NARUC
National Association of Regulatory Utility Commissioners

NARUC Demand Roundtable Series: Consolidated Summary
Key Themes Across February, July, and November 2025 Meetings

Background

The United States is facing a period of meaningful load growth, due to significant increases in electrification, re-shoring of domestic manufacturing, and rapid data center construction. The North American Electric Reliability Corporation (NERC) 2024 Long-Term Reliability Assessment estimates that the summer peak demand forecast is expected to rise by 15% (132 GW) for the 10-year period. As State Utility Regulators contend with growing demand for energy, considering how to best manage this growth period while balancing new energy needs with rising customer costs is critical to ensuring a smooth transition.

NARUC President Tricia Pridemore (Georgia PSC) convened the 2025 NARUC Demand Roundtable series as a response to increasing load growth forecasts. The goal of the Demand Roundtable was to bring together a rotating group of Public Utility Commissioners, large customers, and utility / regional transmission operators to discuss the critical issues surrounding increased energy demand over the next decade. These dialogues were part of the three national conferences convened by NARUC in 2025 (the February Winter Policy Summit, July Summer Policy Summit, and the Annual Meeting and Education Conference in November) with a goal of open, transparent discussion to foster dialogue that allows state commissioners to better understand energy demand associated with re-shoring, electrification, and data center growth, and what that will mean for individual states.[1]

The Demand Roundtables all followed a similar format:

- Opening remarks by President Pridemore
- Opening remarks from one or more guest speakers
- Level-setting polling questions for the group
- Opening statements from participants
- Facilitator questions with participant responses
- Closing statements

This consolidated summary highlights four recurrent and widely discussed themes synthesized from the individual Roundtables: collaboration, transparency and certainty, responsibility for incurred costs, and innovation.

Collaboration: Early Communication, Flexible Solutions, and Partnerships

The Demand Roundtable discussions consistently identified collaboration as essential to managing large load growth effectively. Participants representing state utility commissions, utilities, and large customers (e.g., data center developers, distribution center owners, newly-electrifying industries including trucking fleets and energy production facilities, and on-shoring manufacturers) acknowledged that they are relatively new partners who must continue to develop better channels of communication, coordination, and education about the benefits and broader grid impacts of new large loads. Early and ongoing communication was highlighted as critical, especially given how rapidly the technology sector moves compared to traditional regulatory timelines. Data center

1 The individual Roundtable summaries and additional NARUC resources and activities related to large loads and data centers can be found here: Load Growth - NARUC.

developers noted that by the time new rules are finalized, market conditions have often changed, underscoring the need for flexibility and ongoing dialogue whenever possible rather than reliance solely on formal regulatory processes.

Flexibility was a particularly salient theme in the context of interconnection and tariff structures. Participants noted that not all data centers or large customers are alike, and that policies applied uniformly may work well for some but poorly for others. More nuanced, tailored, and flexible approaches were cited as valuable tools, provided they are applied consistently and do not allow utilities to favor preferred customers over others who are equally ready to proceed with sound projects. These flexible approaches could include customer-specific interconnection agreements and differentiated or novel tariff structures based on broader concepts and solutions that can serve as a model.

Partnerships between technology companies, utilities, and other stakeholders emerged as a particularly promising model for finding new strategies that will enable the electric grid to reliably and safely support rapid demand growth. Examples cited included a major technology company's half-billion-dollar investment in an advanced nuclear developer,[2] a technology-utility collaboration to streamline interconnection review using AI,[3] and a distributed battery program enabling customers to support the grid during peak demand.[4] These collaborations were seen as opportunities to leverage private capital and innovation in ways that could benefit all ratepayers. One Commissioner emphasized the value of "intentional partnership ecosystems" in which diverse stakeholders collaborate on areas of mutual interest such as R&D and workforce development. Several participants also highlighted the value of state-hosted workshops and less formal information-sharing venues outside of existing regulatory dockets as mechanisms for building working relationships among commissioners, staff, and advocates that can effectuate collaboration.

Transparency and Certainty: Interconnection Queue Realism, Forecasting, and Planning

Accurate load forecasting and transparent resource planning processes (including both electricity and water utility planning) were identified as foundational to virtually every other challenge associated with large load growth. Participants noted that load forecasts are used not only for resource planning but also for cost allocation and regulatory decision-making, yet the process by which utilities develop and use these forecasts is often opaque to large customers and commissions alike. One large customer described the forecasting process as a "black box" once their load information is handed to the utility, making it difficult to understand how their data is incorporated into long-term planning.

Participants called for greater transparency at multiple levels. Utilities were encouraged to share more granular data on distribution system capacity and load growth forecasts. Recognizing that speculative requests are a significant drag on queue efficiency, large customers were asked to provide greater visibility into their business growth plans and the likelihood that their interconnection requests will actually proceed to construction. Commissioners noted the value of a comprehensive statewide view across multiple transmission owners, with one state's effort to collect information from across all transmission owners and assess projects in groups cited as a useful model. Proactive identification of low-cost interconnection opportunities on existing systems was suggested as a way to reduce uncertainty and costs for all parties. Completing IRP cycles more frequently was

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[2] From the February 2025 Roundtable: https://x-energy.com/media/news-releases/amazon-invests-in-x-energy-to-support-advanced-small-modular-nuclear-reactors-and-expand-carbon-free-power.

[3] From the July 2025 Roundtable: https://insidelines.pjm.com/pjm-google-tapestry-join-forces-to-apply-ai-to-enhance-regional-planning-generation-interconnection/.

[4] From the July 2025 Roundtable: https://investor.pgecorp.com/news-events/press-releases/press-release-details/2022/25000-PGE-and-Tesla-Customers-Invited-to-Form-Worlds-Largest-Distributed-Battery-to-Support-Electric-Grid-Reliability/default.aspx.

also raised as a potential mechanism for improving the relevance and timeliness of planning information during a period of dynamic growth.

On the interconnection queue specifically, participants agreed that the status quo in many markets is problematic. Speculative requests clog the queue, increase processing times, and create uncertainty for developers with genuine projects. Various mitigation strategies were discussed, including upfront fees, novel rate concepts and structures, site control requirements, and cluster studies. Participants also emphasized the potential for AI-assisted processing and regional planning reforms to meaningfully reduce delays, while cautioning that non-discriminatory treatment of similarly situated customers must remain a cornerstone of any reformed process.

Responsibility for Incurred Costs: Tariffs, Contracts, and Cost Allocation

There was broad consensus that traditional cost-of-service ratemaking remains a valid framework, but that certain elements must evolve to address the realities of large load growth. Participants recognized that the costs of new generation and transmission investment are substantial and that cost allocation must be carefully designed to ensure that the general body of ratepayers, particularly residential customers, is not made worse off. At the same time, several participants noted that if load growth is managed well, it has the potential to put downward pressure on rates by spreading fixed costs across a larger base.

Large customers expressed willingness to pay their fair share and, in some cases, to commit to contractual safeguards such as take-or-pay provisions, longer contract periods, and collateral requirements through novel and transitional rate design concepts and tariffs. These mechanisms were seen as important tools for protecting other ratepayers while still enabling timely development. One data center developer stated explicitly their intention to pay for the infrastructure built to serve their needs and to ensure that contracts protect everyday ratepayers if their plans change over time, thus mitigating customer and utility risk. The importance of evaluating cost impacts and benefits over the full life of a project, which may be 20 years or more, was emphasized as a necessary discipline for commissions reviewing these arrangements.

Tariff structures were also discussed as a means of addressing the heterogeneity of the large load customer class. Because data centers vary significantly in their load profiles, operational flexibility, and risk of queue withdrawal, one-size-fits-all provisions may be inadequate. Participants called for tariff flexibility that enables timely and creative solutions, while still ensuring accountability and predictability for utilities, state utility commissions, and the broader customer base. Yet one Commission cautioned that any reconsideration of rate design must be done holistically, rather than in piecemeal fashion driven by the concerns of one group of customers, and that all parties must be candid about which aspects of rate design are up for discussion.

Innovation: Speed to Power and Investment in New Technologies

Participants expressed consistent enthusiasm about the potential of new technologies to help meet growing energy demand, while acknowledging the financial and logistical challenges involved in deploying those technologies at the necessary scale and speed. Advanced nuclear reactors, enhanced geothermal, grid-enhancing technologies, energy storage, advanced conductor materials, and demand-side flexibility programs were all cited as promising tools. Advanced nuclear in particular was viewed as a long-term opportunity to provide clean, firm energy, though participants recognized that these technologies are still maturing and that the investment required makes partnership and risk management critical considerations for commissions.

Near-term solutions were highlighted as equally important, given the long lead times for traditional generation and transmission buildout. Grid-enhancing technologies, demand-side management and demand flexibility programs, and the potential use of backup generation already installed at data center campuses were identified as options that could help bridge the gap while longer-term resources are brought online. Participants noted, however, that realizing some of these near-term

options may require adjustments to emissions permitting frameworks or other regulatory accommodations, most of which are outside the purview of state and federal utility regulators.[5]

The mismatch in timing between the rapid pace of data center construction and the much longer timelines for utility infrastructure was a source of persistent concern. Supply chain bottlenecks (particularly for gas turbines and transformers) and concerns over the availability of skilled labor compound this challenge. Equipment manufacturers are quoting multi-year lead times for key components, and the risk of losing specialized workforces between major construction projects was raised as a systemic vulnerability. Participants stressed that innovation in both technology and process will be necessary to close this gap, including reforms to interconnection queues, more frequent planning cycles, and continued investment in a skilled workforce that can be sustained across successive projects. The overall message from participants was that the current moment represents a genuine opportunity to "think big" in ways that could benefit all customer classes, but only if state utility commissions, utilities, and large customers act with urgency and coordination.

Next Steps and Other Resources

The challenges and opportunities associated with load growth and new large loads are important to public utility commissions. Based on the Demand Roundtables and other engagements, NARUC will continue to provide support to its members through new resources, additional convenings, and ongoing educational opportunities, such as:

- Load Growth Webpage – Part of NARUC's website, this page gathers information about useful resources and both past and forthcoming activities related to large loads and load growth. The summaries of the individual Demand Roundtables can be found there, along with recordings, presentations, and summaries from past webinars, including an early 2026 series of Commissioner-only Virtual Roundtables for Regulators.
- NARUC will soon release a whitepaper on the interplay between load forecasting and large load tariffs and a primer on data centers for state utility commissions that emphasizes issues related to siting and the process by which data centers are planned and constructed.
- Load growth, large loads, and data centers are likely to be on the agendas of NARUC's national conferences throughout 2026, such as the Winter Policy Summit in February, Summer Policy Summit in July and the Annual Meeting in November. Discussions may include committee sessions, panel discussions during a general session, or workshops focused on helping regulators develop action plans and strategies that address their specific needs in these areas.
- NARUC has partnered with the National Association of State Energy Officials (NASEO) and U.S. Department of Energy to co-lead an Initiative on Comprehensive Electricity Planning in an Era of Load Growth, which is offering training and peer support on load forecasting, resource adequacy, electricity planning process design, and integrated modeling. Initiative members will publish new electricity planning roadmaps in spring 2026 and modeling resources in late 2026.
- In partnership with other state energy decision-makers through the National Council on Electricity Policy (NCEP), NARUC led a load growth webinar series designed to support NCEP member state agencies in working together to identify the benefits and costs of expected loads, share examples of tools and strategies for managing risks and balancing speed and engagement, and look for opportunities to improve state agency processes around load growth. The webinar series will provide key inputs to NCEP's development of a framework for state agency collaboration on load growth, to be published in summer 2026, following an open NCEP Annual Meeting.

[5] For more information about the intersection of utility regulation and air quality permits, see: NCEP Mini Guide on Air Quality Management Agency Engagement with State Energy Agencies (2024)