption to be used consistently throughout the development of the demand curves going forward. The Commission approved those revisions, and specifically noted that NYISO’s proposal “reduced uncertainty and added clarity to the triennial demand curve reset process.”⁶⁸ Moreover, Multiple Intervenors assert that the Commission observed that NYISO’s excess capacity revisions established that the proxy unit would be used as the basis for the excess capacity levels consistently throughout the analyses used to develop the demand curves.⁶⁹ Multiple Intervenors contend the Commission’s findings dictate that, absent a proposed change to the Services Tariff and subsequent Commission approval, the Commission should reject NYISO’s proposal to significantly reduce the assumed amortization period for each demand curve.

112. The NYTOs allege that the technological progress assumptions made by NERA/S&L, which the NERA/S&L now cite as a basis for reducing the amortization period, are identical to those in the last demand curve reset process, during which no reduction to the amortization period occurred. The NYTOs further argue that NERA’s own model indicates that each of the plants evaluated will remain economic beyond the 20-year life cycle, and further that simple cycle units older than 40 years are common in New York City. Beyond that, the NYTOs allege, NYISO’s proposal ignores the fact that market participants are willing to pay significant amounts for generators that are more than 20 to 25 years old, demonstrating the unreasonableness of assuming that the energy or capacity revenues realized more than 20 or 25 years after a generator enters service have little value. Therefore, the NYTOs contend, it is unreasonable to assume, as NYISO’s proposal does, that a developer could not finance the significant residual value of a plant beyond 20 years.

⁶⁸ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,192, at P 63 (2011).

⁶⁹ *Id.* P 64.

113. If NYISO elects to retain its 20-year amortization period assumption, the NYTOs argue, it should revise the residual value assumption for the proxy units to reflect that a 20-to-25-year old generator is more valuable than a 30-year old generator. The NYTOs contend that NYISO's proposal does not properly recognize the additional revenues the proxy unit will achieve over the remainder of its useful life, as demonstrated by the recent announcement that US Power Generating Company will be acquired by Tenaska Capital Management, implying a value of \$475/kW for US Power Generating Company's generation. The NYTOs lastly contend that they estimate NYISO's proposed reduction of the amortization period could increase capacity costs by as much as \$500 million over the three-year period.

114. The NYPSC argues that NYISO's proposed reduction to the amortization period from 30 to 20 years is unsupported and inconsistent with the operational experience of actual generators in New York State. The NYPSC specifically notes the operational experience of the Siemens SGT6-5000F fleet leader, which has over 104,000 hours of operation. Even with a 40 percent capacity factor, the NYPSC contends, the Siemens unit could run for 30 years and well beyond, assuming proper maintenance.

115. IPPNY contends that NYISO's proposed amortization period of 20 years may be appropriate if all of the following conditions were satisfied: (1) NYISO revises its buyer-side mitigation measures to increase the default offer floor from 75 percent to 100 percent of the Mitigation Net CONE value; (2) the average excess capacity level is modified as discussed in detail in IPPNY's comments; and (3) the demand curve is based upon a reasonable estimate of the cost of a mature and readily available technology. Otherwise, IPPNY asserts that an 18-year assumed capital recovery period for the G-J Locality and NYCA and a 14-year period for NYC are required to give the units a more reasonable period to recover their costs after accounting for the near certainty of uneconomic entry.

c. Answers

116. NYISO states that the decision to adopt an amortization period of 20 years for the frame units and 25 years for the LMS100 unit was explained at length in the Meehan affidavit submitted with NYISO's original filing. According to NYISO, no party provides compelling evidence in support of a different amortization period. Further, according to NYISO, the amortization periods cannot be viewed in isolation of all the parameters considered in the ICAP demand curve reset process. Moreover, NYISO states, the amortization period is not the same as the expected physical lifespan, but rather represents the timeframe over which a reasonable investor expects to recover a return on a potential investment, given a neutral set of assumptions about market conditions. NYISO asserts that, as Mr. Meehan explains, the risk that a developer will not recover his investment during the amortization period is balanced by the potential that revenues will accrue after the amortization period concludes.

d. Commission Determination

117. We accept NYISO's proposed 20-year amortization period as reasonable in light of the inherent technological, market, and environmental risks in investing in the proposed proxy unit. Relative to the previous LMS100 proxy unit, the proposed proxy unit has greater market risk since it has a more limited ability to earn energy market revenues and is thus largely dependent on capacity revenues for cost recovery. In the NYCA the proposed proxy unit with no SCR has restricted run hours that are likely to become more restricted should environmental standards tighten. Retrofitting such a unit may not be economic with existing technology. We conclude that adjusting for these environmental risks and other market risks is appropriate and that a 20-year amortization period is one element of the demand curve reset process that takes these factors into account. For the other capacity zones, we conclude that the shorter amortization period is a reasonable basis for accounting for certain technological risks, such as the added uncertainty of the effect of dual fuel requirements and limited operating experience of SCRs with F-class frame units.

118. It is the Commission's responsibility to determine whether these judgments and the resultant outcomes fall within a zone of reasonableness and we conclude that, in this case, they do. While there are several ways to arrive at demand curve adjustments that fall within that zone, we conclude that, with respect to the amortization period adjustments, NYISO has reasonably selected a 20-year amortization period over which to measure the economic life of the proxy unit. Although a proxy unit may remain economic beyond that period, we find that it is reasonable to expect that significant investment would be required to achieve this outcome and that it would not be appropriate to reflect these additional investment decisions into the demand curve reset process.

3. Original Issue Discount

a. NYISO's Proposal

119. NYISO states that after it issued the NYISO Staff Report, IPPNY argued that some explicit original issue discount costs must be included in the financing charges. NYISO explains that a bond is issued at a discount to its par value (and thus includes an original issue discount) if its coupon rate is less than the return the market requires, given the riskiness of the debt. NERA estimated a 7 percent debt interest rate from the yield to maturity values of currently outstanding debt issues. Were those debt issues to include an original issue discount, the associate cost would be reflected in the yield to maturity values. However, NYISO explains, none of the debt issues analyzed by NERA included an original issue discount, so there was no associated cost embedded within the yield to maturity values. Thus, NERA concluded, an original issue discount is not necessarily typical of all debt financings, contrary to IPPNY's assertion, and a further adjustment for it would not be appropriate. The NYISO Staff Report reflected NERA's conclusion and

the Board concurred with the NYISO Staff Report's conclusion not to include any original issue discount costs in the financing costs.

b. Comments and Protests

120. IPPNY argues that the Commission should require NYISO to correct NERA's debt financing cost assumptions to include original issue discount costs in the calculation. IPPNY states that the NERA/S&L report assumed total financing costs of \$5.8 million, which IPPNY asserts, is much lower than recently completed financings of units in New York such as Astoria Energy II and Bayonne Energy Center. IPPNY argues that the cost of debt that is reflected in the demand curve model should be consistent with real world experience and thus should be calculated using financing costs that approximate the properly adjusted average of recently completed financings in New York, some of which have the original issue discount costs imbedded in the cost of debt.

c. Commission Determination

121. We accept NYISO's proposal to exclude any original issue discount costs from financing cost assumptions. IPPNY argues that, based on the financing fees from Astoria and Bayonne, some original issue discount costs should be added to the assumed financing costs in order for the financing costs to be consistent with real world experience. However, as NYISO explains, NERA analyzed debt issues in NYISO and concluded that an original issue discount is not typical of the debt financings in New York.⁷⁰ NYISO further explains that the financing cost for Astoria and Bayonne was higher because the debt and equity issuances for those projects were for substantially larger amounts. For the Astoria and Bayonne projects, the total financing fees were comparable when expressed as a percent of total project debt. We therefore find that NYISO's proposal is reasonable.

F. Regulatory Risk

1. NYISO's Proposal

122. NYISO states that NERA/S&L considered whether a special "regulatory risk" adjustment was necessary. NERA/S&L found that a regulatory risk adjustment was not required for either the demand curve model or in the estimated cost of equity due to the NYISO initiatives to develop tariff revisions that would improve its capacity market power mitigation measures. However, NYISO adds that NERA/S&L recommended that

⁷⁰ NYISO November 27, 2013 Filing, Attachment IV, NYISO Staff Report at 25-26.

this issue be considered again in future reset processes. The NYISO Staff Report accepted NERA/S&L's conclusion and the Board accepted the NYISO Staff Report's recommendation not to include a special "regulatory risk" adjustment.

123. NYISO adds that the Commission's recently accepted capacity market mitigation measures for the G-J Locality were substantially similar to the established ICAP market power mitigation rules in NYC. Therefore, NYISO contends, it is reasonable to conclude that they are adequate to address the risks that IPPNY would address through an additional risk premium. In addition, NYISO states, the risks facing suppliers were already considered in the development of other ICAP demand curve parameters, e.g., in setting the duration of the amortization period and by making a calibration adjustment to its return on equity estimate to ensure that it appropriately reflected the current market risk premium.

2. Comments and Protests

124. IPPNY argues that the NYISO filing fails to adequately account for the regulatory risks merchant developers face when proceeding with projects in New York State. As an example, IPPNY states that in the NERA/S&L Report, NERA incorporated a separate 10 percent regulatory risk factor to account for the 75 percent of Net CONE offer floor, which could result in capacity prices that never rise above 75 percent of Net CONE. IPPNY explains further that NERA ultimately removed the regulatory risk factor in light of NYISO's efforts to improve mitigation measures in the capacity market. IPPNY disagrees with this conclusion and argues that recent activities demonstrate that incorporating a regulatory risk factor into the demand curve model to address uneconomic entry is required more than ever before, citing recent projects such as the Hudson Transmission Project and the Astoria Energy II generating facility, both of which are supported by long-term power purchase agreements with the New York Power Authority.

125. IPPNY argues that even if NYISO adopts an amendment to increase the offer floor, it is unknown whether the amended mitigation rules will, in fact, prohibit uneconomic entry and the artificial suppression of prices. Specifically, IPPNY believes that the current rules have not adequately stemmed state intervention in NYISO's competitive markets. IPPNY argues that projects supported by long-term above-market contracts with the New York Power Authority (NYPA) as well as subsidized projects that are part of the New York Energy Highway Initiative are examples of uneconomic entry that could suppress market prices and need to be accounted for with a regulatory risk factor.

a. Answers

126. NYISO responds that IPPNY presents no information or evidence that would rebut NYISO's conclusion that the ICAP demand curves are reasonable without including a

regulatory risk adjustment. NYISO reiterates that the Commission has market power mitigation rules in effect and NERA/S&L, in developing the parameters of the new ICAP demand curves, took into account the alleged risks that IPPNY raises. Further, NYISO states that the ICAP demand curve process is not the appropriate vehicle to address IPPNY's claims regarding alleged problems with the NYISO market structure.

3. Commission Determination

We find that NYISO was reasonable in accepting NERA/S&L's recommendation that no additional regulatory risk factor be incorporated into the demand curve parameters. We reject IPPNY's assertion that the market power mitigation measures are inadequate to address regulatory risk. We note that in two recent proceedings involving the potential exercise of buyer side market power, the Commission took decisive action, based on NYISO's existing market power mitigation tariff safeguards, to ensure that uneconomic entry will not occur.⁷¹ Additionally, NYISO has underway three initiatives that further facilitate economic entry including (1) a repowering exemption, (2) a merchant plant exemption, and (3) raising the offer floor under the buyer-side mitigation rules from 75 percent to 100 percent of Net CONE.⁷² While we cannot completely rely on measures that have not yet been implemented, the fact that these measures are underway leads us to believe that NYISO is considering a reasonable, balanced approach to address the risks that IPPNY believes should be reflected in the ROE. Therefore, we agree with NYISO that a regulatory risk adjustment is not necessary at this time.

G. Expected Level of Average Excess Capacity

1. NYISO's Proposal

127. In the most recent demand curve reset order, the Commission directed that net energy revenues be determined at the locational minimum capacity requirements and the NYCA installed reserve margin plus the capacity of the proxy plant. In this proposal, NYISO assumes a one-unit proxy plant. NERA/S&L incorporated that excess capacity level into the development of both expected energy and ancillary services revenues and the Reference Price level used in the proposed demand curves. The NYISO Staff Report agreed with NERA/S&L's calculations and the Board accepted the NYISO Staff Report's recommendation, finding that the NERA/S&L model and its assumptions are reasonable.

⁷¹ See *Hudson Transmission Partners, LLC v. New York Indep. Sys. Operator, Inc.*, 145 FERC ¶ 61,156 (2013); see also *Astoria Generating Company L.P., et al. v. New York Indep. Sys. Operator, Inc.* 139 FERC ¶ 61,244 (2012).

⁷² NYISO November 27, 2013 Filing, Attachment IV, NYISO Staff Report at 23.

2. Comments and Protests

128. IPPNY argues that the excess capacity levels built into the demand curve model for this reset do not adequately account for risks new entrants might face such as forecast error, fluctuations in Installed Reserve Margin and locational capacity requirements, conservativeness of NYISO planning, and the State's focus on acting to prevent capacity shortages. IPPNY further argues that because NYISO has a directive to implement backstop solutions for possible reliability shortfalls, but no corresponding directive to retire plants producing excess energy, the markets have a clear bias towards carrying substantial excess. IPPNY asserts that the demand curves must recognize this excess in order to achieve their fundamental purpose of inducing new merchant entry when needed.

129. IPPNY also argues that NYISO's proposal to substantially reduce the size of the proxy unit directly affects some of the factors that result in the fluctuations of excess capacity. IPPNY argues that the Commission should direct NYISO to double the excess capacity level for the NYCA locality to reflect that the selected proxy unit is now a single unit rather than the pair of units selected in past resets. IPPNY also requests that in future demand curve resets, the Commission should direct NYISO to adopt the MMU's proposal for setting the average excess capacity level for the demand curves. IPPNY notes that the MMU recommends setting the excess capacity level at 1 percent of the capacity requirement, plus 50 percent of the capacity of the demand curve proxy unit.⁷³

a. Answers

130. NYTOs and Multiple Intervenors argue that granting IPPNY's request that the Commission require NYISO to double the amount of excess capacity that it has assumed for purposes of its NYCA locality analysis would also force NYISO to violate its Services Tariff, which specifies that the amount of excess capacity that NYISO should assume in its analyses should be equal to the amount of capacity provided by the proxy unit. They assert that IPPNY's request disregards the directives issued by the Commission in the last reset process that these analyses use consistent assumptions regarding the amount of excess capacity.⁷⁴

131. NYISO states that it implemented the directive in the Services Tariff in order to develop the level of excess capacity and IPPNY presents no justification for its requested waiver. NYISO adds that the fact that IPPNY disagrees with the results of that

⁷³ IPPNY December 20, 2013 Protest at 54 (*citing* MMU 2012 Report at 55).

⁷⁴ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,192, at PP 21-25, 28-31 (2011).

application is not sufficient. Nor, according to NYISO, does the Commission's previous acceptance of a higher level of excess mean that the lower level is a result so unjust, unreasonable, or unlawful that it would justify the waiver of a provision of the Services Tariff. NYISO also states that IPPNY's request that the Commission order NYISO to implement the MMU's proposal in future resets is essentially a request to amend the Services Tariff, which should proceed through the stakeholder process.

3. Commission Determination

132. We find that NYISO's use of the prescribed excess capacity assumption was consistent with its tariff requirements and reasonable. In the most recent demand curve reset, the Commission determined how the level of excess capacity would be set. NYISO amended its Services Tariff to prescribe that level. Specifically, section 5.14.1.2 requires that:

[t]he cost and revenues of the peaking plant used to set the reference point and maximum value for each Demand Curve shall be determined under conditions in which the available capacity is equal to the sum of (a) the minimum Installed Capacity requirement and (b) the peaking plant's capacity equal to the number of MW specified in the periodic review and used to determine all costs and revenues.⁷⁵

In its order in the last demand curve reset, the Commission found that this excess capacity assumption takes into account uncertainties regarding load growth and decentralized investment decision making by competing suppliers.⁷⁶ The Commission also stated that the assumptions provide a margin of error to account for load forecasting uncertainties and account for the lumpiness of capacity additions.⁷⁷

133. In the aforementioned demand curve reset, IPPNY made arguments similar to those they make in the instant filing. For example, IPPNY argues about risks regarding fluctuations in the Installed Reserve Margin and uneconomic entry. In the prior Order, the Commission addressed these arguments by stating that IPPNY has not shown how NYISO could predict that changes, if any, will occur in future installed reserve

⁷⁵ NYISO Service Tariff Section 5.14.1.2.

⁷⁶ *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,192, at PP 57-59 (2011).

⁷⁷ "Lumpiness" refers to the fact that entry and exit necessarily occurs in discrete megawatt sizes for each generation technology.

requirements, and how these predictions should be included in the analysis of the demand curve. Then and now, IPPNY's arguments seem to assert that any risks or unaccounted for changes to the market will place only downward pressure on capacity prices, while in reality, such risks could result in the artificial inflation of capacity prices in New York. In the prior reset proceeding, the Commission accepted as just and reasonable an approach to determining the level of excess capacity based on reasoned judgment, and we believe it is appropriate to do so again here.⁷⁸

H. Zero Crossing Point

1. NYISO's Proposal

134. NYISO proposes to maintain the zero crossing points for the existing capacity zones (118 percent for NYC and LI and 112 percent for NYCA) and use a 115 percent zero crossing point for the G-J Locality. NYISO supports these values based on two analyses, as described below, and discussions with stakeholders and the MMU that agreed on a need for further study of the issue.

135. The zero crossing point is the point on the demand curve where additional capacity provides no measurable reliability benefit. Prior to selecting NERA/S&L to conduct the demand curve reset analysis, NYISO engaged FTI Consulting (FTI) to evaluate the design of its capacity markets, including the determination of its ICAP demand curves and alternative zero crossing points. FTI developed reliability-based demand curves using NYISO's Multi-Area Reliability Simulation model that determined the incremental value of capacity by shifting capacity between zones. A comparison of the FTI-developed reliability-based demand curves with NYISO's existing demand curves showed a close correspondence for capacity levels greater than the target requirement. Although existing and reliability-based demand curves were roughly consistent over this capacity range, FTI's analysis supported slightly flatter curves for LI and NYCA and slightly steeper curves for NYC. The MMU recommended a change to the FTI analysis that would consider adding capacity to a particular zone rather than shifting capacity between zones to develop alternative reliability-based demand curves. His preliminary analysis showed that over the capacity range likely to encompass market clearing (100-112 percent of the requirement); the alternative reliability-based demand curves also corresponded to NYISO's existing demand curves.

136. Based on the FTI analysis and a concern to maintain stable market expectations, NERA/S&L recommended changes to the zero crossing points that partially reflected

⁷⁸ See 2008 Demand Curve Order, 122 FERC ¶ 61,064 at P 26; *New York Independent System Operator, Inc.*, 136 FERC ¶ 61,192 at P 60.

FTI's findings and an initial zero crossing point for the new zone at 115 percent. However, further discussions with stakeholders and the MMU led NYISO to conclude that the analyses conducted thus far did not provide a sufficient basis for altering the zero crossing points for this demand curve reset. Both the FTI and MMU analyses were sensitive to underlying assumptions, and NYISO concluded that the benefits of changing the zero crossing points were ambiguous and might be offset by adding to market uncertainty.

2. Comments and Protests

137. The NYTOs argue that, for the G-J Locality, the zero crossing point should be set to 114 percent of the requirement, consistent with what, according to the NYTOs, is the only analysis that has been performed of the appropriate zero crossing point for that zone. NYTOs assert that the MMU's representative, Dr. Patton's analysis indicates that the zero crossing point should be set at 114 percent of the ICAP requirement for the G-J Locality and there is no analysis supporting any other figure. Dr. Patton found that the marginal impact that additional capacity in the G-J Locality has when the loss of load expectation reaches zero is when the amount of capacity provided in that Locality is about 114 percent of its requirement.

138. Entergy notes its support of NYISO's determination that the zero crossing point for the G-J locality demand curve should be set at 115 percent.⁷⁹ IPPNY also supports NYISO's determination of the zero crossing point. IPPNY asserts that the Commission should find that NYISO properly rejected the NERA Report's flawed recommendation to significantly steepen the NYC demand curve from its current zero crossing point of 118 percent to 116.5 percent. IPPNY argues that the NERA Reports recommendation was flawed in several material aspects including not adjusting financing costs to account for decreased revenue stability, not considering practical implications such as the impact on incentives for retirement or entry of new capacity, considering the zero crossing point in isolation, and the fact that the analysis is sensitive to differing underlying assumptions.

a. Answers

139. NYISO states that it is incorrect to assert that the zero crossing point of 114 percent was recommended by the MMU. According to NYISO, a 114 percent zero crossing point was discussed with stakeholders on August 22, based on the MMU's preliminary results, using a newly proposed methodology and an incomplete data set. NYISO states that the MMU's analysis after receiving the complete data set resulted in a zero crossing point of 114.6 percent. NYISO further states that, in its review of the

⁷⁹ Entergy December 20, 2013 Protest at 35-38.

various methodologies and recommendations regarding the zero crossing points, NYISO found that the analyses conducted were highly sensitive to methodology, input assumptions, and transmission system topology and NYISO agreed that adopting any methodology to adjust the zero crossing point at this time could result in fluctuations to the recommended zero crossing point at each demand curve reset, introducing undue volatility and uncertainty in the market.

3. Commission Determination

140. We accept NYISO's proposal to use existing zero crossing points for NYISO's demand curves for this reset period. Zero crossing points and reference points determine the slope of the various demand curves. For given reference levels and capacity levels in excess of the ICAP requirement, the existing zero crossing points yield demand curves that reasonably reflect the value of incremental capacity according to the FTI and MMU analyses. We agree with NYISO's judgment that the existing zero crossing points for the existing capacity zones, given the sensitivities in the analyses to underlying assumptions, do not merit changes at this time. We agree with NYISO that while there are many methodologies to determine the zero crossing point, the sensitive nature of these methodologies to different inputs and assumptions warrants hesitation to just choosing one over another. Adjusting the zero crossing point at this time pursuant to a new methodology could result in fluctuations to the recommended zero crossing point at each demand curve reset and possibly introduce uncertainty to the market. We also accept NYISO's proposed 115 percent zero crossing point for the G-J Locality as reasonable. NYISO states in its answer that when the MMU performed its analysis with the complete data set for the G-J Locality, the result was a 114.6 percent zero crossing point. We do not conclude that the MMU's preliminary analysis determining a 114 percent zero-crossing point is sufficient to override NYISO's recommendation of 115 percent.

V. Proposed Phase-in of the Price Impacts of the ICAP Demand Curve for G-J Locality

1. NYISO's Proposal

141. NYISO states that the proposed ICAP demand curve for the G-J Locality would be effective for the start of the 2014/2015 Capability Year, but in order to reconcile concerns regarding its short-term consumer impacts, NYISO is proposing values that are less than the full net CONE of the peaking plant for the first two years of the ICAP demand curves for the G-J Locality. NYISO reiterates the arguments it previously made in a Request for Reconsideration in Docket No. ER13-1380-000 that a phase-in of price impacts is necessary to ameliorate effects on consumers and mitigate what has been described as potential "rate shock." NYISO states that it continues to believe that a properly structured phase-in would not interfere with long-term investment decisions given the

longer-term revenue forecast horizon typically used by developers so long as a sufficient price signal is present in the third-year of the G-J Locality ICAP demand curve and beyond.

142. NYISO states that for the 2014/2015 Capability Year, the ICAP demand curve is established using the G-J Locality peaking plant net CONE. Under NYISO's proposal, the reference price for the first year would be determined from 76.06 percent of the G-J Locality annual reference value for the peaking plant identified in the Brattle Report.⁸⁰ According to NYISO, that determined value is equal to the annual reference value of the 2014/2015 NYCA ICAP demand curve. Thus, NYISO states, the reference price for Load Zones G, H, and I would be similar to the reference price that would have applied in those load zones but for the creation of the G-J Locality. However, NYISO further states that capacity prices in the G-J Locality are not likely to be the same as those in the NYCA for the 2014/2015 Capability Year because of an anticipated lower level of excess capacity in the G-J Locality than in the NYCA, resulting in higher clearing prices for the G-J Locality. Nonetheless, according to NYISO, the magnitude of the price increase would not be nearly as great as it would be if the full G-J Locality reference value were used.

143. NYISO states that for the 2015/2016 Capability Year, the G-J Locality reference price would be determined from 88.03 percent of the G-J Locality annual reference value, which is equivalent to the average of (a) the proposed NYCA annual reference value escalated to 2015/2016 dollars using the escalation factor proposed for all ICAP demand curves and (b) the annual reference value identified by the Brattle Report for the G-J Locality, escalated to 2015/2016 dollars in the same manner.⁸¹ NYISO states that for the 2016/2017 Capability Year, the proposed G-J Locality ICAP demand curves would be set using 100 percent of the inflation-adjusted annual reference value identified in the Brattle Report.

144. In summary, according to NYISO, the proposed phase-in would reduce the potential price increase of the G-J Locality ICAP demand curves (by comparison to curves based on the full annual reference value) for the 2014/2015 and 2015/2016 Capability Years, while steadily increasing prices each year until the full effect is reached in the 2016/2017 Capability Year. NYISO adds that the actual price impacts for those years would depend upon other factors, particularly changes in supply.

⁸⁰ NYISO states that the 2014/2015 G-J Locality annual reference value is a decrease of 7.10 percent compared to the 2013/2014 NYCA annual reference value.

⁸¹ NYISO states that the proposed annual reference value for the 2015/2016 Capability Year represents an increase of 18.29 percent from Capability Year 2014/2015

145. NYISO states that it believes the proposed phase-in appropriately balances short-term consumer interests and the need for investment signals to the G-J locality. NYISO states that by the third year of the proposed phase-in, the ICAP demand curve reference price would increase to 100 percent of the escalated annual reference value, and thus, the phase-in would not unreasonably delay the price signals necessary to attract new investment in the G-J Locality. NYISO asserts that the proposed phase-in is just and reasonable and consistent with prior Commission rulings. NYISO adds that rates are just and reasonable so long as they fall within a “zone of reasonableness” that is bounded on the high end by the requirement to protect consumers against exorbitant rates and at the other end by the “investor interest against confiscation.”⁸² NYISO states that based upon the NYPSC’s predicted retail rate impacts, it is concerned that setting the G-J Locality ICAP demand curve using the full net CONE for the peaking plant might result in “exorbitant” short-term consumer impacts in the first two years of this new Locality. NYISO states that it sees little cause for concern that its proposed phase-in would result in “confiscatory” rates. According to NYISO, efficient new capacity would be attracted to the G-J Locality notwithstanding the fact that the proposed reference prices for the first and second years are derived from a value lower than the full net CONE.

146. NYISO states that if the Commission is concerned that the proposed phase-in would conflict with section 5.14.1.2(i) or any other tariff provision, NYISO asks that it waive those provisions. Section 5.14.1.2(i) specifies that the periodic review of revised ICAP demand curves “shall assess” the “current localized levelized embedded cost of a peaking plant in each NCYA Locality, the Rest of State, and any New Capacity Zone, to meet minimum capacity requirements.” According to NYISO, it could be argued that basing the first two years of the G-J Locality ICAP demand curve on a value less than the 100 percent of G-J Locality peaking plant net cost of new entry would be inconsistent with this requirement.

147. NYISO also states that the proposed phase-in would affect the evaluations that NYISO conducts under the buyer-side capacity market power mitigation rules pursuant to Attachment H to the Services Tariff. NYISO explains that the ICAP demand curve is used in both the Part A and Part B exemption tests, to determine the default Offer Floor, and in setting Offer Floors for projects that are subject to mitigation. NYISO requests a limited waiver of the Services Tariff so that rather than utilizing the ICAP demand curves for 2014/2015 and 2015/2016 proposed in this filing when performing the buyer-side mitigation examination of projects in the G-J Locality in Class Years 2011 and 2012 at the time of the completion of the respective Class Years, NYISO would utilize for those

⁸² NYISO November 27, 2013 Filing at 42 (citing *Jersey Cent. Power & Light Co. v. FERC*, 768 F.2d 1500 at 1503 (1985)).

years the ICAP demand curve information set forth in Attachment X, i.e., the curves based on the full net cost of new entry of the peaking plant for the G-J Locality. NYISO believes that evaluating these projects using ICAP revenues under the Class Years 2011 and 2012 G-J demand curves is more consistent with the intent to examine the overall, long-term economics of an entry decision, rather than using the G-J Locality ICAP demand curves proposed for this filing.

2. Comments and Protests

148. EPSA requests that the Commission reject NYISO's proposed phase-in of the demand curve for the G-J Locality arguing that no supporting analysis has been presented in support of this proposal. EPSA states that the Commission has previously rejected a phase-in in the underlying proceeding establishing the new capacity zone.⁸³ Further, EPSA asserts that the new capacity zone proceeding is the appropriate venue in which the Commission should consider the proposed phase-in of the demand curve of the G-J Locality, given that NYISO has filed a Request for Partial Reconsideration raising the same issue discussed here.⁸⁴

149. Entergy states that NYISO's phase-in request is procedurally flawed. Entergy contends that NYISO is legally barred from proposing to phase in the G-J Locality given that the Commission has fully considered and expressly rejected requests to phase-in the G-J Locality demand curve in the New Capacity Zone Order. Therefore, Entergy argues that NYISO's phase-in request represents a collateral attack on the New Capacity Zone Order.⁸⁵ In addition, Entergy states that NYISO's phase-in request violates the requirements of the Services Tariff which requires that NYISO submit the full net CONE for each demand curve.⁸⁶ Entergy states that NYISO's request to waive these tariff requirements does not meet the Commission's standard for waiver requests.⁸⁷

⁸³ EPSA December 20, 2013 Protest at 7 (citing *New York Independent System Operator, Inc.*, 144 FERC ¶ 61,126 (2013) (New Capacity Zone Order)).

⁸⁴ On October 28, 2013, NYISO filed a Request for Partial Reconsideration of the New Capacity Zone Order.

⁸⁵ *Id.* at 15-19.

⁸⁶ *Id.* at 19 (citing Services Tariff, § 5.14.1.2(i)).

⁸⁷ Entergy December 20, 2013 Protest at 19. Entergy states that NYISO's waiver request (1) is not limited in scope, (2) does not address a concrete problem, and (3) would have undesirable consequences. Entergy explains that if the waiver request is granted, it

(continued...)

150. Further, Entergy asserts that NYISO's phase-in request fails on its merits. Entergy states that NYISO's reliance on the NYPSC's unsubstantiated retail rate impact calculations to adopt suppressed demand curves for the G-J Locality is unjust and unreasonable given that discounted rates will lead to inefficient outcomes and higher cost impacts on consumers in the long run. Entergy also notes that information regarding possible rate impacts that may occur in the G-J Locality, after establishing the G-J Locality demand curve, have been considered extensively throughout a seven-year time period.⁸⁸ Entergy states that the Commission has previously found in the New Capacity Zone Order that a phase-in would delay efficient investment price signals reflecting the higher net CONE associated with the proxy unit in the G-J Locality.

151. Indicated Suppliers argue that NYISO has failed to establish good cause for the required waiver of section 5.14.1.2 of the Services Tariff and the buyer-side market power mitigation rules in Attachment H of the Services Tariff that would be necessary to implement the phase-in proposal. Indicated Suppliers argue that this requested tariff waiver is procedurally deficient, not of limited scope, does not remedy a concrete problem, and will have undesirable consequences, such as harming third parties.

152. IPPNY argues that NYISO's proposal to phase-in the G-J Locality demand curve must be rejected as a matter of law. IPPNY argues that the Services Tariff only instructs and authorizes NYISO to implement the demand curves set at the net CONE for each respective demand curve that results from the periodic review, and does not grant NYISO the proposed discretion to discount the demand curves. IPPNY asserts that allowing a discount would produce inaccurate market signals and therefore have a profound effect on the proper functioning of electricity markets. IPPNY, like Indicated Suppliers, also argues that NYISO has not met the standard to be granted a waiver of its tariff provisions.

153. IPPNY further argues that NYISO's phase-in request represents a collateral attack on the Commission's August New Capacity Zone Order. IPPNY states that in the New Capacity Zone Order, the Commission specifically considered and rejected the proposed phase-in, stating that it would "delay the capacity market's ability to send more efficient price signals." IPPNY argues that there is no new substantiated information and that NYISO's request to mitigate price impacts to retain customers appears to be politically motivated. IPPNY believes that the Commission should uphold its determination in the New Capacity Zone Order and that whatever the outcome of that proceeding, it remains

would have significant impacts on the New York capacity market by adversely affecting the capacity market clearing prices for the next three years.

⁸⁸ Entergy December 20, 2013 Protest at 25.

the only proper avenue for NYISO to seek reconsideration of the matter from the Commission.

154. Multiple Intervenors argue that the Commission should approve the proposed phase-in of the G-J Locality ICAP demand curve. They assert that when NYISO first sought to incorporate the ICAP demand curves into its capacity market, the Commission approved its proposal to utilize a three-year phase-in.⁸⁹ Further, they state, the price impacts of the implementation of the G-J Locality are likely to be similar, and may be considerably greater than when the curves were initially implemented. Multiple Intervenors state that although the Commission originally declined to order a phase-in of the G-J Locality, very little information was known as to the likely rate and price impacts upon which the Commission could base a decision. They assert that the proposed phase-in is not anticipated to detrimentally impact the market's ability to send more appropriate price signals to existing or potential capacity supply resources in the Lower Hudson Valley. In fact, they assert, it typically takes two years for new generation facilities to be constructed, the proposed phase-in will send efficient price signals to entities contemplating new investment in capacity and will likely have no impact on the capacity revenues of any party developing new capacity in the G-J Locality. Multiple Intervenors further contend that the enormity of the potential impacts of implementing the new capacity zone ICAP demand curve should not be disregarded, that there is significant risk posed to consumers, and the Commission should act to prevent consumer rate shock by approving phase-in.

155. The NYTOs assert that the proposed phase-in reasonably accommodates competing interests due to the limited term of the three-year demand curve proposal. The phase-in, they argue, will not adversely affect the incentives that the new demand curve provides to construct new generating capacity in the G-J Locality, since it is very unlikely that any new generating capacity built there in response to the price signals provided by the new demand curves, would be in service before the 2016/2017 Capability Year, when the new demand curve would be fully phased in. The NYTOs also state that the Commission has previously approved phase-ins for new market design changes, such as when the first ICAP demand curves in New York were implemented in 2003.

156. The NYPSC argues that a phase-in is necessary to mitigate the price impacts of the implementation of the new demand curve in the G-J Locality. The NYPSC asserts that the Commission should recognize that there are two State transmission initiatives underway that will result in the addition of major transmission facilities in the G-J Locality, significantly easing congestion in that area, and that potential new entrants that

⁸⁹ See *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201, at P 6 and fn. 4 (2003).

will enter the market three or four years from now will not look at the prices from Summer 2014 as a valid and indicative long run price signal. The NYPSC contends that fully implementing the demand curve in the G-J Locality in 2014 will skew short-term prices, and bear no relation to the long-term price signals that the G-J Locality is intended to produce.

a. Answers

157. The NYTOs assert that although the Commission rejected a proposal for a phase-in in the proceeding establishing a new capacity zone in the G-J Locality, NYISO did not propose a phase-in at that time and has subsequently requested reconsideration of the Commission's order. The Commission has not yet acted on the NYISO's reconsideration request. Accordingly, the claim that the NYISO has attempted to do an "end run" around the Commission's prior order is completely erroneous.

158. NYISO reiterates that the NYPSC has stated that the implementation of the G-J Locality without a phase-in could result in a 25 percent retail rate increase to consumers in that region and that rate impacts are likely to cause large employers in the Lower Hudson Valley to experience multi-million dollar increases in annual energy costs which could be very detrimental to job growth and retention in the region. NYISO adds that protestors have not shown that concerns regarding the short-term consumer impacts of establishing a new Locality are unfounded. Nor, according to NYISO have they refuted NYISO's position that the phase-in should not affect the market entry decision for most new generating capacity. Further, NYISO argues that a phase-in would not violate the tariff and it is not a collateral attack on the New Capacity Zone Order accepting the new capacity zone. NYISO states that the New Capacity Zone Order stated that the Commission would not "require" a phase-in, but that finding does not preclude NYISO from proposing one. Further, NYISO notes that its November 27, 2013 filing included a valid and good faith request for a waiver.

159. Entergy submits an affidavit for Mr. Mark D. Younger (Supplemental Younger Affidavit) which states that: (1) during the last seven years, more than 1,250 MW of generating capacity has been lost in the G-J Locality due to retirements and reduced operating capability; (2) no significant generation capacity has been built and demand response participation has been virtually non-existent; (3) The persistent cost differential between the G-J Locality and the rest-of-state region has been clearly documented over the last three reset processes; and (4) NYISO's mere filing of the phase-in proposal brought to a halt the ongoing efforts to bring a significant amount of derated capacity back into the market. Entergy asserts that support for the phase-in proposal is based on factually inaccurate claims and is inconsistent with the underlying structure of the competitive markets in New York, generally, and the capacity market, in particular.

160. Entergy argues that the NYPSC's claims with respect to delaying the creation of a new capacity zone are procedurally barred as the Commission has specifically addressed

and rejected these arguments in the New Capacity Zone Order. Entergy argues that the NYPSC's claims also fail on the merits. Entergy asserts that the NYPSC's proposal to supplant the market with regulated responses in lieu of correcting the market design is likely to lead to the need for further regulated response. Entergy adds that in order to ensure that efficient prices are produced that will foster the addition of new resources and the retention of existing resources to meet the long term reliability of the system and maintain an efficient level of supply in this region, the Commission should deny NYISO's phase-in proposal.

161. Entergy argues that phasing-in the demand curves in the G-J Locality will adversely affect investment in capacity. Entergy asserts that specific evidence was provided in the new capacity zone proceeding that the NRG Companies were "poised to respond swiftly to market signals such as the new Zone, that encourage reinvestment and in anticipation of the new zone, NRG has made preparations to advance the restoration of Bowline [generating facility]."⁹⁰ Entergy further argues that the NYPSC's claims to the contrary are inconsistent with the NYPSC's recent adoption of a "wait and see" approach to see if any of the identified 1,500 MW of mothballed and derated generating capacity in this region would respond to these market signals before endorsing further regulated responses.⁹¹

3. Commission Determination

162. We reject NYISO's proposal to phase-in the ICAP demand curve for the G-J Locality. The Commission previously rejected a proposed phase-in of the ICAP demand curves for G-J Locality in the New Capacity Zone Order and we are not persuaded now to reconsider that decision. Consistent with the New Capacity Zone Order, we find that a phase-in will not ensure that market-clearing prices will guide efficient investment decisions to add or retire capacity resources and meet reliability needs in this region.

163. NYISO states that a phase-in will ameliorate consumer impact of the rate increases that will occur in the G-J Locality as a result of the creation of this new zone. In the New Capacity Zone Order, the Commission stated that stakeholder discussions about the need for a new capacity zone in the Lower Hudson Valley have been ongoing for several years and have provided notice to stakeholders of the need for a new capacity zone. As Entergy states in its protest, information regarding possible rate impacts that may occur in

⁹⁰ Entergy January 6, 2014 Answer at 8 (quoting NRG Companies, Answer, Docket No. ER13-1380-003, at 2 (filed Nov. 12, 2013).

⁹¹ *Id.* at 9.

the G-J Locality have been considered extensively throughout a seven-year time period.⁹² We find that there was sufficient notice provided so that a phase-in is not necessary to further address “rate-shock” to consumers.

164. As we concluded in the New Capacity Zone Order, a phase-in would delay the capacity market’s ability to send more efficient investment price signals to attract and maintain sufficient capacity to meet local demand.⁹³ We reject the assertion that the time line expected for new construction would ensure that a phase-in would not adversely affect incentives to supply capacity. This argument fails to take into account the potential for shorter term supply responses, *i.e.*, demand response and repowering options, to meet capacity needs. We agree with Entergy’s assertion that a phase-in that would suppress prices for a two-year period would discourage competitive supply and could increase the likelihood of regulatory actions to meet capacity needs.⁹⁴ For these reasons, we reject NYISO’s proposal to phase-in the ICAP demand curve for the G-J Locality and, therefore, we deny NYISO’s requested waiver.

165. The proposed tariff revisions are accepted, to be effective January 28, 2014, subject to NYISO refiling to reflect the Demand Curve parameters, without any phase-in adjustment, in section 5.14.1.2 of the NYISO Services Tariff.

The Commission orders:

(A) NYISO’s revisions to section 5.14.1.2 of NYISO’s Services Tariff are hereby accepted, effective January 28, 2014, subject to the filing condition set forth in the body of this order.

(B) NYISO is directed to submit a compliance filing within 30 days of the date of this order, as discussed in the body of this order.

⁹² Entergy December 20, 2013 Protest at 13.

⁹³ New Capacity Zone Order at 25-26.

⁹⁴ Entergy December 20, 2013 Protest at 26-30.

(B) NYISO's request for a limited tariff waiver is hereby denied.

By the Commission.

(S E A L)

Nathaniel J. Davis, Sr.,
Deputy Secretary.

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New York Independent System Operator, Inc.) Docket No. ER14-500-000

**REQUEST FOR REHEARING OF
THE NEW YORK TRANSMISSION OWNERS**

Pursuant to Rules 212 and 713 of the Federal Energy Regulatory Commission’s (“Commission”) Rules of Practice and Procedure, 18 C.F.R. §§ 385.212 and 385.713 (2014), Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., Long Island Power Authority, 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 (referred to herein as the “New York Transmission Owners” or “NYTOs”), individually and collectively file this request for rehearing of the January 28, 2014 Order issued in the above-captioned proceeding.¹

As shown below, the Commission erred when it rejected the New York Independent System Operator, Inc.’s (“NYISO’s”) proposal to phase in the new Installed Capacity (“ICAP”) demand curve for the G-J Locality (also “NCZ” or “New Capacity Zone”) in a way that balanced consumer and investor interests consistent with the statutory standard.² The phase-in would have accomplished this through a modest reduction to the approximately \$230 million capacity price increase expected for consumers in the Lower Hudson Valley by discounting capacity prices that

¹ *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,043 (2014) (“Demand Curve Order”).

² *New York Independent System Operator, Inc.*, Proposed Tariff Revisions to Implement Revised ICAP Demand Curves and a New ICAP Demand Curve for Capability Years 2014/2015, 2015/2016 and 2016/2017 and Request for Partial Phase-In and for Any Necessary Tariff Waivers, Docket No. ER14-500-000 (filed Nov. 27, 2013) (“Demand Curve Filing”).

would apply in that region by 24% in the upcoming 2014/2015 capability year (which runs from May 1, 2014 through April 30, 2015), and by 12% in the following year, with no discount thereafter. The proposed phase-in is also consistent with the Commission’s phase-in of the original ICAP demand curve for the New York Control Area which, like the sloped demand curves themselves, was intended “to ameliorate rate impacts.”³ Thus, the current demand curve mechanism has at its core the very concern over material rate increases due to the implementation of a new market mechanism that the Commission has failed to take into account here. Notwithstanding past precedent, the Commission rejected NYISO’s phase-in plan without explaining why “ameliorating rate impacts” is no longer a concern in New York.

Without finding that NYISO’s plan would produce capacity prices outside of the zone of reasonableness—which is the statutory test—the Commission instead focused solely on a theoretical subset of capacity market participants whom the Commission feared might be “discouraged” from participating in the NYISO’s next two capacity auctions. The Commission rejected NYISO’s modest phase-in proposal on this basis, and because it mistakenly believed that the phase-in question was laid to rest in an entirely different proceeding involving the approval of the G-J Locality.

As explained herein, the Commission acted unlawfully by failing to apply the statutory just-and-reasonable standard to NYISO’s phase-in proposal, which would have required the Commission to accept it. The reasons given by the Commission for rejecting NYISO’s phase-in proposal turned on the assumption that demand response suppliers and generators considering repowering options in the near term may choose to withhold their capacity from the NYISO’s auctions if they are paid a discount to the clearing price during a two-year transition period. The

³ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201, at P 6 (2003).

Commission did not consider that suppliers would receive substantial increased revenues from price increases that would result even with the phase-in proposal.⁴ The Commission's rationale thus gave disproportionate weight to speculative concerns about the economic behavior of a potential subset of capacity suppliers while giving no weight at all to the rate impact that is about to be imposed on actual consumers in the Lower Hudson Valley. There is no record evidence to support the Commission's conclusion that a modest discount to higher capacity prices for two years will keep any supplier from seeking to enter, or would result in it leaving, the market in the G-J Locality; rather, the NYISO's evidence showed the opposite.⁵ Thus, the additional increase in customer payments to suppliers during the two year period is both unnecessary and inappropriate, especially in light of the rate impacts on customers. The Commission simply failed to assign the appropriate weight to the interests of consumers who will be adversely impacted absent a phase-in. Thus, the Commission committed reversible error by rejecting the NYISO's phase-in plan.

I. SPECIFICATION OF ERRORS AND STATEMENT OF ISSUES

Pursuant to Rule 713(c) of the Commission's Rules of Practice, 18 C.F.R. § 385.713(c), the NYTOs provide the following statement of issues:

- A. The Commission exceeded its statutory authority when it rejected NYISO's proposed phase-in of the new ICAP Demand Curve in the G-J Locality even though the Commission did not dispute NYISO's showing that the phase-in will produce rates that fall within the zone of reasonableness.

Otter Tail Power Co. v. United States, 410 U.S. 366, 368 (1973); *City of Winfield v. FERC*, 744 F.2d 871, 876 (D.C. Cir. 1984); *Oxy USA, Inc. v. FERC*, 64 F.3d 679, 692 (D.C. Cir. 1995); *City of Bethany v. FERC*, 727 F.2d 1131, 1136 (D.C. Cir. 1984); see *Entergy Servs., Inc.*, 116 FERC ¶ 61,275, at P 32 (2006) (finding that "[a] proposal does not need to be perfect, or the most desirable way

⁴ Attachment IX to the Demand Curve Filing, Affidavit of Rana Mukerji ("Mukerji Aff.") at ¶¶ 14-15.

⁵ *Id.* at ¶¶ 13-15. Moreover, the record evidence also demonstrates that the proposed phase-in will not discourage investment in new generation which has a two to three-year lead time and will not be affected by the phase-in. *Id.*

of doing things, it need only be just and reasonable”); *Midwest Independent Transmission System Operator, Inc.*, 131 FERC ¶ 61,174, at P 48 (2010) (holding that phasing in a new transmission rate design was reasonable to mitigate rate increases arising from cost shifts).

- B. The Commission erred as a matter of law by failing to give effect to the NYISO’s request for a phase-in, which constitutes a permissible deferral of the effective date of the new ICAP Demand Curve in the G-J Locality, without a finding that the phase-in will produce unjust and unreasonable rates.

TC Ravenswood, LLC v. FERC, No. 12-1008, 2013 WL 6509470, at *5 (D.C. Cir. Dec. 13, 2013).

- C. The Commission’s decision was arbitrary and capricious and failed to engage in reasoned decision making because the Commission relied on a distinguishable decision in another docket, and failed to supply a reasoned analysis for its departure from prior precedent in considering the rate impacts of the new demand curve.

Republic Airline Inc. v. U.S. Dept. of Transp., 669 F.3d 296, 299 (D.C. Cir. 2012) (“One of the core tenets of reasoned decision-making is that ‘an agency [when] changing its course ... is obligated to supply a reasoned analysis for the change.’” (citations omitted)).

- D. The Commission’s decision to reject the phase-in of the new ICAP Demand Curve in the G-J Locality was arbitrary and capricious and contrary to law because it was based on speculation and the Commission’s explanation that imposing higher rates immediately will produce “market-clearing prices that will guide efficient investment decisions” did not address NYISO’s showing that phased-in rates would be within the zone of reasonableness and, therefore, presumptively just and reasonable.

PPL Wallingford Energy LLC v. FERC, 419 F.3d 1194, 1198 (D.C. Cir. 2005) (“[U]nless the [agency] answers objections that on their face seem legitimate, its decision can hardly be classified as reasoned.”) (quoting *Canadian Ass’n of Petroleum Producers v. FERC*, 254 F.3d 289, 299 (D.C. Cir. 2001)); see *Florida Municipal Power Agency v. FERC*, 602 F.3d 454, 461 (D.C. Cir. 2010) (FERC must identify evidence on which it relies); *City of Charlottesville v. FERC*, 661 F.2d 945, 949-50 (D.C. Cir. 1981) (speculation does not meet the substantial evidence requirement).

II. BACKGROUND

NYISO calculates the price to be paid to suppliers who offer to make capacity available in the region by finding the point at which the total amount of supply being offered intersects with a pre-determined demand curve.⁶ NYISO calculates separate demand curves for each of its defined pricing zones, and files new ones for Commission review every three years. Until the current proceeding, NYISO had three such demand curves, but last year after a lengthy stakeholder process the NYISO filed a plan to establish a new demand curve for the G-J Locality. This new demand curve would be used to set the price of capacity in the Lower Hudson Valley, which is a portion of the NYISO's system that roughly follows the Hudson River from the northern suburbs of New York City to the southern outskirts of Albany.⁷ As NYTO witness Michael Cadwalader explained, consumers can expect to pay an extra \$232 million for capacity in the Lower Hudson Valley in the 2014/2015 Capability Year as a result of the implementation of this new demand curve, if it is not phased in.⁸

In its November 27, 2013 Demand Curve Filing, among other things, the NYISO proposed to phase in these price impacts resulting from the establishment of an initial ICAP Demand Curve for the G-J Locality.⁹ The NYISO explained that phasing in the price impacts would serve to balance the need to protect customers against potential material rate increases with the need to incentivize new capacity development and would thereby balance investor and

⁶ *TC Ravenswood, LLC*, 2013 WL 6509470, at *1.

⁷ The G-J Locality includes both the Lower Hudson Valley and New York City. However, since New York City has its own ICAP demand curve, and since the price set using that demand curve is likely to be higher than the price that would be set using the demand curve for the G-J Locality, it is unlikely that the demand curve for the G-J Locality would set the price of capacity in New York City. Instead, it would only set the price of capacity in the Lower Hudson Valley.

⁸ *New York Independent System Operator, Inc.*, Motion for Leave to Answer and Answer of the New York Transmission Owners, Docket No. ER14-500-000 (filed Jan. 10, 2014), Exh. A (“Cadwalader Aff.”) at ¶ 19 and Table 3.

⁹ Demand Curve Filing at 36-44.

consumer interests consistent with judicial precedent.¹⁰ NYISO stated that its proposal would accomplish this objective by multiplying the reference price that it would have used to set the Demand Curve for the G-J Locality without a phase-in by 76.06% for the 2014/2015 Capability Year, and by 88.03% for the 2015/2016 Capability Year.¹¹ Capacity prices from 2016/2017 onward would be set using the same Demand Curve that would have been used without a phase-in.¹² NYISO further showed that this phase-in proposal would produce rates that will fall within a “zone of reasonableness” and, therefore, would be presumptively just and reasonable.¹³

The Commission rejected the NYISO’s proposed phase-in of the new demand curve in the G-J Locality without addressing the NYISO’s explanation that the phase-in would balance consumer and investor interests by producing rates that will fall within the zone of reasonableness.¹⁴ Although some intervenors challenged the NYISO’s proposal on the basis that it required an inappropriate tariff waiver, none showed that the end result would be capacity prices that are outside of the zone of reasonableness. Likewise, the Commission did not dispute NYISO’s showing that its phase-in proposal would produce prices that will fall within a zone of reasonableness, nor did it consider the waiver argument to be pertinent to its analysis. Instead, the Commission rested its decision on other grounds.

First, the Commission “found” that the phase-in “will not ensure that market-clearing prices will guide efficient investment decisions to add or retire capacity resources and meet reliability needs in this region.”¹⁵ The Commission, however, did not explain how providing this incentive puts the phase-in proposal outside of the zone of reasonableness, or that the NYISO

¹⁰ *Permian Basin Area Rate Cases*, 390 U.S. 747 (1968); *Jersey Cent. Power & Light Co. v. FERC*, 768 F.2d 1500, 1503 (D.C. Cir. 1985).

¹¹ Demand Curve Filing at 37-38.

¹² *Id.*

¹³ *Jersey Cent. Power & Light Co.*, 768 F.2d at 1503.

¹⁴ Demand Curve Order at P 162.

¹⁵ *Id.*

proposal to pay generators in the Lower Hudson Valley 76% of the capacity price that they otherwise would have received during the 2014/2015 capability year and 88% of the capacity price that they otherwise would have received during the 2015/2016 capability year would hinder investment in future projects. The Commission pointed to no evidence that new generation would be in any way affected by the phase-in that ends after two years. It should be noted that even with the phase-in proposed by the NYISO, ICAP prices in the new capacity zone will be substantially higher than current prices.

Instead, the Commission expressed concern that a potential subset of capacity market participants who may enter the market on short notice would be discouraged from doing so. Those participants in theory comprise consumers who are willing to forego consumption in order to be paid as though they are generators (demand response providers in the Commission’s parlance) or generation owners who are able to quickly repower generating facilities. The Commission did not identify any demand response providers or repowering generators who would be “discouraged” from participating in NYISO capacity markets in the G-J Locality due to 24% and 12% discounts under a two-year transitional phase-in of the new Demand Curve. The record does not quantify the amount of capacity that could potentially be withheld by these types of suppliers—it does not even identify a single one that has claimed it would not sell its capacity to the NYISO at the proposed discounts from substantially higher ICAP prices.¹⁶

Second, referencing its August 2013 Order, the Commission stated that it “previously rejected a proposed phase-in of the ICAP demand curves for the G-J Locality” and was “not

¹⁶ The record is likewise devoid of any evidence concerning the relationship between incentives for demand response participation in New York, actual participation rates, and the effect of that participation on long-term capacity needs or prices. Therefore, the Commission’s reference to demand response impacts was speculative for a number of reasons.

persuaded now to reconsider that decision.”¹⁷ The Commission did not explain how its order on the question whether to establish a new capacity zone, in which it rejected the NYTOs’ request to phase in the new pricing zone, has a binding effect in a subsequent Section 205 filing by the NYISO to phase-in the increased ICAP prices resulting from a demand curve that was not the subject of the previous filing. The Commission did not consider the different statutory standard that applies to rate proposals by the filing utility and intervenors, and thus erred by treating a statement in the proceeding regarding the establishment of the new capacity zone as binding precedent with respect to the NYISO’s current Section 205 filing to set capacity prices in the new capacity zone.

III. REQUEST FOR REHEARING

A. The Commission exceeded its statutory authority when it rejected NYISO’s proposed phase-in of the new ICAP Demand Curve in the G-J Locality even though the Commission did not dispute NYISO’s showing that the phase-in will produce rates that fall within the zone of reasonableness.

The courts have ruled that FERC “has no power to force public utilities to file particular rates unless it first finds the existing filed rates unlawful.”¹⁸ The public utility, “‘like the seller of an unregulated commodity, has the right . . . to change its rates . . . [at] will, unless it has undertaken by contract not to do so.’ Section 205 (and 206) of the [Federal Power] Act ‘are simply parts of a single statutory scheme under which all rates are *established initially* by the [public utilities], by contract or otherwise, and all rates are subject to being modified by the Commission upon a finding that they are unlawful.’”¹⁹ Thus, the Commission plays “an essentially passive and reactive” role under Section 205.²⁰

¹⁷ Demand Curve Order at P 162.

¹⁸ *Atl. City Elec. Co. v. FERC*, 295 F.3d 1, 10 (D.C. Cir. 2002).

¹⁹ *Id.* (quoting *United Gas Pipe Line Co. v. Mobile Gas Serv. Corp.*, 350 U.S. 332, 341 (1956)).

²⁰ *City of Winnfield*, 744 F.2d at 876 (Scalia, J.).

In this “passive and reactive” role, the Commission is not at liberty to dictate rates to be charged, or service terms to be imposed, by the public utility proposing a rate change unless the Commission finds that those rates or terms fall outside of the zone of reasonableness or are otherwise unlawful.²¹ Utility rates need not be the “best” or the “most” just and reasonable to pass statutory muster.²²

Here, the Commission violated the statutory standard because the Commission rejected the NYISO’s phase-in proposal without disputing its demonstration that the phase-in will produce capacity prices that will fall within the zone of reasonableness. Instead of applying the statutory standard to evaluate the justness and reasonableness of the NYISO’s proposal, it substituted its preferred rate method to achieve a policy goal to encourage efficient investment decisions. But, the statute does not establish investment efficiency as a benchmark of reasonableness, and the Commission “has no power to force public utilities to file particular rates unless it first finds the existing filed rates unlawful.”²³ Thus, it does not matter whether the Commission believes that it would be better to impose higher capacity prices on consumers immediately without a phase-in. What matters is whether phasing in the impact falls within a range of reasonable options, and judicial precedent requires the Commission to balance consumer and investor interests in reaching this determination.²⁴ The Commission did not do

²¹ *Permian Basin Area Rate Cases*, 390 U.S. at 747; *Jersey Cent. Power & Light Co.*, 768 F.2d at 1503.

²² *Oxy USA, Inc.*, 64 F.3d at 692; *City of Bethany*, 727 F.2d at 1136; see *Cal. Indep. Sys. Operator Corp.*, 128 FERC ¶ 61,282, at P 31 (2009) (finding that, because the Commission found the CAISO’s proposal to be just and reasonable, it need not assess the justness and reasonableness of an alternative proposal); *Louisville Gas & Electric Co.*, 114 FERC ¶ 61,282, at P 29 (2006) (finding that “the just and reasonable standard under the FPA is not so rigid as to limit rates to a ‘best rate’ or ‘most efficient rate’ standard. Rather, a range of alternative approaches often may be just and reasonable”); *Entergy Servs., Inc.*, 116 FERC ¶ 61,275, at P 32 (2006) (finding that “[a] proposal does not need to be perfect, or the most desirable way of doing things, it need only be just and reasonable”); *Midwest Independent Transmission System Operator, Inc.*, 131 FERC ¶ 61,174, at P 48 (2010) (holding that phasing in a new transmission rate design was reasonable to mitigate rate increases arising from cost shifts).

²³ *Atl. City Elec. Co.*, 295 F.3d at 10.

²⁴ *Jersey Cent. Power & Light Co.*, 768 F.2d at 1503.

this. Therefore, the Commission's rejection of the NYISO's proposal in favor of the Commission's preferred rate method exceeded the Commission's authority.

B. The Commission erred as a matter of law by failing to give effect to the NYISO's request for a phase-in, which constitutes a permissible deferral of the effective date of the new ICAP Demand Curve in the G-J Locality, without a finding that the phase-in will produce unjust and unreasonable rates.

In addition to their freedom to propose rate changes that fall within the zone of reasonableness (and that are otherwise not unduly discriminatory), the Federal Power Act ("FPA") and the Commission's regulations give utilities the freedom to decide when those new charges are to take effect, subject to the Commission's suspension powers.²⁵ Thus, under Section 205 of the FPA, the NYISO has discretion to select an effective date for new demand curves.²⁶ Furthermore, as explained above, the Commission may only modify proposed rates if it finds that they will lead to unjust and unreasonable results. Here, the Commission did not find that NYISO's phase-in proposal will lead to unjust and unreasonable results because the Commission did not find that it would produce rates outside of the zone of reasonableness. It was, therefore, legal error for the Commission to reject the NYISO's phase-in proposal.

C. The Commission's decision was arbitrary and capricious and failed to engage in reasoned decision making because the Commission relied on a distinguishable decision in another docket, and failed to supply a reasoned analysis for its departure from prior precedent in considering rate increases.

The Commission compounded its errors by relying on consistency with the August 2013 Order regarding the establishment of a new capacity zone in its determination not to allow a

²⁵ *Duke Power Co.*, 27 FERC ¶ 61,160, at 61,293 (1984) (explaining that the Federal Power Act "contemplates that, within certain parameters, the filing utility shall initially choose the requested effective date for its rate changes . . .").

²⁶ *TC Ravenswood, LLC*, 2013 WL 6509470, at *5 (affirming the Commission's determination in the last ICAP Demand Curve reset process (*New York Indep. Sys. Operator, Inc.*, 135 FERC ¶ 61,170, at P 105 (2011)) that "[t]he Commission may authorize the filing entity to defer implementation of compliance rates that must reflect Commission directives and, indeed, has done so recently in other NYISO proceedings in order to prevent hardship.").

phase-in resulting from a demand curve that was not before the Commission in the previous proceeding. That order dealt with an entirely separate issue: whether a new capacity zone should be created, and the phase-in proposal came from the NYTOs as intervenors in the case, not the filing utility. As noted above, the Commission must accept rate proposals from the filing utility that fall within the zone of reasonableness, but has no authority to impose changes or accept changes proposed by intervenors, even if the Commission believes that the changes would produce a “better” result.

In addition to these fundamental legal and contextual differences, this case differs from the new capacity zone proceeding because the NYISO and NYTOs presented new evidence as to the magnitude of the rate increase that was not before the Commission in the earlier docket and which the Commission was obligated to consider as part of its balancing of ratepayer and investor interests. Unfortunately, the Commission’s failure to engage in the statutory balancing of interests makes unlawful its resulting decision to reject the NYISO’s phase-in proposal.

Moreover, the NYTOs and the NYISO have directed the Commission’s attention to prior decisions that are far more relevant to this proceeding, and from which the Commission has departed without explanation. Namely, as discussed above, the Commission initially established the NYISO’s sloped ICAP demand curves in response to concerns about price volatility resulting from the previous capacity market structure. But the implementation of this new market structure was phased in to “ameliorate” ratepayer impacts resulting from the change by gradually implementing the cost of new entry when it first approved the implementation of ICAP Demand Curves in New York.²⁷ The NYISO has referenced this precedent in both the Demand Curve

²⁷ *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201, at P 6 (2003). The Commission’s acknowledgment that the phase-in would ameliorate rate impacts echoed the NYISO’s explanation of the phase-in,

Filing and its Reconsideration Request in the proceeding concerning establishment of the New Capacity Zone.²⁸ In their Comments on the Demand Curve Filing, the NYTOs also expressed their support for the phase-in and noted the Commission’s prior approval of a three-year phase-in for ICAP Demand Curve for the Rest of State region in 2003.²⁹ The Commission’s denial of the NYISO’s phase-in request is inconsistent with this pertinent decision. The same situation exists in the instant proceeding where the creation of new demand curves for a new capacity zone creates a significant change to the existing market structure as well as a significant change in rates. The Commission has provided no reasoning in support of its departure from its precedent. Considering that the sloped ICAP demand curves were developed and phased in for the express purpose of avoiding a significant rate increase, the Commission’s decision to the contrary in the current proceeding is arbitrary and capricious. “One of the core tenets of reasoned decision-making is that ‘an agency [when] changing its course . . . is obligated to supply a reasoned analysis for the change.’”³⁰ In the absence of an explanation for its decision to change course and discount concerns about rate impacts in this proceeding, the Commission has failed to meet this standard.

at pages 4 and 9 of its March 21, 2003 filing proposing implementation of the new ICAP demand curves in Docket No. ER03-647-000.

²⁸ Demand Curve Filing at 43, Request for Partial Reconsideration of the New York Independent System Operator, Inc., Docket No. ER13-1380-003 (Oct. 28, 2013), at 10-12 (both citing *New York Independent System Operator, Inc.*, 103 FERC ¶ 61,201 (2003)).

²⁹ *New York Independent System Operator, Inc.*, Motion to Intervene and Comments of the New York Transmission Owners, Docket No. ER14-500-000 (filed Dec. 20, 2013) at 6.

³⁰ *Republic Airline Inc. v. U.S. Dep’t of Transp.*, 669 F.3d 296, 299 (D.C. Cir. 2012) (citations omitted).

D. The Commission’s decision to reject the phase-in of the new ICAP Demand Curve in the G-J Locality was arbitrary and capricious and contrary to law because it was based on speculation, and the Commission’s explanation that imposing higher rates immediately will produce “market-clearing prices that will guide efficient investment decisions” did not address NYISO’s showing that phased-in rates would be within the zone of reasonableness and, therefore, presumptively just and reasonable.

The Commission’s order was arbitrary and capricious and did not reflect reasoned decision making. The Commission’s rationale for rejecting the NYISO’s proposed phase-in was that consumers in the G-J Locality should be required to bear the full brunt of higher capacity prices immediately so that there will be “market-clearing prices [that] will guide efficient investment decisions”³¹ But this conclusory statement did not respond to the NYISO’s showing that phasing-in the price increase would produce rates within the zone of reasonableness, which violates the Commission’s obligation to engage in reasoned decision making by responding to the arguments presented to it.³² And in so doing, the Commission ignored the record evidence that the limited phase-in would not adversely affect market signals, as well as the new evidence of the magnitude of the rate impact in the absence of the proposed phase-in. This evidence lies at the heart of the balancing of consumer and generator interests that the Commission is statutorily compelled to perform.

The Commission’s rationale is not supported by the record and is not consistent with its statutory responsibilities. In essence, the Commission’s reasoning was that a 24% reduction in the increased capacity price in the Lower Hudson Valley this year (the 2014/2015 Capability Year) and a 12% reduction in the capacity price next year (the 2015/2016 Capability Year) and the full capacity price two years from now (the 2016/2017 Capability Year), will provide

³¹ Demand Curve Order at P 162.

³² See *PPL Wallingford Energy LLC*, 419 F.3d at 1198 (“[U]nless the [agency] answers objections that on their face seem legitimate, its decision can hardly be classified as reasoned.”) (quoting *Canadian Ass’n of Petroleum Producers*, 254 F.3d at 299).

inadequate revenues to existing generators that have remained in the market with much lower capacity prices, and discourage generation developers from proposing new generation projects now, or will cause the proponents of projects already under consideration to cancel them. However, the Commission pointed to no record evidence to support these conclusions.

In fact, the only record evidence is to the contrary. The Cadwalader Affidavit submitted by the NYTOs in this proceeding demonstrated the significant consumer impacts that will occur in the absence of a phase-in, supported the validity of the NYISO's and New York Public Service Commission's estimates, and emphasized the new information showing that the effects will be even more severe than initially thought.³³ The Niazi Affidavit provided by NYISO with the Demand Curve Filing demonstrated the relief that a phase-in would provide to consumers,³⁴ and the Mukerji Affidavit showed that a phase-in would not adversely impact capacity resources' market entry decisions.³⁵ The limited two-year phase-in will not affect new generation that cannot be in service before the phase-in is over, and there is no evidence to suggest that the significantly higher capacity prices, even with the phase-in, would not be adequate to support existing capacity resources.

Instead of responding to this evidence with a reasoned analysis, the Commission speculated that the two-year phase-in would "discourage" short-term supply responses, such as demand response and repowering options.³⁶ But by couching its explanation in the vague concept of "encouragement," the Commission avoided the more difficult and central question of

³³ Cadwalader Aff. at ¶¶ 10-19.

³⁴ Demand Curve Filing at 39-40; Attachment VIII to the Demand Curve Filing, Affidavit of Tariq N. Niazi ("Niazi Aff.") at ¶¶ 9-15.

³⁵ Demand Curve Filing at 42; Mukerji Aff. at ¶ 16.

³⁶ Demand Curve Order at P 164. The Commission cited to no evidence that generation in the G-J Locality can be repowered in time for the 2014/2015 Capability Year auction, unless the generation owner began making plans well before the Commission's order rejecting the NYISO's phase-in proposal, in which case the generation owner's decision would be unlikely to be influenced by the outcome of the proceeding.

whether a 24% discount to the capacity price this year, and a 12% discount next year, would materially affect supply, or would make the prices they are paid unjust and unreasonable. The Commission cited to no record evidence that these modest discounts would make any difference at all.

While demand response suppliers or generation owners planning to repower their facilities will always prefer higher capacity payments (thus being “encouraged” by the prospect), that is not the same as finding that demand response suppliers will bid if they are paid the full price for capacity in the 2014/2015 Capability Year, but will withhold their resources from the market if they are paid only 76% of that price. Record evidence showing that specific price points for capacity are necessary to induce supply would be relevant information for the Commission’s decision, but speculating as to how suppliers may react to price discounts for a transition period is not.³⁷ Thus, given the absence of any record evidence showing that NYISO’s phase-in proposal will cause short-term supply alternatives (*i.e.*, demand response and generation repowering) to stay out of or leave the market, the Commission’s decision was not reasoned, and was not supported by the record.

IV. CONCLUSION

For the reasons stated above, the NYTOs respectfully request that the Commission grant rehearing and issue an order granting the NYISO’s request that the new ICAP Demand Curve for the G-J Locality be phased in to ameliorate rate impacts.

³⁷ Indeed, the D.C. Circuit has held that the Commission must be able to identify the evidence relied on in reaching its conclusions, and that such evidence must not be speculative or conjectural. *Florida Municipal Power Agency*, 602 F.3d at 461; *City of Charlottesville*, 661 F.2d at 949-50.

Respectfully submitted,

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Dated: February 27, 2014

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Washington, D.C. this 27th day of February 2014.

/s/ Carlos L. Sisco

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UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System
Operator, Inc.

Docket No. ER14-500-001

ORDER GRANTING REHEARING FOR
FURTHER CONSIDERATION

(March 24, 2014)

Rehearing has been timely requested of the Commission's order issued on January 28, 2014, in this proceeding. *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,043 (2014). In the absence of Commission action within 30 days from the date the rehearing request was filed, the request for rehearing (and any timely requests for rehearing filed subsequently)¹ would be deemed denied. 18 C.F.R. § 385.713 (2013).

In order to afford additional time for consideration of the matters raised or to be raised, rehearing of the Commission's order is hereby granted for the limited purpose of further consideration, and timely-filed rehearing requests will not be deemed denied by operation of law. Rehearing requests of the above-cited order filed in this proceeding will be addressed in a future order. As provided in 18 C.F.R. § 385.713(d), no answers to the rehearing requests will be entertained.

Nathaniel J. Davis, Sr.,
Deputy Secretary.

¹See *San Diego Gas & Electric Company v. Sellers of Energy and Ancillary Services Into Markets Operated by the California Independent System Operator and the California Power Exchange*, 95 FERC ¶ 61,173 (2001) (clarifying that a single tolling order applies to all rehearing requests that were timely filed).

by consumers in the LHV as demonstrated in these proceedings by Central Hudson and other New York Transmission Owners, NYISO and the New York Public Service Commission (“NYPSC”).² NYISO’s proposal would have provided a modest 24% discount to the auction clearing prices in the first year and 12% in the second, but the Commission rejected it out of fear that unidentified bidders might be “discouraged” from participating. The Commission did not identify a single bidder that threatened to withhold capacity, and it disregarded its own precedent to use a three-year phase-in of the NYISO’s original switch to the “sloped” demand curve capacity pricing method to mitigate the resulting higher rates.³

Central Hudson, the New York Transmission Owners, NYISO and the NYPSC have all asked the Commission to reconsider its rulings in these cases, but their requests for rehearing have all languished for many months. In the meantime, the NYISO has begun holding its seasonal and monthly auctions for the NCZ. The results have been as expected, with capacity prices in the new zone coming in about twice as high as they would be without the NCZ and even higher than where these capacity auctions cleared last summer, which will ultimately lead to hundreds of millions of dollars in additional costs for consumers in the LHV. These higher capacity prices coupled with the Commission’s failure to address legitimate concerns raised in the rehearing requests has prompted dozens of calls and letters to the Commission from consumers, state regulators and legislators requesting action, but these pleas seem to have fallen on deaf ears. Thus far, the Commission has done nothing more than issue “tolling orders” to acknowledge its receipt of several requests for rehearing, but these “orders” merely paid lip service to the statutory directive requiring the Commission to “act” on rehearing requests within

² *New York Independent System Operator, Inc.*, 146 FERC ¶ 61,043 (2014).

³ *See New York Independent Transmission System Operator, Inc.*, 103 FERC ¶ 61,201, at P 6 (2003) (the Commission accepted NYISO’s three-year phase-in of the sloped demand curve to mitigate anticipated sharp price increases under the new capacity pricing method).

30 days.⁴ Accordingly, Central Hudson respectfully requests the Commission to take immediate action on Central Hudson’s requests for rehearing—to grant them for all of the compelling reasons that Central Hudson has offered, or to deny them so that Central Hudson can take an expeditious appeal and thereby ease the burden on other market participants if the Commission is required to reverse course following a remand.

In the event the Commission is unable to rule on these pending rehearing requests immediately, Central Hudson respectfully requests the Commission to issue an immediate stay of further capacity auctions for the NCZ until the merits of the Commission’s decision can be tested in court. A stay is easily justifiable under the Commission’s familiar standard—market competition will not be harmed because, as NYISO has shown, there is ample planned generation in its current interconnection queue. The alternative, continuing the capacity auctions for the NCZ, will simply provide a wealth transfer to existing generators. Conversely, failing to stay the NCZ auctions will inflict significant economic harm on retail customers in the NCZ that may not be recompensed by future refunds, given the Commission’s refusal to order refunds in other cases that required changes to unlawfully conducted auction markets.⁵ Finally, granting a stay is necessary to preserve the opportunity for Central Hudson, the NYPSC and NYISO to press their legal case in court, where it is likely the Commission will be reversed for failing to render decisions that are supported by substantial evidence, fail to follow its precedents, and are otherwise unlawful.

⁴ 16 U.S.C. § 825*l*. Indeed, the tolling orders announce the Commission’s inability to “act” within the statutory deadline, and purport to grant the Commission an indefinite amount of time to “act” at a time of its own choosing.

⁵ Indeed, the Commission has been known to exercise its discretion to deny refunds on equitable grounds when it would otherwise be necessary for an organized market to re-run its markets months or years after the fact. *E.g.*, *Consol. Edison Co. of New York, Inc. v. F.E.R.C.*, 510 F.3d 333 (D.C. Cir. 2007); *Ameren Services Company, et al., v. Midwest Independent Transmission System Operator, Inc.*, 127 FERC ¶ 61,121, at P 54 (2009). A theoretical rights to refund protection is thus a meaningless basis to deny a motion for stay.

Central Hudson respectfully requests the Commission to provide a shortened comment period of **three business days** for responses to this motion for a stay, and to issue a ruling within **one day** after it receives answers to the motion.

I. BACKGROUND

On August 13, 2013, in Docket No. ER13-1380-000, the Commission issued an order accepting the NYISO's proposed revisions to its Market Administration and Control Area Services Tariff and its Open Access Transmission Tariff to establish and recognize a new capacity zone that would encompass NYISO Load Zones G, H, I, and J. On September 12, 2013, Central Hudson's protest showed that the NYISO failed to take proper account of capacity deliverability when it established the NCZ, and thus unjustly and unreasonably allocated capacity costs in a manner that did not reflect cost causation. This flawed method set the table for consumers in the LHV to bear far more than their fair share of capacity prices in the NCZ—assuming that establishing the NCZ was justified in the first place.

The Commission's order accepting the NYISO's plan ruled that the Commission had already accepted the NCZ concept and thus implicitly also accepted the "Locational Installed Capacity Requirement," or "indicative LCR," which is the critical component for determining the borders of the NCZ, and is also a key factor in the allocation method for capacity costs in the NCZ. On rehearing, Central Hudson showed that the Commission's assumption about the indicative LCR was wrong because the NYISO developed it for the first time in Docket No. ER13-1380-000. Thus, the Commission's decision rested on a fundamental misunderstanding of the relationship between the indicative LCR calculation and the NCZ, or how that calculation would impact the allocation of capacity costs to consumers in the NCZ cost allocation proceeding to follow. Central Hudson urged the Commission to take swift action to correct the

error, but the Commission responded by issuing an order in October 2013 granting rehearing “for further consideration” and has otherwise failed to act.

In the meantime, NYISO filed its cost allocation plan for the NCZ in Docket No. ER14-500-000. The proposal forecast an approximately \$230 million capacity price increase for consumers in the LHV, but proposed to ease the pain by proposing a modest 24% price reduction for the capacity auction for the 2014/2015 capability year which spans May 1, 2014 through April 30, 2015. The Commission rejected this modest rate relief based on its speculative concern that a small subset of potential market participants might be “discouraged” from bidding into the auction while giving no obvious consideration to the impact on consumers. Indeed, there was no record evidence that any capacity supplier would avoid the auction if the market cleared at a small discount, while the NYISO’s evidence showed that the discount would not keep any supplier out of the market. For these and other reasons, Central Hudson and the New York Transmission Owners requested rehearing on February 27, 2014.

Subsequently, the Commission’s docket sheets in these proceedings chronicle long lists of several dozen letters and phone calls from outraged consumers, regulators and legislators demanding that the Commission reconsider its decisions. Nevertheless, the Commission has yet to act on the rehearing requests. The Commission’s inaction allowed the NYISO’s new capacity auctions to move forward without proper review under the statutory process by either the Commission or a court to determine whether the Commission’s initial decisions are legally defensible. The result is that NYISO’s three capacity auctions conducted thus far—for Summer 2014, May 2014 and the May 2014 spot market—have produced capacity prices that are twice as high as the “New York Control Area” which formerly included the new G-J Locality.⁶ The

⁶ Available at http://www.nyiso.com/public/markets_operations/market_data/icap/index.jsp.

following table summarizes the results and cost impact to consumers from these auctions only for the Month of May:

Auction	UCAP Price per kW-Month	UCAP Awarded (MW)	Cost to Consumers in LHV	Excess Cost to LHV Above NYCA
Summer 2014	G-J: \$9.96 NYCA: \$5.15	G-J: 476.1	\$4,741,956	\$2,290,041
May 2014	G-J: \$10.33 NYCA: \$5.50	G-J: 435.4	\$4,497,682	\$2,102,982
May 2014 Spot	G-J: \$12.38 NYCA: \$6.68	G-J: 2,384.8	\$29,523,824	\$13,593,360
Bilateral Contracts*	G-J: \$8.71* NYCA: \$5.15	G-J: 741.5	\$6,338,110	\$2,584,755
Total Excess Cost to LHV in the First Month:				\$17,520,123** \$20,622,416*

* Assumes a 50% discount off reference price as a proxy for a Bilateral Agreement price.

**This impact does not include the impact of capacity purchased through Bilateral Contracts which although lower than the clearing prices adds further to the impact of the NCZ.

II. REQUEST FOR A RULING IMMEDIATELY

The NYISO's capacity auctions have so far cost consumers in the LHV an additional \$17.5 million above what they would have paid if their new capacity zone had remained part of the New York Control Area as in the past. If these trends continue they will cost consumers more than \$100 million just this summer. These results from just the first three capacity auctions show that consumers in the LHV are on track to pay hundreds of millions of dollars above what they otherwise would have paid if the auctions continue, as Central Hudson, NYISO and the NYPSC warned.

Despite these sharply higher capacity prices, the Commission has yet to respond to the merits of Central Hudson's request for rehearing in Docket No. ER13-1380-000, filed on September 12, 2013, and has likewise failed to act on the New York Transmission Owners'

request for rehearing on the phase-in filed on February 27, 2014. The Commission's failure to act in a timely manner on these requests for rehearing that raised serious doubts about the propriety of the Commission's rulings in these dockets is tantamount to a denial given that consumers are already feeling the impact. Consumers in the LHV are entitled to have their objections heard in a meaningful timeframe, either by having the Commission reverse its erroneous decisions, or by having the Commission give them a direct answer to their objections so that they can test the Commission's reasoning in court. The Commission's failure to give any answer despite having many months to do so is deeply troubling, given the dozens of calls and letters from consumers, regulators and legislators in New York expressing their deep concerns with the Commission's inaction. Accordingly, Central Hudson respectfully submits this formal motion for the Commission to issue its orders on the pending rehearing requests immediately.

III. MOTION FOR STAY

Under Section 705 of the Administrative Procedure Act (APA), the standard for granting a stay by an administrative agency is whether "justice so requires."⁷ In deciding whether justice requires a stay, the Commission generally considers several factors, which typically include: (1) whether the party requesting the stay will suffer irreparable injury without a stay; (2) whether issuing the stay may substantially harm other parties; and (3) whether a stay is in the public interest.⁸ The Commission gives particular weight to the risk of irreparable harm.⁹

Here, the Commission has deferred acting on the pending rehearing requests for months as the NYISO's capacity auction for the NCZ rapidly approached, even though Central Hudson's

⁷ 5 U.S.C. § 705.

⁸ *CMS Midland, Inc.*, 56 FERC ¶ 61,177, at pp. 61,630-31, *aff'd sub nom. Michigan Municipal Cooperative Group v. FERC*, 990 F.2d 1377 (D.C. Cir. 1993), *cert. denied*, 510 U.S. 990 (1993).

⁹ *City of Holland, Michigan v. Midwest Independent Transmission System Operator, Inc.*, 112 FERC ¶ 61,105, at P 20 (2005).

requests for rehearing demonstrated both that its customers face substantial harm and that the Commission's rulings are not supported by the facts or the law. Now that the NYISO has begun to conduct capacity auctions for the NCZ, the harm to consumers is no longer theoretical. It is, moreover, potentially, even probably, irreparable because there is no certainty the Commission will ever require the NYISO to take the steps necessary to put consumers in the position they would have been absent the Commission's erroneous decisions to accept the NCZ, or at the very least to require the NCZ to be implemented with a phase-in. The Commission has been known to deny refunds that would require regional organizations like the NYISO to resettle market auctions.¹⁰ Although resettling the NYISO's auctions at this early stage should not be a significant obstacle, there is a growing risk that the Commission will cite complexity as a rationale for denying refunds (as it has in the past) if the NYISO auctions are allowed to continue. Accordingly, the Commission must immediately stay the NYISO's future auctions for the G-J Locality and direct the NYISO to conduct its monthly and spot market auctions as though the G-J Locality is part of the New York Control Area as NYISO did before the Commission's orders at issue here to mitigate the growing harm to consumers and ensure that refunds remain a viable remedy to protect them against unjust and unreasonable rates as required by the Federal Power Act.

Conversely, a stay will not harm competitive markets. Drawing in new capacity is the primary objective behind setting up the NCZ in the first place. As the NYISO has shown, during the next few years there is ample capacity in its generation interconnection queue that plans to locate in the NCZ and there is no reason to believe that any of this capacity will withdraw from the queue if the Commission stays the NYISO's auction for the NCZ. Rather, proceeding with

¹⁰ *Consol. Edison Co. of New York, Inc. v. F.E.R.C.*, 510 F.3d 333 (D.C. Cir. 2007); *see also Ameren Services Company, et al., v. Midwest Independent Transmission System Operator, Inc.*, 127 FERC ¶ 61,121, at P 54 (2009).

the NCZ capacity auction will simply provide a wealth transfer of tens (perhaps hundreds) of millions of dollars to existing generators that will not have their continued availability to the NYISO affected one way or the other by a stay of the Commission's orders.

Finally, granting a stay will preserve the status quo and give the parties the opportunity to present their arguments in court, and thereby obtain a definitive ruling on whether the Commission's rulings were correct. The timing of this review process is largely within the Commission's control. If the Commission affirms its decisions, Central Hudson and other interested parties can take an immediate appeal, which the Commission can expedite by joining in a motion to the court for an expeditious review. The Commission, therefore, can minimize the disruption that might arise from its failure to issue orders on rehearing in a timely manner.

IV. CONCLUSION

WHEREFORE, for the foregoing reasons, Central Hudson respectfully requests that the Commission issue orders immediately on the pending requests for rehearing in Docket Nos. ER13-1380-000 and ER14-500-000. Alternately, Central Hudson respectfully moves for an order staying the NYISO's separate capacity auctions for the G-J Locality beginning with the June monthly and strip auctions, and directing NYISO to include the G-J Locality within the New York Control Area for all future capacity auctions until the Commission issues its orders on rehearing and those orders have been subject to court review. Central Hudson requests the Commission to set a shortened response time to this motion for a stay of **three business days** and to issue its order on the motion **one day thereafter**.

Respectfully submitted,
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Dated: April 30, 2014

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list in this proceeding in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure.

Dated at Washington, D.C. this 30th day of April, 2014.

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KIMBERLY A. HARRIMAN
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Secretary

May 2, 2014

SENT VIA ELECTRONIC FILING
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Federal Energy Regulatory Commission
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Washington, D.C. 20426

Re: Docket Nos. ER13-1380-000 and ER14-500-000 - New York Independent System Operator, Inc.

Dear Secretary Bose:

For filing, please find the Answer of the New York State Public Service Commission to the Motion filed by Central Hudson Gas & Electric Corporation in the above-entitled proceedings. The parties have also been provided with a copy of this filing, as indicated in the attached Certificate of Service. Should you have any questions, please feel free to contact me at (518) 473-8178.

Very truly yours,

David G. Drexler
Assistant Counsel

Attachment
cc: Service Lists

A472

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System) Docket Nos. ER13-1380-000
Operator, Inc.) ER14-500-000

ANSWER OF THE NEW YORK STATE PUBLIC SERVICE COMMISSION
IN SUPPORT OF MOTION FOR A STAY OF NEW CAPACITY ZONE AUCTIONS
AND FOR EXPEDITED RULING ON REQUESTS FOR REHEARING

INTRODUCTION

The New York State Public Service Commission (NYPSC) hereby responds, pursuant to Rule 213 of the Federal Energy Regulatory Commission's (FERC or Commission) Rules of Practice and Procedure (Procedures), to the Motion filed by Central Hudson Gas & Electric Corporation (CHG&E) on April 30, 2014. The NYPSC supports CHG&E's Motion, which seeks a stay of the New York Independent System Operator, Inc's (NYISO) Installed Capacity auctions for load zones G thru J (i.e., the "New Capacity Zone") beginning with the June monthly auction on June 8, 2014.

The stay requested by CHG&E is necessary while the requests for rehearing, which raise significant legal issues with the formation of the New Capacity Zone and seek to avoid, delay or, in the alternative, phase-in its implementation, are still pending in Dockets ER13-1380-000 and ER14-500-000. Granting a stay will avoid irreparable injury to electric consumers that will otherwise be required to pay hundreds of

millions in unjust and unreasonable costs while the parties await the Commission's final determinations on the requests for rehearing and seek judicial review of those determinations, as appropriate. The NYPSC joins CHG&E in urging FERC to expedite its rulings on the pending requests for rehearing.

DISCUSSION

I. The Commission Should Grant An Immediate Stay Of Any Additional Capacity Auctions For the New Capacity Zone

In determining whether to grant a stay, the Commission generally considers three factors, which include: 1) whether the party requesting the stay will suffer irreparable injury absent a stay; 2) whether issuing the stay may substantially harm other parties; and, 3) whether a stay is in the public interest.¹ Based on these factors and the circumstances present in this case, the Commission should find that a stay is warranted.

It is now clear that electric consumers in the New Capacity Zone are experiencing a significant and unwarranted increase in capacity prices. On April 29, 2014, the NYISO released the results from the May Capacity Spot Auction. The

¹ Docket QF87-237-000, et al., CMS Midland, Inc., Midland Cogeneration Venture Limited Partnership, Order Denying Request for Rehearing, Rejecting Supplemental Filings and Denying Motion for Stay, 56 FERC ¶61,177 (issued July 31, 1991), at 61,631.

resulting price for the New Capacity Zone was \$12.38 per kilowatt-month, which represents an unexpected jump by over \$2.00 per kilowatt-month from the Strip and Monthly auctions held earlier in April. We estimate that FERC's establishment of the New Capacity Zone will now cause capacity prices to increase by approximately \$280 million per year, cumulatively, for customers located in load zones G, H and I (excluding New York City, which is coterminous with load zone J).² This updated projection of the ratepayer impact and the potential windfall to incumbent generators is even higher than anticipated at the time of our request for rehearing on the New Capacity Zone Demand Curves.

The increase in capacity costs to lower Hudson Valley consumers within the New Capacity Zones comes on the heels of extremely high energy bills associated with the extreme weather and natural gas shortages experienced in the northeast this past winter, which led to extremely high electric energy prices. For December, January, and February, electric Locational-Based

² We estimate that the Winter 2014-15 clearing price will be \$8.23 per kilowatt-month for the New Capacity Zone. In contrast, the average prices for the capacity year ending April 30, 2014 for the Lower Hudson Valley were \$5.80 per kilowatt-month in the Summer and \$3.10 per kilowatt-month in the Winter. Thus, capacity prices for the Lower Hudson Valley are expected to increase over 100% in the Summer and over 150% in the Winter. The increase, then, will be approximately \$158 million for the 6 months of Summer 2014. We therefore estimate that the increase in capacity costs in the Lower Hudson Valley will be approximately \$281 million (\$158 million + \$123 million) for the capability year May 2014-April 2015.

Marginal Prices in the New York Control Area (NYCA) increased 49%, 130%, and 44%, respectively, over 2013. These increases lead to an estimated increase of over \$2 billion in statewide energy costs on an unhedged basis.

Compounding the impacts to lower Hudson Valley consumers is the expectation that summer electric energy prices will be higher than normal, given weather forecasts that suggest the Northeast is likely to have a hotter than normal summer. This anticipated higher price is reflected in the NYMEX futures market for electricity for NYISO Zone G, which is priced at \$53.05 per MWh for June-September for this year,³ as compared to \$42.85 and \$40.45 per MWh for the same period in 2013 and 2012, respectively. This potential increase of over 20% in energy prices could lead to over \$70 million in increased electric energy costs for the Lower Hudson Valley for these four months alone. When taken in total, the consumers in the lower Hudson Valley will come out of a winter period of high energy prices straight into a summer period of high energy prices with no relief in sight. While the Commission should be looking for measures to mitigate the price impacts for consumers in the lower Hudson Valley, forcing a price spike through the

³ This price is the average of NYMEX Around-the-Clock Zone G futures prices for June-September as of April 23, 2014.

imposition of the New Capacity Zone will only aggravate these impacts.

Electric consumers in the New Capacity Zone are likely to experience irreparable harm from these high capacity prices. These harms are irreparable because of the difficulties the NYISO would experience in attempting to fashion refunds in the capacity market. To determine refunds accurately, it would be necessary to re-run the NYCA auctions with the Lower Hudson Valley capacity included in the Rest-of-State market. There could be some sellers of capacity who cleared at the New Capacity Zone prices that would not have cleared at the NYCA price. This could affect the NYCA clearing price and quantity traded, therefore impacting every capacity purchaser and supplier in the State. Further, the trading of bilateral contracts that are settled based on the spot market results would be severely impacted. Moreover, there is already some capacity in the New Capacity Zone that has cleared in the Strip and Monthly auctions based on the New Capacity Zone higher prices, and there will be more trading soon with the NYISO opening the next Monthly auction on May 8, 2014, and the June Spot auction on May 23, 2014.⁴ The results and financial consequences of these auctions will be difficult, if not

⁴ We note that most of the June capacity will likely trade at the June spot auction on May 23, 2014.

impossible, to reverse. Therefore, it is imperative that FERC stay further auctions harming electric consumers.

It is also apparent that other parties will not be substantially harmed by issuing the stay. FERC's policy goal is to incentivize new generation facilities in the Lower Hudson Valley region, in order to make up for limitations in the electric transmission grid's ability to transmit power into the region.⁵ However, it will take at least 3 years to build a new generator from the time it is first proposed. Thus, a stay in implementing the New Capacity Zone at this time will not affect such parties' response to a price signal expected in three years. Granting the stay will, however, prevent incumbent generators from receiving a \$280 million annual windfall that offers no compensating benefit to electric consumers. Alternatively, a stay in implementing the NCZ until next summer would avoid a near-term windfall for incumbent generators, but still allow some generating units in the lower Hudson Valley to come back on-line and provide relief from increasing electric capacity costs. Based on the foregoing reasons, a stay of the NYISO's planned auctions for the New Capacity Zone beginning

⁵ The NYPSC's initiatives to address congestion and deliverability constraints within the lower Hudson Valley, as fully described in the NYPSC's requests for rehearing, further justify a stay in implementing the New Capacity Zone.

with the June monthly auction on June 8, 2014 is in the public interest.

II. The Commission Should Act Expeditiously On The Pending Requests For Rehearing

The NYPSC continues to urge expedited action by the Commission in Dockets ER13-1380-000 and ER14-500-000. The NYPSC filed requests for rehearing in these proceedings on September 12, 2013, and February 27, 2014, respectively. However, the NYPSC's requests for rehearing, which seek to avoid the imposition of unjust and unreasonable rate increases on electric consumers within the New Capacity Zone in New York's lower Hudson Valley, are still pending. Given the need to ameliorate the significant and unwarranted price increases being thrust upon electric consumers in the lower Hudson Valley, we ask that the Commission act promptly on the petitions for rehearing.

As the NYPSC maintains in Docket ER13-1380-000, New York's efforts to address congestion and deliverability constraints are expected to address the underlying need for establishing the NCZ. Accordingly, the NYPSC requests that FERC reject the need to implement the NCZ in order to prevent improper and meaningless price signals to incumbent resources and prospective developers, without any concomitant ratepayer benefits. The NYPSC takes the same position in docket ER14-500-000, where the NYISO seeks to implement Installed Capacity

Demand Curves within the NCZ for the three upcoming Capability Years (i.e., 2014/2015, 2015/2016, and 2016/2017).

CONCLUSION

In accordance with the discussion above, the NYPSC respectfully requests that the Commission grant CHG&E's Motion for a stay in conducting further New Capacity Zone auctions, and act expeditiously of the pending requests for rehearing.

Respectfully submitted,

Kimberly Harriman /SH

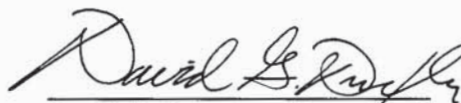
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Dated: May 2, 2014
Albany, New York

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service lists compiled by the Secretary in these proceedings.

Dated: Albany, New York
May 2, 2014



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