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October 3, 2016

**VIA EMAIL AND FEDERAL EXPRESS**

Michael B. Bemis  
Chairman of the Board  
C/o Bradley C. Jones  
President & CEO  
New York Independent System Operator  
10 Krey Boulevard  
Rensselaer, New York 12144

Re: Comments on the NYISO staff recommendations regarding the proposed NYISO Installed Capacity Demand Curves for Capability Year 2017/2018 and the annual update methodology and inputs for Capability Years 2018/2019, 2019/2020, and 2020/2021

Dear Chairman Bemis:

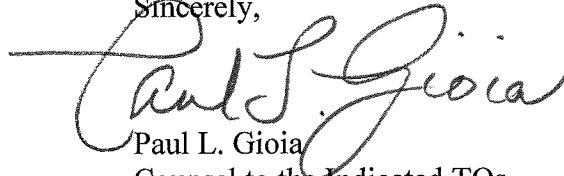
The participating New York Transmission Owners<sup>1</sup>, the Long Island Power Authority (“LIPA”), and the New York Power Authority (“NYPA”) (collectively the “Indicated TOs”) submit the following comments on the NYISO staff’s recommendation regarding the NYISO’s Installed Capacity Demand Curves for the Capability Years 2017/2018 through 2020/2021. The Consolidated Edison of New York, Inc. and Orange and Rockland Utilities, Inc. are submitting separate comments and their participation in these comments is limited to the issues related to the appropriate fuel sources for the proxy units and the appropriate tax rates.

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<sup>1</sup> The following New York Transmission Owners participate in these comments: Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York Power Authority, New York State Electric & Gas Corporation, Power Supply Long Island, Orange and Rockland Utilities, Inc., and Rochester Gas and Electric Corporation.

The Indicated TOs request the opportunity to participate in oral argument before the NYISO Board on October 2016.

Sincerely,

A handwritten signature in cursive script that reads "Paul L. Gioia". The signature is written in black ink and is positioned above the printed name and title.

Paul L. Gioia

Counsel to the Indicated TOs

**Comments on “Proposed NYISO Installed Capacity Demand Curves for Capability Year 2017/18 and Annual Update Methodology and Inputs for Capability Years 2018/2019, 2019/2020, and 2020/2021: NYISO Staff Final Recommendations”**

**Submitted by the Indicated New York Transmission Owners**

**October 3, 2016**

The Indicated New York Transmission Owners (“Indicated TOs”)<sup>1</sup> hereby submit the following comments on “Proposed NYISO Installed Capacity Demand Curves for Capability 2017/18 and Annual Update Methodology and Inputs for Capability Years 2018/2019, 2019/2020, and 2020/2021: NYISO Staff Final Recommendations” (“Staff Recommendations”), dated September 15, 2016.

***1. Natural Gas Index for Peaking Units in Zones C and G***

The installed capacity (“ICAP”) demand curves are based on estimates of the amount of revenue that a developer of a peaking unit would need to recover from the ICAP market in order to proceed with development of that peaking unit. Since the NYISO determines separate ICAP demand curves for the New York Control Area (“NYCA”) as a whole and for each of the three locational capacity zones (“the Localities”) contained within the NYCA, the NYISO must separately estimate the amount of ICAP revenue that the developer of a peaking unit would require to develop a peaking unit located in each of the Localities and in the Rest of State (“ROS”) region, which is the part of the NYCA that is not included in any of the Localities. In order to calculate these estimates of the amount of ICAP revenue that a developer of a peaking unit in each of these locations would require, it is necessary to estimate not only the fixed costs that are associated with developing, building, operating and maintaining such a peaking unit, but also the net energy and ancillary services (“EAS”) revenue—i.e., the revenue from the sales of energy and ancillary services less the variable costs associated with providing those services—that such a unit would earn, because net EAS revenue must be deducted from those fixed costs to determine the amount of ICAP revenue that such a developer will require before it proceeds with development. And in order to estimate net EAS revenue for a gas-fired peaking unit, such as the Siemens 5000F5 unit that NYISO staff has recommended for use for all four of the NYISO’s ICAP demand curves, it is necessary to determine the price that a unit in each of those locations would pay to purchase natural gas.

These prices may vary significantly for different gas pipelines, so the NYISO must determine which pipeline best represents the cost that a peaking unit in a given location would incur to purchase gas. As NYISO staff explained, the recommendations made by the independent consultants retained by the NYISO (Analysis Group, Inc. and Lummus Consultants International, Inc. (jointly, “Consultants”)) “consider[ed] various relevant factors, including geographic location, correlation with electric prices, depth of available historical data, and how representative the gas prices are likely to be going forward,”<sup>2</sup>

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<sup>1</sup> The Indicated TOs consist of Central Hudson Gas & Electric Corporation, Consolidated Edison Company of New York, Inc., New York Power Authority, New York State Electric & Gas Corporation, Orange and Rockland Utilities, Inc. Power Supply Long Island, and Rochester Gas and Electric Corporation. The Consolidated Edison of New York, Inc. and Orange and Rockland Utilities, Inc. are submitting separate comments and their participation in these comments is limited to the issues related to the appropriate fuel sources for the proxy units and the appropriate tax rates.

<sup>2</sup> Staff Recommendations at 22.

when considering this question. In their report, the Consultants provided the following explanation of these criteria:

- “*Market Dynamics*. The gas index should reflect gas prices consistent with [locational-based marginal prices (‘LBMPs’)].... Ideally, the gas index used in peaking plant EAS revenues calculations would reflect a long-term equilibrium rather than short-run arbitrage opportunities created due to near-term or transitory natural gas system conditions.
- “*Liquidity*. The natural gas index should have a consistent depth of historical data available, representing trades occurring at sufficient volumes over a reasonable period of time.
- “*Geography*. The natural gas index ... should represent trades across lines that have an appropriate geographic relationship to potential peaking plant locations going forward.
- “*Precedent/Continuity*. The natural gas index selected should reflect and be supported by information collected from multiple sources and used for similar NYISO planning and market evaluation purposes.... [C]onsistency and continuity should be considered when other factors do not clearly indicate an alternative.”<sup>3</sup>

The Consultants recommended the use of TETCO M3 gas prices to determine net EAS revenue for gas-fired peaking units located in Zone C, Iroquois Zone 2 gas prices to determine net EAS revenue for gas-fired peaking units located in Zones F and G, and Transco Zone 6 gas prices to determine net EAS revenue for gas-fired peaking units located in Zones J and K.<sup>4</sup> NYISO staff stated that it “concur[s] with the Consultants’ recommended gas hub selections,”<sup>5</sup> and its recommended ICAP demand curve parameters reflect those recommendations. However, that the Consultants’ recommendations with respect to the gas-fired peaking units in Zone C and in Rockland County in Zone G, are incorrect.

### *Geography*

The Geography criterion is the most fundamentally important criterion. The ICAP demand curve for a given region should be based on the amount of ICAP revenue that a developer would require to proceed with development of a peaking unit *in that region*. The ICAP demand curve will then meet its objective of providing sufficient revenue, but no more revenue than is necessary, to support development in that region.

Since the NYISO intends for its ICAP demand curves to provide sufficient revenue to support the development of ICAP in a given location, it would not make sense to base the ICAP demand curve for a given location on the fixed cost of building a generator in some other location. Therefore, the net EAS revenue calculated for a natural gas-fired peaking unit in a given location should reflect the cost that such a unit at that location would incur to purchase gas, which has a major effect on the net EAS revenue the unit can earn. Therefore, since a gas-fired peaking unit in Rockland County (in Zone G), which is on the

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<sup>3</sup> “Study to Establish New York Electricity Market ICAP Demand Curve Parameters” (“Consultants’ Report”), Sept. 13, 2016, at 74.

<sup>4</sup> Staff Recommendations at 23, Table 11.

<sup>5</sup> *Id.* at 24.

west side of the Hudson River, cannot obtain gas from pipelines that are located on the east side of the Hudson River, the cost that such a unit would have incurred if it had been located on the east side of the Hudson River does not matter. That is not where it is located. What matters is the cost that a gas-fired peaking unit in Rockland County would incur, using pipelines that can actually be used to supply generators on the west side of the Hudson River. Similarly, the cost that such a unit in Zone C would have incurred to purchase gas if it had been located in some other zone does not matter. What matters in that case is the cost that peaking units in Zone C would incur, using pipelines that can actually be used to supply generators in Zone C.

#### *Market Dynamics*

Even though it is clear that the TETCO pipeline cannot actually supply generators located in Zone C, and the Dominion pipeline could supply a new generator in Zone C at a much lower price, the Consultants rejected the rational conclusion that a generator located in Zone C would purchase gas from the Dominion pipeline. They based their conclusion on the Market Dynamics criterion, because TETCO M3 gas prices more closely correlated with LBMPs in Zone C. On that basis, the Consultants assumed that TETCO M3 prices were a more accurate indicator of what the price of gas would be in Zone C in the long run. For similar reasons, the Consultants recommended using Iroquois Zone 2 prices for the Rockland County unit in Zone G, instead of the much lower prices on the Millennium pipeline, even though a new gas-fired peaking unit in Rockland County would have access to gas from Millennium, not Iroquois, because Rockland County is located on the west side of the Hudson River.

The Indicated TOs have two primary objections to the Consultants' use of this criterion to override the Geography criterion. First, even if we assume that *in the long run*, prices on the Dominion pipeline in Zone C will rise toward TETCO prices, and prices on the Millennium pipeline in Zone G will rise toward Iroquois prices, that should not matter for the purposes of setting the instant ICAP demand curves. Earlier this year, the Consultants recommended changes to the NYISO's procedures for determining net EAS revenue, which NYISO staff shepherded through the stakeholder process. In recommending those changes, the Consultants and the NYISO recognized that the econometric projections of net EAS revenue that the NYISO used in the last three ICAP demand curve resets were complex, opaque and "highly sensitive to modeling assumptions and forecasting decisions."<sup>6</sup> In contrast, the NYISO stated that basing net EAS revenue on historic LBMPs and gas prices would "increase the transparency of the resulting revenue projections, while also improving the ability to forecast future outcomes."<sup>7</sup> Consequently, the NYISO recommended use of this historic approach. Stakeholders and the Board agreed, and FERC accepted the associated tariff changes in July.<sup>8</sup> Under the revised procedure, long-run expectations of future gas prices in a given region are utterly irrelevant, because the new tariff language makes it crystal clear that historical gas prices are to be used when calculating net EAS revenue. Specifically, the tariff now provides that net EAS revenue will be determined using a model that "determine[s] whether each peaking plant could earn positive net revenue by producing Energy in each hour *over the prior 36 month*

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<sup>6</sup> *N. Y. Indep. Sys. Op.*, Proposed Services Tariff Revisions to Implement Enhancements to the Periodic Reviews of the ICAP Demand Curves, Docket No. ER16-1751-000 (filed May 20, 2016) ("May 20 Filing"), at 6.

<sup>7</sup> *Id.*

<sup>8</sup> *N. Y. Indep. Sys. Op.*, 156 FERC ¶ 61,039 (2016).

*period,*”<sup>9</sup> and that “[t]he applicable fuel cost for the peaking plant for Load Zone z ... will be based on the applicable daily spot price for Load Zone z...”<sup>10</sup> Consequently, it should not matter whether gas prices from a given pipeline are expected to be representative of future gas prices at given location or not. The recently implemented revisions to the procedures for estimating net EAS revenue were explicitly intended to eliminate this lack of transparency and sensitivity to assumptions made by NYISO staff and its consultants.

Second, the Consultants’ recommendation was based on the supposition that, in the long run, prices on the Dominion pipeline in Zone C would increase to the TETCO M3 price, and prices on the Millennium pipeline in Rockland County (in Zone G) would increase to the Iroquois Zone 2 price, but this assumption is not supported by any analysis. Neither the Consultants nor NYISO staff has at any time provided any analysis or argument supporting this contention. Price differences between pipelines can be resolved through increases in the price at the lower-priced pipeline, but they can also be resolved through decreases in the price at the higher-priced pipeline, or some combination of the two. A decrease in the Iroquois Zone 2 price is actually more likely than an increase in the Millennium East price, because Millennium has ample supply to sustain a lower price compared to Iroquois Zone 2 for the foreseeable future, even assuming additional demand/interconnection on the pipeline. For similar reasons, it is not clear that the Dominion North price will approach the TETCO M3 price, as the Consultants assumed.

The value for net EAS revenue that will be used to determine the ICAP demand curves that will go into effect next year must reflect the amount that gas-fired peaking units in Zone C and in Rockland County in Zone G would have paid for gas at their respective locations during the three-year period ending August 31, 2016.<sup>11</sup> In citing the Market Dynamics criterion to support another approach, the Consultants and NYISO staff have disregarded not only the explicit requirements set forth in the NYISO’s tariff, but also the intent of the recent changes, as their approach requires the NYISO to rely on unsupported speculation as to how differences between gas prices on different pipelines will be resolved over time. Even if the Consultants’ assumptions regarding future gas prices were correct, that would affect future ICAP demand curves, and not this set of ICAP demand curves.

### *Liquidity*

We agree that it is reasonable to consider this criterion, but it does not justify using a gas price index that does not reflect the cost of purchasing gas in a given location. Therefore, if the NYISO were considering

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<sup>9</sup> Services Tariff, Section 5.14.1.2.2.2 (emphasis added).

<sup>10</sup> *Id.* It is important to recognize the reason why the NYISO uses a 36-month historical period in its net EAS revenue calculations. Short-term price spikes might cause net EAS revenue calculated for a single year to differ significantly from the level that would be expected to prevail over the long term. Consequently, as the NYISO explained, “[d]eveloping an average annual EAS revenue value based on three years of data can aid in reducing the impact of shorter-term market fluctuations....” (May 20 Filing at 7.)

<sup>11</sup> The Consultants also claimed that “gas indices [might] fail to fully capture variation in pricing within geographic load zones....” (Consultants’ Report at 74.) If this were true, it would not justify basing net EAS revenue on gas prices for a pipeline that cannot serve that unit. Rather, it would indicate the need for some sort of adjustment to the cost of gas on the relevant pipeline. The Consultants provided no evidence indicating the need for any such adjustment; their report contained no analysis to demonstrate that the price index for a given pipeline does not actually reflect the cost that a gas-fired peaking unit in a given zone actually would have incurred to purchase gas in the three-year historical period.

two pipelines that both can be used to supply generators in a given area, and one pipeline has a larger number of trades over a longer period than the other, it would be reasonable to consider this criterion. However, liquidity considerations do not pose any barrier to the NYISO's use of Dominion North gas prices to calculate net EAS revenue for a gas-fired peaking unit in Zone C, as opposed to using TETCO M3 gas prices which are significantly higher and, as noted above, are not relevant since TETCO cannot supply generators in Zone C.

However, we recognize that we do not have historical prices for the Millennium pipeline for the entire three-year period, since the three-year period begins September 1, 2013, and SNL Financial (which is the source of the gas prices used in the net EAS revenue model) did not publish Millennium East prices before March 2014. Given that limitation, the Indicated TOs believe that for the limited purpose of determining net EAS revenue for a gas-fired peaking unit in Rockland County in Zone G that will be used to set the ICAP demand curve for the G-J Locality for the 2017-18 capability year, it would be reasonable for the NYISO to calculate net EAS revenue over the *two-year* period beginning September 1, 2014, and ending August 31, 2016, for a gas-fired peaking unit in Rockland County in Zone G purchasing gas at the Millennium East price during that time period when determining the net cost associated with that unit. That approach would permit the net EAS revenue calculation for that unit to reflect the cost that such a generator actually would have incurred to purchase gas over the time period for which the relevant data are available.<sup>12</sup> Alternatively, the NYISO could use the TETCO M3 gas price for this unit for the purposes of the instant ICAP demand curve reset.

#### *Precedent/Continuity*

In regard to the Precedent/Continuity factor, we note that the assessment of the profitability of generation in Zone C performed by Potomac Economics, the NYISO's Market Monitoring Unit ("MMU"), was based on Dominion North gas for generation in Zone C, while its assessment of the profitability of generation in Zone G was based on a 50/50 blend of the Iroquois Zone 2 price (representing the cost of gas on the east side of the Hudson River) and the TETCO M3 price (representing the cost of gas on the west side of the Hudson River).<sup>13</sup> Consequently, our recommendations are more consistent with the MMU's analysis than are NYISO staff's recommendations. And, as noted above, using TETCO M3 as a proxy for Millennium would be fully consistent with the approach used to calculate net EAS revenue for a gas-fired peaking generator in the last ICAP Demand Curve reset, while NYISO staff's current proposal would not.

#### *Recommendation*

As we have demonstrated above, the Consultants' and NYISO staff's recommendations for the gas pipelines that are used to calculate net EAS revenue for gas-fired peaking units in Zone C and in Rockland County in Zone G are based on speculation as to how gas pipeline prices will move in the

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<sup>12</sup> We recommend starting this analysis on September 1, 2014, rather than March 2014, to ensure that the same number of days in each season is included in the initial calculation of net EAS revenue. We do not believe that limiting this calculation to two years would be appropriate for the 2018-19 capability year or subsequent capability years, since three years of Millennium East data will be available for the purposes of setting those ICAP demand curves.

<sup>13</sup> David B. Patton et al., "2015 State of the Market Report for the New York ISO Markets" ("2015 SOM Report"), May 2016, at A-23, Table A-2.

future, which is inconsistent with both the letter and the spirit of the tariff changes that were adopted earlier this year. Instead, the Consultants should have used historic gas prices and should have correctly applied the Geography criterion. The NYISO's mandate, as established by its own tariff, is to adopt ICAP demand curves that reflect the net EAS revenue that a gas-fired peaking unit at a given location actually would have received, based on the cost it would have incurred to purchase gas at that location over the three-year historical period ending August 31, 2016. Consequently, it is clear that Dominion North gas prices should be used to calculate net EAS revenue for the Zone C peaking unit. The Dominion pipeline can be used to supply generation in Zone C; liquidity for that pipeline is sufficient, and the MMU used the Dominion North gas index price in its analysis. It is equally clear that the Millennium East prices should be used for a generator in Zone G, given that the Millennium pipeline can be used to supply generation in Rockland County.

Therefore, the Board should direct NYISO staff to develop ICAP demand curves based on gas prices that are the lowest cost to electricity consumers, are geographically feasible and consistent with the NYISO's tariff. NYISO staff should recalculate net EAS revenue over the three-year historical period ending August 31, 2016, for a Siemens 5000F5 unit in Zone C that would have purchased its gas at the Dominion North price. Similarly, NYISO staff should recalculate net EAS revenue over either a two-year or a three-year historical period ending August 31, 2016, for a Siemens 5000F5 unit in Rockland County in Zone G that would have purchased its gas at the Millennium East price (if the two-year historical period is used) or the TETCO M3 price (if the three-year historical period is used). Having recalculated net EAS revenue for these generators, NYISO staff should develop ICAP demand curves based on those net EAS revenues.

## ***2. Dual Fuel Capability for Peaking Units in Zones C, F and G***

In its review of the Consultants' recommendations regarding whether the NYISO should assume that a new gas-fired peaking unit would elect to incur the costs required for that unit to have dual fuel capability, NYISO staff properly noted that "In Load Zones C and F, there is a lack of mandatory dual fuel requirements or other factors (such as a need for siting flexibility by assuming interconnections to the [local distribution company ('LDC')] system which would mandate dual fuel technology. Combining the lack of a mandatory dual fuel requirement, with the current status of general gas availability in these areas, and the fact that estimated incremental net EAS revenues for dual fuel units in Load Zones C and F do not offset the increased capital costs of such capability over the historic period analyzed..., a gas only peaking plant in Load Zones C and F remains reasonable."<sup>14</sup>

The Indicated TOs concur. However, using the same rationale, NYISO staff should have concluded that new gas-fired units for Zone G also would not have dual fuel capability. Just as in Zones C and F, generators in Zone G that are not purchasing gas from LDCs are not required to have dual fuel capability; and just as in Load Zones C and F, the effect of dual fuel capability on net EAS revenues for dual-fuel peaking units in Load Zone G was less than the increased capital costs of such capability over the three-

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<sup>14</sup> Staff Recommendations at 5 (footnotes omitted).



year historic period.<sup>15</sup> Consequently, developers would neither be required nor would find it profitable to include dual-fuel capability in new gas-fired peaking units built in Zone G.

The Indicated TOs understand that NYISO staff nevertheless concluded that a gas-fired peaking unit in Zone G would opt for dual fuel capability because “Load Zone G is a more limited geographic area containing two gas LDCs, each with multiple city gate connections.”<sup>16</sup> NYISO staff went to note that “[t]he ability to site a generating facility within the LDC system intuitively offers flexibility.”<sup>17</sup> While this is true, it does not necessarily lead to the conclusion that developers of new generation in Zone G would be willing to incur the additional cost associated with dual-fuel capability in order to have that flexibility, especially if that flexibility is of little value. And the evidence suggests that this flexibility, indeed, has little value: To the knowledge of the Indicated TOs, there are no projects in the interconnection queue in these areas that plan to purchase their gas from LDCs, so this is an option that is unlikely to be exercised. Options that are unlikely to be exercised have little value, and developers will not be willing to incur significant costs—such as the costs associated with developing dual-fuel capability—to obtain such options.<sup>18</sup>

The Consultants also asserted that the new peaking units would opt for dual fuel capability because “a developer would likely view the addition of dual fuel capability favorably in light of reasonable expectations of net changes in New York State’s reliance on natural gas in the coming years...”<sup>19</sup> However, their report contains no analysis to substantiate the claim that these considerations would cause entrants to opt for dual-fuel capability *now*, even though it is expected to be unprofitable. Therefore, this argument is purely speculative.

The Indicated TOs are aware that certain stakeholders have argued that the NYISO should assume that new gas-fired peaking units will have dual fuel capability because the NYISO may adopt measures in the future that would require all such units to have dual fuel capability. Alternatively, they argue that the NYISO may adopt other market changes that might reduce capacity payments that are available to the developers of gas-only generators, thereby inducing developers to opt for dual fuel capability. If the NYISO were to adopt dual fuel requirements in these areas, then the inclusion of the cost of dual fuel capability in the relevant demand curves would be appropriate. However, it would be premature to base the ICAP demand curves on the mechanisms that have yet to be fully developed. Consequently, the Board should direct NYISO staff to remove this assumption, and to recalculate the ICAP demand curve

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<sup>15</sup> The monthly reference point price for the G-J Locality, which is the price on the ICAP demand curve for that locality that corresponds to the minimum ICAP requirement for that locality, would be \$14.11/kW-mo. if the ICAP demand curve for the G-J Locality were based on a gas-only Siemens 5000F5 generator in Dutchess County, or \$14.30/kW-mo. if that ICAP demand curve were based on a gas-only Siemens 5000F5 generator in Rockland County. In contrast, it would increase to \$14.84/kW-mo. if the ICAP demand curve for the G-J Locality were based on a dual-fuel Siemens 5000F5 generator in Dutchess County, or \$15.09/kW-mo. if that ICAP demand curve were based on a dual-fuel Siemens 5000F5 generator in Rockland County. Consultants’ Report at 96, Table 41A.

<sup>16</sup> Staff Recommendations at 5, n. 8.

<sup>17</sup> *Id.*

<sup>18</sup> It is not also clear that dual-fuel units will actually have additional siting flexibility: Dual-fuel units may need to choose certain locations to ensure that oil can be delivered to them cheaply, a concern that would not be relevant for gas-only units.

<sup>19</sup> Consultants’ Report at 33.

for the G-J Locality under the assumption that a new Siemens 5000F5 generator located in Zone G would not have dual fuel capability.

### ***3. Selective Catalytic Reduction for Peaking Units in Zones C, F and G***

NYISO staff recommends that the ICAP demand curves for the NYCA and the G-J Locality reflect the assumption that developers of new gas-fired peaking units anywhere in the NYCA will opt to incur the additional costs required for Selective Catalytic Reduction (“SCR”) capability, even though Zones C, F and parts of Zone G are outside of the downstate non-attainment area for the eight-hour ozone National Ambient Air Quality Standard. NYISO staff justified this recommendation as follows: “[T]he annual NOx emissions from a unit without SCR is 2.5 times greater than the NOx emissions of a unit with SCR. Unlike the last reset, the uncontrolled unit does not represent the configuration that minimizes NOx emissions to the maximum extent practicable. Therefore, it appears that such a unit would be unable to achieve compliance with the findings required by the Siting Board for issuance of a Certificate of Environmental Compatibility and Public Need pursuant to Article 10.”<sup>20</sup>

Pointing to the challenges of getting siting permission under Article 10 without the installation of SCR as a basis for the inclusion of such costs in these locations is speculative at best. There is no requirement for SCR in Article 10, nor any precedent that such equipment is required outside of the non-attainment area. Until such equipment is a requirement, there is no justification for assuming that a developer would incur such costs, and including these costs in the ICAP demand curves for the NYCA and the G-J Locality imposes costs on consumers with no expected environmental benefits. The Board should direct NYISO staff to remove this assumption, and to recalculate the ICAP demand curves for the NYCA and the G-J Locality under the assumptions that a new Siemens 5000F5 generator located in Zone C, F or G (Dutchess County) would not include SCR.

### ***4. Property Tax Rate for Peaking Units in Zones C, F and G***

The proposed generators are generally able to enter into agreements with the economic development authority in the region in which they are located, which call upon them to make Payments in Lieu of Taxes (“PILOT payments”) in lieu of property taxes for a certain period of time. Thus, it would not be reasonable to rely on statutory property tax rates to determine a new generator’s tax liability during the term of the PILOT agreement. Instead, it is necessary to estimate the annual PILOT payment that such a generator would be required to make.

The Consultants recommend the use of the 0.75 percent rate, which they asserted “was found to be in a range that is compatible with current PILOTs based on a review of data available through the New York State Comptroller Office.”<sup>21</sup> NYISO staff then conducted further review of the Consultants’ recommendation. The results of that review are described in Appendix I of the Staff Recommendations. In the end, NYISO staff accepted the Consultants’ recommendation, concluding that the 0.75 percent rate “is within the range of observed tax rates, is consistent with the tax rate observed by FERC, and other methods of analysis have not demonstrated outcomes with sufficiently higher certainty to warrant a

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<sup>20</sup> Staff Recommendations at 8.

<sup>21</sup> Consultants’ Report at 46.

change to the Consultants' recommendation."<sup>22</sup> For several reasons, the Indicated TOs disagree. The NYISO should use the tax rate that best estimates the amount in taxes that a new Siemens 5000F5 generator would have to pay under a PILOT agreement, and the available evidence indicates that for such a unit located in Zones C, F or G, that rate is likely to be 0.5 percent of capital investment rather than 0.75 percent.

The Consultants' analysis compared PILOT payments made in 2014 to capital expenditures made years earlier, without correcting for inflation in the intervening time period. As a result, the analysis compared apples and oranges, as both the PILOT payment and the capital expenditures must be stated in terms of the same year's dollars in order for the comparison to be valid.<sup>23</sup> This error caused the Consultants to overstate the effective tax rate associated with the PILOT agreements. In response to this criticism, Appendix I of the Staff Recommendations contains two sets of calculations: one that does not make an adjustment for inflation, and one that makes such an adjustment, using actual historical inflation rates to convert nominal dollars into inflation-adjusted dollars.

With regard to the latter analysis, NYISO staff pointed out that "each PILOT agreement was negotiated at a different point in time and based on the respective parties' own forward looking inflation estimates at that time."<sup>24</sup> Consequently, NYISO staff warned, "Substitution of actual inflation that has occurred for the parties' expectation of inflation at the time a PILOT agreement was negotiated may result in the calculation of inaccurate effective tax rates for a given agreement."

Two points must be made in response. First, none of this obviates the need to take inflation into account in the analysis. The analysis that the Consultants conducted remains invalid. It should be wholly disregarded because it completely ignores inflation, contrary to FERC directives, so we will not address it further in these comments.

Second, while the NYISO is correct that using actual inflation in lieu of inflation may lead to inaccurate results, the emphasis here should be on the word "may." If there were large differences between the inflation rates that were expected to occur during the term of a PILOT agreement when that agreement was entered into and the amount of inflation that actually occurred during the term of that agreement, it would be important to account for this difference. But we are not in such an environment, nor have we been in such an environment for a long time. In recent years, levels of expected inflation have not changed significantly, and differences between expected and actual levels of inflation have been quite small.<sup>25</sup> All of the units considered by the Consultants and NYISO staff in their analyses were built in 1989 or later, when differences between actual and expected inflation were minimal.

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<sup>22</sup> Staff Recommendations at 22.

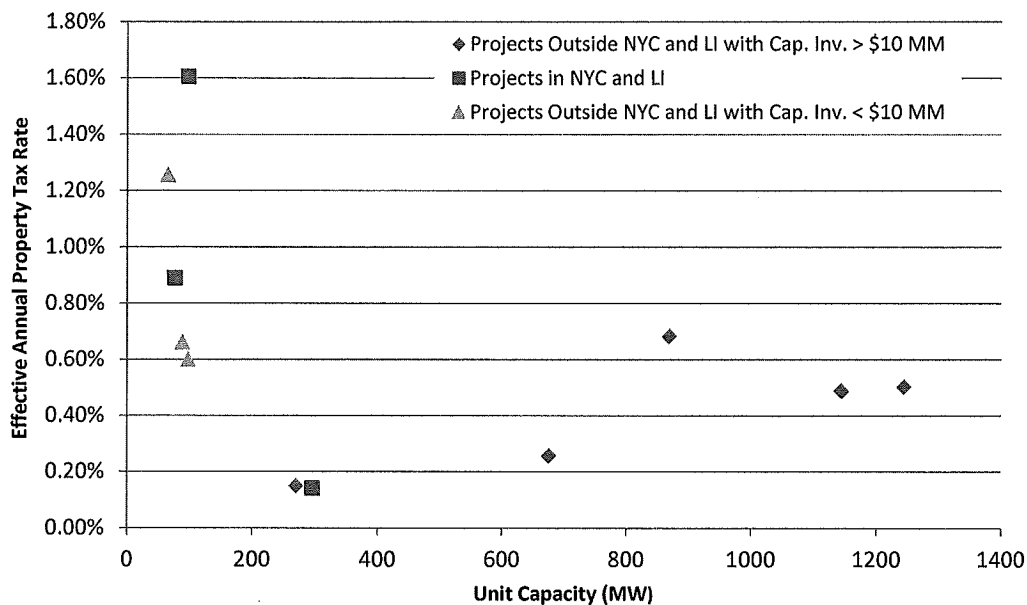
<sup>23</sup> FERC has previously emphasized the importance of correctly accounting for inflation to permit "apples-to-apples" comparisons. *See, e.g., N. Y. Indep. Sys. Op.*, 139 FERC ¶ 61,244 at P 60 (2012).

<sup>24</sup> Staff Recommendations at 48.

<sup>25</sup> This is illustrated by the expected inflation rates that were used as an input to determine the amount by which ICAP demand curves would escalate from year to year in past ICAP demand curve resets. Those expected inflation rates were 3.0% (for the 2005-08 ICAP demand curves), 2.7% (for the 2008-11 ICAP demand curves), 1.7% (for the 2011-14 ICAP demand curves), and 2.2% (for the 2014-17 ICAP demand curves).

Figure 1 below shows the effective property tax rate for each unit in the sample that was used by the Consultants and NYISO staff. These rates were calculated by dividing each unit’s 2014 PILOT payment by the capital investment in that unit, adjusted to be stated in 2014 dollars. It is similar to a figure on page 50 of Staff Recommendations. NYISO staff claims that this “clearly demonstrates that effective tax rates generally decline as the MW value of a plant increases, [which] supports the use of a rate that is more representative of units that are similar in size to a peaking plant.”<sup>26</sup> However, NYISO staff’s figure did not differentiate between units with different amounts of capital investment, or units in different locations. In Figure 1, effective tax rates for units outside of NYC and Long Island with less than \$10 million in capital investment are shown using green triangles, effective tax rates for units outside of NYC and Long Island with more than \$10 million in capital investment are shown using blue diamonds, and effective tax rates for units in Long Island and New York City are shown using red squares.

**Figure 1: Effective Annual Property Tax Rates under Various PILOT Agreements**



As Figure 1 shows, NYISO staff’s claim that the effective tax rate is higher for smaller plants is based upon the rates paid by five units. Each of these units has less than 100 MW of capacity, so they are all much smaller than the Siemens 5000F5 unit.<sup>27</sup> Moreover, capital investment for three of those units was less than \$10 million. This is far less than the amount of capital investment in the Siemens 5000F5 generator outside NYC and Long Island, which would be somewhere between \$183 million and \$258 million, depending on the location of the unit and whether it has dual fuel capability and selective catalytic reduction.<sup>28</sup> The Siemens 5000F5 has far more in common with the other, larger units in the NYISO’s sample than with these three units, whose property tax liabilities would be quite small even if

<sup>26</sup> Staff Recommendations at 49.

<sup>27</sup> The Siemens 5000F5 would have roughly 220 MW of capacity, depending on its location and the procedure used to measure capacity. (Consultants’ Report at 10, Table 2.)

<sup>28</sup> Consultants’ Report at 112 and 126.

they were paying the full statutory rate. The two remaining units are on Long Island; and the Indicated TOs do not contest the NYISO staff's proposed 0.75 percent rate for Long Island.

Figure 1 shows that for all of the units outside NYC and Long Island with more than \$10 million in capital investments, the effective property tax rate is less than the 0.75 percent value the NYISO proposes to apply to determine property tax liabilities for generation in Zones C, F and G.

Table 1, which is similar to a table on page 51 of the Staff Recommendations, presents the inflation-adjusted effective property tax rate for each unit in the NYISO's sample, as well as median and weighted-average effective tax rates for all of the generators in the sample,<sup>29</sup> for just the generators with less than 300 MW of capacity (which the NYISO focused upon), and for generators with more than \$10 million in capital investment that are located outside NYC and Long Island, which is the most relevant comparison group. The median effective tax rates range from 0.49% to 0.66%, while the weighted average tax rates range from 0.38% to 0.47%.<sup>30</sup>

**Table 1: Effective Annual Property Tax Rates under Various PILOT Agreements**

Generator	Capacity (MW)	Project Amount (\$MM)	PILOT Pmts. per AGI	Year	Real Effective Tax Rate
Athens	1244	\$ 750.0	\$ 4,896,986	2001	0.50%
Independence	1144	\$ 800.0	\$ 6,013,333	1992	0.49%
Bethlehem	870	\$ 400.0	\$ 3,546,496	2001	0.68%
Empire	676	\$ 358.0	\$ 1,000,000	2009	0.26%
Saranac	270	\$ 166.5	\$ 420,000	1989	0.15%
Navy Yard	296	\$ 370.0	\$ 748,526	1995	0.14%
Syracuse	98	\$ 8.0	\$ 66,123	1998	0.60%
Freeport	98	\$ 59.5	\$ 1,197,293	2003	1.60%
Beaver Falls	89	\$ 9.0	\$ 81,999	1998	0.66%
Pinelawn	77	\$ 92.0	\$ 998,500	2004	0.89%
Carthage	66	\$ 6.0	\$ 102,370	1999	1.26%
<b><i>For All Generators in Sample</i></b>					
<b>Median Effective Tax Rate</b>					<b>0.60%</b>
<b>Weighted Average Tax Rate</b>					<b>0.46%</b>
<b><i>For Generators With Less Than 300 MW of Capacity</i></b>					
<b>Median Effective Tax Rate</b>					<b>0.66%</b>
<b>Weighted Average Tax Rate</b>					<b>0.38%</b>
<b><i>For Generators Outside NYC and LI with &gt; \$10MM in Capital Investment</i></b>					
<b>Median Effective Tax Rate</b>					<b>0.49%</b>
<b>Weighted Average Tax Rate</b>					<b>0.47%</b>

<sup>29</sup> While the Consultants included the Navy Yard generator in their sample, and the NYISO included it in their figures on page 50 of the Staff Recommendations, they did not include it in the table on page 51 or in the calculations based on that table. Consequently, their calculations will differ from ours due to this omission. Additionally, we only report one weighted average here, which weights each plant's effective tax rate by the capital investment in that plant. The Staff Recommendations also report a weighted average that weights each plant's effective tax rate by the PILOT payment that plant makes, but as we explained to the NYISO, such an average should be disregarded as it can produce nonsensical results.

<sup>30</sup> We also performed this analysis under the assumption that inflation was expected to be two percent per year, instead of using actual historical inflation rates to adjust for inflation. The results were almost identical to those reported in Table 1.

Given this evidence, the Board should direct the NYISO to reduce the property tax rate assumed for the Siemens 5000F5 generator in Zones C, F and G to a rate that is more representative of the amount that the developer of such a unit in those locations would reasonably expect to pay under a PILOT agreement. That amount cannot reasonably be determined by referring to the amounts paid by generators with capital investment of less than \$10 million, when the amount that would need to be invested in the Siemens 5000F5 is more than an order of magnitude larger. And it cannot reasonably be determined by reference to the rates paid by generators in other locations. When the analysis is limited to generators outside of NYC and Long Island, and we focus on generators with capital investments that are within an order of magnitude of the amount that the developer of a Siemens 5000F5 generator would have to invest to build such a facility, a reasonable estimate of the effective property tax rate for such a generator is 0.5 percent. Indeed, our understanding is that the effective tax rate that is being paid under the PILOT agreement for one unit that is under construction (that is not included in Table 1) is considerably less than the 0.5 percent rate proposed here, so this may well be an overestimate.<sup>31</sup>

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<sup>31</sup> See, e.g., Times Herald-Record, *Construction of \$900M Power Plant in Wawayanda Set to Start this Year* (updated January 31, 2015) available at: <http://www.recordonline.com/article/20150131/NEWS/150139896>.