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By Electronic Delivery

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New York State Department of Environmental Conservation
Division of Air Resources
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Re: Written Comments of the New York Independent System Operator on Proposed Ozone Season Oxides of Nitrogen (NOx) Emission Limits for Simple Cycle and Regenerative Combustion Turbines, Proposed Part 227-3

Dear Ms. Papageorgiou:

The New York Independent System Operator, Inc. ("NYISO") hereby submits written comments to the New York State Department of Environmental Conservation ("DEC") on the new proposed Part 227-3 of the DEC's regulations concerning Ozone Season Nitrogen Oxide ("NOx") Emission Limits for Simple Cycle and Regenerative Combustion Turbines (the "Proposed Rule").[1] Given the DEC's proposed effective dates, the NYISO supports final adoption of the Proposed Rule as soon as possible.

The NYISO urges the DEC to adopt the entire compliance schedule outlined in the Proposed Rule. The compliance schedule provides the NYISO's planning processes necessary time to assess the impacts to system reliability from potential deactivation of units in response to the new emission limits. The schedule also allows time for the NYISO to solicit solutions to any reliability needs that arise. Finally, the DEC should adopt the proposed provision allowing the NYISO to select generators to continue operating in the short term to maintain the reliability of the bulk and local transmission systems, as necessary, while long-term solutions are being developed.

The NYISO is committed to reliable operation of the electric system, continuously monitors any changes to the electric system, and may take action to maintain the reliability of the system. The NYISO looks forward to continuing to work with the DEC to facilitate implementation of the Proposed Rule while maintaining the reliability of the New York State electric system.

[1] *Proposed Rule Making Hearing(s) Scheduled, Set Nitrogen Oxide (NOx) Emission Rate Limits for Simple Cycle and Regenerative Combustion Turbines*, New York State Register, I.D. No. ENV-09-19-00015-P, February 27, 2019.

I. NYISO's Roles and Responsibilities for Electric System Reliability

The NYISO is the not-for-profit corporation responsible for operating the power grid in New York, planning for the future of the power grid, providing non-discriminatory access to transmission service, and administering wholesale markets for electricity and transmission products in New York. The NYISO manages the flow of electricity across more than 11,000 miles of high-voltage transmission lines serving New York on a minute-to-minute basis, balancing supply and demand throughout the state. NYISO operates in accordance with tariffs, accepted by the Federal Energy Regulatory Commission ("FERC"), to administer open and non-discriminatory access to the electric grid, competitive markets for the sale and purchase of energy and capacity, and payments for ancillary services necessary for the reliable operation of the bulk electric grid. Working with transmission owners, the New York State Reliability Council, the Northeast Power Coordinating Council, and the North American Electric Reliability Corporation, the NYISO adheres to the nation's strictest set of reliability standards designed to promote reliability for New York consumers. The NYISO monitors the development of environmental regulations impacting power generation resources in New York and provides input to federal and state policymakers on potential power system reliability implications.

II. Comments

A. NYISO's 2019-2028 Comprehensive Reliability Plan Scenario Analysis Identifies Potential Bulk and Local Electric System Reliability Impacts from the Proposed Rule

The NYISO commends the DEC for soliciting stakeholder feedback on a preliminary draft of NOx emission limits proposal prior to publishing the Proposed Rule for public comment on February 27, 2019. The June 2018 "Stakeholder Draft" outlined potential NOx emission limits and compliance options prior to initiating the DEC's formal rulemaking process. The Stakeholder Draft and associated stakeholder meetings provided interested parties an invaluable opportunity to provide feedback to the DEC, as well as additional time to evaluate potential impacts from the now-published Proposed Rule.[2]

As contemplated in the Stakeholder Draft, the Proposed Rule establishes new NOx emission limits for simple cycle and regenerative combustion turbines (referred to herein as "peakers"). Beginning May 1, 2023, peakers must meet a NO_X emission rate of 100 ppm during the ozone season and starting May 1, 2025 gas-fired peakers must meet a NOx emission limit of 25 ppm, while oil-fired peakers must meet a NOx emission limit of 42 ppm. The Proposed Rule also requires each facility subject to the new regulation to submit a compliance plan to the DEC by March 2, 2020. Peakers typically operate to maintain bulk power system reliability during the most stressed bulk power system conditions, such as periods of high demand in the summer months. Many of these units also operate to secure the transmission systems in certain regions of New York City and Long Island – known as load pockets. Load pockets represent transmission-constrained geographic areas where Energy[3] and Operating Reserves[4] needs can only be fully served by local generators due to transmission system

[2] The DEC's Stakeholder Draft is available at https://www.dec.ny.gov/docs/air_pdf/scctdraft.pdf.

[3] Capitalized terms not otherwise defined herein shall have the meaning specified in the NYISO Market Administration and Control Area Services Tariff and Open Access Transmission Tariff.

[4] Operating Reserves is additional capacity that is available to supply Energy needs in thirty minutes or less.

limitations that limit the flow of power into the area from resources located outside the geographic area.

Based on the Stakeholder Draft, the NYISO analyzed the potential electric system reliability impacts that could result from the articulated NOx emission limits, and incorporated the results in its draft 2019-2028 Comprehensive Reliability Plan ("CRP"), which the NYISO expects to finalize by July 2019.[5] The peaker scenario analysis identifies reliability issues that could arise if all impacted generators were to deactivate without replacement, and describes the nature of those reliability issues as guidance for market participants to proactively consider possible market-based solutions to reliability needs.[6] Approximately 3,300 MW (nameplate capacity) of peakers would be impacted by the new NOx emission limits (*i.e.*, generation that may not be able to satisfy the proposed emission limits based on publicly available emission data). Within that total, the 2023 implementation date for the 100 ppm limit could affect approximately 2,200 MW, with an additional 1,100 MW affected by the 25 ppm limit at the 2025 implementation date. Since most of the impacted generation is in New York City and Long Island, the NYISO collaborated with Consolidated Edison Company of New York, Inc. ("Con Edison") and PSEG Long Island to provide information regarding the impacts on their local facilities (*i.e.*, non-bulk systems) and any potential operational issues. The NYISO's analysis reveals that significant deficiencies could arise on the bulk and local power systems if all of the impacted generators deactivated without replacement solutions. Any solution or combination of solutions will need to address the peak megawatt deficiency as well as the total megawatt-hour deficiency. The deficiencies could be addressed by numerous combinations of solutions including generation,[7] transmission, and demand-side measures.[8]

B. Given the Compliance Dates of the Proposed Rule, Timely Adoption of a Final Rule that Includes the Proposed Compliance Schedule is Necessary for the NYISO and Affected Transmission Owners to Develop Effective Plans to Maintain Electric System Reliability

Given the Proposed Rule's expected impacts on the transmission-constrained southeastern region of New York State and the possible long lead time for solutions, it is critical that the final rule be issued in time for generators' compliance plans to be coordinated with the NYISO's reliability planning processes. As discussed below, the Proposed Rule effectively integrates with the NYISO's generator deactivation process and reliability planning process in a manner that allows the NYISO to designate peakers to continue operating under reliability must-run agreements if necessary, while permanent solutions are being planned and built.

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[5] The NYISO Operating Committee and Management Committee reviewed and recommended approval of the draft report and scenario in May, and the NYISO will seek approval of the final report at an upcoming meeting of its Board of Directors.

[6] The scenario analysis of the Proposed Rule is provided for information purposes to policymakers and market participants, and will not result in the NYISO identifying Reliability Needs this year. The NYISO will plan for the reliability impacts of the final rule in its 2020 Reliability Needs Assessment.

[7] Generation solutions could include resources such as electric storage resources, renewable resources and conventional generation resources.

[8] Demand-side measures could include energy efficiency and demand response.

1. The DEC Should Adopt the Compliance Schedule in the Proposed Rule to Enable the NYISO to Plan for the Long-Term Reliability of the New York Bulk Power System

Adoption of the Proposed Rule with the March 2, 2020 compliance plan submission deadline is crucial to the NYISO's Reliability Planning Process to prepare for the DEC's proposed 2023 and 2025 compliance dates. Every two years, the NYISO conducts a Reliability Planning Process that examines the reliability of the State's bulk power system over a 10-year planning horizon. The NYISO identifies reliability needs by applying mandatory and enforceable rules established by international, national, regional, and New York State-specific reliability standards organizations. The standards examine two key aspects of reliability:

1. Resource Adequacy: Analysis of whether the bulk power system has enough resources to reliably serve the forecasted demand if some resources or facilities are unavailable.
2. Transmission Security: Evaluation of the bulk power system's ability to operate reliably over a broad spectrum of system conditions and following a wide range of probable system events.

The Reliability Planning Process consists of two studies; (1) the Reliability Needs Assessment ("RNA"), and (2) the CRP. The RNA is a biennial study that evaluates the resource and transmission adequacy and transmission system security of the New York State Bulk Power Transmission Facilities over a ten-year study period.

The NYISO's planning processes strive to produce market-based solutions to identified needs whenever possible. This allows developers and investors to respond to the needs and price signals in the NYISO's markets and to assume the risks of such investments, which avoids imposing those risks on rate-paying consumers. The NYISO also identifies the Responsible Transmission Owner(s) for each Reliability Need and requests that those Transmission Owners submit regulated backstop solutions in the event they are needed to maintain bulk power system reliability. Other interested entities may also submit alternative regulated solutions to address the identified Reliability Needs.

Key to this process as it relates to the Proposed Rule, the NYISO's long-term planning process removes all generators that have indicated their intent to deactivate in their compliance plans. This allows long-term, market-based and regulated solutions of all types, including generation, transmission, and demand-side measures to be timely permitted, constructed and entered into service.

The NYISO evaluates the viability and sufficiency of the proposed solutions to satisfy the identified Reliability Needs and selects the more efficient or cost-effective transmission solution to the identified need. In the event that market-based solutions do not materialize to meet a Reliability Need in a timely manner, the NYISO triggers regulated solution(s) to satisfy the need. The NYISO then develops the CRP for the ten-year study period that sets forth its findings regarding the proposed solutions.[9]

[9] In addition to its formal planning processes, the NYISO continuously monitors all planned projects and changes to the New York State transmission system, and may request solutions outside of its normal planning cycle if there appears to be an imminent threat to the reliability of the bulk power transmission system arising from causes other than deactivating generation.

The Proposed Rule requires peaking unit owners to submit compliance plans to the DEC by March 2, 2020, ahead of either of the phased compliance obligations that take effect on May 1, 2023 and May 1, 2025. These generator compliance plans are critical to informing the next NYISO RNA because, among the potential compliance plans expected, there may be a significant number of generator deactivations. The 2020 RNA will consider which generators intend to deactivate based on their compliance plans and will determine the full scope of the Reliability Needs that will arise. If the 2020 RNA identifies Reliability Needs, the NYISO will solicit market-based and regulated backstop solutions later in 2020.

The NYISO will analyze the sufficiency of the market-based and regulated solutions and, if necessary, evaluate and select regulated transmission solutions to meet the needs. The NYISO expects to issue a Comprehensive Reliability Plan in 2021 to address the Reliability Needs identified for the 2021-2030 planning period. Accordingly, the March 2020 compliance plan date is essential to the timely completion of the NYISO's Reliability Planning Process and fulfillment of its responsibility to maintain a reliable New York State bulk electric system.

2. The DEC Should Adopt the Proposed Rule Provision Enabling the NYISO to Select Generators Needed for Reliability to Continue Operating Until Permanent Solutions can be Built

In addition to its regular Reliability Planning Process, the NYISO conducts a facility-specific generator deactivation assessment to address any reliability needs that could result from a generator deactivation (including the retirement or mothballing of a generator). In this Generator Deactivation Process, the NYISO and the affected local transmission owners jointly assess both bulk and local transmission system reliability needs that arise from a proposed deactivation over a five-year horizon. If a reliability need is identified, the NYISO solicits short-term and long-term resource and transmission solutions, which could include replacement supply or transmission facilities. Like the Reliability Planning Process, the Generator Deactivation Process emphasizes market-based solutions and permanent transmission system solutions. Importantly, if market-based and permanent solutions are unavailable, the NYISO may select a generator or generators to enter into a reliability must run agreement on a temporary basis until a permanent solution can be built.

The NYISO will implement its Generator Deactivation Process for all generators that notify the NYISO that they intend to deactivate to comply with the DEC rule. Subpart 227-3.6 of the Proposed Rule reflects the NYISO's responsibilities for generator deactivations and authorizes the NYISO to select a generator impacted by the rule to continue to operate up to two years after the compliance deadline, with a possible further two-year extension, if the generator is designated by the NYISO as needed to resolve a reliability need until a permanent solution is in place. This provision is critical for the NYISO to maintain electric system reliability in the event that a permanent solution is not in service on the generator's proposed deactivation date. Although the scope and location of the expected Reliability Needs will also be addressed in the next Reliability Planning Process starting in 2020, the NYISO may need to select certain generators to continue to operate temporarily to ensure system reliability until new facilities can be permitted, constructed and connected to the electric system.

III. Conclusion

The Proposed Rule provides for a transition to the generator NOx emission limits on a timeline that aligns with the NYISO's mission to conduct comprehensive long-term planning for the state's electric power system and to plan for generator deactivations. The NYISO urges the DEC to adopt a final rule as soon as practicable that (1) requires generators to submit compliance plans to the DEC by March 2020 to meet the emission limits proposed for May 1, 2023 and May 1, 2025; and (2) allows the NYISO to designate specific units to continue to operate for a two-year period, with a possible two-year additional extension. These provisions will enable the NYISO to plan for long-term permanent solutions to the reliability needs that are expected to arise following deactivation of the peakers in response to the rule.

The NYISO appreciates the DEC's consideration of these comments, and looks forward to continuing to work with the DEC to utilize wholesale competitive electricity markets to effectuate implementation of the Proposed Rule while maintaining electric system reliability for all New Yorkers.

Sincerely,

/s/ Zachary G. Smith
Zachary G. Smith
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New York Independent System Operator, Inc.