UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.	**)**	**Docket No. ER14-500-000**

REQUEST FOR LEAVE TO ANSWER AND ANSWER OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.

Pursuant to Rules 212 and 213 of the Commission's Rules of Practice and Procedure,[1] the New York Independent System Operator, Inc. ("NYISO") submits this request for leave to answer, and its answer to, the comments and protests that challenge its November 29, 2013 filing proposing revised ICAP Demand Curves (the "November Filing").[2] Comments and protests were submitted by: (i) the New York Transmission Owners ("NYTOs");[3] (ii) Multiple Intervenors, jointly with the City of New York ("MI/City"); (iii) the New York State Public Service Commission ("NYPSC"); (iv) the Independent Power Producers of New York ("IPPNY"); (v) Entergy Nuclear Power Marketing, LLC ("Entergy"); (vi) Astoria Generating Company, L.P. and the NRG Companies (together, the "Indicated Suppliers"); (vii) TC Ravenswood, LLC ("Ravenswood"); (viii) the Electric Power Supply Association ("EPSA"); and

[1] 18 C.F.R. §§ 385.212 and 385.213 (2013).

[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; and Unrelated Ministerial Tariff Correction, Docket No. ER12-360-000* (filed Nov. 29, 2013).

[3] The NYTOs are: 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. The NYTOs support the November Filing as a just and reasonable package but ask the Commission to address certain concerns if the filing is not accepted in its entirety. *See* NYTOs at 3.

(ix) the New York Supplier and Environmental Advocacy Group[4] ("NY-SEA Group").[5] In addition, this answer briefly responds to Entergy's January 6, *Motion for Leave to Answer and Answer* ("Entergy Answer").

For the reasons set forth below, the Commission should issue an order by January 28, 2014 rejecting all challenges to the November Filing. The Commission should accept the NYISO's proposed amendments to Section 5.14.1.2 of the Market Administration and Control Area Services Tariff ("Services Tariff"), effective January 28, 2014, without directing any modifications, initiating hearing procedures, adopting a suspension period, or imposing a refund condition. Commission action by that date would allow the NYISO to make timely preparations in advance of the proposed May 1, 2014 date that the proposed ICAP Demand Curves and G-J Locality would be first applied.[6]

I. REQUEST FOR LEAVE TO ANSWER

The NYISO seeks to respond to pleadings that are styled as "comments," "protests," as well as to an answer. The Commission's regulations allow answers to "comments" as a matter of right. The Commission has discretion[7] to accept answers to protests and answers and has

[4] The NY-SEA Group is composed of Dynegy Marketing and Trade, LLC, Empire Generating Co., LLC, Exelon Corp., Invenergy 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.

[5] In this Answer, the NYISO sometimes refers to the IPPNY, Entergy, the Indicated Suppliers, Ravenswood, EPSA and the NY-SEA Group collectively as the "Supply Interests."

[6] *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) at 30 (requesting a late January 2014 effective date for a number of proposed tariff revisions related to the establishment of the "G-J Locality" to coincide with the then-anticipated effective date of the ICAP Demand Curves proposed in this filing and noting that "[a]ctivities in preparation of the 2014/2015 Capability Year, such as the calculation of LCRs [*i.e.,* Locational Capacity Requirements] and the Imports Rights processes, and each of the auctions associated with the month of May 2014 all occur before May 1, 2014").

[7] *See* 18 C.F.R. § 385.213(a)(2).

done so when they help to clarify complex issues, provide additional information, or are otherwise helpful to its decision-making process.[8] The Commission should follow its precedent and accept the NYISO's answer in this instance. The issues in this proceeding are complex and will have a significant impact on the Installed Capacity ("ICAP") Demand Curves[9] and thus on both Capacity markets and consumers. This answer will help the Commission better understand the issues and the consequences of its decisions.[10]

II. THE CHALLENGES TO THE NOVEMBER FILING SHOULD BE REJECTED

The proposed ICAP Demand Curves, and the underlying ICAP Demand Curve parameters, for the 2014/2015, 2015/2016, and 2016/2017 Capability Years that are included in the November Filing are reasonable, amply supported, and consistent with all Services Tariff requirements. They are based on analyses conducted by the NYISO and its consultants[11] and reflect the input of NYISO stakeholders and the independent Market Monitoring Unit ("MMU"). The proposals ultimately reflect the independent judgment of the NYISO's Board of Directors ("Board") as to what technology meets the tariff requirements for the representative proxy plant

[8] *See, e.g., Southern California Edison Co*., 135 FERC ¶ 61,093 at P 16 (2011) (accepting answers to protests "because those answers provided information that assisted [the Commission] in [its] decision-making process"); *New York Independent System Operator, Inc.,* 134 FERC ¶ 61,058 at P 24 (2011) (accepting the answers to protests and answers because they provided information that aided the Commission in better understanding the matters at issue in the proceeding); *New York Independent System Operator, Inc*., 140 FERC ¶ 61,160 at P 13 (2012) and *PJM Interconnection, LLC*, 132 FERC ¶ 61,217 at P 9 (2010) (accepting answers to answers and protests because they assisted in the Commission's decision-making process).

[9] Terms with initial capitalization in this Answer have the meaning set forth in the Services Tariff and if not defined in the Services Tariff, have the meaning set forth in the NYISO's Open Access Transmission Tariff.

[10] In addition, to the extent that the Commission determines that the 15 day period for submitting answers under Rule 213(d)(1) is applicable to this filing the NYISO respectfully requests that this answer be accepted a few days out of time. The NYISO and its consultants worked diligently to complete this answer within the 15-day period, but it was not practicable to do so, given that the answer period encompassed both the Christmas and New Year's holidays and given the major early January snowstorm in Albany, New York.

[11] The NYISO's consultants encompass the team of NERA Economic Consulting ("NERA"), with Sargent and Lundy ("S&L") as NERA's subcontractor (collectively identified as "NERA/S&L") as well as the Brattle Group ("Brattle") and Licata Energy & Environmental Consulting ("Licata") (together, "Brattle/Licata"), who were hired by the NYISO to provide additional analysis related to the proxy unit choice for New York City ("NYC"), Long Island ("LI") and the G-J Locality.

in each ICAP Demand Curve region. As discussed in more detail below, the proposed ICAP Demand Curves will send appropriate price signals to both existing Installed Capacity Suppliers and potential entrants to encourage efficient investments.

The possibility that the adoption of certain alternative parameters or assumptions might also result in just and reasonable ICAP Demand Curves does not mean that the proposals set forth in the November Filing are unjust, unreasonable, or "outside the zone of reasonableness" mandated by the Federal Power Act.[12] No party to this proceeding has shown that the November Filing's proposals fall short of this statutory standard. The Commission should therefore issue an order accepting the NYISO's proposed tariff amendments by January 28, 2014 without requiring any modifications.

A. The NYISO's Selection of the F Class Frame with SCR as the Proxy Unit for NYC, LI, and the G-J Locality Was Reasonable and Well Supported

1. Claims that the Board Lacked Tariff Authority to Select the F Class Frame with SCR or to Retain Brattle/Licata Are Wholly Without Merit

The November Filing included a complete explanation of the Board's authority to select the F class frame combustion turbine with selective catalytic reduction ("SCR") emission controls (the "F class frame with SCR") as the proxy unit for NYC, LI, and the G-J Locality.[13] That description demonstrated that the further due diligence conducted by Brattle/Licata helped the Board to come to a reasonable conclusion on a complex issue.

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[12] *See, e.g., New York Independent System Operator, Inc.,* 122 FERC ¶ 61,064 at P 14, n.12 (2008) ("2008 DCR Order") ("The Commission does not need to show that other proposals that arguably fall within a zone of reasonableness are not just and reasonable and, indeed, we must approve NYISO's proposals if supported as just and reasonable even if there are other just and reasonable proposals") c*iting Midwest Independent Transmission System Operator,* 118 FERC ¶ 61,209 at P 67 (2007); *FPC v. Conway Corp.,* 426 U.S. 271, 278 (1976) ("there is no single cost-recovering rate, but a zone of reasonableness.")

[13] *See* November Filing at 11-12.

Nevertheless, the Supply Interests argue at length that the Services Tariff prevented the Board from selecting the F class frame with SCR or from retaining Brattle/Licata to inform its decision. IPPNY and the Indicated Suppliers assert that the NYISO violated the "spirit" of the tariff,[14] implicitly conceding that the NYISO's action satisfied its express requirements. Other parties go further and claim that the NYISO's actions were actually prohibited by the Services Tariff.[15]

In either case, the Supply Interests' entire position is based on at least three fundamentally flawed premises. First, the Supply Interests are correct to the extent that they note that 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. They are wrong, however, to suggest that the existence of this process means that NERA/S&L's recommendations, or the initial recommendations of the NYISO staff, are binding on the Board. In reality, it is the Supply Interests that would effectively revise the Services Tariff by reinterpreting it to make consultants, stakeholders, and/or the NYISO staff, instead of the Board, responsible for deciding what would be proposed to the Commission. Their reading cannot be squared with: (i) the fact that Section 5.14.1.2.9 empowers the Board to "review and adjust" consultant and staff recommendations after hearing stakeholder arguments; (ii) Section 5.14.1.2.11's unambiguous statement that the NYISO will file ICAP Demand Curves "as approved by the ISO Board of Directors;" and (iii) various other provisions in the tariffs, the NYISO's organic agreements, and Commission precedent that make independent Boards ultimately responsible for decision making in ISOs/RTOs. Indeed, if the Board were not able to modify consultant or staff recommendations there would be no reason to

[14] *See* IPPNY at 22-29; Indicated Suppliers at 18.

[15] Ravenswood at 7-13.

provide for stakeholder arguments to the Board regarding those recommendations, or for the Board's review and approval of them. Of course, the Board does have the authority to make proposals that differ from consultant recommendations as the Commission has confirmed by accepting such proposals in prior ICAP Demand Curve resets.[16]

Second, the Supply Interests ignore the fact 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. As the November Filing noted, stakeholders that supported the selection of that technology made a strong case for its adoption.[17] The NYTOs have now provided the Commission with a copy of their October 2013 written comments, which they transmitted to the Board, in advance of the oral arguments to the Board.[18] MI/City and others made similar arguments. Together these stakeholders persuasively argued that the Board had to at least consider whether the F class frame with SCR was economically viable given that, among other things, four such units had become operational at the nominally 800 MW, $800 million, Marsh Landing Generating Station in California ("Marsh Landing").

Given both the commercial operation of the four Marsh Landing units under California's stringent emissions requirements and the significant fixed cost savings that the F class frame with SCR proxy plant technology presents over the LMS100 technology,[19] the Board did not believe that it could reasonably ignore the considerations presented by the NYTOs and MI/NYC. Nor could the Board disregard the fact that the Commission had authorized the PJM

[16] *See, e.g.,* 2008 DCR Order at PP 26, 31, 60-61 (accepting NYISO modifications to excess Capacity level estimates recommended by NERA based on an analysis by Mr. David Lawrence and accepting the NYISO's judgment not to include an additional risk factor that NERA had recommended).

[17] *See* November Filing at 10.

[18] NYTOs at Attachment D.

[19] For example, the total capital investment required to install an LMS100 combustion turbine in Zone F was estimated to be $1,432/kW compared to a total capital investment of $718/kW for the SGT6-5000(F) (simple-cycle without SCR). *See* Exhibit CDU-2 to Ungate Affidavit at 4, and NERA/S&L Report at 46.

Interconnection, LLC ("PJM") to use a similar technology for a similar purpose in its capacity market design for several years.[20] The Board could not reasonably refuse to consider any of these factors simply because of S&L's view that a unit should not be found to meet the tariff's economic viability requirement without at least twelve months of operating data. At the time that the Board was making its decision, the Marsh Landing units had been in commercial operation for nearly six months and all available information indicated that they were satisfying all applicable permit requirements.

Because the Board had both the authority and a strong factual basis for making its selection without Brattle/Licata's input, it cannot be asserted that the Board's choice was improper. It is without reason or merit to insist that the Board be required to make less well-informed decisions. There is nothing in the Services Tariff that requires the Board to wholly ignore critical information, such as the continuing successful operation of the four Marsh Landing units, as the Supply Interests would have it do. It would be without reason or merit to reinterpret the Services Tariff to deprive the Board of its ability to conduct additional due diligence, or to take into account recent industry developments that were not accounted for in the stakeholder process.[21] Mere speculation that the process for developing ICAP Demand Curve recommendations would somehow be undermined if the Board were permitted to conduct a complete review of the results is hardly a valid rationale for forcing the Board to turn a blind eye to relevant information.[22] The notion that the Board not be allowed to seek additional information before making a decision also cannot be reconciled with the Indicated Suppliers'

[20] MI/City at 13, 24.

[21] *See, e.g.* Ravenswood at 13.

[22] *Id*.

position that the Board must act reasonably when exercising its discretion under the Services Tariff.[23]

Third, far from violating the Services Tariff or treating stakeholders unfairly, 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 on November 1, 2013 ("Brattle Report"). As the November Filing notes, the Board gave early notice that it would seek additional due diligence on the proxy plant technology question after it heard oral arguments. The Board informed stakeholders that this due diligence would be made available for their review and that they would have an opportunity to submit additional written comments for the Board's consideration before a decision was made. The time available for comments was necessarily limited given the Services Tariff filing deadline. The NYISO was also committed to implementing the new curves by May 1, 2014 in order to, among other things, timely implement the G-J Locality (an objective that the Supply Interests generally support). There was sufficient time for the Supply Interests to present the Board with most of the arguments that they are now making in this proceeding. This is partly due to the fact that the NYISO responded quickly to a series of detailed technical questions posed by IPPNY.[24]

Similarly, there is no basis for the Supply Interests to complain that the Board did not follow the Services Tariff's RFP procedures for selecting a consultant to develop a full set of ICAP Demand Curve recommendations. As the NYISO explained in response to another stakeholder question, 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 RFP requirements.[25]

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[23] *See* Indicated Suppliers at 21.

[24] November Filing, Attachment VI.

[25] Indicated Suppliers, Attachment A.

More generally, the Supply Interests' claims that the Board's actions were "opaque" or "non-collaborative," or otherwise inconsistent with the spirit of the Services Tariff are both untrue and greatly exaggerated. No stakeholder can reasonably claim that this issue was sprung on them at the "eleventh hour."[26] As MI/City have noted, it should have been clear to all participating stakeholders for several months prior to the oral arguments before the Board that certain stakeholders were urging the NYISO to select the F class frame with SCR technology as the proxy unit for NYC, LI, and the G-J Locality.[27] The Supply Interests may have been disappointed with the outcome but cannot reasonably suggest that they were unaware that the issue was under review by the Board and might be decided against them.

2. The Board and Brattle/Licata Were Not "Biased" in Favor of F Class Frame with SCR Technology

Certain parties speculate that the Board's selection of the F class frame with SCR was the product of a bias against existing generators.[28] Such allegations are unsupported and irresponsible. The NYISO is a not-for-profit, impartial, and independent entity with no financial stake in the outcome of this proceeding.[29] The NYISO's objective is to set the ICAP Demand Curves at a level that will "improve system and resource reliability by valuing the ICAP resources available above the system's required levels, and provid[e] more effective economic signals for new investment."[30] The NYISO has used its best judgment to attempt to develop

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[26] Indicated Suppliers at 16; IPPNY at 10.

[27] *See* MI/City at 33-34.

[28] *See, e.g.,* Ravenswood at 7-13; Indicated Suppliers at 15-18; and IPPNY at 22-29.

[29] *See, e.g.,* the NYISO's Mission Statement: "The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public good and provide benefit to consumers by: maintaining and enhancing reliability; operating open, fair and competitive wholesale electricity markets; planning the power system for the future; and providing factual information to policy makers and other stakeholders," *available at*: <http://www.nyiso.com/public/about_nyiso/nyisoataglance/purpose/index.jsp.>

[30] 2008 DCR Order at P 2.

proposed ICAP Demand Curves that serve this objective and believes that its proposal is reasonable and well-supported.

Similarly, some parties claim that Brattle/Licata were biased and that their retention was itself evidence of the Board's bias. According to this theory, Brattle in particular was bound to conclude that a frame combustion turbine with SCR was viable because it had previously made that recommendation to PJM and supposedly could not give contrary advice to the NYISO without "disastrous" harm to its reputation.[31] The Supplemental Chupka Affidavit (Attachment 1) and Supplemental Licata Affidavits (Attachment 2) dispose of these claims. Mr. Chupka avers that he was directed to provide an independent review of a single issue, to reach his own conclusions based upon an assessment of the facts that were ascertainable using his best judgment, and he did exactly that.[32] He also points out that he had no personal role in Brattle's past work for PJM and that Brattle's representation of PJM and other clients played no role in his evaluation.[33] Mr. Licata confirms that neither the NYISO nor Brattle directed him to give his opinion as to whether the F class frame with SCR was technically feasible or economically viable.[34] It was "only after… an in-depth review of the technical data and design criteria available for past and present high temperature applications," as well as after "a thorough examination of the Marsh Landing design, and "a thorough review of all available emission

[31] IPPNY at 27.

[32] *See* Supplemental Chupka Affidavit at P 4.

[33] *Id.*

[34] Supplemental Licata Affidavit at P 8.

data" that he concluded that it was.[35] In short, there is no merit to the Supply Interests' assorted allegations that the selection of Brattle/Licata was "result-oriented."[36]

3. Challenges to the NYISO's Selection of the F Class Frame with SCR Should Be Rejected

The November Filing provided an in-depth explanation of the reasons supporting the NYISO's conclusion that the F class frame with SCR was technically and economically viable for NYC, LI, and the G-J Locality.[37] Moreover, as the Supplemental Chupka Affidavit states, Brattle/Licata have continued to review additional information that has become available in the two months since they completed the Brattle Report.[38] Mr. Licata has likewise had additional discussions with SCR manufacturers, which further enhanced his understanding of SCR capabilities. This new information and further review has only reinforced and confirmed Brattle/Licata's initial judgment regarding the viability of F class frame with SCR technology.[39]

Nevertheless, the Supply Interests attempt to challenge the reasonableness of the NYISO's choice. This section, and the affidavits accompanying this answer, refute their principal arguments in detail. To the extent that the NYISO does not address an argument it should not be construed as agreement with that claim or as an admission of fault or error by the NYISO, NERA/S&L or Brattle/Licata. The NYISO has not responded to arguments that were redundant or clearly irrelevant or flawed. Consistent with the Commission's procedural rules, the NYISO has focused on answering erroneous and misleading statements in order to correct the record and facilitate the Commission's review.

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[35] Supplemental Licata Affidavit at P 9.

[36] *See, e.g.*, Indicated Suppliers at 17-18. Consequently, there is also no cause for concern that the Supply Interests were harmed by the inapplicability of the Services Tariff's RFP procedures to Brattle/Licata.

[37] *See, e.g.,* November Filing at 13-16.

[38] Supplemental Chupka Affidavit at P 5.

[39] Supplemental Licata Affidavit at PP 36-39.

a. Assertions that Brattle/Licata Did Not Have Sufficient Time to Prepare a Reliable Analysis Are Inaccurate and Misleading

The Supply Interests argue that the Brattle/Licata analysis should have little weight because it was completed in less time than the NERA/S&L Report.[40] But a simplistic comparison of the duration of the NERA/S&L and Brattle/Licata examinations is misleading. NERA/S&L was responsible for developing every parameter and assumption that would impact the proposed ICAP Demand Curves. They were also responsible for presenting them to stakeholders for review and comment, then evaluating every issue and comment presented by stakeholders in order to make a final recommendation on how the parameter or assumption should be treated. Their work encompassed hundreds of discrete questions covering the numerous issues and assumptions required to complete the ICAP Demand Curve reset process. By contrast, Brattle/Licata focused intensively on a single issue and was able to build on the work that NERA/S&L had already done.[41] The Commission should not draw a false inference that the Brattle Report was inadequate or "rushed" simply because it was completed in a shorter timeframe than the NERA/S&L Report. In reality, the Brattle Report was far more comprehensive and uncovered new facts directly related to the technical and economic viability of the F class frame with SCR.

The Supplemental Licata Affidavit provides additional detail regarding the depth and thoroughness of the Brattle/Licata review[42] and the ways in which it surpassed NERA/S&L's work.[43] In particular, Brattle/Licata took a broader view than S&L, which had largely assumed that the higher temperature of exhaust gases leaving the F class combustion turbine precluded the

[40] *See, e.g.*, IPPNY at 8-9.

[41] Brattle/Licata began their work by reviewing the treatment of this issue in the NERA/S&L Report as well as the July 9th S&L presentation to stakeholders.

[42] Supplemental Licata Affidavit at PP 7-13.

[43] *Id*. at PP 14-17.

application of a SCR. Brattle/Licata approached the exhaust temperature issue as a primary question for their evaluation. Brattle/Licata also investigated much more closely the causes of the failed SCR applications in Kentucky and Puerto Rico, which S&L had cited, 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 technology may have evolved to address these issues in the years since those failures. Brattle/Licata considered SCR application with catalysts experiencing temperatures above the 850 ˚F threshold used in S&L's work. S&L did not address several long-running high temperature SCR applications on frame scale combustion turbines or report on various failures of SCRs installed on aeroderivative machines. Brattle/Licata also had access to more data and additional input from manufacturers than NERA/S&L.[44] Thus the Commission should conclude that it was reasonable for the Board to rely on the Brattle Report and should be confident that the Commission too may rely on this information.

b. Arguments that the Successful Operation of the Four Marsh Landing Units Do Not Support the Viability of F Class Frame with SCR Technology Should Be Rejected

The Supply Interests make various claims to try to support their theory that the successful operation of the four Marsh Landing units should not be relevant to the selection of a proxy unit for NYC, LI, and the G-J Locality. As the November Filing noted, however, it is not reasonable to suggest that the Board should have simply ignored the reality that that a major F class frame with SCR facility had been operating and meeting stringent emissions requirements for six months when making its economic viability determination. In addition, the Supplemental Licata Affidavit and Supplemental Chupka Affidavits refute the more specific claims advanced by the Supply Interests.

[44] *See* Supplemental Licata Affidavit at P 16.

It is important to emphasize the size and scope of Marsh Landing when evaluating the Supply Interests' claims that there is only "one example" of an operational F class frame with SCR. Marsh Landing is composed of four similar F class frame turbines operating in simple cycle mode with SCR emissions controls for NOx. The very magnitude of the project demonstrates the confidence that its developer had in F class frame with SCR technology. At the very least, the Commission should recognize that the Board's economic viability determination reflected the fact that there were four, not one, operational F class frames with SCR units at the time that it was made.

IPPNY and Mr. Ott also allege that there is limited operational data for the Marsh Landing units since they commenced operation in May and June of 2013.[45] But the Supplemental Licata Affidavit explains that there is ample data showing that the units, which began testing in November 2012, have been meeting their permit requirements going back to their initial startups. This includes EPA data from the commercial operation of the first unit in May 2013 through the end September 2013, which was used in the Brattle Report, as well as compliance testing data that Mr. Licata obtained going back to January 2013, which is discussed below. EPA data for the fourth quarter of 2013 should be available soon and Mr. Licata does not anticipate that it will reveal any compliance issues.[46]

Mr. Ott also asserts that of the 507 hours of Marsh Landing's operating data that were reviewed by Brattle only 82 were from the third quarter of 2013. Mr. Ott suggests that peaking units in NYC would be required to run much more frequently.[47] Although the facility did not run frequently in the third quarter, there is nothing to suggest this is attributable to SCR performance

[45] IPPNY at 13, 15, Ott Affidavit at P 15.

[46] *See* Supplemental Licata Affidavit at P 37.

[47] IPPNY, Ott Affidavit at P 25.

or that the facility was incapable of operating for a greater number of hours. It appears that there was simply a lack of demand for the units' output at the time. In any event, as the Supplemental Chupka Affidavit notes, looking to the third quarter alone is highly misleading. A more reasonable comparison would be between the first LMS100 unit operating for 584 hours in 2007, which was the basis for the LMS 100 technology as a proxy unit for the first time, versus the four Marsh Landing units running for a total of 507 commercial operating hours in five months.[48]

There is absolutely no basis for IPPNY's and Mr. Ott's contention that the Marsh Landing units are "struggling to perform" and to satisfy applicable environmental limitations in California.[49] The Supplemental Licata Affidavit disproves this assertion by referring to a report submitted to the California Air Pollution Control Board's Bay Area Air Quality Management District on June 6, 2013 (hereafter "Compliance Report"). The Compliance Report covers the period from January 14 through April 21, 2013.[50] It demonstrates that Marsh Landing was in compliance with all permit conditions, with NOx emissions of approximately 2 ppm demonstrated; start-up times from cold start to full load of between 8-11 minutes; and had a shut-down time of 5 minutes.

IPPNY's and Mr. Ott's criticism of the Brattle Report for its supposed failure to include data on the amount of excess ammonia exiting the stack at Marsh Landing is equally unfounded.[51] While Mr. Ott claims that ammonia slip data is more important to judge the performance of the SCR than the NOx emissions data, the data provided in Compliance Report shows ammonia slip values well below the 10 ppm levels specified in the Marsh Landing air

[48] *See* Supplemental Chupka Affidavit at P 16.

[49] IPPNY at 16, Ott Affidavit at P 16.

[50] Although the NYISO does not believe that twelve months of operational data should be a minimum requirement for a finding of economic viability, it would note that if the results of this report were included, there would be nearly twelve months of data for the Marsh Landing units.

[51] IPPNY 16-17, Ott Affidavit at P 19.

permit.[52] Thus, even if Mr. Ott were correct regarding the relative importance of ammonia slip, the data show that the Marsh Landing units have not experienced ammonia-related difficulties.

IPPNY criticizes the Brattle Report for not attaching significance to the fact that "Marsh Landing is supported by a 10 year contract pursuant to which all of its energy, capacity, and other products are purchased by a California investor-owned utility."[53] But this argument is entirely speculative; IPPNY itself only asserts that it is "likely" that the plant owner is recovering all of its capital costs under the ten year contract term. IPPNY also relies on an unproven assumption that the fact that parties in California chose a particular method to finance Marsh Landing dictates that other financing arrangements could not be used in New York. Moreover, the argument effectively seeks to force the NYISO to consider financing issues as part of its economic viability analysis that are not required by the Services Tariff.

c. The Other High Temperature SCR Applications Discussed in the Brattle Report Were Highly Relevant to the NYISO's Economic Viability Analysis

IPPNY[54] and the Indicated Suppliers[55] claim that that the McClellan and McClure facilities were not "valid references" for the viability of the F class frame with SCR. They note that neither facility is an F class frame but instead use significantly smaller units with lower gas temperatures. These differences were not material for the purposes of the Brattle/Licata analysis, as SCR systems are indifferent to the source of the flue gas. McClure is a single frame unit, with dual fuel capability that has over 3,600 operating hours with a high temperature SCR. Approximately 25% of this operating time included firing backup oil. Importantly, the SCR design for McClure was similar to that used for Marsh Landing, *i.e.,* it is based on the injection

[52] Supplemental Licata Affidavit at P 36.

[53] IPPNY at 20-21.

[54] IPPNY at 17.

[55] Indicated Suppliers at 22-23.

of tempering air to cool the exhaust gas temperatures at the face of the catalyst to 790 °F, down from the turbine exit temperature of 969 °F, for efficient NOx removal while operating within the designed temperature range for the selected catalyst. McClure is therefore an example of a unit having an SCR of similar design to Marsh Landing's that demonstrates the design's ability to operate successfully on a frame unit burning both gas and oil. Further, Mr. Licata reviewed emissions data going back to 2004 showing compliance with permit conditions. This history, which demonstrates successful high temperature SCR operation firing dual fuel, is clearly relevant to S&L's prior work that largely focused on SCR and catalyst performance issues when experiencing temperatures greater than 750-800 °F. As such, they are undoubtedly relevant to the NYISO's economic viability determination.

McClellan has a GE Frame 7E gas turbine and is fired on gas in simple cycle mode. It has exhaust gas temperatures of 1020 °F and has no tempering air introduced into the SCR, yet it has demonstrated compliant environmental performance over its ten plus year service life. This unit has a capacity of approximately 75 MW and is similar in design to several simple cycle units operating with SCR in Japan. Because McClellan is used primarily for black starts, it has experienced a large number of starts during the past 10 years and the NYISO understands it is still operating with the original catalyst. Based on the official emissions compliance report conducted on September 19, 2013, the unit is still in compliance with its permit. Hence, McClellan clearly demonstrates that F class frame with SCR technology is viable at significantly higher exhaust gas temperatures, including temperatures that are proximate to an F class turbine, and is clearly relevant to the F class frame with SCR's technical and economic viability. McClellan's sustained performance further validates the design trade off methodology presented in the Brattle Report and the materials provided by Mitsubishi Power Systems Americas ("MPSA"). SCR manufacturers are able to trade-off between the costs of using higher

temperature catalysts in the SCR and the costs of introducing dilution air into the exhaust gas to reduce the temperature across the face of the catalysts. In addition, the frequent starts stress the high temperature catalyst in a number of ways: 1) the physical strength of catalyst can degrade over time, 2) thermal stress can cause cracking in the catalyst which affects the ceramic fiber structure, and 3) sintering can occur if there is a maldistribution of temperature or flow. McClellan's successful performance indicated that there has not been any significant deterioration of the high temperature catalyst used in this installation, notwithstanding these stressors.[56] Both McClure and McClellan are also clearly relevant to the engineering design issues of operating high temperature SCR applications, including those with dual fuel capability.

The Supplemental Licata Affidavit reiterates the Brattle Report's finding that S&L should not have concluded that higher temperature SCR applications, such as those found on simple cycle frame units were unproven. 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 ˚F.[57] He also explains that it is irrelevant for Mr. Ott, for example,[58] to emphasize that catalyst effectiveness and life will erode when placed on a F class turbine operated in simple cycle mode because the same is true of all SCR applications. All catalysts are designed to operate within certain temperature ranges and can be damaged or cease to function if exposed to temperatures above or below those limits. Mr. Licata's communications with SCR manufacturers further confirmed that any risk associated with higher temperature SCR

[56] Supplemental Licata Affidavit at P 20.

[57] *See* Supplemental Licata Affidavit at PP 20-26.

[58] IPPNY, Ott Affidavit at P 16.

applications can be readily mitigated.[59] Thus, the non-frame units examined by Brattle/Licata provide relevant operational information.

IPPNY and Mr. Ott raise a number of other technical issues regarding frame units with SCR that similarly have no probative value because they are equally applicable to aeroderiviative units (the economic viability and technical feasibility of which IPPNY accepts). Mr. Ott identified non-performance issues involving catalyst failure, ammonia maldistribution, tempering air maldistribution, seals issues/bypass, high ammonia slip, high inlet NO_X and other issues.[60] Mr. Chupka explains, however, that all of the issues appear to also affect SCR applications on aeroderivative units.[61] As Mr. Chupka notes, the reality is that all SCR applications, including at commercially and economically viable facilities, face potentially significant engineering issues but these issues can be identified, addressed, and, in most cases, fixed.[62] The Commission should therefore not allow Mr. Ott's claims to lead it to conclude that the F class frame with SCR is not economically viable.

d. Brattle/Licata Correctly Concluded that the Failure of Earlier SCR Applications in Puerto Rico and Kentucky Did Not Preclude a Finding the F Class Frame with SCR to Be Economically Viable

The November Filing recounted how NERA/S&L had pointed to past failures with combined frame and SCR configurations at the Cambalache Facility Puerto Rico and the Riverside Generation Station Kentucky in the 1990s and in 2001 to support their assessment that the F class frame with SCR was not viable.[63] It went on to explain that the Brattle Report had "explained the distinguishing characteristics of the failed Puerto Rico and Kentucky SCR

[59] *See* Supplemental Licata Affidavit at PP 22- 23.

[60] *See* IPPNY, Ott Affidavit at P 8.

[61] *See* Supplemental Chupka Affidavit at P 14.

[62] *Id.*

[63] *See* November Filing at 8-9.

installations and emphasized that their failure did not mean that SCR technology was incompatible with a F class frame unit today."[64] IPPNY argues that the operating history of the Kentucky facility "cannot be dismissed as irrelevant."[65]

The Supplemental Licata Affidavit refutes IPPNY's claim. Mr. Licata describes in detail 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. He also explains, as Mr. Ott does not dispute, that the same was true of the Puerto Rico facility.[66] Mr. Chupka notes that Mr. Ott uses a selective reference to the Brattle Report[67] to incorrectly imply that Brattle/Licata could not identify causes of underperformance at the Kentucky facility. Although Brattle/Licata could not publicly disclose all of the relevant information the Brattle Report made it quite clear, while referring to non-public information, that improper engineering and construction led to the failure of that SCR system.[68]

In short, the evidence shows that the NYISO was right to conclude that the past failures in Kentucky and Puerto Rico did not preclude a finding that F class frame with SCR technology was viable. As Mr. Chupka notes "combining the Frame unit with an SCR poses challenges that require good engineering to overcome" but Marsh Landing has demonstrated that the combination is practicable and economically viable.

[64] November Filing at 27.

[65] IPPNY, Ott Affidavit at P 10.

[66] *See* Supplemental Licata Affidavit at P 15.

[67] *See* IPPNY, Ott Affidavit at P 27.

[68] *See* Supplemental Chupka Affidavit at P 15.

e. The F Class Frame with SCR Is Capable of Satisfying Fuel-Switching Requirements in NYC

The Indicated Suppliers and Mr. Baker contend that the NYISO and its consultants failed to account for the supposed inability of the Marsh Landing units and other F class frames with SCR to satisfy the "fuel swapping" requirement in NYC.[69] Under that rule, a unit must be able to switch from firing natural gas to firing ultra-low sulfur diesel ("ULSD") within 45 seconds. The Ungate Affidavit (Attachment 3) clarifies that there is "no inherent reason that the [F class frame with SCR] could not be modified to switch from firing natural gas to firing ULSD within 45 seconds because an F class combustion turbine from a competing manufacturer has been modified for this capability."[70] Indeed, several F class frame units manufactured by GE and operating in combined cycle configuration have recently been built in NYC. These are subject to the 45 second fuel swapping requirement. Thus, F class frame technology, of which the proxy unit is representative, is clearly capable of being designed and built with the ability to satisfy the fuel swapping requirement in NYC.

Indeed, the Supplemental Licata Affidavit establishes that, in particular, the Siemens F class frame with SCR can in fact satisfy the fuel-swapping requirement. Mr. Licata's affidavit includes an email from a Siemens engineer, Bonnie Marini, that states "the Siemens turbine could meet the 45 second auto swap requirement established by Consolidated Edison for all units interconnected in New York City." He further states that "[i]n no respect does the auto swap requirement pose any undue risk for the effectiveness of the SCR."[71]

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[69] Indicated Suppliers at 26-29, Baker Affidavit at PP 15-17.

[70] Ungate Affidavit at P 35.

[71] *See* Supplemental Licata Affidavit at 35.

f. The Services Tariff Does Not Require New Technologies to Enjoy Widespread Market Acceptance Before they May Be Found to Be "Viable"

IPPNY argues that the F class frame with SCR is not a "viable" technology under the Services Tariff because relatively few units have been developed and none have been proposed in New York to date.[72] These arguments are attempting to create new "economic viability" criteria that are not found in the Services Tariff. The Tariff states only that "[f]or purposes of [the review of 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."[73] As the Commission said when it accepted the use of the LMS100 as a proxy unit for the first time in 2008, the Services Tariff does not specify a definition of "economic viability."[74] It certainly does not require that a given technology win widespread acceptance in the marketplace before it may be deemed to be viable. Instead, the Commission noted that viability determinations are a "matter of judgment."[75] The Commission has specified that "only reasonably large scale, standard generating facilities that could be practically constructed in a particular location should be considered."[76]

As the Supplemental Chupka Affidavit relates, economic viability is not necessarily the same as widespread market acceptance. Economic viability in the context of the NYISO tariff does not require that a specific proxy unit be commonplace. As Mr. Chupka states, a proxy unit should be found to be viable if it satisfies the five NERA/S&L screening criteria which the F

[72] IPPNY at 21.

[73] Services Tariff Section 5.14.1.2.

[74] *New York Independent System Operator, Inc.,* 125 FERC ¶ 61,299 at P 20 (2008).

[75] *Id.*

[76] *Id.*

class frame with SCR does.[77] Economically viable technologies are those that can supply capacity and energy to the market.[78] For example, a very low fixed cost technology that has prohibitively high variable costs may not be economically viable if it is never dispatched. The F Class frame with SCR satisfies the tariff condition, as it has lowest fixed costs and highest variable costs of the technologies examined. Moreover, the NERA modeling demonstrates that it would supply both energy and capacity economically into the market.[79]

As noted in the November Filing and above, S&L did not believe that the F class frame with SCR should be found to be viable until at least twelve months of operating data was available. While this requirement reflects S&L's judgment, the Services Tariff imposes no such requirement. IPPNY and Mr. Ott would apply a much more conservative criterion, insisting that "a full catalyst life cycle is needed before the technology is proven."[80] As Mr. Chupka demonstrates, assuming that the Marsh Landing units ran 1,000 hours per year and that successfully attained 25,000 hours of catalyst life, Mr. Ott would wait for a quarter of a century before arriving at a conclusion regarding the technology,[81] which is clearly unreasonable. Again, there is no tariff basis for such an unreasonably restrictive definition of "economic viability."

Other parties isolate individual factors that the Commission considered in its orders accepting the LMS100 to try to suggest that the F class frame with SCR falls short of what the Commission requires as evidence of viability.[82] The November Filing explained that the Board's selection of the F class frame with SCR was reasonable and consistent with the Commission's

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[77] *See* Supplemental Chupka Affidavit at P 6, *citing* NERA/S&L Report at 18.

[78] Supplemental Chupka Affidavit at P 8.

[79] *See Id*. at P 8.

[80] IPPNY, Ott Affidavit at P 10.

[81] *See* Supplemental Chupka Affidavit at P 17.

[82] Indicated Suppliers at 19-20.

precedent. 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. Although there are some ways in which the evidence of viability differs from then, *e.g.,* the existence of 15 months of operating data for the single LMS100 unit installed at the time, there are others in which the case for the F class frame with SCR is stronger, *e.g.,* the fact that here are currently four units at Marsh Landing that must meet stringent environmental restrictions in California instead of the single LMS100 in South Dakota that existed in the 2007-2008 timeframe. The only truly important consideration is whether the Board's selection of the F class frame with SCR was a reasonable judgment. The NYISO respectfully submits that the record in this proceeding clearly shows that the selection was reasonable and well-supported because an F class frame with SCR could be "practically constructed" in southeastern New York.

To the extent, however, that the Commission deems "market acceptance" to be material to the question of whether a potential proxy unit technology is economically viable it should find that there is sufficient market interest to support the selection of the F class frame with SCR. The Supplemental Licata Affidavit provides more information than was included in the November Filing illustrating the growing commercial interest in this technology.[83]

g. IPPNY's "Asymmetric Risk" Theory Has No Basis in the Services Tariff

IPPNY and Mr. Younger assert that the supposed "uncertainty" concerning the viability of F class frame with SCR technology "creates a substantial asymmetric market risk."[84] According to Mr. Younger, the 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

[83] *See* Supplemental Licata Affidavit at P 40.

[84] *See* IPPNY at 29-31; Younger at PP 69-74.

"market suppression and out-of-market subsidies" will be borne by consumers. But the Services Tariff does not allow, and certainly does not require, the NYISO to mitigate the risk of market suppression by being biased towards more expensive proxy units and higher demand curves. It simply requires the NYISO to select the lowest fixed cost, highest variable cost unit that it reasonably concludes is economically viable, without considering whether a more expensive unit is more certain to be economically viable. This is exactly what the NYISO did in 2007 when the LMS100 technology was selected for the first time even though it was not fully proven in New York. The NYISO simply may not select a more expensive technology to be a proxy unit because of speculative concerns with a less expensive technology.

Furthermore, Mr. Younger's concern over "asymmetrical market risk" is itself one-sided and incomplete because it fails to recognize the risks associated with selecting a proxy unit which reflects an unrealistically high cost of new entry. Notwithstanding the immediately apparent cost borne by consumers of artificially higher capacity costs, 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 is actually required. Such an overbuild, aside from being an obvious departure from market efficiency, would artificially increase the excess capacity of any other Localities in which the Locality was nested and in the NYCA as a whole. Thus, the strategy of erring on the side of higher demand curves to avoid the risk of market suppression and out-of-market subsidies suggested by Mr. Younger would, ironically, succeed in accomplishing exactly the opposite of its intended purpose. That is, it would suppress prices in the Rest of the State region, while also causing consumers in the Locality with an overstated ICAP Demand Curve to pay for extra capacity that, even if it was needed in the NYCA, could likely have been procured at a lower cost from a different part of the state.

h. The NYISO's 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

The Indicated Suppliers claim that the NYISO's cost estimates for the F class frame with SCR were flawed in various ways.[85] The Ungate Affidavit demonstrates that the S&L cost estimates relied upon by the November Filing were reasonable.[86] The Supplemental Licata Affidavit also emphasizes that Brattle/Licata reviewed S&L's cost estimates, including the operating costs that S&L developed for the LMS100 and then adjusted for the frame unit.[87] Mr. Licata notes that he discussed these cost issues with S&L and MPSA. Mr. Ungate's and Mr. Licata's affidavits both indicate that MPSA concurred that S&L's estimates were reasonable, and while conservatively high in their estimation, would be appropriate for the purposes of obtaining financing.[88]

i. There Is No Need to Include an Additional Risk Premium in the Capital Costs for the F Class Frame with SCR

The Indicated Suppliers and Mr. Niemann assert that the NYISO has understated the risks and costs associated with the F Class frame with SCR because it is a "first-of-a-kind" technology.[89] The Supplemental Chupka Affidavit explains that this argument is invalid because the F class frame with SCR is not truly a "first-of-a-kind" technology (such as utility scale fuel cell technology). In Mr. Chupka's view, that designation is typically reserved for an entirely innovative technology, not the initial combination of proven components in a new application where the component technology does not undergo a significant transformation. The

[85] *See* Indicated Suppliers at 30-36; Niemann Affidavit at PP 26-34.

[86] Ungate Affidavit at PP 8-13.

[87] *See* Supplemental Licata Affidavit at P 41.

[88] *Id*. and Ungate Affidavit at P 13.

[89] Indicated Suppliers, Niemann at P 16-17, 23.

configuration of an F class frame turbine combined with an SCR does not constitute such a unique and innovative combination, even with the addition of 45-second fuel-switching capability.[90] Many generating units employ unique combinations of existing technologies, or are constructed to meet idiosyncratic local requirements but are generally not viewed as being "first-of-a-kind." For such units, the better approach to mitigating risk is to apply conservative engineering and construction principles. As the Supplemental Chupka Affidavit explains, this is exactly what was done by the S&L cost model and by MPSA in designing the Marsh Landing SCRs and is the necessary and common component highlighted in the Brattle Report required for all high temperature SCR applications, including the ICAP Demand Curve proxy plants.[91]

B. The NYISO's Selection of the F Class Frame Without SCR As The Proxy Unit for the NYCA Was Reasonable and Consistent with the Services Tariff

The NYISO selected the F class frame with dry low NOx combustion for NOx emissions control and a cap on operating hours (the "F class frame without SCR") as the proxy unit for the NYCA. This determination was based on NERA/S&L's conclusion that this technology had the lowest fixed costs and highest variable costs, and was economically viable.[92] As noted by the NYPSC and MI/City, the unit's technology has proven to be viable over time, and has been used to set the NYCA ICAP Demand Curve since 2003.[93] Significantly, the NYISO concluded that the F class frame without SCR was capable of meeting all applicable environmental regulations.[94]

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[90] *See* Supplemental Chupka Affidavit at P 10.

[91] *See* Supplemental Chupka Affidavit at 12.

[92] November Filing at 31.

[93] *See, e.g., New York Independent System Operator, Inc.,* 125 FERC ¶ 61,299 at P 20 (2008); DPS at 3-4 and MI/City at 19-22.

[94] Attachment IV to November Filing at 9-12.

Certain parties have challenged the selection of the F class frame without SCR and urged the Commission to instead adopt the LMS100 unit with SCR as the proxy unit for the NYCA – a unit that has fixed costs that are nearly double those of the F class frame without SCR. The grounds offered in support of these arguments are unfounded or inaccurate and the Commission should not accept them.

1. **Compliance with Environmental Regulations**

IPPNY, the NY-SEA Group and the Indicated Suppliers question if the F class frame without SCR could satisfy applicable permitting requirements in light of state and federal environmental regulations,[95] but they fail to show that the unit would not be able to comply with currently applicable environmental regulations. As demonstrated in the November Filing and in the attached Affidavit of Christopher Ungate, the NYISO and NERA/S&L analyzed the ability of the F class frame without SCR to meet applicable environmental regulations that apply to the NYCA ICAP Demand Curve region.[96] The conclusion was that the unit, relying on dry low NOx combustion for emissions control instead of an SCR system and with a federally enforceable annual operating limit of 1075 hours while firing only natural gas, could remain under the currently applicable project significance threshold of 40 tons/year for NOx prevalent throughout this region. That threshold is established in 6 NYCRR Part 231, New York's New Source Review for New and Modified Facilities.[97] Accepting a federally enforceable annual operating limit ensures that the emissions of NOx will be below the applicable regulatory significance 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

[95] IPPNY at 31-39; NY-SEA Group at 2-3, 9-13; Indicated Suppliers at 43.

[96] *See, e.g.,* Attachment IV to November Filing at 9-11.

[97] *Id*. at 14. The facility was modelled with a limit on operations of 950 hours to ensure that the facility did not inadvertently exceed limits.

required under the Clean Air Act's New Source Review preconstruction permitting requirements. The NYISO and NERA/S&L confirmed that this would be a legitimate permitting approach for the proxy unit through discussions with the Director of the Division of Air Resources of the New York State Department of Environmental Conservation ("NYDEC") and his staff.[98] NYDEC confirmed that imposing an operational limit, and treating the F class frame without SCR as a "synthetic minor"[99] for NOx, was a reasonable and feasible approach to comply with the NOx emissions limit.[100]

The NYISO and NERA/S&L also analyzed the compliance of the F class frame without SCR with New York's CO_2 performance standards for major electric generating facilities.[101] NERA/S&L's modelling confirmed that the F class frame without SCR would meet Part 251's input and output-based requirements. The NYDEC also confirmed that, contrary to the assertions of the NY-SEA Group,[102] the permitting of the F class frame without SCR would not be obstructed by a BACT determination, as there is no commercially available post-combustion control technology for CO_2.

Finally, IPPNY and the NY-SEA suggested that the long-term operational viability of the F class frame without SCR is uncertain due to potential future environmental regulations.[103] The possibility that a unit might become inoperable, from a financial or engineering perspective, due to the imposition of future, as yet unknown, environmental regulations does not suffice to rebut

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[98] Ungate Affidavit at P 33; November Filing at 11.

[99] The term "synthetic minor" is generally used to describe a source with permit conditions that limit its potential to emit to less than major source levels, but with a potential to emit in the absence of any permit conditions above major source levels.

[100] Ungate Affidavit at P 33; November Filing at 11.

[101] 6 NYCRR Part 251.

[102] NY-SEA Group at 19-21.

[103] IPPNY at 39-41; NY-SEA Group at 21-22.

the 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. As Mr. Ungate explains, for this and previous ICAP Demand Curve reset studies, the environmental control assumptions for the proxy unit have been based on the regulations that are 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.[104]

The F class frame without SCR proxy plant in the Rest of State area therefore can comply with all currently applicable environmental regulations. It is economically and operationally viable, and the Commission should confirm its selection.

2. **Article 10**

IPPNY[105] and the NY-SEA Group[106] argued that Article 10 of the New York Public Service Law would be an insurmountable hurdle for a developer of the F class frame without SCR, and thus that the Commission must reject the selection of this unit. This argument is not persuasive because it is based purely on speculation and a misreading of Article 10.

Because the current Article 10 siting law was only recently enacted, there is inadequate history to conclude that the F class frame without SCR could not obtain certificates for construction and operation through the Siting Board process.[107] IPPNY and the NY-SEA Group seem to base their assumptions about its application on conjecture. For example, it is far from certain that the public's participation in the proceedings would prevent the permitting of the

[104] Ungate Affidavit at P 42.

[105] IPPNY at 31-32.

[106] NY-SEA Group at 16-18.

[107] Ungate Affidavit at P 45.

proxy unit. And the simple fact that public groups can be "well-funded"[108] pursuant to the intervenor funding provisions of Article 10 hardly refutes the NYISO's determination that the F class frame without SCR can practicably be constructed. Developers of any type of generation facility expect and generally receive vocal opposition from public groups, and the level of funding is not a reliable indicator of the efficacy or effect of a group's advocacy.

Even though the current Article 10 is a new law, it is not as revolutionary as the protestors describe.[109] The Article 10 law recently enacted essentially replaces an old Article X siting law, which was allowed to sunset in 2002. The old Article X siting law had in turn replaced the old Article 8 that had sunsetted in the 1990s. All of these siting laws are modeled after the comprehensive environmental review requirements found in Article 8 of New York's Conservation Law, the State Environmental Quality Review Act ("SEQRA").[110] And in fact, during all of the NYISO's past ICAP Demand Curve resets when there was no effective siting law to substitute for it, SEQRA applied. SEQRA, like Article 10, requires that all agencies, when deciding to approve or undertake a proposed project make a finding that the "adverse environmental impacts be minimized to the maximum extent practicable."[111] Thus, in past ICAP Demand Curve reset proceedings where no Article X or Article 10 siting law was in place, the proxy units were subject to the same requirement being highlighted by the protestors: SEQRA's requirement that they must, "consistent with social, economic and other essential considerations, to the maximum extent practicable, minimize or avoid adverse environmental effects."[112] The Commission approved the NYISO's selection of the F class frame without SCR as the proxy unit

[108] NY-SEA Group, Anderson Affidavit at P 18.

[109] *See, e.g.,* NY-SEA Group, Anderson Affidavit at P 12.

[110] NY Env. Cons. Law, §§ 8-0101- 8-0117.

[111] NY Env. Cons. Law § 8-0109.

[112] *See, e.g.,* NY Env. Cons. Law §§ 3-0301(1)(b), 3-0301(2)(m) and 8-0113.

for the NYCA in the past two ICAP Demand Curve resets, when it was subject to this requirement. Nearly identical language in Public Service Law Section 168.(3)(c) prohibits the Siting Board from issuing a certificate without making a finding that "the adverse environmental effects of the construction and operation of the facility will be minimized or avoided to the maximum extent practicable." There is no reason to believe that the same language would be applied differently under Article X than under SEQRA to prevent the permitting of the F class frame without SCR.

Importantly, Article 10 does not mandate the manner in which developers can meet the standard that impacts be minimized to the maximum extent practicable, nor does it supplant or supersede the NYDEC's delegated authority to enforce the Clean Air Act's New Source Review requirements. It certainly does not make a blanket finding that simple cycle frame turbines are not eligible to be sited and operated in New York State.[113] Rather, Article 10 and its implementing regulations require 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.[114] Should the F class frame without SCR have such an impact, the developer would include the most cost-effective measures to minimize that impact.[115] In the case of the proxy unit for the NYCA, this would not be an insurmountable hurdle, because, as demonstrated above, the F class frame without SCR was designed to comply with all applicable environmental regulations, and thus should have no disproportionate environmental impact.

Moreover, the NY-SEA Group's self-serving allegation that no developer would bring the F class frame without SCR before the Article 10 Siting Board out of concern that the Siting

[113] Ungate Affidavit at P 44.

[114] 6 NYCRR Part 487.10.

[115] Ungate Affidavit at P 43.

Board or a public group might raise questions about the lack of an SCR system, thus delaying the permitting and increasing the risk, is hardly compelling.[116] A reasonable developer of generation facilities builds time, and money, for the permitting process into their project plans. This is as true for the developer of a wind facility as it would be for a unit with SCR or a unit that relied on other means to meet environmental limitations. But more importantly, Article 10 contains a strict statutory provision that mandates that a final decision by the Siting Board must be issued within 12 months of a determination that the application is complete, with the option to extend the deadline in "extraordinary circumstances" by no more than six months.[117]

Finally, the NY-SEA Group argued that Article 10's requirement for a cumulative air quality impact analysis, which would entail modeling the F class frame without SCR with nearby facilities to determine if the NAAQS can be met, would reveal that the proxy unit could not comply with the one-hour NO2 standard.[118] Mr. Ungate explains that this concern is speculative, as, in his experience, rapid start frame units like the F class frame without SCR can reach emission compliant loads within approximately 10 minutes and have a full load controlled NOx emission rate in the range of nine ppm when firing natural gas. These frame units are more readily able to demonstrate compliance with the one-hour NO2 standard during start-up than units with higher combustion NOx emissions, such as at 25 ppm, that rely on SCR systems for additional NOx control.[119]

[116] NY-SEA Group at 18.

[117] Article 10, Section 165.4.(a).

[118] NY-SEA Group at 17, Anderson Affidavit at P 48.

[119] Ungate Affidavit at P 41.

As Mr. Ungate concludes, "[n]othing in the Siting Board regulations would preclude permitting a simple cycle frame peaking unit in upstate NY."[120]

3. **Economic Viability**

The NY-SEA Group argued that a developer would not invest in the F class frame without SCR, given the limitation on its operating hours,[121] and that technology cannot be properly designated as the proxy unit under the Services Tariff in light of those limits. They contend that this is especially true because with this limitation the proxy unit "may not be an eligible [Energy Limited Resource ("ELR")] capacity resource.[122] These concerns are misplaced, and are based on a misreading of the Services Tariff. There is no requirement in the Services Tariff or elsewhere that a facility must be able to qualify as an ELR capacity resource in order to be selected as the proxy unit. Nor is there a requirement that a generating facility must qualify as an ELR in order to sell capacity in the NYISO market.

Furthermore, 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, which ranges from 982 to 1025 hours.[123] The proxy unit's operating limitation of 1075 hours a year is above that range, and the NYISO's conservative downward adjustment to 950 hours to account for the lack of perfect foresight[124] is slightly below the lower limit of the average range. This indicates that the proposed proxy unit would not need to participate in the NYISO's energy markets as an

[120] Ungate Affidavit at P 39.

[121] *See, e.g.,* NY-SEA Group, Gerlach Affidavit at P 18.

[122] NY-SEA Group at 28-28.

[123] November Filing, Attachment IV at 14. 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. *Id*. at n.12.

[124] November Filing, Attachment IV at 14.

ELR, suggested by the NY-SEA Group, in order to comply with its operating limits. There are units facing similar limits on their operations that are economically viable in the NYISO market.

C. The NYISO Was Reasonable to Assume that the NYC, LI, and G-J Locality Proxy Units Would Have Dual Fuel Capability

The NYISO assumed that the proxy units in NYC, LI and the G-J Locality would be required to have dual fuel capability. Proxy units siting in these Localities would be subject to this requirement as a contingency in the event of a system loss of gas supply if the operators purchase gas pursuant to a tariff of a local distribution company. In the alternative, the operators would be forced to pay prohibitively high costs for the purchase of gas from interstate pipelines.[125] MI/City disagrees with this assumption, arguing that dual fuel capability is not necessary and the assumption artificially inflates the price of the proxy unit for the G-J Locality.[126] The NYTOs[127] also criticize the dual fuel requirement, arguing that there are more economical ways to address this issue for the proxy unit in the G-J Locality than by imposing the dual fuel capability requirement. The NYTOs posit that the proxy unit could enter into a natural gas peaking contract, pursuant to which it could purchase delivered gas at an index price with one day's notice. The costs associated with this contract would be, the NYTOs allege, more economic than imposing the dual fuel capability requirement.[128]

The Commission should not adopt these recommendations and should instead accept the NYISO's dual-fuel assumption for the proxy units in all Localities, including the G-J Locality. NERA/S&L recommended the dual fuel assumption in order to expand the options for the economical siting of the proxy unit. If the proxy unit did not have backup fuel capability, it

[125] November Filing at 18-19.

[126] MI/City at 51-55.

[127] As stated above at n.3, the NYTOs only raise this objection, and their other objections, if the Commission does not accept this Filing in its entirety.

[128] NYTOs, Attachment C at 8-10.

could not be sited on the network of a local distribution company, because those companies' tariffs require dual fuel capability. The unit would then 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. NERA/S&L therefore determined that the incremental costs of dual fuel capability, approximately $8,500,000, would be more economical than the estimated cost of interconnecting to an interstate pipeline.[129]

Furthermore, natural gas peaking contracts, the option proposed by the NYTOs, are not a viable option for the proxy units. The parameters used to develop the ICAP Demand Curves must be generally applicable to all proxy units, and in the NYISO's experience, these types of contracts have a very limited availability. In addition, natural gas peaking contracts are not typically 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. The period within which a supplier has to satisfy the re-supply provision varies, but can be as short as that same day. Hence these contracts are a less than ideal way to address the need for back-up gas supplies, especially on the coldest days of the year, when back-up fuel is most likely to be needed. These contracts are therefore not an economic or viable option for the proxy unit.

D. The November Filing's Financing Assumptions Were Reasonable

1. Original Issue Discount Costs

In the November Filing, the NYISO adopted the recommendation of NERA/S&L and did not include additional original issue discount ("OID") costs in the levelized carrying charges for

[129] Ungate Affidavit at PP 30-31. NERA's assumption of the gas interconnection cost estimate of $5,395,000 to either a local distribution company network or to an interstate pipeline includes a lateral pipeline of less than 0.5 mile.

the proxy units.[130] IPPNY criticizes this decision, arguing that NERA/S&L's analysis of the Yield to Maturity ("YTM") of bonds "by definition[ ] leaves out OID," which are a "substantial portion of total debt costs" and a "standard component of any financing."[131]

The Commission should disregard IPPNY's complaints, as it was reasonable not to include OID costs in the financing costs that were modelled for the ICAP Demand Curves. IPPNY's argument is based on project financing assumptions, which are different than those that the ICAP Demand Curve reset analysis uses. Moreover, IPPNY is incorrect that the analysis of the YTM of bonds omits OID costs. Using the YTM method, NERA/S&L evaluated the market value of bonds, not their face value. As such, a portion of OID costs, if any existed, would have been captured in the NERA/S&L analysis. But as none of the debt issuances that NERA/S&L analyzed included OID costs, NERA/S&L concluded that the inclusion of OID costs would not be reasonable.[132] Supplemental Meehan Affidavit attached hereto as Attachment 4.

IPPNY also notes that the amount of debt financing costs assumed in the development of the ICAP Demand Curves is substantially below the amount that has recently and actually been incurred by two New York developers.[133] As discussed in the November Filing,[134] this issue was fully vetted during the stakeholder process, and the NYISO was not presented with a compelling reason why the amount that NERA/S&L chose was not reasonable. These complaints are unfounded and the Commission should disregard them.

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[130] November Filing at 25-26.

[131] IPPNY at 64.

[132] Supplemental Meehan Affidavit at P 22.

[133] IPPNY at 64-65.

[134] November Filing, Attachment IV at 23-23.

2. **Amortization Period**

The ICAP Demand Curves in the November Filing were based on an amortization period of 20 years for the Frame units and 25 years for the LMS100 unit.[135] The decision to adopt these periods, which is explained at length in the affidavit of NERA's Gene Meehan that was submitted in support of the November Filing, was based on Mr. Meehan's judgment that these periods would be likely to attract investment in each type of unit.[136]

Three parties challenge the amortization period: MI/City[137] and the NYPSC,[138] which argue in favor of a 30 year period, and IPPNY, which argues that the Commission should adopt even shorter amortization periods than those recommended by NYISO (a 14 year assumed capital recovery period for the NYC ICAP Demand Curve and an 18 year assumed capital recovery period for the G-J Locality and NYCA ICAP Demand Curves).[139]

As no party provides compelling evidence or arguments in support of its request, the Commission should not accept the invitation either to lengthen or shorten the amortization periods set out in the November Filing. The amortization periods do not need to be shortened to expedite or ensure the recovery of investment in the proxy unit, because the amortization periods that NERA/S&L selected already incorporate the risks that a developer in the New York markets might face. The amortization periods cannot be viewed in isolation of all the parameters considered in the ICAP Demand Curve reset process.[140] For example, Mr. Meehan assumed that there would be some excess capacity in the market, given the NYISO's Comprehensive

[135] November Filing at 23-25.

[136] Meehan Affidavit to November Filing at P 19.

[137] MI/City at 49-51.

[138] NYPSC at 7.

[139] IPPNY at 41-55.

[140] Supplemental Meehan Affidavit at P 7.

Reliability Planning Process,[141] and he recognized that the Frame unit's higher heat rate places it at risk for a more uncertain future.[142]

Moreover, the amortization period is not the same as the expected physical lifespan of a unit. Rather, an amortization period 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. 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, during the remaining years of the unit's life.[143]

Similarly, the Commission should not lengthen the amortization periods to 30 years, as MI/City and NYPSC urge. Thirty years is the outer limit of what Mr. Meehan thought could be the reasonable range of amortization periods. Nevertheless, given his considerations about the risks facing developers, he recommended the use of a more reasonable value is in the middle of that range.[144]

Finally, even assuming for the sake of argument that there has been "government subsidized out-of-market intervention"[145] in the capacity markets, the Commission should not shorten the amortization periods. As Mr. Meehan discusses, the reset of the ICAP Demand Curves is not the appropriate forum to examine whether the issue exists and, if it did exist, to evaluate how to address it. Moreover, the Commission recently accepted buyer-side mitigation measures that will apply to the G-J Locality, which are substantially similar to the rules that apply to New York City. In addition, the Commission has before it a proceeding in which

[141] *Id*. at P 10.

[142] *Id*. at P 15.

[143] *Id*. at P 8.

[144] *Id*. at P 11.

[145] The NYISO does not concede that there has been any such intervention.

IPPNY has sought rule changes to address "government subsidies" in the Rest of NYCA.[146] IPPNY's rationales for the adjustment therefore fail and should be rejected. The NYISO has demonstrated the reasonableness of the amortization period, and that it should not be adjusted.

3. **The Assumed Return On Equity**

In the November Filing, the NYISO adopted the recommendation of NERA/S&L to develop the levelized carrying costs for the proxy units using, among other factors, a 12.5% return on equity for determining the weighted average cost of capital.[147]

MI/City[148] and the NYPSC[149] protest the NYISO's use of a 12.5% return on equity, arguing that the Capital Asset Pricing Model ("CAPM") analysis performed by NERA/S&L concluded that the cost of equity should be 11.29%, and that the 1.21% increase from that level was an "arbitrary and unjustified adder" to account for "unspecified investment risks faced by merchant generation developers."[150]

These protests are based on an incorrect conclusion, and the Commission should accept the NYISO's proposed use of a 12.5% return on equity. The addition of 1.21% was not to account for risk. Rather, it is an adjustment, as Mr. Meehan discusses in depth in his affidavit that supports the November Filing, that calibrates the return on equity that resulted from the CAPM analysis to the regulated return on equity, which is much higher.[151] The calibration adjustment is conservative and a higher adjustment could easily be justified, as the regulated

[146] *Independent Power Producers of New York, Inc. v. New York Independent System Operator*, Docket No. EL13-62.

[147] November Filing at 22-23.

[148] MI/City at 46-48.

[149] NYPSC at 8.

[150] MI/City at 47.

[151] Meehan Affidavit to November Filing at P 22.

return on equity is among the lowest in the country.[152] The Commission should therefore accept as reasonable the return on equity of 12.5% that NERA/S&L used to develop the proxy unit's levelized carrying charges.

E. The November Filing's Property Tax Assumptions Were Reasonable

1. NYC Tax Abatement

The November Filing reasonably assumed that the proxy unit in the NYC Locality would receive a property tax abatement that would continue through the entirety of the reset period and based the ICAP Demand Curve for that Locality on that assumption.[153] The Indicated Suppliers call this assumption "improper," as the property tax abatement is scheduled to sunset on March 31, 2015.[154]

The Commission should find the inclusion of this assumption to be reasonable. First, it is very likely that the abatement will be legislatively extended. In the 2013 New York State Legislative Session, Speaker Sheldon Silver introduced Assembly Bill 7806A, which provided for the extension of the property tax abatement in addition to the expansion of several other tax-based incentive programs in New York City. Governor Cuomo vetoed the bill because it expanded those programs, which the Governor found was unwarranted. Despite his veto, the Governor noted that "if the Legislature were to pass a bill that extends, but not expands, the programs extended in this bill, I would sign that bill."[155] The Governor's veto statement clearly signifies that, when Speaker Silver or another legislator introduces a bill that extends the property tax abatement program, and when that bill is passed, Governor Cuomo will sign it.

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[152] Supplemental Meehan Affidavit at P 18. *See also* NERA/S&L Report at 85-86.

[153] November Filing at 20-21.

[154] Indicated Suppliers at 36-38.

[155] Veto Message No. 203 (Jul. 3, 2013).

In addition, even if the Governor did not sign a bill that extended the tax abatement program beyond March 31, 2015, a unit that has been completed and is in commercial operations during the period in which the ICAP Demand Curves will be in effect – May 1, 2014 through April 30, 2017 – would have necessarily received its permit in time to qualify for the existing abatement.[156] Thus, the Commission should find that the proxy unit in the NYC Locality would be eligible for and would benefit from the property tax abatement. The Indicated Suppliers' criticism of this assumption is therefore baseless.

2. **Property Taxes Outside of NYC**

In the November Filing, the NYISO accepted the recommendation of NERA/S&L to use a uniform property tax rate of 0.75% in the regions of the state beyond New York City. This rate takes into account the ability of generators to enter into agreements with localities to make payments in lieu of property taxes ("PILOT Agreements").[157] IPPNY argues that the assumed level of property taxes is too low, as it is unreasonable to assume that these PILOT Agreements would last for the entire operating life of the proxy units, or, in the case of the proxy unit in the NYCA, that communities would agree to that type of agreement with the developer of an uncontrolled unit.[158] On the other hand, the NYTOs argue that the property tax rates in the NYCA and the G-J Locality are overstated, especially if an amortization period of less than 30 years is adopted.[159]

[156] Supplemental Meehan Affidavit at P 25 and MI/City at 38-39 (explaining that as it typically takes at least two years for new generation facilities to be constructed, to be operational as of May 1, 2014, the proxy unit would have to have obtained a building permit years prior to the termination of the current abatement program on April 1, 2015).

[157] November Filing at 21.

[158] IPPNY at 65.

[159] NYTOs at Attachment B.

The NYISO's decision to accept the assumption of a property tax rate of 0.75% does take into account the fact that property taxes will increase after the PILOT Agreements end as well as the fact that some generators have been able to obtain much lower rates. The rate is based on NERA/S&L's finding that four projects (the Athens, Bethlehem, and Empire projects in the Hudson Valley, and the Caithness project on Long Island) were able to negotiate PILOT Agreements at rates substantially below two percent, which was the property tax rate initially recommended by NERA/S&L. For the three projects located in the Hudson Valley, the average rate of the first year of the PILOT Agreement was 0.45%, which escalated to 0.81% in the twentieth year. The rate chosen by NERA/S&L balances this escalation with the recognition that different regions of the state have different tax rates.[160] As neither IPPNY nor the NYTOs offer evidence to rebut the evidence presented by the NYISO in support of its assumption, the Commission should adopt the reasonable assumption in the November Filing that the property tax for regions beyond New York City is 0.75%.

F. The Level of Excess Capacity Included in the NERA/S&L Analysis Was Reasonable, Consistent with the Services Tariff, and with Commission Precedent

The excess capacity levels proposed in the November Filing were developed in accordance with revisions to Services Tariff Section 5.14.1.2, which were accepted by the Commission during its consideration of the 2010 ICAP Demand Curve reset.[161] The revisions require the NYISO to set excess capacity levels used in the ICAP Demand Curve reset process at the megawatt capacity of the proxy peaking plant used to determine CONE for each of the capacity regions.[162]

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[160] Supplemental Meehan Affidavit Meehan at P 19; *See also* Attachment IV to November Filing at 19.

[161] November Filing at 27-28.

[162] *See New York Independent System Operator, Inc.,* 136 FERC ¶ 61,192 at P 63 (2011).

IPPNY protests that the levels of excess capacity built into the NYCA ICAP Demand Curve do not adequately account for the risks faced by developers of new generating facilities.[163] The NYISO's reduction of the size of the proxy peaking plant to a single frame unit, IPPNY argues, has resulted in "an unreasonable small assumed average of excess."[164] IPPNY asks the Commission to order the NYISO to double the excess capacity level for the NYCA locality and, in future ICAP Demand Curve resets, to direct the NYISO to adopt a proposal of the MMU to set the average excess capacity level at one percent of the capacity requirement plus 50 percent of the capacity of the proxy unit.[165] In the alternative, IPPNY asks the Commission to waive the language of the NYISO tariff, because "it requires an unreasonably small assumed excess level."[166]

The Commission should not accept any of IPPNY's requests. NERA/S&L and the NYISO implemented the directive in the Services Tariff in order to develop the level of excess capacity and has thereby fulfilled its tariff obligations. IPPNY does not present any justification for its requested waiver. There is no concrete problem that the waiver would address, as the level of excess capacity in the November Filing results from the correct application of the Commission-approved tariff provision. The fact that IPPNY disagrees with the results of that application is not sufficient. Nor does the Commission's previous acceptance of a higher level of excess mean that the lower level included in this reset process is a result so unjust, unreasonable, or unlawful that it would justify the waiver of a provision of the Services Tariff.

[163] IPPNY at 48-55.

[164] *Id*. at 52.

[165] *Id*. at 53-55.

[166] *Id*. at 53-55.

Finally, IPPNY's request that the Commission order the NYISO to implement the MMU's proposal in future resets is essentially a request to amend the Services Tariff. Such requests should proceed through the stakeholder process, consistent with the Commission's precedent that discourages attempts to make end-runs around ISO governance procedures by proposing changes that have not had the benefit of stakeholder vetting.[167]

G. There Is No Justification for Including a "Regulatory Risk Factor"

The November Filing explained that it was not necessary to include a regulatory risk adjustment in the ICAP Demand Curves. IPPNY disputes this determination.[168] Despite its criticism, IPPNY does not present any information or evidence that would rebut the NYISO's conclusion that the ICAP Demand Curves are reasonable without including a regulatory risk adjustment.[169] As explained in the November Filing, the NYISO has Commission-approved capacity market power mitigation rules in effect, and is engaged in a continuous process of improving those rules with stakeholder input. Moreover, NERA/S&L took into account the alleged risks that IPPNY raises as NERA/S&L developed the parameters of the new ICAP Demand Curves. As the Commission explained in the 2008 Demand Curve Order, the ICAP Demand Curves proposed by NYISO incorporate the likelihood of uneconomic entry and excess capacity in the estimates of energy and ancillary service revenues and the resulting net CONE.[170]

Finally, as with the request to shorten the amortization period,[171] the ICAP Demand Curve reset process is not the appropriate vehicle to address IPPNY's claims regarding alleged problems with the NYISO market structure (or the Entergy Answer's claims regarding the harm

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[167] *See, e.g., ISO New England, Inc*., 130 FERC ¶ 61,145 at P 34 (2010).

[168] IPPNY at 42-43.

[169] November Filing at 26-27.

[170] 2008 DCR Order at P 60.

[171] *See* Section II.D.2 above and Supplemental Meehan Affidavit at P 15.

to the NYISO market ostensibly caused by New York state actions).[172] Accordingly, the Commission should not order the NYISO to include a regulatory risk adjustment.

H. The NYISO's Selection of the Zero Crossing Point Is Reasonable and Complies with the Services Tariff

The November Filing did not propose any changes to the existing zero crossing points for the NYCA, NYC and LI ICAP Demand Curves after concluding that such changes could introduce undue volatility and uncertainty into the market. The NYISO also proposed a 115% zero crossing point for the G-J Locality, based on the midpoint between the current NYCA and NYC current crossing points.[173] The NYTOs ask the Commission to order the NYISO to use the zero crossing point of 114% for the G-J Locality,[174] as initially recommended by the independent MMU in its preliminary analysis presented to stakeholders at the August 22, 2013 ICAP working group, rather than the NYISO staff recommendation of a 115% , which the NYTOs argue was arbitrarily chosen.

The NYTOs are incorrect, however, to assert that the zero crossing point of 114% was recommended by the independent MMU. It is correct that a 114% 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. At that time stakeholders overwhelmingly indicated that the methodology proposed by the MMU should not be sanctioned because it needed to be fully vetted by the NYISO and stakeholders. 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

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[172] *See* Entergy Answer at 5-6 (asserting that "regulated solutions" allegedly pursued by the NYPSC "are predicated on relying on regulation to correct identified constraints outside the market which, in turn, will harm the competitive markets.").

[173] November Filing at 32-35.

[174] NYTOs, Attachment B.

transmission system topology and 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. As a result, the NYISO proposed to make no changes to the existing NYCA, NYC and LI zero crossing points, and recommended to establish a 115% zero crossing point for the NCZ based on the midpoint between the current NYCA and NYC zero crossing points. The NYISO's proposed NCZ 115% zero crossing recommendation was consistent with the consultant's recommendation.

Subsequently, the independent MMU received the complete data set and completed its analysis. Several stakeholders requested that this analysis be shared even though the NYISO had determined it would be inappropriate to use it to set the zero crossing points in this ICAP Demand Curve reset. The results of this analysis using the complete data set was distributed to stakeholders on September 13, 2013 and resulted in zero crossing point of 114.6%. Therefore, the Commission should not grant the NYTO's request.

I. The November Filing's Assumptions About Net Energy and Ancillary Service Revenues and Costs Are Reasonable and Consistent with the Services Tariff

To develop the likely projected Energy and Ancillary Services Revenues ("Revenues") of the proxy units, NERA/S&L used historical data from November 1, 2009 through October 31, 2012 to benchmark the operation of the NYISO system.[175] In the November Filing, the NYISO discussed at length why the level of revenues projected by NERA/S&L was reasonable and should be accepted by the Commission.[176]

In its protest, IPPNY argues that if the Commission orders the NYISO to adopt the LMS100 unit as the proxy unit for NYC, then the NYISO should eliminate the ten minute non-

[175] Attachment IV to the November Filing at 23-25.

[176] November Filing at 29-29.

spinning reserve revenues built into the assumptions for that Locality, as an SCR cannot reach full operation in ten minutes and that the unit would need to secure allowances to operate outside of compliance requirements and exceed emissions limits.[177] As Mr. Meehan explains, a unit can obtain a special permit that that would allow for certain exceedances, such as those under startup and shutdown which makes it reasonable to assume that the LMS100 could earn this level of revenues.[178]

In their protest, the NYTOs argue that the projected revenues are too low and should be adjusted upward to account for increased revenues that will result from recent market changes, specifically, the revised scarcity pricing rules. They also argue that 30 years of revenues should be included in the analysis, not 20 years. The NYTOs also criticize the inclusion of "dummy," or proxy, variables for Astoria Energy II, which went online halfway through the historical period, and Bayonne Energy Center, which began commercial operations midway through the last year of the period, and the lack dummy variables for the retirement of the Astoria 2 and 4 during the historical period.[179] Although the units that retired previously had low capacity factors and thus did not have a widespread or significant impact on prices, the entry of Astoria Energy II and Bayonne Energy Center have had much higher capacity factors and have had widespread, material impacts on prices that would be unreasonable to ignore. Thus, dummy variables were reasonably used to capture the impact of the units.[180]

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[177] IPPNY at 65-66.

[178] Supplemental Meehan Affidavit at P 26.

[179] NYTOs, Attachments B and D.

[180] Supplemental Meehan Affidavit at P 23. A variable was not used for the Bayonne Energy Center for the LI Locality, given the outage of the Neptune Cable in the summer when that facility went into service.

J. The November Filing's Interconnection Cost Assumptions Were Reasonable and Consistent with the Services Tariff

In the November Filing, the NYISO proposed that the Commission approve the interconnection cost projections developed by NERA/S&L, which developed the projections based on averages of the interconnection costs incurred by developers.[181] The NYTOs raise several arguments about the assumptions made by NERA/S&L relating to the interconnection cost assumptions in the NYC Locality.[182] As discussed below, the NYISO's assumptions are reasonable and in one case, already take into account the issue that the NYTOs raise. The Commission should therefore accept the NYISO's interconnection cost assumptions as filed.

The NYTOs first argue that the calculation of average stand-alone ("SA") System Upgrade Facilities ("SUFs) for the NYC Locality should be modified to exclude gas insulated switchgear ("GIS") because NERA's estimates of Energy and Ancillary Services Revenues are based only on open air substations.[183] This is incorrect, as Mr. Ungate used the average of the interconnection costs for three projects, two of which are open air but one that is a GIS substation.[184] Furthermore, the Energy and Ancillary Services prices are not dependent on whether the substation at the point of price observation is an open air or GIS substation. NERA developed the SUF assumptions so they would be representative of costs that the developer of the proxy unit could expect in the NYC Locality, and that estimate would not be representative if the cost of SA SUFs for GIS substations were excluded from the average.[185]

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[181] November Filing at 19-20.

[182] NYTOs at Attachments B and D.

[183] *Id*.

[184] Ungate Affidavit at P 24.

[185] *Id*. at P 25.

The NYTOs also argue that it is inappropriate to include what they characterize as the "unusually high" cost of System Protection SUF for the South Pier Improvement Project ("South Pier") in the calculation of average System Protection SUFs incurred by the proxy unit because South Pier rejected its cost allocation.[186] The South Pier project, which was included in the Commission approved interconnection cost assumptions used in the 2010 ICAP Demand Curve reset, is but one of eight projects that NERA used to develop the representative average of the costs that a developer of a proxy unit in the NYC Locality would face. These costs include System Protection SUFs, Connecting Transmission Owner Attachment Facilities ("CTO AFs") and Headroom payments, which are payments to prior developers who paid for SUFs that have capacity in excess of their needs and which the proxy unit will use. Although South Pier had higher than average System Protection SUF costs, it had lower than average CTO AF and Headroom payment costs. Therefore excluding South Pier would not have a significant impact on the total of the average costs.[187]

In addition, the NYTOs assert that that the facilities for which Headroom payments must be made would potentially not be needed at the level of capacity surplus that NERA/S&L used the CONE. But Headroom payments are a potential category of interconnection costs that a developer could incur, and as such, including them is reasonable. NERA/S&L used an average of recent history of Headroom payments, which results in a reasonable estimate of these costs for the NYC ICAP Demand Curve proxy unit. As the CONE for the proxy unit is not based on a specific Point of Interconnection or a specific set of conditions, the details of a specific interconnection location cannot be used to compute a specific cost.[188]

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[186] NYTOs at Attachment D.

[187] Ungate Affidavit at P 27.

[188] *Id*. at P 28.

Finally, the NYTOs also state that the calculation of average Headroom payments incurred by the proxy unit should be modified to reflect that Headroom values have depreciated significantly since the Class Year 2009/10.[189] The NYISO agrees, and the effect of this depreciation has already been taken into account by including Class Year 2011 in the average for Headroom payments, as explained by Mr. Ungate in his Affidavit.[190]

K. The Commission Should Accept the November Filing's Proposal to Phase-In the Price Impacts of the G-J Locality ICAP Demand Curve

The November Filing proposed a "phase-in" of the ICAP Demand Curve parameters for the new G-J Locality to ameliorate the potential short-term consumer impacts that could result from creating the new Locality.[191] The Supply Interests object to the November Filing's proposal but fail to provide any rationale that would justify rejecting it.

As the November Filing noted, the NYPSC has stated that the implementation of the G-J Locality without a phase-in could result in a 25% retail rate increase to consumers in that region.[192] MI/City also emphasize that absent a phase-in "the proposed reference price value for the NCZ ICAP Demand Curve would represent an increase of nearly 33 percent to the reference point value that currently applies to the Lower Hudson Valley . . . ."[193] They also indicate that "extraordinary" rate "[i]mpacts of that magnitude 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."[194] The justification for the

[189] NYTOs at Attachment D.

[190] Ungate Affidavit at P 29.

[191] November Filing at ii, 36-44.

[192] November Filing at 40, n. 120.

[193] MI/City at 3.

[194] *Id*. at 42.

proposed phase-in is summarized by MI/City: "[w]hile the implementation of the NCZ has been expected to result in capacity price increases for the Lower Hudson Valley, it now has become apparent that such increases may be of enormous magnitude thereby justifying the use of a gradual phase-in to mitigate rate shock."[195]

The Supply Interests have not shown that concerns regarding the short-term consumer impacts of establishing a new Locality are unfounded. They have not refuted the November Filing's position 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.'"[196] Nor have they shown that the phase-in proposal does not strike a reasonable balance between competing interests or would result in unjust and unreasonable rates. In particular, the Entergy Answer's assertion that a phase-in would harm investment was already addressed by the November Filing. The Affidavit of Rana Mukerji concluded that "the fact that the clearing prices are expected to increase significantly starting in the first year of the proposed ICAP Demand Curve for the G-J Locality, with the Locational Minimum Installed Capacity Requirement specific to that Locality, and the fact that the full ICAP Demand Curve with escalation is in effect for the third year, will provide sufficient market signals to attract new capacity and retain existing capacity needed to meet requirements."[197] Because the lead time for the construction of new generation is at least two to three years "the phase-in should not affect the market entry decision for most new generating capacity."[198] Even

[195] *Id*. at 41.

[196] November Filing at 37.

[197] Attachment IX to the November Filing at P 15.

[198] *Id.* at P 16.

if it were true, as the Entergy Answer asserts,[199] the prospect of a phase-in may have impacted the market calculations of an individual project would hardly indicate that price signals under a phase-in would be insufficient overall to attract and retain capacity required to meet requirements. Furthermore, any uncertainty that may exist at this time over the phase-in will be ameliorated when the Commission issues an order addressing it.

The Supply Interests rely heavily on groundless procedural arguments. They are wrong to claim that the November Filing's voluntary submission of the phase-in proposal is somehow a collateral attack on the August Order's refusal to impose such a phase-in on the NYISO.[200] The August Order stated that the Commission would not "require" a phase-in but that finding does not preclude the NYISO from proposing one.[201] The NYISO remained free to ask the Commission to adopt a phase-in in a subsequent filing under Section 205 of the FPA.

The Supply Interests are also wrong to contend that a phase-in would violate the Services Tariff.[202] Even if the Commission were to determine that the phase-in was inconsistent with the Services Tariff the November Filing included a valid and good faith request for a waiver. There is simply no basis for the allegations that the NYISO is not acting in good faith.

The notion that the NYISO's requested waiver would somehow be a collateral attack is erroneous because, as stated above, the August Order did not preclude voluntary phase-in proposals. It is also illogical to suggest that a waiver request constitutes a collateral attack since, by definition, waiver requests seek case-specific relief from accepted tariff provisions. Thus, if

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[199] *See* Entergy Answer at 8-9, *citing Answer of the NRG Companies to the New York Independent System Operator, Inc.'s Request for Partial Reconsideration,* Docket No. ER13-1380 (November 12, 2013). The NYISO has not conceded that the assertions in either of these filings are valid.

[200] *See* IPPNY at 61-63 and Entergy at 17-19.

[201] August Order at P 31.

[202] *See* NYTOs at 6-7.

the NYISO's waiver request is a collateral attack it would be difficult to see how other waiver requests would not be.

Finally, the NYTOs have noted that their support for the November Filing is "based in significant part" on the NYISO's "commitment" to work with stakeholders "to address" what the NYTOs characterize as a "deficiency" in the phase-in proposal.[203] The NYTOs reference the fact that the NYISO 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."[204] The NYISO is discussing this issue with stakeholders, in part in response to the August Order's statement 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."[205] In fact, the NYISO has committed that it "will examine the circumstances under which we might eliminate capacity zones once adequate investments have been made."[206] The NYISO would simply note that the outcome of its discussions with stakeholders regarding potential zone elimination mechanisms should not be prejudged in this proceeding.

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[203] *See* NYTOs at 6-7.

[204] *Id.*

[205] August Order at P 82.

[206] NYISO *2014 Business Plan Highlights*, available at: <http://www.nyiso.com/public/webdocs/company/strategic_plan/2014_NYISO_BusinessPlanHighlights_final.pdf>.

III. THE COMMISSION SHOULD REJECT REQUESTS THAT IT INITIATE ADMINISTRATIVE HEARINGS, ADOPT A SUSPENSION PERIOD, OR IMPOSE A REFUND CONDITION

A. There Is No Need for a Traditional Hearing Before an Administrative Law Judge

Certain parties request that the Commission initiate traditional administrative hearing procedures in this proceeding.[207] These requests should be rejected because no party has shown that a hearing is necessary or would serve any useful purpose.

To the extent that the Commission determines that there are any genuine disputed issues of material fact in this case they would be of the kind that are normally resolved based on written pleadings rather than by litigation before an administrative law judge. The Commission has held that traditional administrative law judge hearing procedures are needed only when questions of witness intent, credibility, and motive are at issue and disputed matters cannot be resolved on the basis of the written record. It has also stated that a hearing to evaluate the credibility of witnesses is "usually unnecessary where the issues involve technical information . . . ."[208]

The most controversial question in this proceeding is the choice of proxy unit for the NYC, LI, and G-J Localities. This is a fundamentally technical question driven by differences in expert opinions regarding power plant and SCR engineering, environmental compliance, project costs, and other complex fact-intensive details, many of which involve forward-looking judgments. The issues reduce to whether it was reasonable for the Board to conclude that F Class Frame with SCR technology was economically and technically viable in light of the available information on the performance of the four Marsh Landing units and other factors.

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[207] Indicated Suppliers at 44-46, Ravenswood at 5-6 and the NY-SEA Group at 2.

[208] *Iroquois Gas Transmission System, L.P.*, 53 FERC ¶ 61,194 at 61,685 (1990).

This question in no way implicates witness intent, credibility, or motive,[209] but can readily be resolved based on the extensive written submissions in this docket.

Given the amount of information included in the November Filing, the affidavits and reports that were submitted with it, and in the subsequent pleadings (including this answer, its supporting affidavits, and their attachments), the Commission has a robust record upon which it can reach a well-informed judgment without resorting to administrative law judge proceedings. If the Commission believes that additional information is needed on certain points it could readily obtain it through other means,[210] *e.g.,* by requiring the NYISO to submit additional information in writing. Turning to administrative law judge procedures in this case would be a departure from prior ICAP Demand Curve reset proceedings. There were disputed technical issues in the initial 2003 ICAP Demand Curve filing and in the 2005, 2008, and 2011 resets but, with the exception of a 2005 technical conference, the Commission resolved them solely based on written submissions.[211] The Commission did not initiate hearing procedures in any of those cases and none are required here.

The Commission would be right to once again decline to set an ICAP Demand Curve proposal for hearing because traditional administrative law judge proceedings are time-consuming. A hearing would thus delay the implementation of new ICAP Demand Curves, extend the effectiveness of curves based on older data, and create market uncertainty. Initiating

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[209] As noted above in Section II.A.2, certain parties have made sweeping allegations of bias against the Board and Brattle/Licata. *See, e.g.,* Ravenswood at 5-6. Such unsupported and baseless claims are no basis for further inquiry by the Commission, let alone for a traditional administrative hearing.

[210] The Commission has held that there is no need for a hearing if a dispute can "be resolved through the presentation of additional documentary evidence, including affidavits, letters, contracts and technical data." *Iroquois Gas Transmission System, L.P.*, 53 FERC ¶61,194 at 61,685 (1990). *See, also Transwestern Pipeline Company, LLC*, 122 FERC ¶ 61,165 at P 16 (2008).

[211] *See New York Independent System Operator, Inc.,* 111 FERC ¶ 61,117 at P 1 (2005); 2008 DCR Order at P 1; *New York Independent System Operator, Inc.,* 134 FERC ¶ 61,058 at P 167 (2011) ("2011 DCR Order") and 136 FERC ¶ 61,192 at P 2 (2011).

hearing procedures would thereby subvert the capacity market price stability and certainty that are the very reason for having ICAP Demand Curves in the first place.[212] As noted above, additional procedural requirements that delay the Commission's issuance of an order beyond January 28, 2014 could materially delay the NYISO's ability to apply new ICAP Demand Curves and the G-J Locality by May 1, 2014.

B. There Is No Need to Adopt a Suspension Period or Impose a Refund Condition

The November Filing is clear that the NYISO proposed to implement new ICAP Demand Curves for the Capability Period beginning on May 1, 2014,[213] which is consistent with the requirements of Section 5.14.1.2 of the Services Tariff. The NYISO proposed that the underlying tariff revisions become effective after the standard sixty day notice period for filings made under Section 205 of the Federal Power Act, *i.e.,* on January 28, 2014. The fact that the proposed effective date is earlier than May 1, 2014 does not mean that the NYISO is seeking to apply the new ICAP Demand Curves for an ICAP Spot Market Auction for an Obligation Procurement Period before that date. To be clear, under the November Filing's proposal the currently effective ICAP Demand Curves would remain in effect through April 30, 2014. The proposed expiration date of the current curves and the first date of the period to which the new curves would apply is unambiguously stated in the tariff revisions included in the November

[212] *See, e.g., New York Independent System Operator, Inc*., 112 FERC ¶ 61,283 at P 39 (2005) (stating that "the entire ICAP Demand Curve process is based on the premise that it is important to the market to have price stability and certainty.").

[213] *See* November Filing at 36 ("The proposed ICAP Demand Curve for the G-J Locality would be effective for the start of the 2014/2015 Capability Year, *i.e.,* on May 1, 2014.").

Filing.[214] The NYISO also proposed effective dates based on the statutory sixty day notice period in its 2011, 2008, and 2005 ICAP Demand Curve reset filings.[215]

Ravenswood claims that "there is no reason why it is necessary to place the revised ICAP Demand Curves and proposed rates into effect [on January 28, 2014] since the rates by design, have no applicability until May 1, 2014."[216] This argument should be rejected because it is irrelevant. As noted above, there is no question that the NYISO is not proposing to apply the new ICAP Demand Curves until the ICAP Spot Market Auction for May 2014. But that does not mean the NYISO may not propose the standard effective date for its proposed tariff revisions at the expiration of the sixty day notice period, as is the standard practice under the Federal Power Act.

Ravenswood also suggests that "to be consistent with its actions the last time the NYISO filed to reset ICAP Demand Curves, the Commission should suspend the proposed rates for the maximum five month period allowed under FPA Section 205."[217] But Ravenswood's desire for "consistency" is misplaced.[218] The Commission suspended the 2011 ICAP Demand Curve proposal because it determined that it could not find the original version of that proposal to be

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[214] *See* November Filing at Attachments I and II (specifying the ending and starting dates for the currently effective and proposed ICAP Demand Curves).

[215] *See, e.g.,* New York Independent System Operator, Inc., *Tariff Revisions to Implement Revised ICAP Demand Curves*, Docket No. ER05-428-000 (filed Jan. 7, 2005) at 2; New York Independent Transmission System Operator, Inc., *Tariff Revisions to Implement Revised ICAP Demand Curves for Capability Years 2008/2009, 2009/2010 and 2010/2011*, Docket No. ER08-283-000 (filed Nov. 30, 2007); and New York Independent System Operator, Inc., *Tariff Revisions to Implement Revised ICAP Demand Curves for Capability Years 2011/2012, 2012/2013 and 2013/2014*, Docket No. ER11-222-000 (filed Nov. 30, 2010) at 24.

[216] Ravenswood at 14. *See also* Entergy Answer at 13-14.

[217] Ravenswood at 14.

[218] The NYISO would also note, however, that Ravenswood has advanced a novel and expansive interpretation of the Commission's suspension precedent, which has always been understood to protect customers, that would extend its protection to sellers. This interpretation does not appear to have any basis in Commission precedent or the consumer protection objectives underlying the Federal Power Act.

just and reasonable.[219] By contrast, the Commission accepted the 2008 ICAP Demand Curve proposal as just and reasonable without any suspension on the NYISO's requested effective date (January 29, 2008). Because the protests advanced in this proceeding are, for the reasons specified in Section II above, without merit the Commission should follow the approach that it took in 2008 by accepting the November Filing without a suspension period. The Commission should likewise accept the November Filing's proposal without making it subject to refund.[220]

[219] 2011 DCR Order at P 167.

[220] If, however, the Commission were to decide to suspend the November Filing the NYISO has no financial interest in the outcome and thus has no direct stakes in whether the Commission opts for the standard five month suspension period or a shorter one. In this scenario, the NYISO would ask only that the Commission give the NYISO the same flexibility to propose alternative implementation dates that it provided in 2011, *See* 2011 DCR Order at P 168, which was recently upheld by the United States Court of Appeals for the District of Columbia Circuit. *See TC Ravenswood v. Federal Energy Regulatory Commission*, No. 12-1008 (Dec. 13, 2013). Similarly, if the Commission were to impose a refund condition it should do so with the understanding that refunds are unlikely to be a practicable solution in the context of centralized capacity markets. *See, e.g., Niagara Mohawk Power Corp. v. FPC,* 379 F.2d 153, 159 (D.C. Cir. 1967) (establishing that the Commission's equitable discretion is at its "zenith" when fashioning remedies); *Astoria Generating Co., L.P. et. al. v. New York Independent System Operator, Inc.*, 140 FERC ¶ 61,189 at P 141 (2012) (Commission exercised its discretion not to require retroactive refunds, such as re-running capacity market auctions and instead imposed prospective-only relief.).

IV. CONCLUSION

For the reasons set forth above, the Commission should grant the NYISO leave to answer, reject the protests, and accept the tariff revisions proposed in the November Filing without requiring any modifications, without initiating hearing procedures or suspending the filing, and without imposing a refund condition. The November Filing's proposed tariff revisions should be made effective on January 28, 2014 so that the proposed new ICAP Demand Curves may be applied beginning on May 1, 2014.

Respectfully Submitted,

/s/Ted J. Murphy
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January 9, 2014

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CERTIFICATE OF SERVICE

I hereby certify that I have this day caused the foregoing document to be served 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 Commission Rules of Practice and Procedure, 18 C.F.R. § 385.2010 (2013).

Dated at Washington, DC, this 9th day of January, 2014.

/s/ Ted J. Murphy

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