

U.S. Senate Committee on Energy and Natural Resources
July 23, 2025 Hearing: *To Identify Challenges to Meeting Increased Electricity Demand*
Questions for the Record Submitted to Mr. Jeff Tench

Questions from Ranking Member Martin Heinrich

Question 1: In your testimony you state that the availability of power is the leading constraint in data center buildout.

- If that's the case, shouldn't we be focused on building as much generation, including renewables, and storage as we can?
- What is limiting data centers from more extensively using medium duration energy storage as an alternative to on-site generators?
- Do you expect more storage to be deployed in the coming years?

Jeff Tench: We believe it's essential to consider all energy sources that—individually or in combination—can deliver economical, firm, reliable, and dispatchable power. Renewables paired with storage have important roles to play, but the ultimate goal is integrating technologies via the grid to meet evolving demand. No single resource will meet future needs alone. Success will depend on designing a generation mix that leverages the strengths of all available resources. Our focus is on partnering with energy providers and policymakers to ensure the grid evolves in a way that prioritizes reliability, sustainability, and cost-effectiveness through the right mix of technologies.

As data center flexibility is increasingly recognized as a way to accelerate grid connection, we expect medium-duration energy storage to become a more integral part of data center power infrastructure. However, the high upfront capital cost of battery energy storage systems compared to on-site generators remains a key barrier to broader deployment.

Questions from Senator Mazie Hirono

Question 1: Hawaii is still dependent on burning oil for about two-thirds of its power and it faces the highest electricity costs in the country. Hawaii is increasing its use of renewables to find both cheaper and cleaner sources of power. In March 2025, John Ketchum, the CEO of utility NextEra described renewables and batteries as being the “cheapest, fastest, and easiest way to meet surging power demand. . . . [i]f you take renewables and storage off the table, we’re going to force electricity prices to the moon.” Do you agree with that comment, and how much does the current and future availability of low-cost power factor into where your company builds data centers?

Jeff Tench: Energy costs are important for our customers and for us, which incentivizes us to work with energy providers on identifying and driving efficiency in design to deliver lower costs. Renewables paired with storage have important roles to play, but the ultimate goal is integrating technologies via the grid to meet evolving demand. No single resource will meet future needs alone. Success will depend on designing a generation mix that leverages the strengths of all available resources.

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Question 2: You described the economic and national security benefits of building new data centers. Cleaner sources of power to serve data centers also matter to the public because fossil-fueled power plants mean more air pollution and worse health outcomes in surrounding communities. Does your company evaluate the potential pollution impacts of its projects when deciding where to build new centers and does it take any steps to reduce the impacts?

Jeff Tench: Our greenhouse gas emissions profile is largely dictated by the amount of energy the data center uses, and the carbon intensity of the energy supplied to meet that demand. We partner with our customers to advance the efficiency of our data centers while also optimizing energy supply to meet our customers' requirements for speed, reliability, carbon emissions, and other factors. Many of our customers have ambitious greenhouse gas emissions reduction goals.

Additionally, all onsite generation equipment utilizes best-available emissions controls to minimize local air quality impacts and is fully permitted to meet or exceed regulatory standards.

Question 3: Your testimony stated that some of your company's customers are looking to add data centers with demand for power similar to that of Washington D.C. Some states, including Ohio, have established unique rates and requirements for data centers, recognizing that they can be much larger than a typical industrial power user. How do you think data center rates should be structured to ensure that the centers are not shifting costs to other consumers?

Jeff Tench: Affordable, reliable and dispatchable energy is integral to our business and the future growth of AI infrastructure. As such, we believe that costs should be assigned in a just and reasonable manner for all ratepayers. The parties involved should implement measures to minimize potential impacts on the market over a set period. This can be achieved through various investments, such as infrastructure upgrades, new technologies, or efficiency improvement. Vantage Data Centers is committed to paying our fair share for grid infrastructure that helps create a more reliable and resilient power grid for all customers.

Question 4: The Independent Market Monitor for the grid operator PJM stated in a June 3, 2025 report: "The basic conclusion of this analysis is that data center load growth is the primary reason for recent and expected capacity market conditions, including total forecast load growth, the tight supply and demand balance, and high prices." If data centers were to agree to briefly reduce their use of power during periods of high demand for power on the grid, how much could such flexibility by data centers reduce electricity price spikes paid by all customers in a given region? Is the company offering such flexibility in its applications to connect to the grid?

Jeff Tench: Data centers must run 24/7/365 to meet our service level agreements with our customers and to provide mission-critical services to their end users that might include hospitals, the transportation sector, and governments. At the same time, Vantage Data Centers fully supports efforts to develop a voluntary demand response program for large end users that allocates risks appropriately and incentivizes participation. We recognize demand response is an important part of a holistic effort to address both power costs and constraints, and that we have to get this right as an industry. We are excited about efforts like the Electric Power Research

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Institute's DCFlex Initiative to develop a thoughtful demand response program through collaboration between data centers, utilities, and regulators.

Questions from Senator Catherine Cortez Masto

Question 1: Your testimony described the U.S. permitting system as “fragmented and sequential.” If you could change one permitting policy tomorrow to enhance domestic grid capabilities, what would it be and why?

Jeff Tench: The single largest limiting factor for data center development in the U.S. is timely access to power, so anything that the federal government can do to accelerate the availability of utility-scale power is welcome and will result in more data center development and the benefits that come with it, including powering U.S. economic competitiveness, enabling technological innovations, and safeguarding national security. We would urge Congress to continue with its efforts from last year to reform permitting under the National Environmental Policy Act.

Question 2: Your written testimony pitched the idea of “High-Demand Digital Infrastructure Zones.” Can you share more about your vision for these Zones, and whether or not you believe current tax policy could keep select states or regions (like the vastness of the Western U.S.) from participating?

Jeff Tench: As I stated in my testimony, the federal government should identify regions of the U.S. experiencing concentrated load growth from digital infrastructure to be declared “High Demand Digital Infrastructure Zones.” These Zones would guide proactive transmission planning, interconnection coordination, and permitting alignment across agencies. This approach would help focus public and private investment toward grid upgrades in areas of strategic national importance. This will require the convening power, coordination, and leadership of the federal government, including Congress, to identify the actions and resources necessary to support the development of the generation and transmission infrastructure required to rapidly develop AI data centers.

Regarding the impact of tax policy, more than half of the states currently offer some form of tax incentive for the data center industry. The sales and use tax exemptions for data center equipment are very similar to the sales and use tax exemptions on equipment that are often offered to manufacturers. While many states and localities offer the data center industry sales and use tax exemptions on data center equipment, the industry still pays significant state and local taxes, including sales tax on non-exempt purchases, property taxes, employment taxes, income taxes, etc., which can impact total cost of ownership and decisions about where to site the deployment of physical capital investments.

Question 3: From your perspective, are there certain Regional Transmission Organizations (RTOs) or regions of the country that you believe are taking an innovative queue management approach for interconnection – such as automation to process requests faster?

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Jeff Tench: I am bullish on the use of technologies like automation and AI to help address the challenges facing the electrical grid, and we support their careful evaluation and integration over time. Congress can help reform the interconnection process, address constraints, and encourage investments that bring about more capacity, reliability, and innovation that strengthens U.S. economic and national security. Specifically, Congress should look at how it can reinforce FERC's authority over interregional transfer capacity, prioritizing interconnection that supports digital infrastructure like data centers, identifying high-demand infrastructure zones for priority consideration, and fully implementing interconnection reforms through transparency measures backed by metrics and reportable data.

Can you explain the significance of FERC Order No. 2023, as well as ways that Congress can complement or build on these policies to further reduce interconnection study delays and meet growing demand?

Jeff Tench: Enforcing FERC Order 2023 is essential for modernizing generator interconnection procedures and ensuring that the electrical grid can meet the growing demands of the digital economy. This order introduces critical reforms to the interconnection queue, prioritizing viable projects and ensuring they are served first. FERC Order 2023 modernizes procedures for co-located, hybrid, and flexible resources, which are crucial for addressing the dynamic and evolving energy landscape. Data centers are increasingly adopting on-site generation and hybrid solutions to enhance their energy security and reduce their reliance on the grid. By streamlining the queue process, FERC Order 2023 reduces delays and accelerates the development of essential infrastructure.

Question 4: Electricity demand is increasing in my home state of Nevada, through new manufacturing facilities and datacenter operations. How should datacenters balance the need for high computation power with state laws and initiatives – such as a Renewable Portfolio Standard?

Jeff Tench: Our focus is on securing reliable and economical power to meet growing demand. When it comes to utility-supplied power or jurisdiction requirements for a particular grid mix, we rely on what the utility is able, willing, and required to provide.

Questions from Senator Ruben Gallego

Question 1: As your testimony makes clear, the need for energy for AI data centers is accelerating. This is certainly the case in my home state of Arizona, which is home to 170 data centers, the largest of which has a capacity of 180 megawatts. This is enough to power 36,000 homes on a hot day.

Your preference for connecting data centers to the grid is a sentiment I have heard echoed by many. As data centers and private companies work with utilities to be connected to the grid, it is also important to ensure that residential demand can be met.

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How do you suggest that data centers work to integrate their energy demand with other demand on the grid? Are there ways to adjust the timing of peak demand, and how do you suggest public and private entities find that balance?

Jeff Tench: The situation described is a potential use case for a demand response program. Vantage fully supports efforts to develop a voluntary demand response program for large end users that allocates risks appropriately and incentivizes participation. Data centers must run 24/7/365 to meet our service level agreements with our customers and to provide mission-critical services to their end users who might include hospitals, the transportation sector, and governments. We recognize this is an important part of a holistic effort to address power constraints, and that we have to get this right as an industry. We are excited about efforts like the Electric Power Research Institute's DCFlex Initiative to develop a thoughtful demand response program through collaboration between data centers, utilities, and regulators.