February 2025 Demand Roundtable Summary

Held at NARUC Winter Policy Summit in Washington, DC

I. Series Overview

The United States is facing a period of meaningful load growth, due to significant increases in electrification, reshoring of domestic manufacturing, and rapid data center construction. NERC's 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, consideration for how to best manage this growth period while balancing new energy needs with rising customer costs are critical to ensuring a smooth transition.

NARUC President Tricia Pridemore (GA PSC) convened the 2025 NARUC Demand Roundtable series as a response to increasing load growth forecasts. The goal of the Demand Roundtable is to bring together a rotating group of seven Public Utility Commissioners, seven large customers, and seven 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 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.

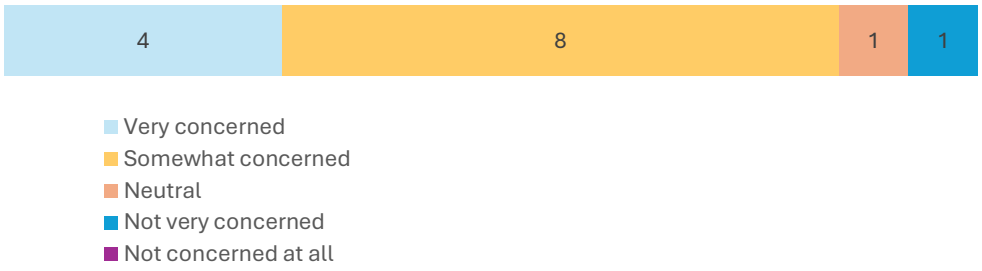
In preparation for the Demand Roundtables, a request for questions was shared with event registrants. Submitted questions were reviewed and refined for inclusion in the facilitated question and answer portion of the Roundtables.

During each Roundtable, NARUC President Pridemore began meetings by providing opening remarks. After opening remarks, the 21 Roundtable participants (listed on the last page of this document) were polled on a set of level-setting questions that were non-attributable to individual respondents as a way of providing participants and the audience with a better understanding of Roundtable Participants' sentiments on load growth. The level-setting polls were followed by brief-introductory remarks from all participants. After this, the Roundtable Facilitator used the bulk of the time during the Demand Roundtables asking Roundtable participants a series of questions and answers, followed by brief, closing statements.

II. Introductory Polling Questions

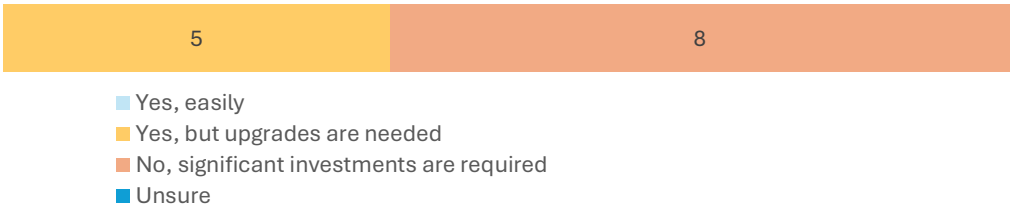
During the February Demand Roundtable, the 21 roundtable participants responded to the following set of non-attributed, level-setting questions. Polling responses were displayed in the room for all attendees to view in preparation for the moderated discussion that followed.

1. For Utilities/RTOs & Commissioners: How concerned are you about the increasing electricity demand from data centers?



In their responses, the majority of Utility/RTO and Commissioner participants reported being "very concerned" or "somewhat concerned" about increasing electricity demand for data centers, with only one respondent reporting feeling "neutral". No Utilities or Commissioner participants reported feeling "not concerned at all" about increasing electricity demand from data centers.

2. For Utilities & Commissioners: Do you think current electricity infrastructure can support projected data center growth in your region?



Utility/RTO and Commissioner participants all reported that "upgrades" or "significant investments" would be required to meet data center growth energy needs. Of these respondents, the majority thought significant investments would be required to support projected regional growth. No respondents stated that current electricity infrastructure was sufficient to meet load growth.

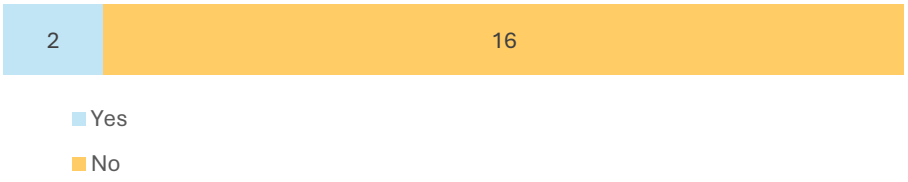
3. For Large Customers: How important is it for data centers to be powered by zero-emissions energy?

Of the large customer participants on the Roundtable, all but one respondent (who reported being "neutral") said that using zero-emission energy to power data centers was extremely important or somewhat important. No large customer participants responded that utilizing zero-emission energy was not important.

4. All: Has your view on the demand for energy been influenced by the political climate?

The majority of Roundtable participants reported that their view on the demand for energy had not been influenced by the political climate. Four respondents said that the political climate had influenced their view on the demand for energy.

5. All: Has your view on the demand for energy been influenced by DeepSeek?



The majority of Demand Roundtable participants reported that their view on the demand for energy had not been influenced by announcements regarding improved efficiency of the DeepSeek AI program.[1]

6. All: What do you see as the biggest challenge related to data center electricity demand? [open-ended question]

The last polling question asked Roundtable Participants what they saw as the biggest challenge related to data center electricity demand? Common topics identified for this question included:

- Accurate load forecasting
- Adequate generation with high-capacity factor
- The need for proactive collaboration between diverse stakeholder groups
- Interconnection queue transparency
- Aligning pace of demand with infrastructure buildout
- Cost allocation for new infrastructure
- Efficiency and execution of infrastructure build out
- Supply chain issues

[1] DeepSeek made waves in the AI world just prior to this event by announcing development of high-performing, open-source reasoning models like DeepSeek-R1 with significantly lower training costs, including energy needs, than competitors.

III. Key themes

After responding to the set of polled level-setting questions, participants were asked to respond to a series of verbal questions, including:

1. What is top of mind and how you are thinking about load growth?
2. What can we do to reconcile the fact that we may have regulatory constructs that force the utilities to move at a slower pace than what customers want?
3. How do you actually put downward pressure on rates from all of this new load that's coming in?

From these questions, several themes emerged that help provide insights into critical considerations and participants' suggestions for how an improved system could support load growth without seriously impacting residential customer rates. These themes include: the high value of grid reliability, the importance of appropriate cost allocation, a desire to explore opportunities for collaboration & greater transparency, support for regulatory nimbleness, and a sense of technological optimism.

a. Grid Reliability

Several Roundtable participants focused their comments on the need for grid reliability. Reliability is a valuable service that utilities offer to their customers and maintaining this reliability is important for supporting future load growth. Participants noted that industrial customers such as data centers, chip factories, and semiconductor plants require high levels of reliability (sometimes referred to as five-nines). Speakers focused on the need to expedite adding new resources to the grid, get things into the queue faster, and speed up transmission buildout to maintain reliable service expected by customers.

> "Our customers *really* like paying utility bills– it's metered, it's predictable…"

One large customer participant mentioned that their company had considered building their own generation on-site, but they liked the service that utilities provided and weren't interested in the logistics involved in self-generation, noting "our customers really like paying utility bills—it's metered, it's predictable". That said, large customers did highlight that in order to ensure reliability, their company maintained backup generation on site at all of their data centers with the potential to fully match load and underscored the potential to utilize this on-site backup generation more flexibly in the interim until additional generation is built, in order to support greater reliability. This customer noted that a change in emission permitting rules may be required to fully utilize this approach.

One RTO participant noted that approximately 95% of the existing queue in the United States is made up of solar, batteries, and wind and highlighted the importance of clean and firm energy in the reliability discussion. They additionally highlighted distribution and supply chain challenges in our current system that would create difficulty in getting additional resources on the grid, noting "you have pipeline issues, you have transmission issues, you've got natural gas turbine issues".

b. Cost Allocation

Large customer Demand Roundtable participants were aware of the costs associated with developing new generation and transmission that is needed to support load growth and expressed a desire to pay their fair share of the costs. Other participants suggested that residential customers should not be made worse off by the load growth, and posited that if load growth is managed correctly, it has the potential to put downward pressure on residential rates.

> *"The end goal should be downward pressure on rates, let's be honest. This new load is the opportunity to put down the pressure on rates if we do it right but at least hold harmless."*

One participant noted the relationship between load forecasts and cost allocation, and expressed a desire to have a better understanding of how utilities developed their load forecasts, explaining: "…those load forecasts get used for long-term resource planning, they get used for cost allocation purposes, but once we hand over [our requests for energy] to the utility, it becomes a bit of a black box, as load is aggregated, it is not clear to us exactly how it is being used".

Finally, the cost allocation discussion led to suggestions from participants that it might be time to reconsider traditional ratemaking principles.[2]

c. Opportunities for Collaboration & Greater Transparency

Several participants acknowledged the importance of opportunities for greater information sharing. One large customer explained that they didn't have a clear understanding of how their interconnection requests were being used for load forecasting, resource planning, and cost allocation purposes and suggested that greater collaboration and information sharing could lead to greater trust between parties and more efficient outcomes.

> *"We also want to work very closely on transparency and developing mechanisms and processes in terms of load forecasting, interconnection and understanding what it will take to make sure that all the stakeholders will be able to work through that process."*

Several of the state commissioner participants supported transparency in interconnection and planning processes as well and noted that there were opportunities for greater transparency between all three parties at the table (state PUCs, large customers, and utilities/RTOs). Participants identified the following opportunities for transparency in planning and ratemaking processes:

- Utilities could be more transparent around load growth forecasts, and sharing granular distribution system capacity
- Large customers could provide more transparency into business growth expectations, as well as decision making around which data centers' plans in queues will proceed vs. dropping out of queues
- Regulators can be more transparent about some of the needs that are served by the same processes and where there are opportunities to streamline processes

[2] Bonbright's Principles of Public Utility Ratemaking have been used by energy regulators for decades.

- Load growth forecasts
- Business growth expectations
- Queuing or shifting to other queues
- Potential to make process more streamlined where redundancies exist
- Planning processes before decisions come before PUCs

> *"Those load forecasts get used for long-term resource planning, they get used for cost allocation purposes. but once we hand over to the utility, it becomes a little bit of a black box"*

d. Support for Regulatory Reform, Nimbleness, Streamlining

Several participants identified traditional ratemaking principles in their comments as one area ripe for improvement. One large customer noted that data centers contributed $231 billion to the US GDP in 2023, stating that while many states likely prohibited regulators from taking broader economic impacts into account in decision making processes, they felt like it would be important to consider the larger economic potential.

One Commissioner participating in the Roundtable pushed back, suggesting that if there was a desire to reexamine rate design, it's important that reexamination be a "holistic discussion… and not cherry-picking different pieces of an isolated discussion [to have an] honest broker discussion about what we are willing and not willing to touch in the process."

e. Technological Optimism (and Realism)

Several of the utility and large customer Roundtable participants had a strong sense of technological optimism—citing the potential for advanced nuclear reactors and other advanced energy technology to help stakeholders meet their load growth projections while minimizing impacts on consumers. One large customer participant framed this as a "once in a lifetime opportunity to really think big [and utilize] innovative partnerships and technology [in a way] that doesn't negatively impact other rate classes." Participants representing regulators, utilities, and large customers identified the value of nuclear technology as an option for providing clean, firm energy on a long-term basis.

> *"There's nascent technology that a lot of [large] customers are investing in for their own means that we will all benefit from eventually and that's fantastic."*

Amazon pointed to their partnership with X-energy and Energy Northwest, where Amazon has committed to investing $500 million in X-Energy with the goal of developing 5 gigawatts of energy by 2039.[3] Amazon highlighted this project as a great example of how a business that has not traditionally participated in power generation could commit significant resources to support technological investment during a risky phase of an advanced energy technology's development that would benefit all customers if it succeeded.

This excitement about the potential of advanced energy technologies was tempered by participant recognition that new technologies might be slow to market and require significant monetary investments—in some cases larger than the market cap of the entire utility. These financing

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

realities make partnerships and management of customer risk critical issues for Roundtable participants to make progress on.

f. Timing

Timing was a reoccurring theme during the February Roundtable discussion, specifically the speed of data center deployment contrasted with the time required to build and interconnect firm energy generation and the concerns about potential for regulatory lag to create an additional barrier. The speed of data center deployment has created a challenge—while traditional data center construction averaged 18-24 months, developers can now bring new facilities online in as little as 12-18 months.[4] Supply chain challenges due to recent high demand are also important to take into consideration—equipment manufacturers were quoting 5-7 year wait times for gas-fired turbines as of May 2025.[5] Roundtable participants recognized that there would likely be an interim period between when load would increase and when baseload energy would be available to new customers.

Finally, participants highlighted the importance of expediting interconnection processes—noting the long wait times for generators to connect to the grid in wholesale markets.

IV. Demand Roundtable Participants at the NARUC Winter Policy Summit

Moderator: Lisa Perry, Walmart

Public Utility Commissions	Utilities / Regional Transmission Organizations	Large Customers
Hon. Edward Lodge, Idaho Public Utilities Commission	Asim Haque, PJM	Etta Lockey, Meta
Hon. John Reynolds, California Public Utilities Commission	Todd Hillman, MISO	Pablo Ovando, Microsoft
Hon. Kelsey Bagot, Virginia Corporation Commission	Alice Jackson, Xcel Energy	Prashant Agrawal, Prologis
Hon. Karen Kemerait, North Carolina Utilities Commission	Lon Huber, Duke	Judith Judson, Vantage
Hon. Stephen DeFrank, Pennsylvania Public Service Commission	Clay Rikard, Southern Company	Matt Meaney, Equinix
Hon. James Van Nostrand, Massachusetts Department of Public Utilities	Mike Innocenzo, Exelon	Ellen Zuckerman, Google
Hon. Eric Skrmetta, Louisiana Public Service Commission	Jose Esparza, Arizona Public Service	Nate Hill, Amazon Web Services

[4] https://www.stackinfra.com/resources/thought-leadership/how-speed-to-market-is-transforming-data-center-design-and-construction/

[5] https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/052025-us-gas-fired-turbine-wait-times-as-much-as-seven-years-costs-up-sharply