

BCSE Comments to the AI and Energy Working Group of the House of Representatives

May 15, 2025

The Business Council for Sustainable Energy (BCSE) appreciates the opportunity to share its views with the *AI and Energy Working Group* of the U.S. House of Representatives. The Council commends the establishment of the working group, which is focused on securing American energy dominance, modernizing the grid, and maintaining a competitive edge in the global race for AI leadership.

BCSE is a broad-based energy trade association that is committed to realizing a competitive U.S. economy, powered by a broad portfolio of supply-side and demand-side energy solutions.

BCSE members have a strong understanding of the key policy, regulatory and market drivers that are necessary to invest in the U.S. energy sector. The Council is pleased to share its views on several of the topics outlined in the Request for Information (RFI).

BCSE's submission discusses issues that were covered in an *AI and Energy Roundtable* the Council held in March 2025, and it also cites information included in the [2025 Sustainable Energy in America Factbook](#), released in February 2025 by the Council and BloombergNEF.¹

Section 1: American Energy Dominance and AI Energy Demands

As the RFI notes, the AI race has begun – a race not only to innovate, but to secure investment, train the next generation of skilled workers, collect data, and optimize the energy grid. Driven by growth in AI and data centers, U.S. energy demand is expected to [surge by 35-50%](#) between 2024 and 2040. In support of this race, energy providers are scaling up production, seeking to meet this moment of unprecedented energy demand.

In March 2025, BCSE and members [Aspen Technology](#) and [Enchanted Rock](#) convened a roundtable discussion in Washington, DC to explore how the United States can harness AI to identify and implement energy savings.

The following sections capture the themes from the roundtable and can help to inform federal policies to support U.S. AI leadership.

1) AI is a boon for business.

AI has been helping companies make more sustainable decisions for decades. Even before the recent advancements in AI technology, AI has been used in process industries for hybrid modeling of complex operating systems, power generation and transmission planning, supply chain management, and more – helping companies to avoid costly mistakes and increase productivity. AI capability also helps companies accelerate innovation by enabling faster review of alternatives and quicker implementation of the optimal solution.

¹ See www.bcse.org/factbook for the full 2025 Sustainable Energy in America Factbook.



Increasing the utilization of these technologies will require lowering costs and educating companies about their most effective use, but the possibilities for improving business decisions are extensive.

2) Meeting growing demand requires utilizing the entire energy toolkit.

All energy solutions and generation sources have a role to play in meeting this unprecedented load growth.

Expediting the timeline to develop and interconnect renewable energy and natural gas projects to the grid will be critical. According to the [2025 Sustainable Energy in America Factbook](#), 317 GW of new capacity applied to interconnect in the seven U.S. independent system operators in 2024 alone – representing nearly a third of the current installed U.S. power system. Reforms to the federal permitting and siting processes are needed to quickly deploy the energy resources that are needed to meet growing demand.

At the same time, demand-side solutions also have a role to play in boosting the efficiency of consumer energy use, limiting peak demand and lowering the risk of blackouts. Private and public sector investment is key to reducing up-front costs and increasing consumer uptake of energy efficiency solutions. Flexible data center designs that include co-location of dispatchable energy generation, as well as industrial AI solutions that enable more efficient training and operation of AI, will also play a role in reducing the strain on the energy grid.

3) Public-private partnerships are key to increasing energy supply.

In order to connect projects to the grid at a pace that matches the rate of economic growth in the United States, business leaders must work hand-in-hand with policymakers on crucial regulatory and policy innovations.

For example, public utility commissions are key decision makers in this policy landscape, and energy stakeholders must be prepared to work with the public sector to establish a better market design. Energy advocates must bring their best ideas to the table for meeting data center energy demand and emphasize the urgency for efficient policy adoption.

4) Supply chain constraints require a balancing act.

Consumers expect stable and resilient energy supply, but the grid requires major upgrades and is sensitive to load fluctuations and bi-directional power flow. As the United States expands its grid, energy production, and data center development, energy supply chains will be pushed to the limit.

Supplying resources to build data centers may mean that other projects will face delays – and vice versa. Cooperation on building new projects and scaling up existing infrastructure to properly navigate a constrained supply chain is essential.



5) Policy support is critical to drive innovation and create market signals to invest.

Predictable and stable federal, state and local policies are critical to drive innovation and create the market signals to invest in the U.S. energy sector. At the federal level, research, development and demonstration projects have led to breakthroughs in technology resulting in U.S. leadership high-demand sectors, including natural gas production and LNG exports, energy management and supply-side and demand-side energy solutions.

In addition, long-term energy tax policy has been a driver of scale and cost reductions in a broad range of energy technologies. The market responds to these incentives, thereby accelerating deployment and lowering the cost to invest. This is essential as the United States needs to expand energy availability to meet rising demand – and it needs to do this very quickly.

Federal permitting reform is also vital to build energy infrastructure at a rapid pace. BCSE urges Congress to continue to work on a bipartisan basis to enact federal permitting reform legislation and to support state and local governments with staff and technical assistance to streamline permitting and siting processes and reform policies.

Section 2: Securing the Energy Grid

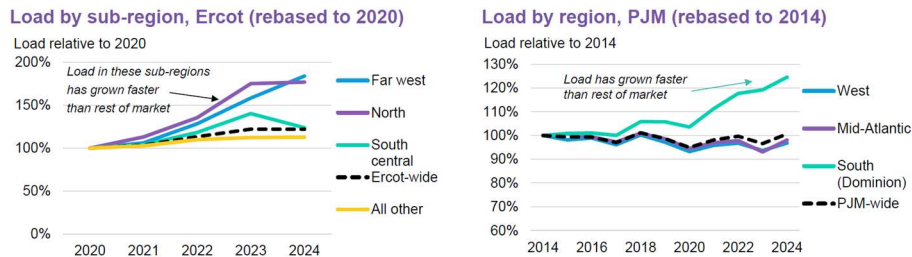
As part of the *AI and Energy Roundtable*, discussants noted the important and urgent dockets open at the Federal Energy Regulatory Commission related to managing large loads, and specifically large load associated with data centers.

As the 2025 Sustainable Energy in America Factbook notes, the U.S. grid is experiencing load growth. It currently is highly localized, most prominently in regions in Texas and Virginia, but is expected to expand to other areas of the country. While there are different estimates of the scale of load growth that the U.S. will experience, new sources of large load are forecasted due to expanded manufacturing, AI and data centers and increased consumer and corporate power demand.



Figure 1.

Deployment: Impact of growing load due to industrial activity



- Over the past year, load growth has dominated the conversation around power demand, as development in power-intensive AI applications and the need to build more data centers to support them gripped the national imagination. This builds upon the growth in power demand in some parts of the country due to increased domestic manufacturing, and electrification of end-use applications.
- Two markets where power demand growth has been apparent over the past few years are Texas and the PJM sub-region in northern Virginia. In Texas, industrial activity – particularly the steady electrification of oil and gas extraction in the Permian basin (in the far west of Texas) – has already driven up power demand in Ercot. Data centers have also been a driver; as of September 2024, 5.5GW of data centers were approved to energize, or connect onto the grid. Of this, 3.3GW was crypto mines that were already operating. Combined with weather factors, Ercot’s power demand has risen 17% compared to 2021, with the summer peak going from 73GW in 2021 to 86GW in 2024.
- Northern Virginia, the largest data center hub in the world, has seen power demand growth steadily rise and dominate the topline power consumption estimates for the local utility, Dominion Energy. The effect of sustained data center buildout in this region has pushed Dominion’s power consumption up by 25% since 2014, to a total of 115TWh in 2024. Other regions in PJM, by contrast, saw power demand remain flat or slightly decline over the same time period. More utilities have reported interest from developers of data centers, as well as direct interest from large tech companies, such that by late 2024, PJM was expecting the summer peak to rise by 25% in 2030, compared to 2024 levels.

Source: Electricity Reliability Council of Texas (Ercot), PJM Interconnection (PJM), BloombergNEF. PJM data for 2024 is a BNEF estimate

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BloombergNEF

BCSE filed comments to FERC in April 2025 in response to these dockets and the Council wishes to share these recommendations with the AI and Energy Working Group.²

As stated in the filing, BCSE recognizes that co-location load arrangements are becoming increasingly common as a means to secure power quickly, specifically in the PJM region. This occurrence raises various planning, cost and market design issues. However, meeting this new load quickly and affordably is critical.

Load growth is being driven by several factors, including expansion of data centers, artificial intelligence, and domestic manufacturing reasons – all of which are important to national security and the modernization of the U.S. energy system.

There are supply side and demand side solutions available to address this load growth, and updated market rules are needed that can support this new load.

BCSE urged FERC to work as quickly as possible to provide direction, and resolve issues related to serving large loads.

² See the full FERC filing here:

<https://bcse.org/images/2025%20FPC/BCSE%20Comments%20to%20FERC%20Co%20Location%20Docket%204%2023%2025.pdf>



In considering updates to market rules, FERC should note the following resource, *Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads in US Power Systems*, published in February 2025 by Duke University's Nicholas Institute for Energy, Environment & Sustainability.³

Thank you for the opportunity for BCSE to share its perspectives. Please contact BCSE President Lisa Jacobson (ljacobson@bcse.org) with any questions related to this submission.

³ See: Duke University's Nicholas Institute for Energy, Environment & Sustainability, *Rethinking Load Growth: Assessing the Potential for Integration of Large Flexible Loads*, February 2025, www.nicholasinstitute.duke.edu/publications