



October 6, 2025

Via E-Mail

New York State Energy Planning Board
State Energy Plan Comments
NYSERDA
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Re: New York State Reliability Council, L.L.C.
Comments on Draft 2025 New York State Energy Plan

Dear State Energy Planning Board:

On July 23, 2025, New York’s draft 2025 State Energy Plan (hereinafter “Draft Plan”) was released. These comments are submitted on behalf of the New York State Reliability Council, L.L.C. (“NYSRC”) in response to the New York State Energy Planning Board’s request for public input to inform the development of the Final State Energy Plan.

The reliability and resiliency of New York’s power system is critically important today and in the transition to an emissions free grid. New York State is unique from other regions in the country in that it requires the highest level of reliability from its electric system to serve its residents and businesses. The New York City metropolitan area is especially critical, given its high urban population density and that it is home to the financial capital of the world and is an important international trade hub through its ports. New York State has highly diversified industry needs, such as for data and AI centers, as well as sophisticated semiconductor chip manufacturing operations that require a high level of 24/7 electric reliability and power requirements. New York’s

diverse landscape ranges from rural farm communities to dense urban environments – all of which require reliable electric systems to protect the needs of the people living throughout the State as a matter of public health and safety.

The State Energy Plan is an important and critical resource to guide the many facets of the energy sector to ensure each part is working together towards a common goal for the State’s electric system. The NYSRC commends the State Planning Board for its efforts in support of developing the Draft Plan and appreciates the opportunity to provide the input set forth below to inform the Final Plan.

I. Background

The NYSRC was approved by an order issued by the Federal Energy Regulatory Commission (“FERC”) in 1998,¹ and subsequent FERC orders,² as part of the restructuring of the electricity market in New York State and the formation of the New York Independent System Operator, Inc. (“NYISO”). Under the restructuring, the New York Power Pool was replaced by the NYISO as the entity with the primary responsibility for the reliable operation of the State’s bulk power system. The NYISO also assumed responsibility for administration of the newly established competitive wholesale electricity markets.

The NYSRC was established to promote and preserve the reliability of the New York State Power System by developing, maintaining, and, from time to time, modifying or adopting new reliability rules (“Reliability Rules”) that govern the NYISO’s operation of the state’s bulk power system. The NYSRC develops Reliability Rules for New York that build upon the mandatory

¹ *Cent. Hudson Gas & Elec. Corp.*, 83 FERC ¶ 61,352 (1998), *order on reh’g*, 87 FERC ¶ 61,135 (1999).

² *Cent. Hudson Gas & Elec. Corp.*, 86 FERC ¶ 61,062 (1999); *Cent. Hudson Gas & Elec. Corp.*, 87 FERC 61,135 (1999); *Cent. Hudson Gas & Elec. Corp.*, 88 FERC ¶ 61,138 (1999).

standards, criteria, and regulations of the North American Reliability Corporation (“NERC”), Northeast Power Coordinating Council, Inc. (“NPCC”), and FERC. The agreement in place between the NYSRC and the NYISO provides that the NYISO and all entities and market participants engaged in transactions on the New York State power system must comply with the Reliability Rules adopted by the NYSRC.³ The NYSRC Reliability Rules have been adopted by the New York State’s Public Service Commission under its Public Service Law authority prescribing reliability rules necessary to ensure safe and adequate electric service.⁴

One of the major responsibilities of the NYSRC is to set New York State’s resource adequacy requirement by establishing the annual Installed Reserve Margin (“IRM”). The IRM is the level of reserve resource capacity over and above that required to meet the expected annual electric peak load needed to maintain minimum levels of reliability in New York. The IRM recognizes that the availability of generation resources may be limited by forced outages or loss of fuel supply, including periods with little or no sun and/or wind. The IRM value established by the NYSRC is used by the NYISO as the statewide Installed Capacity (“ICAP”) Market requirement.

In addition to establishing resource adequacy requirements, the NYSRC collaborates with the NYISO on the identification of reliability requirements to inform the development and enhancement of ancillary services, which are services other than capacity and energy, provided by generators to ensure reliability and incentivize the operation of existing dispatchable resources and encourage entry of new flexible resources.

³ NYISO/NYSRC Agreement, Sections 2.1, 3.1. The NYISO/NYSRC Agreement is available on the NYSRC website, available at: www.NYSRC.org.

⁴ Case 05-E-1180, In the Matter of the Reliability Rules of the New York State Reliability Council and the Criteria of the Northeast Power Coordinating Council, Order Adopting New York State Reliability Rules (issued Feb. 9, 2006).

Significantly, the NYSRC is engaged in monitoring and responding to changing electric power system conditions and reliability risks identified in other regions across the country and internationally. The NYSRC recently adopted a new Reliability Rule B.5 – Establishing New York Control Area (“NYCA”) Interconnection Standards for Large Inverter Based Resource (“IBR”) Generating Facilities on February 9, 2024. The need for Reliability Rule B.5 was based upon: (1) disturbances in Texas and California where IBRs failed to perform reliably creating system supply deficits; (2) the cumulative expected magnitude of IBRs in NYCA per New York State’s Climate Leadership & Community Protection Act (“CLCPA”) mandates; (3) NERC’s recommendation for Authorities Governing Interconnection Requirements to immediately adopt IEEE IBR Standard 2800-2022; and (4) FERC’s RM22-12-000 Notice of Proposed Rulemaking on Reliability Standards to Address Inverter Based Resources and NERC mandatory standard PRC-029-1. In addition, the need for the new rule is demonstrated by the NYISO Interconnection Queue having significant amounts of IBR capacity seeking to interconnect to the NYCA power system. The NYSRC continues to track regional and national initiatives addressing IBR interconnection criteria, modeling, data, test, and verification procedures, as well as working with the NYISO, Transmission Owners, and other stakeholders.

New York State is predicted to change from a summer peaking to a winter peaking power grid in the 2030s. As we make this transition to renewable energy, the overarching need to balance energy demand and supply in all seasons and under all weather conditions, including extreme weather conditions, will be critical. To address this issue, NYSRC and NERC are considering, in addition to the resource adequacy requirement (*e.g.*, IRM), the ability to provide adequate energy in all hours and seasons, and not only at peak, may be an extremely important measure of future reliability.

II. Current State of the Grid

Continued reliance on the State’s existing supply resources is critical for maintaining reliability now and until additional flexible dispatchable resources can be added to the grid. The Draft Plan notes that since 2019 there have been 4,315 MW of generator deactivations and 2,274 MW of additions and uprates.⁵ Most of the replacement resources since 2019 have been intermittent in nature and thus contribute significantly less to reliability and resource adequacy requirements than deactivated dispatchable resources.

This net reduction in generation supply is concerning, especially given (1) the operational challenges experienced by the NYISO this past summer and (2) the expected increase in future electric demand resulting from electrification of new residential and commercial heating systems and other anticipated demand increases (*e.g.*, large AI and data center loads). The Draft Plan notes on page 11 of the electricity section that:

[t]he State’s fleet of fossil-fuel-based generation includes more than 10,000 MW, about 25 percent of the State’s total generating capacity, that has been in operation for more than 50 years; 7 percent of in-State generation comes from these units. As discussed in the NYISO 2025 Power Trends Report, the aging fleet is concerning given the ongoing ability for these units to provide essential reliability services to the grid at a time when reliability margins are shrinking.

It is important to note that aging generation units – especially those that are more than 50 years in service, and in some instances more than 70 years in service – are more susceptible to failure, thus further contributing to and increasing reliability risk.⁶ The NYISO recently issued its draft 2025 through 2034 Comprehensive Reliability Plan (“CRP”), which completes its bi-annual planning

⁵ Draft Plan at 13.

⁶ NYISO Power Trends 2025, p. 13, *available at*: <https://www.nyiso.com/power-trends>.

process.⁷ The CRP provides a risk projection for New York’s aging generation, which shows a direct correlation to statewide margin impacts as a result of aging generation.⁸

The events that occurred this summer during the State’s June and July 2025 heat waves are a relevant test case for potential future events if incremental supply is not added to the electric system. The NYISO’s report of this summer’s operations included statewide operating reserve shortages and the need for a number of emergency operating actions. On June 24, 2025, the NYISO declared a Major Emergency due to a shortage of ten-minute operating reserves.⁹ A Major Emergency is declared by the NYISO when immediate actions are required to avoid damage to power system equipment or loss of load and to return the New York State Power System to the Normal Operating State.

The shortage of operating reserves on the June 24 event appears to be due to a number of factors, including forced generation outages and performance issues for certain New York generation resources, higher demand and stressed system conditions due to intense hot weather, a shortfall between forecasted versus actual load demand, significantly reduced energy imports from neighboring areas due to their own need for such resources, and the overall net reduction in generation supply due to retirements.¹⁰

⁷ NYISO, 2025-2034 Comprehensive Reliability Plan, Draft 1 for Sept. 25, 2025 ESPWG/TPAS, available at: https://www.nyiso.com/documents/20142/54068970/Draft_2025-2034-Comprehensive-Reliability-Plan_ESPWG_092525.pdf/caa6e5df-3a82-2688-038a-33892667c4f6 (hereinafter “NYISO Draft CRP”).

⁸ *Id.* at 25.

⁹ NYSRC Open Executive Committee Meeting #315, Meeting Materials Attachment #7.3.3 (July 16, 2025).

¹⁰ *Id.*

The NYSRC expects there will likely be reliability risks in the near term resulting from reduced operating and planning margins due to increasing demand, extreme weather conditions, increased likelihood of forced outages of older fossil units, continued tight supply resource conditions, and limited neighboring areas' assistance during widespread hot and cold weather events. The likelihood of future near-term reliability risks supports the Draft Plan's recommendation that the "State will need to be strategic about the pace of combustion unit retirements and/or replacements as it works to pursue achievement of its clean energy targets."¹¹

III. Changing Energy Landscape Variables Impacting New York and the Pathways Analysis

As a threshold matter and overarching theme, the NYSRC submits that it is necessary and critical to ensure Resource Adequacy in all future planning periods. That is, analyses and modeling must recognize that aggressive, near-term actions will impact the later phases of the State Energy Plan. The Draft Plan discusses that the assumptions included in its "core planning case," which underlies the Draft Plan's findings, denote an "ambitious but achievable" pace for the transition to carbon free resources over the fifteen-year horizon.¹² However, specific steps and viable pathways forward – especially in the short-term – remain undefined in the Draft Plan to achieve this pace.

The Draft Plan's supporting analysis – the Pathways Analysis – has been described as a bottom-up approach that, in simple terms, takes the current electric system as it exists and adds in future risks, anticipated system generation changes, and load growth to identify near-term and long-term stability and needs of the electric system. The NYSRC commends NYSERDA and the Planning Board for using a bottoms-up approach and submits that the Pathways Analysis employs

¹¹ Draft Plan, Vol. II: Topic Area Chapters, Chapter 1: Electricity, p. 64.

¹² Draft State Energy Plan, Vol. I, p. 37.

a reasonable framework to understand how the State may progress from the system as it exists today towards future CLCPA goals and targets.

Notwithstanding the NYSRC's support of the Pathways' general methodology, the NYSRC has fundamental concerns regarding several of the assumptions underlying the outcomes and recommendations. A detailed technical discussion on the NYSRC's inquiries and feedback on the Pathways Analysis is attached to these comments as "Appendix A" for the Planning Board's consideration and incorporation for the Final Plan.

A. Changing Federal Policy

Notwithstanding the technical details set forth in Appendix A, it bears mentioning that the Pathways Analysis does not yet reflect Federal policy changes impacting resources and supporting gas transmission system buildouts since the second quarter of 2025, and it also does not address the realities of the lack of commercially viable emissions free resource (*e.g.*, "clean firm") technologies available for implementation at this time or in the foreseeable future. The Draft Plan states that "[s]etting New York on track in the 2030s toward long-term CLCPA targets would require further policy actions, along with the development and commercialization of a number of new technologies."¹³

Energy policy is evolving at the Federal level, creating challenges for achieving CLCPA goals within the timeframes set forth therein. This has resulted in reduced funding for and cancellation of projects. For example, many Inflation Reduction Act and Investment Tax Credit incentives for renewable energy project development have been terminated or are set to phase out shortly.¹⁴

¹³ *Id.*

¹⁴ One Big Beautiful Bill Act, Pub. L. No. 119-21, §§ 70501-70515, 139 Stat. 72, 76-77 (2025); *see also* Ending Market Distorting Subsidies for Unreliable, Foreign Controlled Energy

There have been significant changes in Federal support for offshore wind projects that will likely have cascading impacts to future development and reliance on such projects in New York. For example, at the beginning of 2025 there was a revocation of all federal wind lease areas, and a moratorium established for approval of new Federal permits for offshore wind projects.¹⁵ Most recently, the Bureau of Ocean Energy Management directed Orsted to stop all work on its Revolution Wind project off the coast of Rhode Island.¹⁶ That project is fully permitted, about 80% complete, and was due to commence commercial operations next year.¹⁷ While a federal court temporarily lifted a stop-work order issued by the U.S. Interior Department to allow the project to continue, the project is still subject to ongoing litigation and could face additional barriers up until commercial operation.¹⁸ Lastly, the United States Department of Energy rescinded \$679 million in funding for 12 offshore wind projects and withdrew a \$716 million loan guarantee for transmission upgrades for a New Jersey offshore wind project.¹⁹

Sources (July 7, 2025), available at: <https://www.whitehouse.gov/presidential-actions/2025/07/ending-market-distorting-subsidies-for-unreliable-foreign%E2%80%91controlled-energy-sources/>.

¹⁵ Temporary Withdrawal of All Areas on the Outer Continental Shelf from Offshore Wind Leasing and Review of the Federal Government’s Leasing and Permitting Practices for Wind Projects, 90 Fed. Reg. 8363 (Jan. 20, 2025).

¹⁶ Matthew Giacona, *BOEM Director’s Order Letter to Revolution Wind*, Bureau of Ocean Energy Management (Aug. 22, 2025, 1:22 PM), available at: <https://www.boem.gov/sites/default/files/documents/renewable-energy/Director%26%203039%3BsOrder-20250822.pdf>.

¹⁷ *About Revolution Wind*, Orsted, <https://revolution-wind.com/about-revolution-wind> (last visited Oct. 1, 2025).

¹⁸ *Revolution Wind, LLC v. Burgum*, No. 1:25-cv-02999 (D.D.C. Sept. 22, 2025).

¹⁹ *Trump’s Transportation Secretary Sean P. Duffy Terminates and Withdraws \$679 Million from Doomed Offshore Wind Projects*, U.S. Department of Transportation (Aug. 29, 2025), available at: <https://www.transportation.gov/briefing-room/trumps-transportation-secretary-sean-p-duffy-terminates-and-withdraws-679-million>; *Trump Withdraws \$716M Biden-Era Loan for New Jersey Green Energy Project, Dealing Latest Blow to Wind Industry*, The Washington Free Beacon (August 28, 2025) available at: <https://freebeacon.com/trump->

All of these Federal policy actions have had a direct impact on the status of expected project development in New York that would bring incremental supply-side resources online. For example, this June, the New York City Public Policy Transmission Needs Project was cancelled by the Public Service Commission.²⁰ While that project could have potentially allowed for significant incremental supply into New York, the Commission found that there was no longer a public policy-based need for a coordinated approach to transmission development for offshore wind interconnecting in New York City because of the federal government’s recent actions had made it more difficult to pursue offshore wind projects.²¹

Another example is the Clean Path NY Project. While this project is still in settlement discussions on its Article VII application before the Public Service Commission, such discussions were paused indefinitely after the New York Power Authority (“NYPA”) filed a petition requesting that the Clean Path NY Project be designated a Priority Transmission Project (“PTP”).²² On August 14, 2025, the Commission denied NYPA’s PTP Petition, effectively canceling the Clean Path NY Project and the 2,400 MW of planned renewable generation in the NYISO’s queue that the Project would have supported.²³

[administration/trump-doe-withdraws-716m-biden-era-loan-for-new-jersey-green-energy-project/](#).

²⁰ Case 22-E-0633, *In the Matter of New York Independent System Operator, Inc. Proposed Public Policy Transmission Needs for Consideration for 2022*, Order Withdrawing Public Policy Transmission Need (July 17, 2025), p. 16.

²¹ *Id.*

²² See Case 22-T-0558, *Application of New York Power Authority and Clean Path New York LLC for a Certificate of Environmental Compatibility and Public Need for the Construction of Approximately 178 miles of Transmission Lines and Associated Facilities From Delhi, New York, to Queens*, New York, ALJ Letter to Parties (filed Jan. 7, 2025).

²³ See Case 20-E-0197, *Proceeding on Motion of the Commission to Implement Transmission Planning Pursuant to the Accelerated Renewable Energy Growth and Community Benefit Act*, Order Denying Petition (issued Aug. 14, 2025).

B. New York Statutory Mandates and Regulatory Policies

Additionally, the Draft Plan notes that recent studies representative of future CLCPA scenarios, including the Pathways Analysis and the GE Holistic Reliability Study, indicate that about 25 GW of new “clean firm” supply is needed for reliability to support a zero-emission grid in 2040.²⁴ Importantly, this level of new “clean firm” generation resources is the equivalent of over 90% of New York’s existing fossil fuel generation fleet. The development of 25 GW of “clean firm” supply by 2040 appears ambitious given the current state of commercially available technologies.

While discussing the regulatory policies facing the bulk electric system, the NYISO’s draft CRP states that “[b]alancing the grid throughout this transition not only requires maintaining sufficient capacity to meet demand but also requires that new resources entering service comparably replace the capabilities and attributes of the resources leaving the system (*e.g.*, fast starting/ramping and dispatchable both up and down, available when and for as long as needed, providing essential reliability services such as voltage and frequency control, support system’s stability during disturbances).”²⁵

The NYSRC submits that the Pathways Analysis should be updated before the Final Plan is issued to reflect significant changes in the State’s renewable energy project development and the identified need for 25GW of new “clean firm” supply by 2040 as discussed above. This is critically important from a reliability perspective in ensuring that the State has adequate supply to meet mandatory Reliability Rules and in support of public health and safety.

²⁴ Draft Plan, Vol. II: Topic Area Chapters, Chapter 1: Electricity, p. 55.

²⁵ *Id.* at 11.

C. Changing Winter Conditions

Furthermore, there is an increased risk to the electric system as a result of more extreme weather conditions in the winter and summer, and this risk is a critical consideration that must be further considered in the Plan. The Draft Plan envisions significant increases in winter peak electricity demand due to state policy directives to reduce emissions through the electrification of building heating needs. In addition to the CLCPA targets, there are statutory requirements for most new buildings in the State that require all newly constructed single-family and low-rise buildings to be all-electric and all remaining new construction to be fully electric by 2029 which will further increase electric load.²⁶

The NYSRC is aware of winter season reliability risks that result from a significant reduction of certain electric generating resources' capability during winter cold weather periods.²⁷ Cold weather conditions create concerns over the availability of natural gas for electric power generation because gas-fired power generating plants may be limited in their ability to procure fuel or have their gas service curtailed.²⁸ Recognizing the potential for such fuel interruptions, the NYSRC introduced a new reliability requirement for winter operations to better reflect winter season reliability risks.

²⁶ See The All-Electric Buildings Act (Part RR of Chapter 56 of the Laws of 2023).

²⁷ See Analysis Group, Fuel and Energy Security in New York State: An Assessment of Winter Operational Risks for a Power System in Transition (Nov. 2019) available at: <https://www.nyiso.com/documents/20142/9312827/Analysis%20Group%20Fuel%20Security%20Final%20Report%2020191111%20Text.pdf/cbecabaf-806b-d554-ad32-12cfd5a86d9e>; see also Analysis Group, Fuel and Energy Security in New York State: An Assessment of Winter Operational Risks for a Power System in Transition (Nov. 2023) available at: <https://www.nyiso.com/documents/20142/41258685/Analysis-Group-2023-Fuel-Security-Study-Final.pdf>.

²⁸ See NYISO, New York's Winter Grid Reliability Challenges (Oct. 2024) available at: <https://www.nyiso.com/documents/20142/23494579/NYs-Winter-Grid-Reliability-Challenges-10-29-24.pdf/882cae6-f07e-fd97-fc66-fd66c4832828?t=1730236889655>.

Moreover, the 2023 Fuel & Energy Security Assessment commissioned by the NYISO concluded that dual-fuel capability, which enables generators to switch fuels when necessary to continue operation, will be vital for maintaining winter season electric reliability, especially downstate, through at least 2030.²⁹ Given existing natural gas limitations in the winter months, it is critical that the Plan recognizes the importance of the dual-fuel capability provided by much of State’s generating fleet and that the existing dual-fuel capability will be critical in managing winter season reliability risks until such capability can be replaced by other high availability winter season generating resources.

D. Additional Reliability Concerns

Additionally, the NYSRC has identified reliability risks associated with a large-scale renewable intermittency and the associated grid ramping needs.³⁰ Wind lulls pose a significant challenge to resource adequacy and system reliability. The development of off-shore and land-based wind and solar supply resources envisioned by the Draft Plan introduces highly correlated supply variability, where extended wind lulls can simultaneously reduce renewable generation across large geographic areas, thus impacting the State’s resources as well as emergency assistance from neighboring areas.³¹

The Draft Plan includes a recommendation to “[c]onsider whether the current reliability-related metrics should be supplemented given the evolving nature of the grid and increased risks

²⁹ Analysis Group, Fuel and Energy Security in New York State: An Assessment of Winter Operational Risks for a Power System in Transition (Nov. 2023) available at: <https://www.nyiso.com/documents/20142/41258685/Analysis-Group-2023-Fuel-Security-Study-Final.pdf>.

³⁰ Off Shore Wind Data Review - NYSRC Preliminary Findings (Jul. 14, 2023) available at: https://www.nysrc.org/wp-content/uploads/2023/07/NYSRC-Wind-Impacts-Final-07_18_23.pdf.

³¹ *Id.*

of high-impact reliability events.”³² The NYSRC frequently refines the IRM study calculations to better represent the State’s changing resource mix and to represent limitations associated with emergency operating actions, including a reduced reliance on neighboring control areas to provide emergency assistance, and updated representations for demand response activations and public appeals.³³ The NYSRC’s work can aid in this process.

The NYSRC will continue its focus on reliability risks associated with high-impact reliability events, including risks associated with extreme weather events and large scale renewable integration. Maintaining reliability while accommodating increased penetration of intermittent renewable resources may require further developed Reliability Rules, such as the NYSRC’s recently promulgated IBR rule, which will help protect New York from events such as the April 2025 blackout event affecting the Iberian Peninsula.

IV. The NYSRC’s Recommendations For The 2025 Final State Energy Plan

The State Energy Plan serves as an important road map to inform the State, including all those engaging with the State (*e.g.*, resident or business), regarding the status of New York’s electric system and what is required to maintain reliability in support of public health and safety. There are many unknowns in the transition to the CLCPA’s goals. The Draft Plan must account for the critical importance of keeping the electric system operating within long established reliability criteria, even if that means delaying certain CLCPA goals. To assist the State in charting a path forward to accomplish these laudable goals, the NYSRC offers the following recommendations for consideration in the Draft Plan’s final report.

³² Draft Plan, Vol. II: Topic Area Chapters, Chapter 1: Electricity, p. 74.

³³ See NYSRC Resource Adequacy Metrics and Their Applications: Final Report (Mar. 1, 2022) available at: <https://www.nysrc.org/wp-content/uploads/2023/03/RAWG-Report-No.-3-Draft-2-26-224075.pdf>.

A. The State Energy Plan Must Prioritize System Reliability In the Near Term To Ensure Long-Term Success

If the potential of a reliability need on the bulk electric system is not addressed in the near-term, reliability risks or events may quickly emerge and grow throughout the 15-year transition/planning period, especially if reduced operating margins persist or if unforeseen reliability concerns become apparent. The emergence of a critical reliability need may also stifle the ability to implement adequate and cost-effective solutions in a timely fashion. The NYSRC submits that the Draft Plan should consider risks to reliability over the envisioned 15-year transition period both in the near term (end of this decade) and through the remainder of the transition (2030 through 2040). Viewing the transition through this lens will be important to understanding and maintaining all aspects of grid reliability. If system reliability is not maintained, support for the clean energy transition may erode due to a loss of economic development, higher price volatility and affordability concerns, and public health and safety impacts of reliability events.

Near-term reliability planning not only will set the stage for future planning, but will also impact economic development and customer decision-making around future electrification. The State Energy Plan should consider the pace of electrification efforts and seek to ensure that such efforts do not lead to statewide electric demands that outstrip available supply. As discussed earlier, New York State is unique in the sense that it requires a high level of electric system reliability for business needs and its highly diversified industry statewide; as well as from a public health and safety perspective to protect New York's residents.

B. The State Energy Plan Must Follow An "All of The Above" Approach

The NYSRC has observed that New York's electric supply margins are significantly tightening, and the existing electric system can be stressed during periods of extreme weather and

high demand. Today's stressed system does not yet account for (1) future economic development opportunities and businesses that may site energy intensive facilities in the State (2) retiring fossil generation resources, and (3) increased load resulting from the State's electrification mandates and policies.

The NYISO's Reliability Planning Process and the various analyses the NYISO performs throughout that process (*e.g.*, Reliability Needs Assessment, quarterly Short-Term Reliability Process, Comprehensive Reliability Plan) have identified a number of risks for the State's electric system. Given these risks and documented impacts, it is clear to the NYSRC that additional supply resources are necessary and will be beneficial to maintain reliability and increase the resilience of New York State's grid in the short- and longer-term.

Accordingly, the NYSRC submits that maintaining and repowering of existing supply resources – as well as developing new supply resources – is critical to help ensure the State's electric system meets reliability requirements in support of public health and safety. Considering only yet-to-be-developed supply resources and the end state may not assure reliability in the interim for near- and mid-term periods. It is important for the Draft Plan to recognize the potential reliability benefits of repowering New York's older fossil fuel generation supply to improve future generation availability until "clean firm" supply technologies become commercially available and operational.

The NYSRC is agnostic with respect to what type of new supply resources can be built. However, it is important to note that the electric system needs resources with certain criteria/characteristics to maintain reliability. As older fossil units retire, the new supply resources replacing them must be reliable, dispatchable, and available when needed. In addition to near term solutions such as repowering and expanding existing generation, in the longer term all new supply

technologies should be considered, including new nuclear generation, which could offer additional vital clean baseload electricity to meet the increasing energy demands from large industrial sectors. Until such new resources are in service, New York's existing supply resources will be needed for reliability in the near- and mid-term periods.

It is vital that New York plan for the electric system of today in addition to the future electric system 20 years from now.

C. The State Energy Plan Should Address Practical Solutions for Getting Supply Resources Built

New York needs new supply resources on the grid. However, there are practical considerations affecting the availability, schedule, and operability for new resources to come online. In developing a roadmap for how to achieve the conclusions in the State Energy Plan, the Plan should specifically address how new future supply resources, including but not necessarily limited to repowering fossil resources, intermittent resources, and dispatchable emissions-free resources, would move forward with permitting. Recognizing alignment across State agencies in permitting generation (both new and existing) will be essential over the transition period envisioned by the Plan.

Timing is also an important component of the State Energy Plan. Generation resource development takes time. With the current state of supply chain and materials procurement, acquisition of the necessary supplies to build new generation resources can take many years. The NYSRC is concerned that the Draft Plan does not consider sufficient lead time for new generation development. As noted above, if a reliability need materializes urgently, the State permitting processes should allow for such need to be addressed on a timely basis to preserve the reliability of New York's electric system. Similar to how New York State recognizes the value of expedited transmission siting, a similar process and regulatory path should be adopted for expedited

generation siting. At a minimum, this type of expedited siting should be considered at former generation sites. These sites already have infrastructure (land, electric, water) in place. Such utilization was envisioned in the Climate Scoping Plan, Just Transition Working Group recommendations, and allows an expedited solution option.

D. Collaboration With The NYSRC and NYISO

Going forward, we encourage the continued collaboration with the NYISO and NYSRC in future analyses that drive State planning and implementation of the State's energy policy goals. It is important for these studies to have accurate assumptions to inform success. The amount of new generation that needs to be built to maintain system reliability in a zero-carbon environment is sobering. This change represents an unprecedented increase in capital investment in resource capacity along with a corresponding increase in transmission and distribution capacity.

Furthermore, assuming the resources needed to meet CLCPA goals are built, operating a system largely based on renewable resources is not the same as operating the system of today. Future system planning will require close coordination with organizations like the NYISO and the NYSRC to ensure that public policy accounts for operational considerations in maintaining a safe and reliable electric system.

V. Conclusion

The NYSRC is ready to assist New York as its 2025 State Energy Plan is finalized and implemented. Our desire is an energy system that is reliable, clean, and supports the long term economic needs of New York State and its residents. The NYSRC appreciates the opportunity to provide these comments and urges the State Energy Planning Board to incorporate the recommendations herein into the 2025 Final State Energy Plan.

Respectfully submitted,

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APPENDIX A

APPENDIX A

New York State Reliability Council's Response to Pathways Analysis Modeling Limitations

I. Pathways Analysis Inputs

➤ **Federal Policy Changes**

- Since the first quarter of 2025, there have been multiple changes in Federal policies that are not reflected in modeling inputs. These may include but are not limited to assumptions around building residential efficiency, building residential device costs, building commercial efficiency, building commercial device costs, transportation fuel economy, transportation device costs, fuel prices, EV and hydrogen charger costs, land based wind costs, solar costs, offshore wind costs, storage costs, distributed solar growth, flexible load assumptions, and various tax credits.
- Offshore wind buildout assumptions should be updated with consideration of realistic timeframes needed to develop these resources. Due to Federal policy changes, there is a moratorium on new offshore wind permits. Lease areas have been rescinded, restricting the potential for future buildout in the near term.

➤ **Nuclear Expansion Assumptions**

- The proposed assumption for new nuclear generation has not been completed. A single site versus multiple sites to host the 1 GW initiative should be studied carefully for the impact on both generation and T&D requirements.

➤ **Generation Lifetime Assumptions**

Lifetime Assumptions by Resource Category

Lifetime Assumptions	
Resource Category	Lifetime (years)*
Hydro	Indefinite
Wind	Indefinite
Solar	Indefinite
Nuclear	60 / Indefinite **
Biomass	60
Storage	Indefinite
Fuel Oil Peaker***	60
Gas CCGT	60
Gas Peaker***	60

- All scenarios use an unrealistic indefinite lifetime assumption for hydro, wind, and solar resources without explanation as to how this assumption was reached. The NYSRC recommends adopting research-based lifetime assumptions from a recognized industry source.
- All scenarios use an unrealistic indefinite lifetime assumption for storage resources without explanation as to how this assumption was reached. The useful life of a battery storage resource is influenced by cycle frequency and depth of discharge. Assumed usage should inform assumed lifetime for modeled storage resources.
- All scenarios use a 60-year retirement threshold for gas- and oil-powered combined cycle and peaker units. However, the 60-year retirement threshold is not enforced in downstate New York until 2035 “to ensure local reliability is maintained in the near term.”¹ This assumption does not adequately capture the risk that aging units will fail or become derated. Currently, over 4,400 MW of statewide fossil nameplate capacity already exceed the 60-year threshold. By 2035, over 10,000 MW of currently operating capacity will exceed that threshold if the units remain in service without replacement or repowering. Aging generating units are at higher risk for failure and may perform less reliably during extreme heat or cold conditions. They will also see reductions in Dependable Maximum Net Capability (DMNC) over time if not repowered or replaced. As an alternative, the Pathways Analysis may consider an approach such as the survival curve included in the NYISO’s draft 2025 Comprehensive Reliability Plan, which reflects the risk of age-related retirement or failure for different generation types.²

¹ “Pathways-Analysis-Technical-Supplement-Annex-2-Key-Drivers-Outputs.xlsx”, Retirement Inputs.

² NYISO Draft 2025-2034 Comprehensive Reliability Plan, *available at*: https://www.nyiso.com/documents/20142/54068970/Draft_2025-2034-Comprehensive-Reliability-Plan_ESPWG_092525.pdf/caa6e5df-3a82-2688-038a-33892667c4f6.

➤ **Transmission Cost Assumptions**

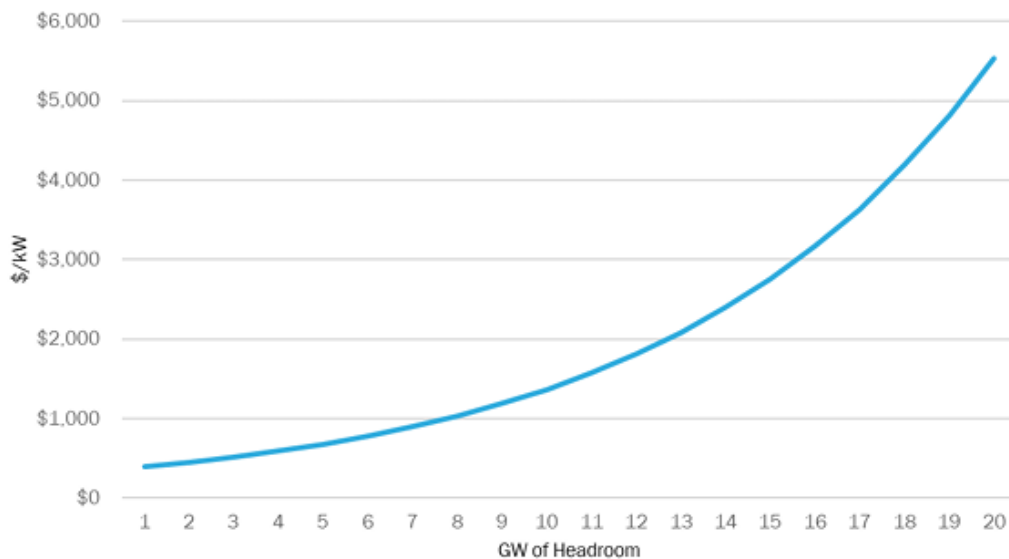
Fully Deliverable Existing Headroom, and Cost for Additional Fully Deliverable

Tx Zone	Existing Deliverable Capacity (MW)	Incremental Deliverability Cost (2022\$/kW-yr)
NYISO_A_Tx	1,237	\$42.7
NYISO_B_Tx	714	\$42.7
NYISO_C_Tx	3,189	\$42.7
NYISO_D_Tx	0	\$42.7
NYISO_E_Tx	0	\$42.7
NYISO_F_Tx	0	\$42.7
NYISO_G_Tx	0	\$42.7
NYISO_H_Tx	2,076	\$42.7
NYISO_J_Tx	0	\$42.7
NYISO_K_Tx	0	\$42.7
HQ_Tx_to_A-E (Wind)	0	\$92.5
IESO_Tx_to_A-E (Wind)	0	\$108.5
PJM_Tx_to_A-E (Wind)	0	\$170.4

- The NYSRC is unclear how to interpret 2022\$/kW-yr or how it is used. The assumption does not reflect increasing transmission costs as additional buildout is required in each zone. A scaling of incremental headroom is more appropriate than a static cost. A more realistic assumption was used in the Coordinated Grid Planning Process (CGPP), which assumed a cost \$389/kW for the first GW of incremental deliverability in a zone, and 15% compounding cost for every additional 1 GW of headroom required within a zone.³ This approach results in an upward-sloping curve for incremental additions of headroom as shown below.
- The analysis enforced LCRs in each capacity zone but did not study more detailed local reliability issues. Unit retirements and unit additions may require additional transmission to resolve local constraints.

³ CGPP headroom modeling assumptions are described in “2023-2042 System & Resource Outlook, Appendix D: Modeling and Methodologies” at page 41.

Figure D-37: Headroom Cost Curve for Preliminary “State Scenario”



➤ **Topology**

- The topology that the plan uses is from NYISO’s 2024 RNA and should be updated. For example, the topology is showing 800 MW transfer capability from Zone J to Zone K, but there is only 305 MW of transfer capability. See, for example, topology used by NYISO for the 2025 RNA Base Case.⁴

➤ **RGGI – Price Forecast**

- RGGI CO₂ prices assumed in the Pathways Analysis are unrealistically low. The clearing price in Auction 69 was \$22.25 per metric ton of carbon dioxide, as compared to a modeled \$8.60 per ton for 2025. The Pathways Analysis may consider RGGI futures prices to inform market expectations in later years. Alternately, NYISO has incorporated emissions allowance price forecasts into their models.⁵

⁴ See NYISO Short-Term Assessment of Reliability: 2025 Quarter 2, available at: <https://www.nyiso.com/documents/20142/39103148/2025-Q2-STAR-Report.pdf/38a8df96-bf5d-b2ab-bcf5-4f14e892b3a1>.

⁵ See e.g., 2025-2044 System & Resource Outlook Aug. 21, 2025 ESPWG Presentation, available at: https://www.nyiso.com/documents/20142/53298531/2025-2044_SystemResource_Outlook_Update_08212025_ESPWG.pdf, page 25.

➤ **Assumed Debt Duration**

- The assumed debt period for gas CCGTs and gas CT-Frames is 18 years. It is unclear how the analysis arrived at this length of debt for CCGTs and gas CT-Frames based on CLCPA 2040 zero emissions requirements.

Other Comments:

➤ **Existing Resources**

- The “current policies” scenario installed capacity in 2025 should reflect existing resources. We recommend that existing resources be confirmed for accuracy. As an example, Zone K only has 10 MW of bulk energy storage batteries, not 202 MW.

➤ **Key Drivers and Outputs**

- Planning scenarios do not explain how modeled generation additions will be achieved in the time frames modeled, or the necessary interim steps with the likelihood of achieving them. All buildouts should recognize and address permitting requirements and moratoriums at the local, State, and Federal levels. Generation additions should also reflect reasonable supply chain assumptions.
- Models that assume a transition to zero carbon firm resources by converting existing units should allow sufficient lead time and sufficient supply to allow for those transitions. It is not realistic to assume the entire fleet will convert within five years to a technology that is not currently commercially available. The models also do not include sufficient supply margins within each zone to allow for these conversions.
- Weather or Infrastructure-Related Production Lulls - the analysis does not appear to capture the impact of multiple day restrictions on natural gas, wind or solar especially during more extreme, high energy demand conditions. This impacts the credibility of the result as some form of backup generation resource will be necessary.
- Winter Supply Risk – natural gas, wind or solar generation restrictions are already evident in reliability planning. The modeling assumptions must recognize this fact during the 15-year review period.
- Interregional transmission & generation support - it is not clear if the analysis considers that other regions may experience similar risks and the ability to support each other during seasonal periods, and extreme weather events. New York’s recent June 23-25, 2025, Extreme Heat System Condition reinforces this fact. We recommend further analysis of this assumption.