BEFORE THE
STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission
to Address Interconnection Reform for Large Loads — Case 26-E-0045

COMMENTS OF THE NEW YORK POWER AUTHORITY

The New York Power Authority (NYPA) respectfully submits these comments regarding large load interconnection in response to the Public Service Commission (Commission) Order Instituting Proceeding and Soliciting Comments (the Order).[1] Guided by its mission to support New York's transition to a carbon-free and economically robust future through strategic customer partnerships, advanced energy solutions, and the responsible provision of affordable, clean, and dependable electricity, NYPA has a significant interest in the outcomes of this proceeding. As a transmission owner, NYPA is responsible for assessing system reliability and serving loads and has insight into the potential cost allocation impacts from large loads. Additionally, NYPA's economic development and large power customers have a direct interest in any potential cost implications from large loads, including interconnection costs and the potential market impacts on energy pricing, capacity costs, and congestion.

NYPA has seen firsthand the scale and growth of proposed loads. Approximately five gigawatts (GW) of large load are currently seeking to interconnect to the NYPA transmission system, and NYPA has observed that individual project sizes are increasing significantly, from about 100 MW to as large as 500 MW.[2] While these large load projects have the potential to provide economic, grid modernization, and infrastructure benefits, the size of the load needs to be carefully managed to ensure the stability of the grid and mitigate cost impacts. Sudden increases or decreases in load can significantly impact the power grid. If multiple large loads

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1 Case 26-E-0045, Order Instituting Proceeding and Soliciting Comments (issued and effective February 12, 2026).

2 For clarity, while these loads seek to connect to NYPA power lines, they would not be NYPA power customers.

were to trip simultaneously, the grid might struggle to respond quickly enough to maintain reliability amid such drastic changes. Additionally, very large loads often necessitate extensive transmission and distribution (T&D) infrastructure upgrades, which require considerable time for permitting, equipment procurement, and construction. Addressing these challenges is crucial to ensuring the stability and reliability of the power grid as it adapts to the addition of these substantial new loads and NYPA values the platform this proceeding provides to develop a clear, coordinated framework for reliably integrating these large loads into the grid.

NYPA urges the Commission to first adopt clear definition(s) of "large load." NYPA further recommends that the Commission work with the transmission owners (TOs) and the New York Independent System Operator (NYISO) to ensure that large load forecasting, planning, and reliability studies use realistic assumptions about load flexibility, curtailment, and actual generation behavior (including peaking units and storage), and study large load interconnection requests in the most efficient manner possible, so that cumulative impacts on the New York State electric system are properly assessed and redundant work and costs are reduced. Although the NYISO is responsible for system impact studies for large loads, NYPA recommends that key assumptions about individual loads be incorporated into service agreements between the connecting TO and the large load customer. This will help avoid over- or under-building system upgrades and will require close coordination.

NYPA also (1) backs a fair, "beneficiary pays" cost allocation framework for system upgrades, (2) encourages the use of on-site generation, storage, demand response, and innovative tools to refine interconnection analysis and cost estimates, and (3) stresses the need to account for EV fleet charging as a component of forecasted loads. Finally, NYPA calls for greater transparency for loads interconnecting at the distributed level through frequent interconnection headroom map updates and early engagement with host municipalities.

I. Background

In the 2026 State of the State, Governor Hochul directed the Department of Public Service (DPS) to launch Energize NY Development to modernize the grid connection process for large energy users, increasing speed and predictability. The initiative aims to evaluate and upgrade the process for connecting large loads to the electric grid while ensuring that projects with high system demand, such as high load factor and other industrial customers, contribute

fairly to the costs they impose on the system.[3] On February 12, 2026, the Commission issued the Order, launching a new proceeding to implement Energize NY Development.

The interconnection improvements in this proceeding build upon prior Commission efforts to improve utility interconnection, siting, and permitting processes. In addition to the Commission's efforts, there is also relevant reform underway at the NYISO, in collaboration with the Transmission Owners (TOs) and at the federal level. In February 2026, the NYISO introduced a large load reform effort with stakeholders. The effort aims to reduce the study timeframe and improve the predictability of the large load interconnection process, allow for the evaluation of the complex interactions and impacts of large loads, and define milestones that would indicate the firmness of a large load for inclusion in both TO and NYISO planning studies.[4] This process is targeting utility tariff revision filings by the end of the year that incorporate the changes that the NYISO develops with input from the TOs and other Stakeholders.

At the federal level, the Federal Energy Regulatory Commission (FERC) recently issued a notice inviting comments on an Advance Notice of Proposed Rulemaking (ANOPR) with the stated goal of gathering information on large loads and streamlining the interconnection process for large loads seeking to connect to the transmission system, among other objectives. FERC intends to act on the ANOPR in June 2026.[5] The North American Electric Reliability Corporation (NERC) is also working to address the issue, recently issuing a whitepaper that identifies gaps in existing reliability standards and recommends standard updates to reduce the risks that large loads pose to the bulk power system.[6] Acknowledging the work occurring on large loads in multiple forums, NERC recommended that the federal government, states, and policymakers review the gaps identified in its whitepaper and work with utilities to begin addressing them to better prepare for the advent of new reliability standard requirements. Given

[3] https://www.governor.ny.gov/sites/default/files/2026-01/2026StateoftheStateBook.pdf
[4] *See* NYISO TPAS Presentation on Large Load Interconnection Process: Challenges and Considerations (Feb. 3, 2026) https://www.nyiso.com/documents/20142/56802634/04_Load_interconnection_reform_2-3-26_TPAS_final.pdf/063ff31f-a5ad-0494-707d-3275f007d23a.
[5] Advanced Notice of Proposed Rulemaking, Ensuring the Timely and Orderly Interconnection of Large Loads, FERC (October 27, 2025)
[6] Assessment of Gaps in Existing Practices, Requirements, and Reliability Standards for Emerging Large Loads, March 2026. https://www.nerc.com/globalassets/our-work/guidelines/reliability/white-paper---assessment-of-gaps.pdf. Note, NERC recommended that new entity registration categories be created related to large loads but did not define any size thresholds or other similar criteria for determining which entities should be registered.

the numerous parallel efforts underway, NYPA recommends coordination amongst regulatory entities to ensure that initiatives addressing large loads are aligned and complement each other.

II. Discussion

The Order solicited stakeholder comments in response to eight questions regarding the integration of large electric loads. NYPA provides responses to Questions 1–6 and Question 8 below, organized into three main themes: standardization, forecasting improvements, and process optimization and alignment.

First, NYPA's responses to Questions 3 and 5, which seek feedback on requirements for large loads and cost allocation, emphasize the need for standardization and consistency across regulatory entities. This includes adopting a consistent definition of large loads, harmonizing study assumptions, including incorporating enforceable requirements regarding load operational characteristics and key milestones to ensure the viability of large loads and ensuring coordination between state and federal efforts. Second, NYPA's responses to Questions 1 and 2, which address forecasting accuracy and innovative technologies, focus on improving forecasting through more sophisticated analytical tools—such as EMT studies—and by incorporating key study assumptions into service agreements. Third, NYPA's responses to Questions 4, 6, and 8, which concern grid services, transparency, and additional recommended measures, focus on optimizing and aligning the overall interconnection and planning process. NYPA recommends evaluating the feasibility of measures such as cluster studies that capture cumulative impacts and allow for fair cost allocation among beneficiaries, enhanced transparency requirements (including more frequent capacity map updates), and improved coordination with stakeholders to support efficient, cost-effective grid development. NYPA does not take a position on Question 7.

A. Standardization

NYPA urges the Commission to adopt standardized, transparent requirements for large-load interconnections to improve consistency, accuracy, and coordination across regulatory processes. NYPA recommends that the Commission, in coordination with other state entities, define large load, common interconnection and other study assumptions, and uniform load-flexibility metrics and reporting requirements. These measures will help ensure that the planning and operation of the grid reflect the true impacts and capabilities of emerging large digital and inverter-based loads.

a. Definition of Large Load

First, NYPA recommends that the Commission develop a consistent definition of what constitutes a large load for this proceeding, including, at a minimum, a specific size threshold. The TOs and the NYISO are currently addressing large load interconnection reform for the bulk system through the NYISO stakeholder process, with a revised process and corresponding tariffs expected by the end of 2026. The NYISO's procedures currently include thresholds by load size (MW) and interconnection voltage, and this process will likely revise the minimum large load threshold for NYISO processes going forward. NYPA therefore recommends that the Commission coordinate with the NYISO to align the size thresholds and definitions used in this proceeding with those that emerge from the bulk system process, while also recognizing that different thresholds may be appropriate for bulk versus local (non-bulk) systems. Clear, coordinated thresholds will promote regulatory consistency, reduce confusion among developers, and limit opportunities to game the system by fragmenting or structuring projects to avoid large load requirements.

b. Load Data and Study Assumptions

Accurate assessment of large load impacts on the electric system is essential for correctly forecasting and promptly addressing potential system issues. The NYISO conducts large load system impact studies, which utilities then use to inform their interconnection and planning activities. Because these processes are closely linked, strong coordination between the NYISO and utilities is critical to ensure that study results are as accurate and useful as possible.

To improve the quality and consistency of both NYISO and utility studies, NYPA recommends that large loads be required to provide detailed information on load characteristics as part of their interconnection request, including the type of load, expected variability, and whether, and under what conditions, the load can be curtailed.[7] To ensure consistency across submittals, NYPA recommends the Commission establish a common framework, such as that utilized by the Electric Power Research Institute's (EPRI) DCFlex initiative,[8] for developers to follow. This information can help ensure that the load is functioning as intended at the time of interconnection, as well as improve the accuracy of forecasts and planning studies by allowing

[7] The TOs and the NYISO recently agreed on a similar concept in NYISO's Technical Bulletin 266 - https://www.nyiso.com/documents/20142/2931465/TB266-LoadInterconnection-20251107-Final.pdf/556d0622-8558-1f5e-6d3f-64b25cd7ea14

[8] The DCFlex framework defines flexibility through performance characteristics such as notification time, duration, frequency of use, depth of load adjustment, ramp behavior, and availability. The characteristics are used to categorize load into a small number of flexibility classes. NYPA was a contributor to this framework.

them to reflect fluctuations in demand and better determine the infrastructure needed for load interconnection and operation. However, this is only true if the flexibility of the load can be relied on. Currently, a load may substantially change its operational profile without warning, which can have substantial impacts on system reliability. NYPA recommends that the Commission, in coordination with the utilities and Transmission Owners, establish clear, enforceable requirements for large loads—such as limits on load variability or curtailment obligations—that can be both incorporated directly into interconnection study assumptions and reflected as binding criteria in the load's service agreement.

NYPA also recommends the Commission coordinate with the NYISO to establish clear guidance for generation assumptions, ensuring that they reflect realistic operating hours for peaking power plants and realistic discharge patterns for energy storage resources. Without such guidelines, reliability studies risk modeling either overly optimistic scenarios (e.g., assuming peaking plants are always available, or storage can always discharge continuously) or overly pessimistic scenarios, rather than focusing on the most likely operating conditions. Taken together, standardized load data, enforceable operational requirements, and realistic study assumptions would support more accurate and actionable reliability analyses, improve the precision of load forecasts, streamline interconnection studies, guide better siting and design decisions, and ultimately protect ratepayers.

c. Cost Allocation

Concerns about both the costs associated with interconnecting large loads to the grid and the broader market and consumer impacts from increasing demand, have been identified across the United States. To ensure that New York State can support economic development objectives without adversely impacting existing ratepayers, it will be crucial to establish standardized cost allocation rules to ensure that those who benefit from service to large loads bear the cost associated with serving them. Such guidance will help all stakeholders plan their projects more effectively and manage potential financial impacts to both existing customers and new interconnecting loads. For system upgrade costs that are allocated to new interconnecting customers, the Commission should consider requiring the customer post collateral with the connecting utility in an amount sufficient to fund the completion of the system upgrades, in a manner like the NYISO process for generation and transmission interconnections. Such a requirement would help protect existing ratepayers from associated cost shifts if the

interconnecting customer abandons, terminates or unduly delays its load project. It would also promote more predictable, transparent, and equitable outcomes by aligning financial accountability with project development risk.

d. Treatment of Stranded Capacity Obligations

The Commission should also develop standardized rules to address the possibility of large cost reallocations associated with stranded capacity obligations for large loads that cease operation mid-Capability Year. Under NYISO's rules, each Load Serving Entities (LSEs) in each Transmission District[9] must obtain a certain amount of generation capacity (UCAP) each year to serve their customers. Because the statewide minimum UCAP requirement is fixed, any capacity in a Transmission District that is no longer tied to a specific LSE, for example, when a customer leaves, is reassigned to the remaining LSEs in that district for the rest of the capability year. The LSE generally recovers the extra costs from their customers.

In normal circumstances, customer turnover is small, so the unallocated UCAP obligation and costs are minor relative to the total district load. However, if a very large load stops operating mid-Capability Year, the remaining UCAP obligation associated with that load for the balance of that capability year can be substantial. This is a particular issue for smaller Transmission Districts with a smaller customer base to bear the reallocated costs. Under current NYISO rules, this creates a significant financial risk for the remaining loads in the Transmission District, which must absorb the reallocated UCAP costs for a customer that is no longer taking service.

This risk is particularly acute for NYPA, and potentially NYPA customers, because its Transmission District is relatively small (approximately 500 MW) and NYPA is the primary LSE serving both municipal utility and industrial load. Reallocating UCAP costs from a departing large load, which could be approximately half the total Transmission District load, over a small customer base could be extremely expensive for the remaining customers within the Transmission District. While the same structural risk exists in all Transmission Districts, many have a larger customer base to absorb the additional costs. This problem becomes even more severe when the large load is a direct NYISO customer acting as its own load-serving entity. In

[9] A Transmission District is defined by the NYISO as the geographic area served by the Investor-Owned Transmission Owners and LIPA, as well as the customers directly interconnected with the transmission facilities of the Power Authority of the State of New York.

that situation, there is no contractual relationship with the transmission owner in the Transmission District that would serve as a mechanism to protect them from being left shouldering the costs of capacity procured for the departed load.

Like protections that prevent ratepayers from bearing interconnection costs when a generation project withdraws, the Commission should establish guidance for the NYISO, utilities, and LSEs to prevent large, stranded capacity obligations from being unjustly shifted to other customers. Any such guidance should avoid placing unreasonable burdens on either existing or new large loads while addressing customer departure risk.

B. Forecast Accuracy

As individual load sizes increase precise forecasting and planning is critical, as larger loads can have more substantial impacts on the overall system. Accurate assumptions about which large loads will interconnect, when they will do so, and how they will operate are essential to interconnection studies intended to mitigate the impacts of large loads. Without accurate predictions, system planning could be inadequate, potentially leading to inefficiencies and reliability issues. Exploratory or speculative projects are a particular concern, as system upgrades undertaken to accommodate loads that ultimately do not materialize can be costly and inefficient. To enhance the accuracy of load forecasting, NYPA recommends that the Commission establish specific milestones for assessing the viability of large loads seeking to interconnect to the power system. These milestones should be designed to provide a reasonable level of certainty that, once achieved, the anticipated demand will materialize. Additionally, NYPA recommends that the Commission consider establishing project development milestones and requiring deposits or other good-faith financial commitments. These measures could reduce speculative interconnection requests, prompt action on lingering unexecuted agreements, and enable TOs to better assess the viability of large load interconnection requests and the likelihood that anticipated demand will materialize.

To further enhance the accuracy of load demand forecasts, NYPA recommends also evaluating EV load alongside stationary large loads. EV charging load is distributed among numerous charge points, ranging from a few kW to several MW. However, these smaller distributed loads can add up - according to EPRI's US-REGEN model, EV charging will reach approximately 1,800 TWh by 2050.This contrasts with the relatively small number of very large loads, which can range from hundreds of MW to GW for a single site. Despite the more

distributed nature of EV load, EPRI has forecasted that EV load could exceed other demand from other large load types by the 2030s. This could be a particular issues in states and regions with larger populations—such as California, Florida, New York, and New England.[10] Given these projections, it is crucial to incorporate EV load growth into load demand forecasts to ensure comprehensive and accurate planning.

a. Growing Need for Electromagnetic Transient Modeling

As the demand for large loads that lack physical inertia increases, it is important to recognize that most of these new loads function like "inverter-based resources (IBRs).". NYPA recommends the Commission explore the use of enhanced modeling efforts for large loads to increase the accuracy of demand forecasts, including Electromagnetic Transient (EMT) modeling and harmonic analyses. These analyses can identify potential violations, highlight system upgrades needed to maintain reliability, and inform operational guidelines that define acceptable operating characteristics of the load.

A growing number of standards and requirements include EMT modeling, which is designed to capture quick changes, harmonics, and other complex behaviors that are increasingly common in modern electric grids. EMT simulations use very small-time steps and detailed models, which makes them more accurate at showing the complex interactions within the grid. This is especially useful for studying power-electronic-dominated systems which have fast and dynamic control interactions that traditional models cannot accurately capture.

In 2022, the NERC began to develop EMT modeling standards, and the Institute of Electrical and Electronics Engineers (IEEE) released updated standards addressing inverter-based resource modeling requirements. Then, in 2023, FERC's Order No. 2023 emphasized the need for accurate models in interconnection studies, further boosting EMT-based analysis adoption. Regional and state reliability organizations, including the Northeast Power Coordinating Council (NPCC) and the New York State Reliability Council (NYSRC), have also established EMT modeling guidelines aligned with national standards. Additionally, the NYISO has published EMT modeling requirements for developers interconnecting to the New York transmission system.[11] These developments show that EMT modeling is quickly becoming an

[10] EPRI Powering Intelligence 2026: Updated Scenarios of U.S. Data Center Electricity Use and Power Strategies, pages 23-24 (https://www.epri.com/research/products/000000003002034696).

[11] NYISO Electromagnetic Transient (EMT) Modeling Guideline:https://www.nyiso.com/documents/20142/3625950/UG-28-EMT-v2.0-Final.pdf/4d0fc698-21c0-fbed-67d2-ebab66d4dc4e

essential part of accurate interconnection studies. As the penetration of inverter-based resources increases, EMT modeling is also becoming more prevalent in distribution planning and interconnection studies, enabling detailed analysis of interactions among inverter-based resources and between these resources and the grid.

Pairing a system-wide, grid-level Digital Twin with EMT models extends EMT capabilities across the system, enabling planners to evaluate large load interconnections at any location and assess both local and system-wide impacts under realistic conditions. A Digital Twin is a virtual model of a real-world object, system, or process that is kept in sync with its physical counterpart using data. This supports more accurate identification of required upgrades, better cost estimates, faster study timelines, and provides a platform for sensitivity analysis, operational decision support, control validation, long-term planning, and enhanced coordination among utilities, system operators, developers, and regulators. NYPA's AGILe is currently developing such a grid-level Digital Twin for the New York power system, representing a first-of-its-kind implementation to support planning, interconnection, and operational decision-making.

C. Optimization and Alignment

a. Recommended Study Approach

To optimize the interconnection process, NYPA recommends the Commission evaluate the utility interconnection study process to ensure that cost and time effective approaches are being utilized. Cluster studies, which are already being utilized at the bulk level, are one such tool that should be considered, as they allow multiple large loads to be examined at the same time, offering several potential benefits. They can provide a more accurate assessment of the combined impact of large loads on the entire New York Control Area (NYCA), making reliability studies more comprehensive, and can improve process efficiency by saving time and resources. Clustered analysis can also reduce the need for numerous system upgrades, since upgrades may be shared among several projects, avoiding redundant design and development work and lowering the overall cost per project. In addition, cluster studies can provide a sound basis for allocating the costs of shared upgrades among beneficiaries and can enhance coordination between large load and generation interconnections, helping ensure that available headroom is allocated efficiently.

To ensure that any violations or upgrades identified in can be effectively addressed through the load interconnection process, the Commission and the NYISO should coordinate to develop clear rules for how such findings will be handled by connecting and affected TOs. For NYPA and other transmission owners (TOs) facing large load interconnections, there must be clarity on who ultimately decides whether the system can reliably bear a given load, including the required energy, capacity, and ancillary services, and if any mitigation steps are feasible or required to address violations. For local reliability issues, the Commission has clear jurisdiction, and utilities are responsible for determining what load they can safely interconnect and serve. However, local problems can create impacts on the bulk power system, and when that occurs the respective roles of the Commission, the NYISO, and the TOs must be clearly defined to ensure the grid remains safe and reliable. NYPA therefore recommends establishing a process for coordination and escalation when an issue moves from the local system to the bulk system. Moreover, when the issue is presented as a matter of resource adequacy rather than just an interconnection matter, resource adequacy issue should be addressed proactively by the Commission and the NYISO.[12]

b. Grid Services

NYPA recommends that, while a broader process is being developed to address supply issues related to large loads, the Commission should explore all available grid services to support the interconnection of these loads while minimizing impacts on the grid and ratepayers. As a first step, the Commission should evaluate the viability of energy efficiency, load flexibility, and demand response to efficiently manage large loads on the power system. These options typically require less construction, lower capital investment, and can be deployed more quickly than supply-side resources, providing near-term relief and flexibility to the system. For certain load types, such as EV fleet charging locations, load flexibility is particularly feasible due to the size and operational characteristics of the sites. For example, smart charging equipment can control when vehicles charge, avoid charging during peak periods, and make the load interruptible if needed. This approach can mitigate reliability impacts, making it a practical near-term solution for managing large loads. For these types of grid services, NYPA recommends that the Commission establish a mechanism to verify their ability to minimize system impacts,

[12] For example, load curtailment should be used an emergency tool, not a permanent or long-term solution.

recognizing that many large loads will be greenfield facilities without an existing baseline. NYPA also recommends that the Commission evaluate the viability of on-site generation, virtual power plants, and energy storage as additional grid services to help meet demand from large loads.

c. Transparency

To further optimize the interconnection process, NYPA recommends the Commission require monthly updates to utility system capacity or "headroom" maps to improve transparency. The information provided in the maps, particularly if there have been significant changes in grid status, helps better direct projects to locations with the required interconnection headroom. NYPA also recommends early and transparent communication with the host municipality and utility about potential large loads. Connecting with the municipalities early on can help identify any potential concerns regarding siting or permitting, and allowing time for an iterative process with utilities and municipalities can assist with determining any necessary mitigation measures and optimal locations for loads based on available system capacity. Additionally, using tools like EPRI's eRoadMAP and GridFAST can aid in early tracking of potential large loads before they enter the interconnection queue.[13]

d. Other Recommended Measures

To minimize cost increases to other ratepayers and avoid reliability impacts, NYPA supports applying any requirements established through this proceeding to large-load projects on a consistent, forward-looking basis. Such a consistent approach should incorporate projects that are already in the interconnection queue but have not yet reached an initial viability milestone, such as executing an interconnection agreement. NYPA also emphasizes the importance of carefully evaluating the impact of large loads on the generation capacity needed for statewide reliability, including the risk that some developers for large loads may contract existing generation away from current loads unless they pursue a "bring your own capacity" approach that adds new supply rather than reallocating what is already planned or in service. Such an approach can help maintain a balanced framework that supports the growth of large loads while protecting ratepayers and ensuring grid reliability.

III. Conclusion

[13] https://eroadmap.epri.com/, https://www.gridfast.com/about?url=home.

Addressing the integration of large loads into New York's power grid requires a multifaceted approach to ensure reliability, cost fairness, and alignment with clean energy and environmental priorities. NYPA appreciates the Commission's focus on this important issue and the opportunity to provide these comments on the initial set of questions. NYPA looks forward to the opportunity to work with DPS Staff and other stakeholders to advance the interests expressed in these comments.

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