U.S. House of Representatives
Subcommittee on Oversight and Investigations
Committee on Natural Resources
1324 Longworth House Office Building

May 21, 2025

Hearing on "Unleashing a Golden Age: Examining the Use of Federal Lands to Power American Technological Innovation"

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Chair Gosar, ranking member Dexter, and distinguished members of the subcommittee, thank you for holding this hearing and inviting me to testify today.

My name is Paige Lambermont and I'm a Research Fellow in the Center for Energy and Environment at the Competitive Enterprise Institute, a nonprofit, non-partisan public policy organization dedicated to free market, limited government principles with a focus on regulatory issues. I am also a visiting fellow in the Center for Energy and Conservation at the Independent Women's Forum, and a Catalyst Policy Fellow at the Independent Institute.

I am grateful for the opportunity to speak to you today on an important issue: innovative ways to ensure that power grid reliability keeps up with the development and deployment of artificial intelligence technology.

I have three main points I want to make in my testimony:

1. Power demand from AI is rising, revealing underlying issues on the power grid.
2. There are legislative and regulatory actions that can be taken to meet this demand.
3. Our public lands and Department of Energy sites can play a vital role in meeting this challenge.

Power demand is rising

AI technology has the potential to solve complex problems across sectors of the economy and create significant benefits, both economically and in terms of human health and flourishing. This technology is capable of computational work that is impossible for humans alone and will continue to develop and drive innovation. But as AI technology develops, its power demand grows as well. AI data centers are generating significant new demand for electricity.

More than 400 data centers are currently planned or under construction in the US, totaling 19 GW of new power demand.[1] A 2024 report by Goldman Sachs projects that data centers will consume 8 percent of US power demand by 2030, and projects that 47 GW of new power

[1]Max Pyziur, "Chart of the Week #2024-45 US Data Centers: A Provisional Summary in Two Tables," Energy Policy Research Foundation, November 13, 2024, https://eprinc.org/wp-content/uploads/2024/11/EPRINC-Chart2024-45-DataCenterDevelopmentSummary.pdf.

capacity will be needed to meet that demand.[2] Another projection from S&P Global projects that new power demand will be 59 GW by 2029.[3]

This new growth comes at a time when existing thermal generation, the dispatchable sources that are available when called upon, is being quickly retired. According to the North American Electric Reliability Corporation's (NERC) 2024 Long-Term Reliability Assessment, between now and 2034 more than 79 gigawatts of natural gas, coal, and nuclear power are set to retire.[4] That report also projects that the reserve margins for 18 of the 20 regions NERC covers will fall below required levels by 2034.[5] This means that the excess of power over the usual peak demand will be insufficient for outlier situations such as extreme heat or cold, and reliability may be endangered.

To prevent this reliability scenario, new reliable power capacity is needed. The private desire to build this infrastructure exists, but policy reforms are necessary to make those projects possible.

Policy and regulatory actions to meet demand

Reliable power is needed to meet increasing demand. This makes it essential to remove existing policies that make it more difficult and expensive to build new power plants, disrupt power markets, and disincentivize the construction of new dispatchable power.

Permitting reform is essential to allow power plants to be built more quickly. The National Environmental Policy Act in particular is ripe for reform, but its interactions with other environmental laws including the Clean Water Act, Clean Air Act, and Endangered Species Act create significant delays and uncertainty. These laws can also trigger additional NEPA reviews requiring overlapping layers of regulation that provide no added environmental protection but require the duplication of significant work for those looking to develop new projects.[6] Reforming these laws in parallel would reduce the barriers to new development while still maintaining high standards. The Competitive Enterprise Institute's "Modernizing the EPA: A Blueprint for Congress" presents a vision for these and other reforms that would make this possible.[7]

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[2] Carly Davenport et al., "Generational Growth: AI, data centers and the coming US power demand surge," April 2024, p. 3, https://www.goldmansachs.com/pdfs/insights/pages/generational-growth-ai-data-centers-and-the-coming-us-power-surge/report.pdf.
[3] Zach Hale, "US lawmakers address 'astounding' AI datacenter power demand projections," S&P Global, April 1, 2025, https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/040125-us-lawmakers-address-astounding-ai-datacenter-power-demand-projections.
[4] North American Electric Reliability Corporation, "2024 Long-Term Reliability Assessment," December 2024, https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf.
[5] North American Electric Reliability Corporation, "2024 Long-Term Reliability Assessment," December 2024, https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf.
[6] Daren Bakst, "Four Principles for Real Permitting Reform," Competitive Enterprise Institute, OnPoint, No. 287 (July 27, 2023), https://cei.org/studies/four-principles-for-real-permitting-reform/.
[7] Daren Bakst and Marlo Lewis editors, "Modernizing the EPA: A Blueprint for Congress", Competitive Enterprise Institute, March 6, 2025, https://cei.org/studies/modernizing-the-epa-a-blueprint-for-congress/.

Ideal reforms would be broad based and technology neutral. This would allow new power plants and grid infrastructure to be built more quickly and efficiently where and how they're needed. Permitting reform that favors one technology over another or creates carve-outs for different sources is a piecemeal solution that ultimately adds to the complexity of regulation rather than ameliorating it. True permitting reform also requires litigation reform to ensure that projects are only held up in courts by valid complaints. This reform should include clear standards for when an environmental review is complete, reasonable time limits for filing challenges, and other commonsense reforms.

The energy subsidies contained in the Inflation Reduction Act, particularly the Investment Tax Credit and Production Tax Credit, are also especially harmful to grid reliability. These tax credits have historically paid wind, solar, and other energy companies for investment in new facilities and for each MWh of production respectively. They were extended and expanded under the Inflation Reduction Act and turned into the Clean Energy Investment Tax Credit and Clean Energy Production Tax Credit which include producers of all zero-greenhouse gas emissions energy starting at the beginning of 2025. These tax credits make it difficult for more reliable thermal units to compete economically because they lower the price at which wind and solar generators can bid in to power auctions and remain competitive. This means that other generators are competing with artificially low prices that they may be unable to match. This results in less reliable power over time and is a likely contributor to the number of reliable plants that are slated to close in the next decade.[8]

Reforming our permitting system and repealing the IRA energy subsidies would go a long way toward creating an environment where companies are willing and able to build reliable power in response to market demand.

The role of public lands

There is a clear role for public lands to play in meeting new power demand. Co-location, wherein new data centers are sited next to power plants and situated behind the meter (before their connection to the broader power grid) has been a common solution by companies looking to power data centers. There have been a litany of agreements between companies operating or building a variety of different power plants and technology companies building data centers to collocate their facilities. Because data centers operate around the clock, deals with nuclear and natural gas companies have been especially prominent.

Among these are several notable deals. Microsoft has signed a deal with Constellation Energy to reopen the shuttered Three Mile Island Nuclear power plant, a first of its kind action.[9] Google

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[8] "Summary of Inflation Reduction Act provisions related to renewable energy," Environmental Protection Agency, accessed May 15, 2025, https://www.epa.gov/green-power-markets/summary-inflation-reduction-act-provisions-related-renewable-energy.

[9] Paige Lambermont, "Microsoft Deal to Restart Three Mile Island Could Be a Game-Changer," Real Clear Energy, October 7, 2024, https://www.realclearenergy.org/articles/2024/10/07/microsoft_deal_to_restart_three_mile_island_could_signal_a_major_change_in_energy_policy_1063507.html.

has agreed to a colocation agreement with Kairos Power, a small modular reactor company.[10] Meta is soliciting bids for between 1 and 4 GW of collocated nuclear power.[11] In Ohio, natural gas power plants are being collocated with a data center park.[12]

Technology companies have shown that they are willing to support power projects to meet data center demand.

Given the popularity of co-location, the Department of Energy released a list of 16 locations that would be prime for partnerships with private companies to build co-located artificial intelligence data centers with power plants.[13] Many of the identified sites are national labs, some of which already host both supercomputer projects and demonstration projects for advanced nuclear reactors.[14][15] Allowing power plants and data centers to be collocated alongside these existing facilities would allow for faster permitting and approval of the projects while also allowing for collaboration and innovation.

Conclusion

Ultimately, artificial intelligence is a technology that will bring numerous benefits. The disruption of added power demand is something that we ought to work to mitigate to reap the benefits of this innovation. Public lands have incredible possibilities in this space, especially given some of the unique infrastructure that already exists at these sites. Viewing AI power demand as a challenge, rather than treating it as a crisis will enable innovative solutions in this space.

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[10] Michael Terrell, "New nuclear clean energy agreement with Kairos Power," Google, October 14, 2024, https://blog.google/outreach-initiatives/sustainability/google-kairos-power-nuclear-energy-agreement/.
[11] Francisco "A.J." Camacho, "Meta joins Big Tech push for nuclear-powered data centers," E&E News, December 5, 2024, https://www.eenews.net/articles/meta-joins-big-tech-push-for-nuclear-powered-data-centers/.
[12] Darrell Proctor, "More Natural Gas-Fired Plants Planned to Support Ohio Data Centers," Power Magazine, March 25, 2025, https://www.powermag.com/more-natural-gas-fired-plants-planned-to-support-ohio-data-centers/.
[13] Department of Energy, "DOE Identifies 16 Federal Sites Across the Country for Data Center and AI Infrastructure Development," April 3, 2025, https://www.energy.gov/articles/doe-identifies-16-federal-sites-across-country-data-center-and-ai-infrastructure.
[14]Department of Energy, "Supercomputing," accessed May 15, 2025, https://www.energy.gov/topics/supercomputing.
[15] National Reactor Innovation Center, "Advanced Reactor Demonstration Projects," accessed May 15, 2025, https://nric.inl.gov/advanced-reactor-demonstration-projects/.