



Committee: Senate Energy & Natural Resources Committee
Event: [Full Committee Hearing to Identify Challenges to Meeting Increased Electricity Demand](#)
Date: July 23, 2025
Time: 10:00 AM
Place: 366 Dirksen Senate Office Building

Member Toplines:

*Chair Mike Lee (R-UT)*¹: Lee emphasized the sharp rise in electricity demand driven by artificial intelligence (AI), data centers, advanced manufacturing, and electric vehicles. He criticized the shift from dispatchable sources like coal, gas, and nuclear to renewables, citing reliability concerns and costly grid upgrades. Lee pointed to regulatory and legal barriers that delay energy projects and warned that planned coal retirements outpace new gas additions. He referenced a projection from the Department of Energy (DOE) that blackout risks could increase 100-fold within five years.

Ranking Member Martin Heinrich (D-NM): Heinrich emphasized that surging electricity demand requires major permitting reform and grid modernization. He noted delays from long interconnection timelines, fragmented permitting, and an aging grid, warning that tariffs and federal land restrictions could further stall clean energy projects and raise costs. Heinrich highlighted that 95 percent of new energy capacity in 2024 came from renewables and that strategic transmission investments could save households billions annually, pointing to Texas and California as proof of improved reliability.

Witness Toplines:

[*Peter Huntsman, Chairman, President, and Chief Executive Officer, Huntsman Corporation:*](#) Huntsman criticized European decarbonization policies that have forced his company to lay off thousands of employees. He asserted that societies need fossil fuels to generate energy and construct the necessary physical materials for goods and infrastructure. He noted that the United States' primary challenge is to produce increased affordable energy to meet demand growth.

[*Jeff Tench, Executive Vice President, North America and APAC, Vantage Data Centers:*](#) Tench explained that the data center industry's greatest barrier is timely access to electric power. He contended that despite a readiness to break ground on data center projects, they cannot be built with reliable access to energy. He highlighted lengthy interconnection timelines, a need for new transmission infrastructure, and fragmented permitting as primary issues. Tench declared that the U.S. will not lead the AI era if it cannot power its innovations.

[*Rob Gramlich, President, Grid Strategies LLC:*](#) Gramlich stated that powering demand growth in an affordable manner is the United States' primary challenge. He called for improvements in transmission, especially interregionally, recognizing its importance for energy reliability and reducing blackouts. He expressed concern that China is outperforming the U.S. on high-voltage transmission.

¹ The opening remarks by Chair Lee and Ranking Member Heinrich were not available at the time of this memo's distribution.

Gramlich stressed the need for increased energy generation, supporting an all-of-the-above approach.

Major Takeaways:

Grid Reliability and Infrastructure

- Sen. **Cindy Hyde-Smith** (R-MS) raised concerns over multi-year delays in grid interconnection for baseload power and asked about interim solutions for data centers.
- Sen. **Alex Padilla** (D-CA) highlighted that increased grid storage and reconductoring have reduced blackouts in California. He emphasized combining renewables with storage systems to build capacity and lower emissions, and urged increased multi-state coordination.
- Sen. **Angus King** (I-ME) highlighted that advanced materials, like carbon fiber conductors, can nearly double grid capacity through reconductoring at a fraction of rebuild costs.
- Sen. **John Hickenlooper** (D-CO) emphasized the importance of expanding high-voltage interregional transmission to maintain U.S. competitiveness in AI, contrasting America's slow progress with China's rapid ultra-high-voltage buildout.
- Sen. **Bill Cassidy** (R-LA) pointed out that, despite causing a short-term increase in emissions, the use of more carbon-intensive inputs yields a long-term reduction as the materials are lighter and more efficient.
- Sen. **Lisa Murkowski** (R-AK) highlighted Alaska's leadership in microgrid innovation and reaffirmed her commitment to reducing energy costs to aid consumers and enable data center development.

Renewable Energy

- There was disagreement over the affordability and reliability of wind and solar power.
 - Sen. **Ron Wyden** (D-OR) championed a technology-neutral, market-based approach, stressing the urgency of deploying wind and solar to meet growing demand.
 - Sen. **Catherine Cortez Masto** (D-NV) highlighted Nevada's success in expanding solar and geothermal energy, attracting new businesses with support from federal tax credits and the *Inflation Reduction Act*. She noted that Vantage's new AI campus in Nevada uses renewable energy.
 - King emphasized that wind and solar are the cheapest and fastest sources to deploy. He praised utility-scale batteries for helping renewables fulfill baseload requirements.
 - Murkowski advocated for a diverse energy mix and warned against picking "winners and losers." She expressed discontent with President **Donald Trump's** executive order increasing regulatory burdens on wind and solar projects, noting that many communities value even small-scale renewables to offset diesel costs.
 - Heinrich expressed concern over lengthy nuclear and gas project timelines, pointing to the vast availability of affordable renewable energy sources.
 - Lee criticized wind and solar for their inability to meet baseload demands, particularly for AI and manufacturing. He rejected the claim that renewable energy tax credits reduce electric rates, stating that the batteries that backup wind and solar energy cost over three times as much as baseload power.
 - Lee noted that regulatory barriers pushed by environmental groups discourage tech companies from adopting nuclear energy despite it being a reliable, zero-emission baseload solution.

- Sen. **Jim Risch** (R-ID) argued that nuclear energy is essential to any “all-of-the-above” strategy. He highlighted Idaho’s leadership in the field, including a new microreactor under construction at the Idaho National Laboratory.
- Sen. **Maria Cantwell** (D-WA) highlighted the potential of nuclear fusion technology, citing the need for more energy due to the AI revolution.

Fossil Fuels

- Wyden blamed Republican favoritism toward the oil industry for high energy bills and climate inaction, emphasizing that fossil fuels alone cannot meet growing demand.
- Hickenlooper noted weak market interest in new coal and gas plants and stressed the urgent need to accelerate deployment of all available energy sources to meet soaring demand.
- Lee argued that natural gas is the best option to reliably and affordably power data centers.
- Heinrich asserted that coal and wind have the same capacity factor of 40 percent. He called coal expensive and unreliable.
- Sen. **Jim Justice** (R-WV) supported an all-of-the-above approach, warning against retiring fossil fuel production due to China’s expanding coal industry.
- Sen. **John Hoeven** (R-ND) advocated for increased baseload energy, citing AI demand and asserting that restricting coal and nuclear energy and not building transmission infrastructure creates instability.

Permitting/Regulatory Measures

- Cortez Masto and Cantwell emphasized the need to streamline permitting and improve grid infrastructure to stay competitive with China on AI innovation.
 - Cortez Masto advocated for reducing federal micromanagement to empower state-led strategies.
 - Cantwell proposed using AI to enhance manufacturing and permitting, highlighting the growing demand for airplanes and the advantages of quickly producing lighter, more advanced parts.
- King criticized DOE’s recent termination of a transmission loan program, warning that increasing transmission costs are driving up electric bills.
- Cassidy pointed to stagnant GDP growth in Europe and deindustrialization and disinvestment in Germany, attributing it to burdensome regulatory and energy policies. Huntsman confirmed that despite Germany’s abundant electricity supply, his company pays six times more for power than in Louisiana.
- Padilla asserted that permitting reform is critical to upgrading transmission infrastructure, calling attention to the Energy Permitting Reform Act of 2024 ([S. 4753](#)).
- Lee noted the need for permitting reform, blaming regulatory hurdles for delaying the energy projects that data centers require by up to 10 years.
- Heinrich opposed the recent Department of Interior [memorandum](#) requiring Secretary **Doug Burgum** to approve all solar and wind projects, asserting that “red tape” causes new projects to fail or come onto the grid slowly. He called for permitting reform, especially surrounding transmission infrastructure, arguing that the Loan Programs Office should not have a politically driven process.