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October 3, 2016

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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:

Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid") submits 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.

National Grid requests the opportunity to participate in oral argument before the NYISO Board on October 17, 2016.

Sincerely,

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Comments on Certain Proposed Rest-of-State Installed Capacity Demand Curve Provisions in the "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 Niagara Mohawk Power Corporation d/b/a National Grid

October 3, 2016

Niagara Mohawk Power Corporation d/b/a National Grid ("National Grid") hereby submits the following comments on certain proposals regarding the Rest-of-State ("ROS") Installed Capacity ("ICAP") Demand Curves in NYISO Staff's Final Recommendations for the ICAP demand curve parameters for the 2017-18 Capability Year, dated September 15, 2016 ("Staff Recommendations") that have been proposed to the NYISO Board of Directors (the "Board"). National Grid requests the opportunity to participate in oral argument before the NYISO Board at its October 17th meeting.

Introduction

The NYISO uses a demand curve auction process in operating its capacity market based on a proxy unit for each of its capacity regions. The NYISO first estimates the costs that developers would incur to develop and construct a proxy unit in each Load Zone and then subtracts out the forecasted net revenue that each of these proxy units would be expected to earn in the energy and ancillary services ("EAS") markets (after accounting for the variable costs incurred to provide energy). Finally, the NYISO uses these reference points to draw the demand curve for a given region to ensure that the revenue that a developer of a proxy generator for that region would earn in the capacity market, together with its forecasted net revenue from the energy and ancillary services

markets, would be sufficient to recoup the estimated costs of developing and constructing that proxy unit (including a reasonable return on invested capital).

It is therefore of utmost importance that the proxy resources for each Load Zone that represent the reference prices used for a given region reflect the actual costs and revenues that would be incurred by a developer of new capacity in a Load Zone. If the net cost of an actual unit that would be developed in a Load Zone is less than the net cost of the proxy unit used by the NYISO when it draws the demand curve for a region, the demand curve for that region will provide more revenue than is needed to support new entry. This will cause excessive capacity prices and unnecessary cost burdens on customers, and it will eventually lead to surplus capacity, the cost of which will ultimately be borne by customers.

As discussed below, National Grid contends that certain parameters in the Staff Recommendations will lead to a significant overstatement of the cost of new capacity in Zone C and an excessive demand curve in ROS. Based on NYISO estimates, these recommended parameters could unnecessarily inflate the cost to ROS customers by as much as $400 million per year. Accordingly, National Grid urges the Board to direct NYISO Staff to adopt the modifications recommended by National Grid when the final ICAP Demand Curve parameters for the 2017/2018 Capability Year are filed with the Federal Energy Regulatory Commission ("FERC" or the "Commission").

Comments

1. NYISO staff's proposal to include the cost of Selective Catalytic Reduction ("SCR") technology as a likely cost incurred by developers of a proxy unit in Zone C is without merit

The NYISO's Market Administration and Control Area Services Tariff ("MST" or the "Tariff") requires NYISO to determine the Net CONE based upon the net cost of developing, constructing and operating a "peaking unit [that] is defined as the unit with

technology that results in the lowest fixed costs and highest variable costs among all other units' technology that are economically viable."[1] Thus, NYISO's obligation under its Tariff is to choose the ROS unit with the lowest fixed costs. The Staff Recommendation to include SCR technology in the ROS Proxy Unit Net CONE violates that obligation because there are no environmental requirements -- and hence no reason to believe -- that a new generator being built in ROS would add SCR technology to its unit. In fact, adding the cost of SCR to the proxy unit would not necessarily incent a new generator to build SCR and would inevitably provide additional revenues to new and existing generators without SCR.

The problem here is the NYISO Staff's overly-broad application of SCR technology to areas where it is neither economic nor required. SCR technology is necessary to meet nitrogen emission limits in the downstate "non-attainment areas" for the eight-hour ozone National Ambient Air Quality Standard. National Grid fully supports improving air quality and energy sector regulations that would lead to better air quality, such as the Clean Air Act,[2] Clean Power Plan, and New York's recently enacted Clean Energy Standard. However, National Grid opposes NYISO Staff's decision to include SCR technology in the costs of a proxy unit in locations in New York that are <u>not</u> in ozone non-attainment areas, such as Zone C and other portions of the ROS. NYISO staff's proposal to include the cost of SCR technology as a likely cost incurred by developers of a proxy unit is simply unrealistic. Developers should not be expected to increase the cost of their investments when it is neither in their economic interests to do so nor required by regulations. Clearly the addition of SCR technology will raise the cost of a proxy unit and there are no regulations that would compel a developer to install this

[1] MST § 5.14.1.2 (emphasis added).
[2] *The Clean Air Act*, 42 U.S.C. §7401 et seq. (1970).

technology in Zone C or other parts of the State that are not non-attainment areas. The result of doing so will only serve to increase the capacity prices in the ROS market, forcing customers to pay for a resource that is unlikely to ever get built absent corresponding regulations. Moreover, creating a financial "allowance" for certain environmentally protective technology without corresponding regulations that require its use would reward with higher profits those generators who chose not to install such technology and therefore could have the perverse effect of incenting development of generation without SCR, adding less environmentally friendly resources to the upstate generation fleet and worsening air quality for customers.

The Staff Recommendation to include SCR is explained principally 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 [Demand Curve] 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."[3] The error in this statement is that there is simply no express requirement for SCR in Article 10, nor is there any precedent to suggest that the Article 10 Siting Board requires such equipment outside the downstate non-attainment area. Moreover, the analysis of federal air permit requirements in Staff Recommendations concedes that none of the existing or (for that matter) planned performance standards, including the Prevention of Significant Deterioration (PSD) requirements, mandates SCR in an ozone "attainment area."[4] As such, an argument that SCR is necessary to obtain a Certificate of Environmental

[3] Staff Recommendations at 8.

[4] Staff Recommendations at 7-10.

Compatibility and Public Need in Zone C and the other attainment areas is nothing but pure speculation. National Grid therefore contends that including SCR costs in ROS ICAP demand curves introduces significant unnecessary costs to ROS ratepayers with no corresponding environmental benefit. The NYISO estimates that the cost of including SCR technology in the ROS ICAP Demand Curve would result in a $124,100,000 increase in customer costs.[5] The NYISO Board should therefore direct the removal of these costs from the proxy unit costs used to determine the ROS ICAP Demand curve when making the tariff filing.

2. NYISO staff's selection of the Natural Gas Index for Peaking Units in Zone C is not in compliance with the NYISO Tariff and is fatally flawed

Under section 5.14.1.2.2.2 of the NYISO Market Administration and Control Area Services Tariff ("Services Tariff"), NYISO uses the costs of a peaking unit in a zone in order to calculate the net EAS revenue of such a proxy unit. This requires the determination of the applicable fuel cost of that unit, which in turn requires NYISO to identify the gas pipeline from which that unit would purchase gas. NYISO staff has recommended that NYISO use TETCO M3 as the representative gas hub for Zone C.[6] National Grid opposes this recommendation.

NYISO staff justifies this recommendation on the basis that, although both the Millennium and Dominion pipelines cross Zone C, neither is well correlated with Location Based Marginal Prices, and the liquidity (trade volume and history) is inferior to TETCO M3.[7] Staff notes that the consultants recommended the representative gas hub based on "various relevant factors, including geographic location, correlation with

[5] Consumer Impact Analysis: 2015/2016 ICAP Demand Curve Reset – Additional Analysis at 9, ICAP WG, Presented September 27, 2016.
[6] Staff Recommendations at 23.
[7] Staff recommendations at 23.

electric prices, depth of available historical data, and precedent."[8] These are not the relevant considerations, however; indeed, with the exception of location, they are not permissible considerations. Since the only relevant consideration is location and TETCO M3 does not run through Zone C, the NYISO staff recommendation does not represent a suitable representation of gas prices for a generator in Zone C.

In filing its new methodology for demand curve resets, NYISO informed FERC that net EAS revenue is "based solely on actual prices and costs."[9] The tariff provides that NYISO will use 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 period,"[10] 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."[11] In other words, the gas cost for Zone C must represent the historical gas cost for a unit in Zone C. However, no unit in Zone C is physically interconnected to the TETCO M3 pipeline. Therefore, not only is it incorrect to use a gas hub that is not associated with a delivery point internal to Zone C but to use a gas hub that physically has no delivery path to Zone C is out of compliance with the NYISO Tariff. Further, no new unit in that zone could reasonably interconnect to the TETCO M3 pipeline, so that pipeline's prices cannot reflect the cost of new entry. The fuel index that the NYISO chooses to serve as the basis for Zone C proxy unit Net EAS Revenues needs to be based on a gas pipeline from which a Zone C generator could realistically procure gas.

There are several gas hubs that could be used for Zone C and are compliant with the NYISO tariff. National Grid supports the use of Dominion North. In its 2015 State

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[8] *Id.* at 22.
[9] *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), at 5.
[10] Services Tariff, Section 5.14.1.2.2.2.
[11] *Id.*

of the Market Report, the NYISO's MMU supported this position when it used Dominion North, and not TETCO M3, as the fuel index when it performed an analysis of market prices in areas in Central New York (including Zone C).[12] The MMU analysis was performed to determine the impact of fuel price volatility on energy prices in the seven regions of New York. The MMU states that while much of the generation in New York comes from hydroelectric and nuclear units, gas units are usually the marginal source of generation and thus set the market clearing price. This why the fact that the MMU uses Dominion North as the representative gas index to estimate the cost for gas that a generator would incur in the Central Region is indicative of the correct approximation of fuel price in Zone C.

If NYISO uses TETCO M3 as the gas hub for Zone C instead of Dominion North, capacity costs to ratepayers in ROS will increase by an estimated $290,000,000.[13] Such an outcome is an extremely significant and onerous expense to assess customers and without adequate legal justification. National Grid requests the NYISO Board direct the revision of the gas hub for the Zone C proxy unit from TETCO M3 to another pipeline from which a Zone C generator could realistically procure natural gas.

3. The Property Tax Rate for Peaking Units in Zones C and F is based on a flawed calculation and is too high

Newly proposed generators are generally able to enter into Payments in Lieu of Taxes ("PILOT") agreements with the economic development authority in the region in which they are planning to locate, which requires that they make payments in lieu of property taxes for a certain period of time. As a result, a PILOT payment is a better

[12] David B. Patton et al., "*2015 State of the Market Report for the New York Markets*" ("MMU Report") at A-3.

[13] This estimate is based on the difference between NYISO Staff recommended Zone C reference price of $10.72/kw-month (for gas-only with SCR) and the NYISO's estimated reference price of $6.75/kw-year (also for gas-only with SCR) if Dominion North was used for the Zone C fuel index; Staff Recommendations at 54.

proxy for a new generator's tax liability during the term of the PILOT agreement than the statutory property tax rate. Therefore, to estimate this component of the Net CONE, the NYISO must estimate the annual PILOT payment that such a generator would be required to make in order to estimate the property tax rate a proposed generator would have to pay. While National Grid agrees that 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, National Grid contends that the available evidence indicates that for such a unit located in Zones C and F that rate is likely to be 0.5 percent of capital investment rather than the 0.75 percent rate currently being recommended by NYISO Staff.

National Grid believes that the erroneous 0.75 percent rate is a result of two mistakes in the Consultant's analysis. One inaccuracy in the Consultant's analysis that leads to overstating the property tax rate is that the 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, but were not.[14] Therefore, the Consultant's analysis should be wholly disregarded because it completely ignores inflation, contrary to FERC directives. This error caused the Consultants to overstate the effective tax rate associated with the PILOT agreements.

The Consultant's estimate of the Zone C and F property tax rate is also overstated because it is based on an unrepresentative set of past projects and their associated property tax rates. The Consultant's set is unrepresentative because it includes a number

[14] 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).

of units that are much smaller in size and capital investment than the proxy unit for Zones C and F, the Siemens 5000F5 unit, and it includes units that are located in NYC and Long Island, which are both factors that generally increase the property tax rate.[15] 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 and F. In fact, for 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%.[16] Given this evidence, the Board should direct the NYISO to reduce the property tax rate assumed for the Siemens 5000F5 generator in Zones C and F 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. Based on an analysis that is appropriately restricted to generators outside of NYC and Long Island, and focused 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, National Grid believes a reasonable estimate of the effective property tax rate for such a generator is 0.5 percent.

4. Dual Fuel Capability for Peaking Units in Zones C and F

[15] *See* 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." ("Indicated TOs' Comments") at Figure 1. National Grid supports the arguments on property tax rates made in the Indicated TOs' Comments.
[16] *See* Indicated TO Comments, Table 1.

National Grid supports the Staff Recommendations' use of a gas-only generator as the proxy unit for Load Zones C and F and the NYISO Staff's decision to depart from the Consultant's recommendation. National Grid agrees with the NYISO's rationale that the ROS proxy unit should be a gas-only unit because there are no requirements directing the need for dual fuel technology in Zones F and C and the economics show that dual fuel technology would not be a cost-effective investment for investors.

As the NYISO Staff said: "Combining the lack of a mandatory duel fuel requirement with the current status of general gas availability in [Zones C and F], and the fact that the estimated incremental net EAS revenues for duel fuel units in Zones C and F do not offset the increased capital costs of such capability over the historic period analyzed . . . , the NYISO has determined that, for this DCR, a gas only peaking plant in Load Zones C and F remains reasonable."[17] The NYISO's Market Monitoring Unit concurs that the economics do not support an investor building a dual-fuel unit in ROS.[18] The NYISO estimates that including dual fuel costs in the ROS proxy unit Net CONE would increase costs to ROS ratepayers by $36,600,000 per year.

For these reasons, National Grid supports the NYISO's recommendation that the NYISO Board make the ROS proxy unit a gas-only unit without dual fuel technology and encourages the NYISO to maintain recommendation when it makes its DCR tariff filing.

[17] Staff Recommendations at 5 (footnotes omitted).
[18] MMU Report at 14-15 (concluding that dual fuel technology would not be a profitable investment for generators in Zone C or F).