

June 11, 2025

Calvin Huggins
Legislative Clerk
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515
Calvin.Huggins1@mail.house.gov.

Re: Additional Questions for the Record: "Keeping the Lights on: Examining the State of Regional Grid Reliability"

Dear Mr. Huggins:

On behalf of Richard Dewey, President and CEO, New York Independent System Operator, please find enclosed responses to questions received by your office to be entered into the final record for the above-named hearing, held on March 25, 2025.

If you desire additional information on this or any other matter, please do not hesitate to reach out to me directly.

Sincerely,



Kevin Lanahan
Vice President
External Affairs and Corporate Communications

Enc.

Additional Questions for the Record

The Honorable Robert E. Latta (R-OH)

- 1. As stated in President Trump's Executive Order "Removing Barriers to American Leadership in Artificial Intelligence" (AI EO) on January 23, 2025 "It is the policy of the United States to sustain and enhance America's global AI dominance in order to promote human flourishing, economic competitiveness, and national security." President Trump has made it clear that he wants the US to be the global leader in AI and unleash American energy. How does NYISO plan to ensure sufficient supply of energy to meet the needs of data centers in a timely manner?**

The swift development of energy-intensive projects like semi-conductors, data centers and hyper scale computing promises to change not just the electric system but society as a whole. It is imperative during this period of transition that we maintain an adequate supply of resources with the right performance characteristics to meet growing consumer demand for electricity.

The number of new interconnection requests from large loads has grown dramatically in just a few years. In 2022, six large load projects in the interconnection queue accounted for 1,045 megawatts (MW). As of April 2025, there were 20 large load projects in the queue, which would collectively add nearly 4,400 MW of load to the grid. Load forecasters anticipate that as much as roughly 2,500 MW of that new demand will be on the system by 2035. The increase in forecasted demand poses a major challenge to grid reliability in New York.

As initially highlighted in our *2024 Reliability Needs Assessment* (RNA), some large load projects are expected to have flexibility in the amount of power they need from the grid. More specifically, the 2024 RNA assumed that approximately 1,200 MW of demand from large loads can be reduced during peak periods, which can provide an important reliability benefit.

The ability to shift load from times of greater system demand to times with lower demand or higher renewable energy production could significantly reduce the amount of generation capacity buildout required to serve demand.

Additionally, early in 2025, the NYISO launched a complete review of the capacity market structure to determine if alternatives or enhancements to the existing structure might better facilitate growing demand for electricity while also meeting the NYISO's regulatory mandate for maintaining reliability.

For over 20 years, the current capacity market design has served system reliability well, driving cost efficiencies, achieving emissions reductions, while retaining existing resources and supporting additional supply. A review of the capacity market framework will help determine what, if any, changes might be necessary moving forward. This review is timely in consideration of forecasted increases in load, projected shifts in hourly peak demand, and new, large-scale, energy-intensive microchip fabrication and data centers seeking to locate in New York.

- 2. Accurate and transparent electricity load forecasting is a linchpin of modern economic development. States rely on these forecasts to plan new industrial parks, data centers, and manufacturing hubs, while utilities use them to schedule grid expansions and major infrastructure investments. Despite the vital role of load forecasts in spurring economic growth, practices vary widely among states, utilities and RTO/ISOs, often leading to inconsistent data, misaligned investment signals, and unnecessary risk for both utilities, and both large and residential customers. Recent inconsistencies underscore how a patchwork of forecasting methodologies can exacerbate speculation in large load**

interconnection requests, inflate demand projections, and drive-up costs. These issues cross both state and federal jurisdictions and regional differences.

- a. What steps is NYISO taking to ensure its load forecasting is transparent, predictable and correctly anticipating future capacity and infrastructure needs to power AI infrastructure?**
- b. What, if any, barriers exist to increased transparency on potential load growth from AI?**

There is inherent uncertainty in forecasting the adoption of emerging technologies and predicting the pace of development with regard to energy-intensive data centers and manufacturing facilities seeking to connect to the grid. To keep the system reliable during this period of uncertainty means our Planning engineers are running multiple models, with scenarios that provide outlooks for a range of possible outcomes. Subsequently our planning and forecasting work at the NYISO has become more complex, but we embrace this challenge to serve our mission and support consumers, investors and policymakers.

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The NYISO is expected to release the 2025-2034 Comprehensive Reliability Plan (CRP) in November 2025. The CRP, issued biennially, sets forth a plan to maintain a reliable bulk electric grid based on expected changes and forecasted conditions over a ten-year planning period.

The CRP will review the reliability margins forecasted from previous CRPs to identify the historical trends and further investigate a variety of risk factors and plausible ways the system could change over the next ten years. In consideration of increasing uncertainty about key system trends over the next ten years, the CRP will also consider and analyze uncertainty factors, including large loads. There is significant uncertainty about the recent trend of large loads seeking to connect to the NYISO. This is a trend that system operators around the country are grappling with, and the NYISO is actively coordinating with its peers to best capture the reliability impacts of different types of large loads. For example, data centers potentially have very different operating characteristics depending on whether they are used for cloud computing, AI, or crypto mining.

- 3. How can RTOs accelerate transmission expansion to support load growth without creating excessive costs for ratepayers?**
- 4. From a siting and permitting perspective, what do you see as the challenges and barriers to constructing sufficient transmission infrastructure needed for reliable, safe, affordable, and timely delivery of power?**
 - a. What role, if any, should Congress and FERC play in siting and permitting for regional or interregional transmission?**
- 5. Regarding planning for transmission, what specific impediments have you identified to current state, regional, and interregional planning for transmission projects?**
 - a. What are examples of impediments you have identified and what is necessary for system planners to overcome these impediments?**
 - b. What reforms do you recommend to improve state, regional, and interregional planning to overcome these impediments?**

- 6. In the last Congress and the previous administration, there was a lot of talk about transmission policy reform.**
- a. How does your organization plan transmission in your region and with other regions? What should Members understand about the nature of transmission planning as it exists today?**
 - b. Does a top-down approach, through FERC, serve the interests of utilities and grid operators that are already expending tremendous time and engineering resources on design new transmission?**

Answer for Questions 3-6:

Under the Comprehensive System Planning Process (CSPP), the NYISO is responsible for planning for the bulk transmission system through its Short-Term Reliability Process, Reliability Planning Process, Economic Planning Process, Public Policy Transmission Planning Process, and Interregional Planning Protocol. These processes identify needs that must be addressed and/or opportunities for transmission development. The Transmission Owners (TOs) in New York State are responsible under the Local Transmission Planning Process to plan for their respective Transmission Districts or facilities. In doing so, the TOs are responsible for identifying and addressing local needs through the development of a Local Transmission Owner Plan (LTP). The LTPs serve as inputs into the NYISO's planning studies.

The Public Policy Transmission Planning Process serves as the mechanism by which the NYISO considers transmission needs driven by public policy requirements. At its core, this process provides for the NYISO's evaluation and selection of transmission solutions to satisfy a Public Policy Transmission Need. The Public Policy Transmission Planning Process has seen success through the NYISO Board of Directors having selected four transmission projects to address the following Public Policy Transmission Needs: Western New York (Empire State Line), AC Transmission Segment A (Central East Energy Connect), AC Transmission Segment B (Segment B Knickerbocker-PV), and Long Island Offshore Wind Export (Propel Alternate Solution 5). The major components of the transmission projects selected to address the Western New York, AC Transmission Segment A and AC Transmission Segment B needs are currently in service, while the Propel Alternate Solution 5 project is in the early stage of development with an identified in-service date of May 2030 to meet the need.

New York has strong interregional transmission connections to ISO-NE, PJM, IESO, and HQ that are leveraged to support the economic and reliable exchange of electric energy. New York is a historic importer of electric energy from PJM, IESO, and HQ, while it has typically exported to ISO-NE on a net annual basis.

The NYISO collaborates with its regional neighbors, PJM, ISO-NE, and Canada through its Northeastern ISO/RTO Planning Coordination Protocol ("Northeast Protocol"). The Northeast Protocol includes the following requirements:

- Exchanging data and information,
- Coordinating interconnection requests and transmission requests with cross-border impacts
- Developing a Northeastern Coordinated System Plan
- Performing planning studies through an open stakeholder process, and
- Allocating the costs associated with interregional projects having a cross-border impact consistent with each party's tariff and applicable federal regulatory policy.

Under the Northeast Protocol, the Joint ISO/RTO Planning Committee ("JIPC") was formed to address interregional transmission planning issues, including system needs and proposed system improvements that reflect, among other things, resource diversity, environmental compliance obligations, and resource retirements. This allows consideration of the impact of interconnections with neighboring systems, such as opportunities for the exchange of capacity and energy, and tie lines facilitate access to a diversity of resources and potential economic opportunities for energy exchange.

7. What would be your top priority or need from states, FERC or Congress to assist you in meeting new demand —especially if we need even more power than projected? Are you equipped today to meet increased future demand at the pace needed and to maintain affordability and competitive rates?

The NYISO released the 2024-2034 RNA in November 2024. The report, issued biennially, highlights growing risks to electric system reliability, including projected increases in peak demand due to electrification of the transportation and building sectors; additional generator deactivations; delayed implementation of planned infrastructure projects; and extreme weather.

The 2024-2034 RNA found that if demand on the grid grows at a rate greater than the buildout of new generation and transmission, reliability deficiencies could arise within the RNA's ten-year planning period. It also detailed how the advance of new technology and economic development is compounding the complexity of maintaining reliability. The combination of near-term growth in demand from data centers, semiconductor fabrication, and new manufacturing facilities present significant challenges for grid planning over the next several years.

The 2024 RNA initially identified a reliability need in New York City beginning in summer 2033. The need was driven by a combination of the legislatively mandated deactivation of generating units owned by the New York Power Authority (NYPA) by the end of 2030, forecasted increases in peak demand, and limited new supply. To underscore how narrow reliability margins create uncertainty, the NYISO's most recent annual forecast update projects roughly 200 MW less demand in New York City by 2035. The reduction reflects slower adoption rates for electrification technologies and is enough to eliminate the reliability need identified in the 2024 RNA. While the reliability need identified by the 2024 RNA no longer exists, significant uncertainties associated with future demand growth from large loads and the changing supply mix could result in the identification of reliability needs in the future.

The RNA also shows that the early stages of the transition of the supply mix, driven by public policies, are resulting in the retirement of fossil fuel generation faster than renewable resources are entering service. This trend has led to concerns over declining reliability margins across the state — an important element for grid reliability. Since the enactment of the state's Climate Leadership and Community Protection Act, more than twice the capacity of generation has deactivated than has been added to the system. Should this trend continue, the RNA warns that additional reliability needs may be identified, both statewide and for localities. The RNA also evaluates the potential for additional retirements of gas-fueled resources in New York City, driven by state policies, that could also result in additional reliability needs without additional resources to replace them.

The potential risks and resource needs identified in the RNA may be resolved by new capacity resources coming into service, construction of additional transmission facilities, increased energy efficiency, integration of distributed energy resources (DERs) and/or growth in demand response participation.

The RNA also emphasizes the need for additional transmission infrastructure to move renewable electricity from where we expect it will be sited to where it will be needed to serve demand. Building more generation to meet growing demand alone will be inadequate to meet the needs of a modern grid — we also need to move that electricity readily around the state as consumer demand dictates.

The Honorable Kathy Castor (D-FL)

1. **One of our greatest challenges today is getting new sources of electricity on the grid as quickly as possible in this new era of increasing electricity demand. Interconnection processes – while critical to maintaining the reliability of the grid – can also take far too long under the current framework.**

On March 17, FERC Commissioner David Rosner wrote a letter to each of you detailing new opportunities to streamline the interconnection process. In a recent study by the Midcontinent Independent System Operator (MISO), an automated process was able to nearly replicate in ten days the results of an interconnection study that took nearly two years to conduct.

- a. **Please describe your experience with interconnection automation technologies to date and the prospects for further deploying them going forward.**
- b. **Please describe how FERC and Congress can each support such innovation.**

In May 2024, the NYISO implemented new procedures to improve the efficiency and transparency of its interconnection process. The inaugural cluster study commenced in August 2024 and more than 240 generation projects are currently advancing through the first phase of the cluster study — a crucial step and significant milestone toward integrating new generation facilities onto the grid.

The new process, which expedites the interconnection study process for developers, was developed in response to the regulatory reforms required by FERC Order No. 2023.

The interconnection process requires significant coordination between utilities, developers, and state and local governments. NYISO leads this process, ensuring that projects can connect to the grid without harming the system or imposing undue costs on consumers to upgrade the electric system.

Overall, key improvements include a feasibility screen and a two-phase cluster study approach. The cluster study approach limits the number of “mid-stream” project modifications during the interconnection process to help speed timelines and avoid the possibility of one project creating delays for other projects looking to move forward within the cluster.

- The two-phase study includes several decision periods with commercial readiness deposits and withdrawal penalties, to incentivize uncertain projects to exit the queue early.
- The study process includes firm tariff-mandated study deadlines for work performed by the NYISO and utilities and tariff consequences for missed deadlines.
- The two-phase study aligns the treatment of generating facilities 20 MW or smaller with the overall process, incorporating all generation facilities into a single, standardized process.
- The new rules provide for additional pro forma documents and agreements to expedite the interconnection process, the negotiation of required agreements, and the construction of required upgrades.

A new interconnection portal was also developed. The interconnection portal is a digital platform where developers and utilities submit and gain information on pending interconnection proposals and applications. The NYISO has made several improvements to the interconnection portal to enhance the user experience and streamline the process.

These improvements include:

- **Streamlined Inquiry Submissions:** The portal now offers a more streamlined process for submitting inquiries, making it easier for users to request information and assistance.
- **Enhanced Transparency:** The portal provides improved transparency of project progress and status, which helps parties stay informed about developments during the study process.

- **On-Demand Access:** Users have on-demand access to common interconnection questions, which provide immediate answers to frequently asked questions.
- **Ongoing Technology Improvements:** NYISO has held numerous focus groups with developers since 2023 to identify areas for improvement with the portal. NYISO continues to engage with customer focus groups and other stakeholders to discuss and develop additional portal functionality.

These steps demonstrate NYISO's deep commitment to improving the efficient integration of new generation projects onto the grid.

The Honorable Scott Peters (D-CA)

1. **Have you experienced permitting delays that this committee should better understand? What are some key/important examples?**
2. **What laws (on permitting specifically, but also planning, siting, interconnection, cost allocation, etc.) should be changed/amended/improved with regard to permitting?**

Answer for Questions 1 and 2:

Through the NYISO's interconnection process, major generation, transmission, and load projects are studied to assess the reliability impact they may have on the electric system. The interconnection process is coordinated by the NYISO but requires significant involvement by both the electric utilities and developers. Each party has an important role to play, and success of the process depends on coordination and timely delivery of information by all participants. Through the interconnection process, as required by FERC, the NYISO seeks to balance the demands of open access to the electric system with grid reliability while protecting customers from undue costs.

In May 2024, the NYISO implemented new procedures to improve the efficiency and transparency of its interconnection process. The new process, which expedites the interconnection study process for developers, was developed in response to the regulatory reforms required by FERC Order No. 2023.

It is important to note that, for various reasons, not all proposals in the interconnection queue are destined to enter commercial operations. Multiple factors outside the scope of the NYISO's control can impact whether a project elects to move forward with the interconnection process, including the status of siting and permitting, investment risks, and supply-chain concerns. These factors can result in developers electing to defer or drop out of the process, even after the final interconnection studies have been completed and interconnection costs have been allocated and accepted.

3. **What are your specific challenges when it comes to planning and cost allocating high voltage transmission lines?**

FERC Order No. 1000 directed regional transmission planners – including the NYISO – to, among other things, consider transmission investment needs driven by federal, state, and local public policies in their planning processes. In New York, transmission needs driven by public policy requirements are identified by the state Public Service Commission and the NYISO evaluates and selects the more efficient or cost-effective solutions to address those needs through a competitive, multi-step process, called the "Public Policy Transmission Planning Process."

Step 1: The NYISO solicits proposals for transmission needs driven by public policy requirements from interested parties. These proposals, as well as any suggestions from the NYISO, are collected and provided to the New York Public Service Commission (PSC) for consideration.

Step 2: The PSC considers and identifies proposed transmission needs, following public comment. During this period, the PSC examines the public policy requirements and considers whether there are requirements driving the need for additional transmission investment. Consistent with state law, the PSC seeks public comment, and many parties, including the NYISO, actively participate in this part of the process.

Step 3: Once the PSC identifies a specific need for the power system, the NYISO requests and evaluates proposals from qualified developers. Following receipt of proposed solutions to a public policy transmission need identified by the PSC, the NYISO conducts a comparative evaluation of the solutions based on their ability to satisfy the needs identified by the PSC and other criteria aimed at identifying the more efficient or cost-effective solution. The NYISO's evaluation is performed transparently with continuous input from stakeholders and developers through its governance process.

Step 4: Based upon results of the NYISO's evaluation and input from stakeholders, the NYISO Board of Directors may select the more efficient or cost-effective solution. Following selection, the designated developers will proceed with the development and construction of the project.

In recent years, four major transmission projects have been approved through the NYISO's Public Policy Transmission Planning Process. The Empire State Line, which was completed June 1, 2022, will improve access to renewable hydroelectric energy from the Niagara Power Plant. The AC Transmission Projects – comprised of Segment A and Segment B – which increase delivery of clean power generated in northern and western New York to downstate customers.

The Propel Alternate Solution 5 project was approved to meet the Long Island Offshore Wind Export Public Policy Transmission Need ("Long Island PPTN"), which was declared by the PSC on March 19, 2021. The PSC's order declared that the Climate Leadership and Community Protection Act (CLCPA) constitutes a Public Policy Requirement driving the need for transmission to increase the export capability from Long Island to the rest of New York State to facilitate transfer of the full output of offshore wind projects. The Propel Alternate Solution 5 project is in the early stage of development with an identified in-service date of May 2030 to meet the need.

Through our Public Policy Transmission Planning Process, a historic level of investment in the New York State transmission system is underway, with projects that will deliver more clean energy to New Yorkers and enhance the resiliency and reliability of the grid.