New York ISO
Independent System Operator

10 Krey Boulevard, Rensselaer, NY 12144
Ph: 518.356.6000 | **Fax:** 518.356.8899

February 7, 2022

By Electronic Delivery

Mr. Mark Lanzafame
New York State Department of Environmental Conservation
Division of Air Resources
625 Broadway
Albany, NY 12233-3254
E-mail: Air.Regs@dec.ny.gov

Re: Written Comments of the New York Independent System Operator on the Proposed Climate Leadership and Community Protection Act and Air Permit Applications Policy DAR-21

Dear Mr. Lanzafame:

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 Climate Leadership and Community Protection Act ("CLCPA") and Air Permit Applications Program Policy DAR-21 ("Policy").

The NYISO fully supports the state's decarbonization efforts as mandated in the CLCPA. New Yorkers have long enjoyed consistent, stable electric service from a very reliable statewide electric system and will expect the same level of service to continue into the future. On-demand electric service supports every aspect of New Yorkers' daily lives and the state's economy. Predictable, reliable generation resources currently facilitate this service and prevent interruptions, such as rolling blackouts. Any such interruptions would disrupt normal life and have a significant impact on public health, welfare, and safety. Mandatory reliability standards protect the entire electric system from widespread and cascading outages.

The NYISO is committed to reliable operation of the electric system 24 hours a day, 365 days a year, and to planning a reliable system for the future grid. The NYISO urges the DEC to consider the need to maintain electric system reliability along with environmental needs in its permitting processes. Recognizing the significant role of fossil fuel-fired generation to support electric system reliability today and in the near term, the NYISO urges the DEC to consider reliability needs that could arise from DEC's permitting actions before issuing final decisions. As described below, the NYISO, and applicable transmission owners, should play a key role in identifying any reliability needs resulting from a potential permitting decision.

The NYISO looks forward to continuing to work with the DEC to implement this Policy while maintaining reliable electric service for all New Yorkers.

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. The 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 system.

The NYISO continuously analyzes the electric system for two types of reliability needs. First, the NYISO must ensure *resource adequacy* to avoid the probability of an unplanned loss of load due to inadequate electric generation. Second, the NYISO must identify, and direct the utilities to mitigate, violations of *transmission security*, which avoids loss of electric service due to thermal, voltage, stability, short-circuit and other parameters. These reliability requirements are mandatory standards of the North American Electric Corporation ("NERC"), the Northeast Power Coordinating Council ("NPCC") and the New York State Reliability Council ("NYSRC") that are enforceable under federal and state law. 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. Violating these mandatory standards results in reliability needs and jeopardizes the reliable operation of the electric system. Accordingly, the NYISO monitors the development of environmental regulations and policies impacting power generation resources in New York and provides input to federal and state policymakers based on its mission to maintain electric system reliability for the state's bulk electric system.

II. Comments

A. Reliable Operation of the Electric System Depends on Fossil Fuel-Fired Generation in the Near Term

The NYISO's reliability planning processes evaluate reliability needs that arise due to a number of factors, including the retirement, or limited operation, of controllable fossil fuel units and the corresponding shift to a resource mix more dependent on renewable, intermittent generation and other clean energy supply resources. While this shift has been underway for some time in New York, the CLCPA dramatically accelerates a fundamental shift in how energy is produced, delivered, and consumed in New York. This level of power grid transformation necessitates the orderly and predictable deactivation of generation, or modified operation of each such resource, in order to maintain a reliable electric service.

Emitting generation is retiring faster than new resources are being developed. Electric system reliability margins are already close to minimum reliability requirements in certain areas across New

York and are tightening. If the margins are totally depleted, the reliability of the grid would be at risk.[1] As the NYISO recently reported in the 2021-2030 Comprehensive Reliability Plan and the 2021 Quarter 4 Short-Term Assessment of Reliability, the New York grid may cross a "tipping point" in future years such that the transmission system and generation resources would not reliably serve electric demand. Under these conditions, the unavailability of additional generating resources could lead to a reliability need, *i.e.*, a resource adequacy or transmission security violation.[2] When the NYISO operates the electric grid at or close to minimum reliability criteria, the ability to respond to any events beyond minimum design criteria exposes New York consumers to a greater likelihood of electric service interruption. These events could include the unexpected unavailability of a generator due to a mechanical issue, a heat wave of multiple, consecutive 90-plus degree days, or loss of significant generation due to a weather event.[3] As climate change impacts weather, such events beyond today's minimum reliability criteria are occurring more frequently.[4] For example, a heatwave with a statewide average maximum temperature of 95 degrees Fahrenheit (1-in-10-year event, or 90/10) would result in reliability violations beginning in 2025, while an extreme 98-degree Fahrenheit sustained heatwave (1-in-100-year event) would result in reliability violations as soon as in 2023.[5]

The NYISO recognizes and is planning for the eventual deactivation of emitting generation (*i.e.*, largely fossil fuel-fired generation) in New York State. To maintain electric system reliability, the NYISO must specifically plan for the deactivation or reduced operation of every such generator. The NYISO's planning processes evaluate the unique circumstances of each generator, identify reliability needs, and solicit solutions to resolve reliability gaps resulting from any resource retirement. This process maintains the reliability of the electric system that serves consumers' needs. Electric generators are obligated to inform the NYISO at least one year prior to deactivating to provide the time needed to study potential impacts.[6] If a reliability need arises and another timely solution is not available, the NYISO may request such generators to remain in service beyond their planned retirement date to temporarily resolve an electric system reliability need while a permanent solution is completed.[7]

---

[1] Federal and state reliability regulators expect the NYISO to comply with applicable reliability requirements to mitigate such risks to the power grid.

[2] *See* 2021-2030 Comprehensive Reliability Plan ("CRP") at 19-23, 29-32, available at the following link: https://www.nyiso.com/documents/20142/2248481/2021-2030-Comprehensive-Reliability-Plan.pdf/99a4a589-7a80-13f6-1864-d5a4b698b916; 2021 Short-Term Assessment of Reliability ("STAR") for Quarter 4, at 60-83, available at the following link: https://www.nyiso.com/documents/20142/16004172/2021-Q4-STAR-Report-vFinal.pdf/3f42d34d-fc58-d09d-23c9-ffcb69cece88. The CRP is issued once every two years and covers years four through ten of the planning horizon, while the quarterly STARs in Short-Term Reliability Process ("STRP") covers a five-year period with a focus on needs arising in the next three years.

[3] The NYISO's Phase I Climate Change Study examined the impact of electric load changes due to increasing temperature, and the NYISO has already incorporated these impacts into its load forecasts for system planning purposes. The 2019 study is available at the following link: https://www.nyiso.com/documents/20142/10773574/NYISO-Climate-Impact-Study-Phase1-Report.pdf

[4] Operation beyond minimum design criteria occurs multiple times every year.

[5] *See* CRP, at 7.

[6] *See* Short-Term Reliability Process, contained in NYISO Open Access Transmission Tariff ("OATT"), Attachment FF, Sections 38.2-38.3, available here: Tariffs, FERC Filings & Orders - NYISO

[7] *See* OATT Sections 38.4 and 38.11.

The NYISO's Climate Change Impact and Resilience Study modeled New York's grid based on projected 2040 load and the requirement that electricity supply be zero-emitting.[8] The study demonstrated that ready access to adequate quantities of flexible, long-duration, and controllable zero-emitting resources will be critical to meeting electricity needs and maintaining system reliability. The need for these resources can range from momentary to multi-day events. The ability to change output quickly in response to system conditions, known as "ramping," is an important resource attribute needed by grid operators to maintain reliability. Today, natural gas-fired and other conventional generation provide much of the flexible, controllable energy that is necessary to maintain reliability. Until adequate levels of non-emitting resources are connected to the grid to provide these services, a certain level of dispatchable generation must remain available to meet reliability standards and maintain electric system reliability. At the same time, as long as the NYISO has sufficient certainty and notice of when generators will retire or be required to reduce operation, its reliability planning processes will identify system needs and seek solutions to provide an orderly and reliable transition. To the extent available, the solutions could be market-based solutions, such as other CLCPA-consistent resources that provide comparable flexible, long-duration, controllable electric supply, or regulated backstop solutions such as transmission, when necessary.

B. The DEC Must Consider the Electric System Reliability Impacts, as Identified by the NYISO, Before Acting on Air Permit Applications

The draft Policy allows a project that is inconsistent with the CLCPA to receive a permit if the "project is needed to improve or maintain the safety and reliability of existing systems."[9] The NYISO commends the DEC for including this provision as a potential justification for a project. Effective exercise of this provision is critical to protecting electric system reliability as New York State transitions to the CLCPA targets of 2030 and 2040. The draft Policy's focus on permitting actions, including renewals, could have an almost immediate impact on the availability of electric generators. Any near-term change to the availability of fossil fuel-fired electric generators (*e.g.*, deactivation or reduced operation due to permit limits) could result in an immediate reliability need and a violation of mandatory reliability standards.

Accordingly, the DEC must consider potentially adverse impacts to electric system reliability prior to final permitting decisions. The NYISO encourages the DEC to notify the NYISO sufficiently in advance of taking permitting actions and to allow for the NYISO and local transmission owners to assess the reliability impact of potential permitting decisions before the DEC takes final action on electric generators' air pollution control permit applications.[10] The NYISO has the independence, expertise, and the flexibility to study potential permitting actions such that its assessment will not delay DEC's permit application review obligations. If the NYISO or the local transmission owner determines that a generator is needed to maintain electric system reliability in the near term, the DEC

---

[8] The NYISO's Phase II Climate Change Study is available here: https://www.nyiso.com/documents/20142/16884550/NYISO-Climate-Impact-Study-Phase-2-Report.pdf/e9214fd4-9c52-036d-b92b-15f282e686e6

[9] *See* draft Policy at p. 6.

[10] This approach to coordination is consistent with the Climate Action Council's recommendations in the Draft Scoping Plan that the State regularly assess the condition of the bulk electric system with the NYISO. *See e.g.*, Draft Scoping Plan at pp. 155, 157, and 171.

should take action to allow the facility to operate and provide sufficient time for permanent solutions to be identified and implemented.

This type of coordinated review process would allow New York to maintain a fleet of electric generation resources necessary to support reliable grid operation and serve consumer demand. New York will need sufficient flexible, dispatchable generation in service until other resources can be developed and commence operation.

The NYISO further suggests revising Section V.D. of the Policy to support the approach described above. Section V.D. provides that the DEC may approve a permit for a project that is inconsistent with or will interfere with the State's ability to meet the statewide emission limits if "[t]he project is needed to improve or maintain the safety and reliability of existing systems." The NYISO offers the following language to replace or be included in addition to this language. This proposed revision is consistent with the approach used in the DEC's Peaker Rule:

> "The project is identified by the New York Independent System Operator ("NYISO") or by the local transmission/distribution owner to temporarily resolve an electric system reliability need. The DEC will notify the NYISO of permit actions under review and provide an opportunity for the NYISO and local transmission/distribution owner to assess the reliability impact of permitting decisions before the DEC takes final action on an electric generator's air pollution control permit application."

The NYISO is committed to assessing the reliability impact of potential permitting decisions without hindering the DEC's efforts and obligations. The NYISO intends to utilize its regularly scheduled, quarterly Short-Term Assessment of Reliability ("STAR") study process to consider potential reliability needs that could result from an air pollution control permit decision that leads to the deactivation or reduced operation of an electric generator. The NYISO conducts quarterly STAR studies in collaboration with local transmission owners to identify and address any reliability needs that result from system changes over the next five years, such as generator deactivations and reduced generator availability.[11] Through this well-established quarterly process, the NYISO and local transmission owners could provide timely and necessary input to the DEC's permitting processes. Alternatively, in more urgent cases, the NYISO could conduct facility-specific generator assessments to identify any immediate reliability needs.

Allowing existing generation to remain in service to protect electric system reliability in the short term would not interfere with achieving the long-term requirements of the CLCPA in 2030 and 2040. Like the longer-term Reliability Planning Process, the Short-Term Reliability Planning Process strives to produce market-based solutions to identified needs whenever possible. Importantly, if market-based and permanent solutions are unavailable, the NYISO may request a generator or generators requesting deactivation to remain in service on a temporary basis until a permanent solution can be built.

[11] STAR studies are completed every January, April, July, and October.

C. Proposing Regulations as Contemplated in the Climate Action Council Draft Scoping Plan, and Similar to the Approach Used to Draft the Peaker Rule Would Better Protect Electric System Reliability While Facilitating the DEC's Emission Reduction Efforts

The Climate Action Council's Draft Scoping Plan provides that the DEC should assess regulatory options to reduce emissions from fossil fuel-fired generating units to the maximum extent practicable to achieve the requirements of CLCPA while maintaining electric system reliability. DEC should examine all potential regulatory options, including ***new regulations*** and/or permit requirements or amendment of current regulations and/or permitting requirements, to determine the most efficient, effective, and enforceable format to achieve the determined emissions reduction targets and the CLCPA requirements. The process should include effective mechanisms for input and comments from stakeholders ***prior to a formal proposal*** under the State Administrative Procedures Act, similar to the process used in promulgating the DEC "Peaker Rule," 6 NYCRR Subpart 227-3.[12]

The NYISO strongly encourages the DEC to pursue new or amended regulations to implement emissions reductions in an orderly, predictable manner. The process should include effective mechanisms for input and comments from stakeholders prior to a formal proposal. This exact approach proved effective when the DEC developed the Peaker Rule. When the DEC issues draft regulations prior to formal proposals, the NYISO and other interested stakeholders can jumpstart evaluations of potential electric system impacts. The conclusions from such evaluations can shape effective environmental regulations that support the DEC's objectives without jeopardizing electric system reliability.

Further, under such approach, the NYISO could include the effects of such regulations in its reliability planning processes to identify potential reliability needs and solicit solutions. Such regulations should 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 long-term Reliability Planning Process (*i.e.*, at least four years). This approach would provide the most efficient path to soliciting solutions consistent with the CLCPA to facilitate fossil fuel-fired generator retirement.

Consistent with the NYISO's evaluation of the Peaker Rule, as environmental regulations drive the reduction of fossil fuel-fired generation and the corresponding emissions, the NYISO's long-term planning process removes generators that have indicated their intent to deactivate, or to reduce operations, and generators that lack authority to operate in its current equipment configuration past a date certain (*e.g.*, due to a new or amended environmental law or regulation). This allows long-term, market-based and regulated reliability solutions of all types, including generation, transmission, and demand-side measures, to be timely permitted, constructed and enter service. This process can be utilized to develop resources consistent with the CLCPA.

[12] *See* Draft Scoping Plan at pp. 156-157.

III. Conclusion

The NYISO appreciates the DEC's consideration of these comments and looks forward to working with the DEC to implement the draft Policy to meet New York's climate change requirements while maintaining electric system reliability for all New Yorkers.

Sincerely,

/s/ Zachary G. Smith

Zachary G. Smith
Vice President, System & Resource Planning
New York Independent System Operator, Inc.
10 Krey Boulevard
Rensselaer, NY 12144
Tel: (518) 356-6000
ZSmith@nyiso.com