COMMENTS OF THE NEW YORK INDEPENDENT SYSTEM OPERATOR, INC.
on Reducing Greenhouse Gas Emissions from New and Existing Fossil Fuel-Fired Stationary Combustion Turbines

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I. Introduction

The New York Independent System Operator, Inc. ("NYISO") is an independent 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 and the dispatch of more than 700 electric power generators serving New York on a minute-to-minute basis, balancing supply and demand throughout the state. The NYISO's mission is to serve the public interest and provide benefit to consumers by maintaining and enhancing regional reliability; operating open, fair and competitive wholesale electricity markets; planning the power system for the future; and providing factual information to policymakers, stakeholders, and investors in the power system.

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 wholesale 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. To maintain electric system reliability, the NYISO's planning process continuously analyzes resource adequacy and transmission security so that there are enough generation resources and transmission facilities to serve expected consumption and reliably operate the grid. The NYISO plans the bulk electric system to meet the performance requirements under the mandatory reliability standards of the North American Electric Corporation ("NERC"), the Northeast Power Coordinating Council ("NPCC"), and the New York State Reliability Council ("NYSRC"). These reliability standards are enforceable under federal and state laws. Together, these standards comprise the nation's strictest set of reliability standards designed to promote reliability for New York consumers, including specific reliability rules for the New York City metropolitan area.[1] Violating these mandatory standards jeopardizes the reliable operation of the electric system, including delivery to consumers.

On March 26, 2024, the Environmental Protection Agency ("EPA") issued framing questions in this proceeding to gather stakeholder input regarding existing stationary combustion turbines (or "EGUs"). These framing questions commence a process to address greenhouse gas

[1] Section 215 of the Federal Power Act, as amended by the Energy Policy Act of 2005, allows the State of New York to establish rules that result in greater reliability within the State.

("GHG") emissions, air toxics, and emissions of nitrogen oxides from natural gas turbines in the power sector. The NYISO appreciates this opportunity to comment at this point in the EPA's process. Developing environmental regulations that work in tandem with the continued reliable operation of the electricity system is critical for the health, safety, and welfare of all Americans. At this early stage in the process, it is critical to draft environmental regulations with milestones that can be incorporated into the NYISO's, and other independent system operator's and regional transmission organization's ("ISO's/RTO's") planning and operating processes. The NYISO offers its comments based on extensive experience maintaining electric system reliability in New York State as well as experience supporting New York State public policy goals that drive emission reductions and facilitate renewable energy resource development.[2]

II. Planning for the Future Electric System Facilitates Ongoing Reliability

New Yorkers have long enjoyed reliable electric service and will expect the same level of service to continue into the future. Reliable, on-demand electric service supports every aspect of New Yorkers' daily lives and is vital to the state's economy. A diverse resource mix that integrates sufficient levels of predictable, reliable, and dispatchable generators promotes grid resilience and minimizes the risk of power disruptions. This resilience is increasingly important as extreme weather conditions place power systems across the nation at risk of not reliably serving electricity customers.

A dramatic shift is changing how electricity is produced, stored, transmitted, and consumed throughout New York State. State laws, led by the Climate Leadership and Community Protection Act ("CLCPA") passed in 2019, are driving investment in renewable generation, storage, and transmission, while also driving adoption of electrification for transportation, residential, commercial, and industrial uses as an alternative to fossil fuel usage, resulting in increased electric demand. However, the CLCPA, and other state policies, are also driving the deactivation or reduced operation of emitting generation (*i.e.*, largely fossil fuel-fired generators, referred to herein as "fossil generators"). Today, these same fossil generators provide the vast majority of flexible, dispatchable electricity that is critical to meeting the needs of daily life and maintaining electric system reliability around the clock. Fossil generators located within the New York Control Area ("NYCA") supply significant amounts of electricity for consumers and contribute to system reliability by being available and potentially responding quickly to rapid system changes as needed. Achieving these clean energy mandates and maintaining the reliability and resilience of the electric system demands that the NYISO, electric-system stakeholders, and policymakers work collaboratively to plan for the reduced operation of existing emitting electric generators and, at the same time, develop and integrate the types of resources needed to maintain the reliable electric system that consumers require.

One of the primary ways that the NYISO plans for this transition is through its biennial Reliability Planning Process. These transparent planning studies consist of a Reliability Needs Assessment ("RNA"), which identifies any reliability deficiency issues, or reliability needs, over

[2] The NYISO submitted similar comments on December 20, 2023, in EPA-HQ-OAR-2023-0072 and appreciates the EPA's responsiveness to the NYISO's comments.

the next ten years and, following the publication of the RNA, the NYISO produces a Comprehensive Reliability Plan ("CRP"), which provides the plan necessary to maintain reliability for the ten-year horizon. Both studies include significant engagement with stakeholders and policymakers to complete the NYISO's extensive review of electric system reliability.

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. Adequacy: The ability of the electric systems to supply the aggregate electrical demand and energy requirements of their customers at all times, taking into account scheduled and reasonably expected unscheduled outages of system elements.

2. Security: The ability of the electric systems to withstand sudden disturbances such as electric short circuits or unanticipated loss of system elements.

Key to the evaluation of generator compliance with environmental regulations, the NYISO's long-term planning process removes all generators that will have to deactivate to comply with emission regulations or have indicated their intent to be unavailable in compliance plans submitted to environmental regulators, *e.g.*, generator compliance plans submitted to the New York State Department of Environmental Conservation ("NYSDEC") in response to the "Peaker Rule,"[3] as discussed further below. If reliability needs are identified in the RNA, the NYISO will solicit market-based solutions, designate one or more Responsible Transmission Owners ("TOs") to develop regulated backstop solutions to address each identified Reliability Need, and solicit alternative regulated solutions from Other Developers, as defined by the NYISO tariff. The CRP report will include the results of a solicitation for market-based and regulatory backstop solutions to address those needs. Solutions can take the form of any generation and resource type, including demand response and storage, as well as new local and bulk level transmission solutions. In addition, the NYISO also performs quarterly reliability assessments that focus on risks to reliability over the next five years by evaluating the impacts of generators that intend to deactivate, along with other considerations such as changes in forecasted demand and expected transmission capability and publishes a report for each quarterly assessment. If reliability needs are identified in the next three years, the NYISO solicits market-based solutions from developers and regulatory backstop solutions from TOs to maintain reliability if market-based solutions are not available.[4] The reports for each of these processes are reviewed with stakeholders and posted on the NYISO website.[5]

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[3] *See* Ozone Seasons Oxides of Nitrogen ("NOx") Emission Limits for Simple Cycle and Regenerative Combustion Turbines, referred to as the "Peaker Rule," available at 6 NYRCC Part 227-3.

[4] If a quarterly reliability assessment identifies needs in years four or five, those needs will be evaluated further in the next RNA.

[5] *See, e.g.*, 2022 RNA, available at 2022 RNA, 2023-2032 CRP, available at 2023-2032 CRP, Short-Term Assessment of Reliability: 2023 Quarter 2, available at 2023 Q2 STAR, and Short-Term Reliability Process Report: 2025 Near-Term Reliability Need, available at 2025 Near-Term Reliability Need Report. *See generally*, 2023

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 TOs 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.

These NYISO reports provide insight to federal and state regulators, reliability organizations, and investors regarding the reliability impacts of environmental regulations and policies impacting power generation resources in New York. Through these processes, the NYISO continuously monitors and reports on the development and implementation of environmental regulations and policies impacting power generation resources in New York based on its mandate to maintain reliability for the state's bulk electric system.

The NYISO appreciates and strongly supports the EPA's recent discussion and consideration of electric system planning and electric system reliability ("EPA's April Final Rule").[6] As discussed in the EPA materials, the new regulations addressing carbon dioxide emissions from existing steam turbines "do not interfere with ongoing efforts by key stakeholders to appropriately plan for an evolving electric system. The EPA agrees that transparency around unit-specific planning is of paramount importance to enabling systems operators advanced notice to plan for continued reliable bulk power operations."[7] This thinking and overall approach is critical to achieving the objectives of emission reduction regulations and should be incorporated into future rules to allow ISOs/RTOs, electric generators, and TOs to maintain electric system reliability.

III. Environmental Regulations that Drive Generators to Deactivate Must Coordinate Deactivations with New Generation to Protect System Reliability

Environmental regulations and other public policies are already driving the deactivation of existing electric generators in New York State. To facilitate continued electric system reliability, new and modified environmental regulations must allow a sufficient fleet of new, compliant generation resources, with the appropriate reliability attributes, to be ***available before*** the existing generators deactivate voluntarily or are forced out of service. An essential step to facilitate the orderly transition from traditional generators to emission-free electricity, as required

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Power Trends, A Balanced Approach to a Clean and Reliable Grid New York ISO, The New York ISO Annual Grid & Markets Report, available at 2023 Power Trends.

[6] *See New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions from Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule*, Final Rule, 89 Fed.Reg. 39798 (May 9, 2024).

[7] *Id.*

in New York, is promulgation of environmental regulations with defined milestones and ample lead time for new resource development prior to resource deactivations. Proposing environmental regulations with defined milestones that provide the necessary lead time for markets and developers to respond with appropriate solutions helps protect electric system reliability by allowing the existing reliability processes to reveal, evaluate, and address reliability needs. For example, firm regulatory milestones that define emission limits to be achieved on specified dates and compliance plan obligations that require generators to describe their approach to compliance well in advance of anticipated compliance actions give the NYISO planning processes essential information to consider and share with stakeholders. These planning processes then facilitate solutions that address both the environmental requirements and electric system needs.

The NYISO strongly encourages the EPA and the state agencies that the EPA works with, to the extent appropriate, to pursue new or amended regulations to implement emissions reductions in an orderly, predictable manner with effective mechanisms for ISOs/RTOs to assess electric system reliability impacts. The NYISO and the NYSDEC were able to effectively execute this exact approach while the NYSDEC developed the Peaker Rule in 2018-2019.[8] In this case, the NYISO and other interested stakeholders evaluated a potential proposed rule in its early stages, assessed potential electric system impacts, used the conclusions from such evaluations to shape an environmental regulation that supported the NYSDEC's objectives, and immediately started planning for the reliable implementation of the regulation without jeopardizing electric system reliability. This approach allowed the NYISO to include the effects of regulations in its reliability planning processes to address any reliability needs before generation would be unavailable under the new regulations.

When drafting regulations, the NYISO encourages the EPA to include specific regulatory milestones, *e.g.*, compliance plan due dates or new emission limit effective dates, with sufficient lead times to allow review in the NYISO's, or another ISO's/RTO's, long-term reliability planning processes. At the same time, such regulations should include a mechanism to allow generators, which would otherwise shutdown, to continue to operate to temporarily address identified reliability needs while necessary non-emitting generators, storage resources, and the transmission infrastructure are developed to address those reliability needs.[9] As the NYISO did with its evaluation of the Peaker Rule, if environmental regulations drive the reduction of fossil generation availability, the NYISO's reliability planning processes remove generators that have indicated their intent to deactivate, or to reduce operations, including modeling as "out-of-service" generators that lack authority to operate in their current equipment configuration past a

[8] *See* Ozone Seasons Oxides of Nitrogen (NOx) Emission Limits for Simple Cycle and Regenerative Combustion Turbines, referred to as the "Peaker Rule," available at 6 NYRCC Part 227-3.

[9] *See e.g.*, EPA's April Final Rule (to support a documented electric system reliability need, a reliability assurance mechanism can be included in state plans to provide up to a 1-year extension for generators that choose cease operations dates as their compliance mechanism when there is insufficient time for a state plan revision.), and 6 NYCRR Part 227-3.6 (a generating resource that plans to deactivate but is needed for electric system reliability "may be designated as a reliability source by the NYISO or by the local transmission/distribution owner to temporarily resolve a reliability need" and "may continue to operate without complying with the applicable emissions limits of this Subpart until" other specified conditions are met.).

certain date (*e.g.*, due to a new or amended environmental law or regulation). This process allows market-based and regulated reliability solutions of all types, including generation, transmission, and demand-side measures, to be identified, timely permitted, constructed, and enter service. However, if no replacement generator or other solution is available to timely address the need, the NYISO would then rely on an existing generator to continue to be available to address the need until a permanent solution can be built, as afforded by the regulatory framework on a temporary basis.[10] This approach should be adopted to allow an ISO/RTO to identify generation that would be unavailable under an emission regulation, to model their electric system reliability impacts, and to identify generators that may be needed to temporarily address reliability needs. Such a process provides the most efficient path to soliciting necessary solutions to facilitate compliance with environmental regulations and to maintain electric system reliability.

Consistent with the NYISO's recommendations and the EPA's April Final Rule, the NYISO urges the EPA to establish defined milestones and tracking systems in future regulations and encourages the EPA to coordinate these efforts with the appropriate ISOs/RTOs. The proposals to require web posting of source designations, the proposal to require states to assign calendar dates to increments of progress, and the reporting requirement beginning five years before a deactivation date will all facilitate long-term planning for ISOs/RTOs as long as the timing is coordinated with relevant planning processes. As discussed above, allowing ISOs/RTOs planning processes to accurately consider in advance when generators will deactivate or reduce operation in response to environmental regulation facilitates the development of long-term, market-based, and regulated solutions of all types, including generation, transmission, and demand-side measures to protect electric system reliability.

The NYISO appreciates and strongly supports the EPA's recent approach to allow states to decide whether to include an extension mechanism in their state plans.[11] Providing a mechanism in advance that can trigger and allow extensions when a unit's deactivation would create a reliability issue—for example, if the reliability coordinator identifies an unexpected capacity shortfall and determines that a specific unit(s) in a state(s) is needed to remain available to satisfy a specific and documented reliability concern related to a unit's planned deactivation.[12] This type of mechanism is critical to protecting electric system reliability in an era when significant quantities of electric generation are deactivating, limiting their operation, or being forced out of service.

[10] If existing generators are required to remain in service and no replacement generation emerges, the state may be forced to rely on old, inefficient fossil generators. *See* the 2021-2030 Comprehensive Reliability Plan at p. 31.

[11] *See* EPA's April Final Rule, 89 Fed.Reg. 39798 at 39803.

[12] *Id.*

IV. Environmental Regulations that Restrict or Limit Generator Operation Should Include a Reliability Mechanism to Protect System Reliability

The NYISO also encourages the EPA to include a reliability mechanism that would allow a limited waiver for a specific electric generator to operate in exceedance of its emission limits in an emergency. As discussed above, traditional emitting generation, typically fossil fuel-fired, provides much of the flexible, dispatchable electricity that is critical to maintaining electric system reliability and serving consumer demands. If an environmental regulation limits the operation of these resources, as opposed to requiring them to deactivate, the resources may be needed to maintain electric system reliability at a time when their emission restrictions would not allow them to produce electricity. A short-term reliability mechanism, as allowable in state plans with restrictions under the recently finalized rule, could support electric system reliability by permitting an electric generator to operate when needed by an ISO/RTO to maintain reliability but when emission limits may otherwise prevent their operation. Such operations may be required from time to time because of extreme weather, generator or transmission outages, or other typically unplanned circumstances. Additional compliance flexibilities, such as emissions averaging among similar units at a facility, could be structured to allow increased availability and operation over extended periods of time. Reliability mechanisms should allow limited essential generator operation in violation of emission limits to protect the health, safety, and welfare of society.

The NYISO recommends the use of a suite of reliability mechanisms to provide appropriate flexibility to address situations where, because of an unanticipated catastrophic event, there is a conflict between environmental requirements and the maintenance of electric system reliability.

The EPA incorporated this concept into its recently published rule, such that certain generators will not be impacted by emission limitations when an Energy Emergency Alert level 2 or level 3 is declared. The NYISO appreciates and strongly supports this approach and encourages states to include these concepts in States plans. The NYISO further encourages the EPA to apply a similar concept in future emission regulations.

V. Coordination with ISOs/RTOs is Necessary to Protect Electric System Reliability

The NYISO encourages the EPA to provide the opportunity for ISOs/RTOs to review electric grid reliability concerns during the drafting of environmental regulations, to rely on the expertise of the ISOs/RTOs to determine if electric generators are needed to maintain system reliability, and, on a case-by-case basis, the permit modification process for specific resources. The NYISO encourages EPA to continue to work with the ISOs/RTOs and all relevant parties when developing emission standards to avoid potential conflicts between maintaining electric reliability and complying with the new standards. If the amount of electric generating capacity in excess of the absolute minimum needed to maintain reliability is reduced to the point where the flexibility needed to support grid reliability and resilience is at risk, case-by-case reviews may be required by an ISO/RTO to understand the potential impact on electric system reliability if a generator will be required to reduce operation or deactivate in response to an environmental

regulation. Under certain circumstances, ISOs/RTOs may require specific generators to remain available to maintain electric system reliability until alternative resources, which can provide the necessary reliability services while meeting new emissions standards, are available to the electric system. The EPA should rely on the ISOs'/RTOs' expertise to analyze grid reliability impacts stemming from emission regulations.

ISOs and RTOs are independent entities that are well-positioned to effectively review the potential reliability impacts of environmental regulations and generator compliance plans at regional levels. The NYISO encourages the EPA to continue relying on the experience and expertise of the ISOs/RTOs to maintain electric system reliability while working towards emission reduction targets. Recognizing the various impacts on the electric system when implementing environmental regulations could avoid, or at least mitigate, potential electric grid reliability issues.

VI. Conclusion

The NYISO appreciates this opportunity to comment on mechanisms to protect electric system reliability. Accordingly, the NYISO respectfully requests that EPA consider these comments throughout its rulemaking process.

Respectfully submitted,

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