Case 26-E-0045: Proceeding on Motion of the Commission to Address Interconnection Reforms for Large Loads
Comments of National Grid Ventures

Questions to Answer

1. How can large load demand be accurately forecasted and verified before being included in long-term load forecasts and system planning studies?

Large load demand can be more accurately forecasted and verified before being included in long-term load forecasts and system planning studies by making more stringent requirements for applicants requesting interconnection for large loads. Many states and utilities have implemented such measures, both tariff amendments and legislation, to ensure the maturity and firmness of these applications,[1] such as multi-year demand ratchets, long-term contract commitments, and large collateral requirements.

The demand ratchet ensures that large loads are billed for a minimum amount of load regardless of actual usage. If, for example, a 100 MW facility only consumes 60 MW, under an 80% ratchet, the large load would be billed at 80 MW. Many utilities and states are also requiring long-term contracts for new large loads, up to 20 years in some cases. Finally, non-recoverable collateral obligations can help ensure large load developers only submit applications for projects they intend to build.[2] These mechanisms help shift risk from ratepayers to interconnection applicants, thereby allowing large load demand to be more accurately forecasted and verified.

2. What innovative technology should be considered to improve interconnection cost estimates, reduce development time, and provide sensitivity analysis?

a. How has this technology been utilized and what were the results?

Artificial Intelligence and machine learning tools can and have been used to improve interconnection cost estimates, reduce development time, and provide sensitivity analysis. For example, PowerGEM's TARA software uses Python automation and study-specific modules in PJM's generation deliverability studies for automated power flow and contingency analysis rather than manual engineering workflows.[3] NYISO could use such

[1] Latitude Media. (2026, March). The terms of power: Inside the new utility rates for data centers. https://www.latitudemedia.com/research/the-terms-of-power-inside-the-new-utility-rates-for-data-centers/
[2] Ibid
[3] PowerGEM. (Accessed 2026, May 13). TARA software: Power flow planning. https://power-gem.co/software/tara-software/

technology to implement New York specific studies as a software add-on, which would allow developers to submit the most accurate and informed interconnection requests and minimize surprises in the interconnection study process, reducing development time. FERC Commissioner David Rosner indicated the utility of these tools in his March 17, 2025 letter to NYISO, highlighting the application of such technologies to reduce the study of a large interconnection cluster from two years to 10 days.[4]

AI and machine learning technologies can be used for upgrade prediction by analyzing historic interconnection studies to predict likely upgrade requirements and costs. NGV has worked with consultants to use such tools to predict base cases in other ISOs/RTOs before they were released, allowing us to respond to solicitations more quickly. Such technologies may be less useful, however, for sensitivity analyses, as the historical data sets used to inform them may be more representative of costs than future drivers of changes to the grid.

Last, transmission providers could use AI and machine learning capabilities to build hosting capacity analytics tools to estimate how much additional load or generation a node can accommodate before upgrades are required. Such tools could then be used to build and maintain a publicly available visual representation, or heatmap, of available transmission capacity, as required by FERC Order 2023.[5]

AI is currently driving the most profound challenges to the electric system in generations. It would be wise to use it to meet those challenges as well.

3. What requirements should be applied to large loads and / or data centers to maintain grid reliability, protect ratepayers, and meet New York's climate goals?

New York can take multiple actions to protect ratepayers, maintain grid reliability, and meet its climate goals while also fostering the economic development that large load projects can bring to the state.

For example, as discussed in Question 1, more stringent requirements for applicants requesting interconnection for large loads, such as multi-year demand ratchets, long-term contract commitments, large collateral requirements, or mandatory, confidential disclosure of similar interconnection requests could be applied to large loads and/or data

[4] Federal Energy Regulatory Commission. (2025, March 18). Commissioner Rosner letter to NYISO: Interconnection automation letter. https://www.ferc.gov/media/commissioner-rosner-letter-nyiso-interconnection-automation-letter
[5] Federal Energy Regulatory Commission. (Accessed 2026, May 13). Explainer on the interconnection final rule. https://www.ferc.gov/explainer-interconnection-final-rule

centers to limit duplicative or speculative projects, thereby increasing planning accuracy and protecting ratepayers.

In terms of large load capacity requirements, various utilities and states have implemented tariff amendments and laws that require or encourage large loads or the transmission owners serving them to utilize certain resources like clean energy or other higher efficiency or more cost-effective solutions.[6] For instance, NV Energy's Clean Transition Tariff ("CTT") is designed to encourage customers to exit the utility's standard generation portfolio and procure energy through a bilateral Energy Supply Agreement backed by new clean resources.[7] In New York, the PSC and NYISO could offer incentives, such as a lower demand ratchet or less collateral, for large loads that apply for interconnection with some percentage of capacity contracted with firm clean, flexibly, higher-efficiency, or re-powered resources. When considering any incentives, New York must seek to balance its important climate goals, the reliability of New York's electric system, affordability concerns, and the need to foster continued economic growth in the state. In order to attract these large loads, though, New York needs to ensure that mechanisms exist to allow customers or LSEs to build the new generation needed to serve them, whether by encouraging or requiring bilateral long-term offtake contracts, as well as the ability to site and permit that generation and long-term regulatory certainty for those generators.

Regarding system reliability, specifically, there are also several examples of actions that various states have taken to ensure system reliability during peaking events. In Texas, for example, S.B. 6, enacted in June 2025, requires the Public Utility Commission of Texas ("PUCT") to develop mandatory and voluntary demand management programs for curtailment programs for firm load shed events,[8] helping to maintain grid reliability in instances of high demand. New York could consider similar demand management programs or seek to design new programs that marry large load customers preference for consistent load factors and opportunities for broader demand side resiliency investments.

[6] Smart Electric Power Alliance & North Carolina Clean Energy Technology Center. (Accessed 2026, May 13). Database of emerging large-load tariffs (DELTa). https://sepapower.org/large-load-tariffs-database/
[7] Latitude Media, 2026
[8] Brown, K. A., Gerbas, G. D., & Irvin, K. W. (2025, November 20). How new law transforms large-load power projects in Texas. Sidley Austin LLP. https://www.sidley.com/-/media/publications/law360--how-new-law-transforms-largeload-power-projects-in-texas.pdf

4. What grid services such as load flexibility, demand response, on-site generation, energy storage, or alternative service be considered?

As New York considers potential grid service issues, it should prioritize allowing flexibility in large load configurations and business arrangements. This flexibility will be key to maintaining system reliability and encouraging economic development in New York. Particularly in the near term, load flexibility, demand response, and on-site and/or proximate, contracted, generation or storage can help limit any impacts as the PSC and NYISO develop frameworks to address any long-term challenges. For example, large loads whose business models make curtailment prohibitively costly may find it worthwhile to invest in behind-the-meter storage, allowing them to act as a capacity resource to reduce peak demand.

Load flexibility and demand response reduce peak demand and capacity requirements, lowering the need for incremental transmission upgrades and new generation. ISOs, including NYISO, already rely on demand response as a reliability resource during system stress, allowing them to avoid or postpone more capital-intensive supply solutions. Applying these same tools to large loads can place downward pressure on wholesale capacity and energy prices, particularly during peak and scarcity hours, by reducing net load when prices and reliability risks are highest.

Distributional impacts across customer classes may arise if large loads materially reduce their contribution to coincident peak demand, as other ratepayers would end up contributing a larger share to coincident peak demand than expected. This underscores the importance of pairing grid-service participation programs with appropriate minimum billing or contract demand mechanisms, as discussed in Question 1, to avoid unintended cost shifting.

Behind-the-meter or co-located resources used by large loads can have system-wide effects, prompting governance frameworks to include cost responsibility, disclosure requirements, and emergency operator controls. Together, these measures affect how load behaves during stress events, shape curtailment and reliability service needs, and reduce the risk of shifting costs or reliability obligations to other customers.

Given that time to interconnection seems to be the top priority for many large load customers, the PSC and NYISO should consider queue and/or permitting prioritization for customers whose applications reflect a dedication to preventing downside risks to the grid to the furthest extent they are able. Aligning PSC and NYISO priorities with large load customers priorities will help ensure New York is an attractive market for these types of investments to drive economic development in the state.

5. How should cost allocation be structured to ensure data centers or similar facilities bear the cost they impose on the electric system?

Data centers and similar facilities create distinct challenges for New York's energy system and New York should regulate them distinctly, seeking to balance economic development objectives and customer bill impacts. To protect other ratepayers from direct cost increases, large load customers should first be responsible for any sole use upgrades triggered by their interconnection. Next, the PSC should consider a dedicated rate class for large loads – defined by size, load factor, or both – which would allow broader system upgrades to be shared across ratepayers of every class while still being mostly paid for by the large loads.

In considering a dedicated rate class for large loads and/or data centers, the PSC should note that, in Virginia, the Virginia State Corporation Commission ("SCC") approved a new rate class for utility customers that consume more than 25 MW of energy and have a monthly load factor exceeding 75 percent, which encompasses most data centers.[9] These customers are required to sign a 14-year contract which will ensure they will pay for the costs triggered by their proposals, even if they use less or the facilities are not built.[10]

Kansas's Large Load Power Service ("LLPS") takes a similar approach, applying to any new facility beginning service with a peak load forecast at 75 megawatts (75 MW) or more, or an existing customer expecting to expand by 75 MW. The contract term will be a minimum of 12 years, plus an optional load ramp period of up to 5 years, for a total contract length of 17 years.[11] Customers on the plan will pay a minimum monthly bill based on 80% of their contract demand, regardless of actual usage. They will also be required to provide collateral equal to two years of minimum monthly bills. If the contract is terminated early, customers will be required to pay an exit fee equal to all minimum bills that would have been billed had the customer continued service.[12]

Mechanisms such as those implemented in Virginia and Kansas help ensure that costs are allocated fairly to data centers and similar facilities without being so onerous as to prevent the economic development and network upgrades that will benefit New Yorkers statewide.

[9] Skidmore, Z. (2025, November 26). Virginia regulators approve new rate class for data centers and other large loads. Data Center Dynamics. https://www.datacenterdynamics.com/en/news/virginia-regulators-approve-new-rate-class-for-data-centers-and-other-large-loads/
[10] Ibid
[11] Kansas Corporation Commission. (2025, November 6). KCC approves large load rate plan with consumer protections. https://www.kcc.ks.gov/news-11-6-25
[12] Ibid

In determining the appropriate cost allocation structure for data centers, New York should be mindful of the need for long-term rate certainty for large load customers. While this kind of certainty is essential for all ratepayers, it is especially important for large load customers investing in capital-intensive projects in the state.

6. How can the state ensure transparency in the large-load interconnection process and information sharing?

To ensure transparency in the large-load interconnection process and information sharing, New York should establish a large-load connection queue process that describes the formal queue process, including study timelines. To this end, the state should engage with NYISO's market project on Large Load and Reliability Planning Integration.[13] This project should aim to create a standardized methodology via probabilistic modeling whereby utilities integrate large-load forecasts into their transmission planning and report large load interconnection requests to NYISO.

Many states – including Virginia, Texas, and Minnesota – have implemented such requirements, wherein utilities must notify regulators when customers request large load interconnection and include them in their planned filings.[14] Under such a process, New York would establish a registry of large load interconnection requests. The registry would also include reliability impact reporting, including peak demand impacts, contingency violations, the need for new transmission lines, and resource adequacy impacts. Such a registry would further assist NYISO in identifying speculative or duplicate interconnection requests and allow utilities and developers the fullest picture possible in their own planning.

7. What interconnection rules should the Commission consider that would allow for leveraging of waste heat as part of thermal energy networks?

N/A

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[13] New York Independent System Operator. (2026, February 3). Load interconnection process: Challenges and considerations (TPAS final presentation). https://www.nyiso.com/documents/20142/56802634/04_Load_interconnection_reform_2-3-26_TPAS_final.pdf

[14] SEPA Power, 2026

8. What additional measures should the Commission consider as part of this proceeding to ensure large load and data centers are not causing cost increases to all other ratepayers, or adversely impacting reliability or the achievement of Climate Leadership and Community Protection Act objectives?

The Commission has a variety of tools available to ensure large loads and data centers pay their fair share of costs, thereby protecting other ratepayers, and that there is not an adverse impact on either system reliability or the achievement of New York's Climate Leadership and Community Protection Act objectives. The Commission should consider curtailment requirements, which would reduce grid reliability concerns and upgrade costs triggered by their interconnection. This could incentivize large loads to act as grid assets that can provide operational flexibility during times of grid stress. Loads who require consistent load factors, and therefore will not want to be curtailed, can co-locate with behind-the-meter generation and/or electric storage, which would allow them to act like flexible resources, reducing or shifting consumption when the grid is stressed, thereby providing capacity, ancillary services, or demand response to the system.

NYISO should ensure that the large-load interconnection process includes rigorous reliability impact assessments to evaluate contingency violations and impacts on voltage stability, transmission congestion, and resource adequacy. Last, New York could design "bring your own generation" incentives to help safeguard reliability margins and lower the obstacles large-load interconnections present to New York's CLCPA objectives. To most rigorously ensure large loads do not threaten grid reliability, the state could require that customers bringing their own generation or planning co-located generation resources have signed long-term contracts for firm generation. Those long-term contracts will provide certainty for generators coming onto the system, incenting long-term investment that will lead to rate certainty for ratepayers.

Finally, large load has the potential to bring investment and economic growth to New York. In order to attract that investment, there also needs to be a consistent and transparent set of rules that apply to large load. Constant changes to the rules of the road will discourage this kind of investment in the state. As New York considers how to proceed, it should be mindful that regulatory certainty is essential to fostering the long-term investment that will create rate certainty for ratepayers.