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ONE HUNDRED NINETEENTH CONGRESS

Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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April 27, 2026

MEMORANDUM

TO: Members of the Subcommittee on Energy
FROM: Committee Majority Staff
RE: Hearing titled "AI and the Grid: Meeting Growing Power Demand While Protecting Ratepayers."

I. INTRODUCTION

The Subcommittee on Energy will hold a hearing on Wednesday, April 29, 2026, at 10:15 a.m. (ET) in 2123 Rayburn House Office Building. The hearing is entitled, "AI and the Grid: Meeting Growing Power Demand While Protecting Ratepayers." The hearing will review the following legislation:

- H.R. ____, Load Forecasting Enhancement Act
- H.R. ____, Affordable Innovation for the Grid Act
- H.R. ____, Advanced Transmission Technology to Reduce Rates Act
- H.R. ____, Rate Payer Protection Act
- H.R. 6336, Fair Allocation of Interstate Rates Act (Fedorchak)
- H.R. 6633, High-Capacity Grid Act (Fedorchak)
- H.R. 6529, Protecting Families from AI Data Centers Energy Costs Act (Landsman)

II. WITNESSES

- **Nick Myers**, Chairman, Arizona Corporation Commission
- **Tom Falcone,** President, Large Public Power Council
- **Nelson Peeler**, Senior VP of Grid Strategy, Planning and Integration, Duke Energy
- **Whitney Muse**, President, Muse Energy

III. BACKGROUND

After years of minimal growth, electricity demand in the United States is projected to grow nationally at a significant rate through the end of the decade, and beyond.[1] Recent estimates have projected annual growth rates ranging between 3.7 percent to 15 percent by 2030.[2] In April, the Energy Information Administration (EIA) noted that, after 15 years of nearly flat electricity consumption, demand has increased by 2.1 percent per year, on average, over the last five years. Electricity demand growth is projected to continue to grow steadily through 2050, with data center energy use a major factor.[3]

Providing reliable power requires generation resource capacity to provide power during times of peak demand, which tends to be during summer months. Just in the next two years, EIA projects peak summer demand for power to continue to grow significantly overall, at 2.3 percent this year and 3.7 percent in 2027; and for the commercial sector, in which data centers are classified, at 2.6 percent and 5.8 percent respectively. The industrial sector is also projected to grow by upwards of 5.1 percent in 2027.[4] By the end of the decade, data center-driven increases in electricity demand could consume as much as 9.1 percent of all electricity in the United States.[5]

The North American Electric Reliability Corporation's (NERC) 2025 Long-Term Reliability Assessment finds that most of North America is at risk of energy shortfalls over the next five years, and the risk is growing. Key drivers include a confluence of interrelated issues, including a generation resource base that is becoming more variable and weather-dependent, unprecedented growth in electricity demand, and a pace of resource additions that is not keeping up with demand projections.[6] The report finds, for example, that over the next 10 years more than 104 gigawatts (GW) of generation is projected to retire while peak power demand may grow by over 224 GW in the same time period.[7] The report finds that projections for generation resource and transmission growth lag behind what is needed to support new data centers and

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[1] Electricity 2024, INTERNATIONAL ENERGY AGENCY (May 2024), https://www.iea.org/reports/electricity-2024/executive-summary; John D. Wilson and Zach Zimmerman, *The Era of Flat Power Demand is Over*, GRID STRATEGIES (Dec. 2023), https://gridstrategiesllc.com/wp-content/uploads/2023/12/National-Load-Growth-Report-2023.pdf; Robert Walton, *US Electricity Load Growth Forecast jumps 81% Led by Data Centers, Industry: Grid Strategies*, UTILITY DIVE (Dec. 13, 2023), https://www.utilitydive.com/news/electricity-load-growing-twice-as-fast-as-expected-Grid-Strategies-report/702366/; *US Power Use to Reach Record Highs in 2024 and 2025 – EIA*, REUTERS (Feb. 6, 2024), https://www.reuters.com/world/us/us-power-use-reach-record-highs-2024-2025-eia-2024-02-06/.

[2] Electric Power Research Institute (EPRI), *Powering Intelligence: Analyzing Artificial Intelligence and Data Center Energy Consumption* (May 2024), https://www.epri.com/research/products/3002028905.

[3] U.S. ENERGY INFORMATION ADMIN. (EIA), *Annual Energy Outlook 2026*, (Apr. 2026), https://www.eia.gov/outlooks/aeo/

[4] EIA, *Short Term Energy Outlook*, (Apr. 2026), https://www.eia.gov/outlooks/steo/archives/apr26.pdf

[5] EPRI, *Id.*

[6] *See* testimony of James B. Robb, *Winter Storm Fern Lessons: Supplying Reliable Power to Meet Peak Demand: Hearing before the Subcomm. On Energy of the H. Comm. on Energy and Commerce*, 119th Cong. (Mar. 17, 2026).

[7] NORTH AMERICAN ELECTRIC RELIABILITY CORP., *Long-Term Reliability Assessment January 2026* (Jan. 2026), https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf.

other large loads that drive escalating demand forecasts.[8] NERC's president recently called the reliability challenges facing the United States a "five alarm fire."[9]

Electricity prices have increased by an estimated 27 percent between January 2021 and January 2025 and have increased another estimated 11 percent over the last year. These increases are most pronounced in states that have aggressive mandates on the use of preferred renewable energy resources.[10] Comparatively, data shows that states with the most affordable electricity rates are consistently those with public policy environments that allow for the rapid integration of reliable generation resources, such as natural gas.[11]

Against this backdrop, providing the generation, transmission, and distribution upgrades necessary to power AI infrastructure and assure reliable power overall, raises a number of local, state, and federal policy challenges. These challenges involve the accuracy of information concerning data center load growth for states and utilities to plan for appropriately new generation and transmission expansion, availability of cost-effective technologies to upgrade transmission infrastructure, and policies that assure residential ratepayers are protected from costs caused by expanding electric infrastructure to serve major data center loads and by other policies that could potentially raise residential rates.

IV. LEGISLATION

A. H.R. ____, Load Forecasting Enhancement Act

This legislation would direct the Federal Energy Regulatory Commission (FERC) to hold regional joint boards with State public utility commissions to study and identify best practices for electric load forecasting that enhance the reliability and affordability of electric service to customers, and to develop best practices related to load forecasting. The legislation requires a FERC report to Congress with recommendations from the joint boards and would amend Section 111 (d) of the Public Utility Regulatory Policies Act of 1978 (PURPA) to require each State regulatory authority to consider incorporating the recommendations relating to procedures used to conduct load forecasting published in the report. Further, the legislation would amend the Energy Policy and Conservation Act (EPCA) to include in state energy conservation plans procedures and programs to improve the accuracy, oversight, and transparency to stakeholders of load forecasting by electric utilities.

B. H.R. ____, Affordable Innovation for the Grid Act

This legislation would direct the Department of Energy, in consultation with FERC and NERC, to study and report to Congress on opportunities to utilize AI and other high-performance computing technologies to enhance the capacity, reliable operation, and operational efficiency of

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[8] *Id*.
[9] Ethan Howland, *NERC president warns of 'five-alarm fire' for grid reliability*, Utility Dive (Oct. 22, 2025), https://www.utilitydive.com/news/data-center-grid-reliability-ferc-nerc/803467/.
[10] Thomas J. Pyle, Kenny Stein, Alexander Stevens, *Blue States, High Rates*, Institute of Energy Research (Dec. 10, 2025), https://www.instituteforenergyresearch.org/the-grid/blue-states-high-rates/.
[11] ENERGY POLICY RESEARCH FOUNDATION, *Changes in Electricity Prices Over 20 Years* (Oct. 15, 2025), https://eprinc.org/wp-content/uploads/2025/10/COW-2025-38-Electricity-prices-20-years-.pdf.

the bulk power systems, and provide recommendations to facilitate adoption of such technologies with respect to grid operation.

C. H.R. ____, Advanced Transmission Technology to Reduce Rates Act

This legislation would amend EPCA to require the Secretary of Energy establish and maintain a publicly available clearinghouse that identifies advanced transmission technologies (ATT), analyses, and financial assistance related to the technologies, and would require the Secretary to provide technical assistance to utilities, transmission organizations, and States seeking such assistance concerning ATT. The legislation would encourage States to include programs to facilitate deployment of ATT in state energy conservation plans. The legislation would provide that any DOE financial assistance for ATT would not be considered a major federal action under the National Environmental policy Act. The legislation would require the Secretary to establish best practices for utilities to reduce the risk of wildfire ignition from the bulk power system.

D. H.R. ____, Ratepayer Protection Act

This legislation would amend Section 111 (d) of PURPA to require each State regulatory authority to consider establishing a large-load standard to provide that a rate charged, or related agreement entered into, by an electric utility for providing electric service to a large-load customer shall recover the full, incremental cost of any generation, transmission, or distribution upgrade necessary to serve the load of such customer and to provide for financial assurances to cover such upgrades. The legislation would define large-load customers as non-residential retail electric customers requesting electric energy for one or more facilities behind a single point of interconnection with peak demand of 100 megawatts or more.

E. H.R. 6336, Fair Allocation of Interstate Rates Act

This legislation would amend Section 205 of the Federal Power Act to prohibit a transmission provider serving two or more states from allocating costs for transmission built for the purposes of fulfilling renewable portfolio standards in one state to consumers resident in another state if that state does not consent. (Rep. Fedorchak introduced this legislation on December 1, 2025.)

F. H.R. 6633, High-Capacity Grid Act

This legislation would amend Section 205 of the Federal Power Act to direct FERC to establish a best-available transmission conductor standard and to apply the standard to new FERC jurisdictional transmission lines and upgrades, modifications, or replacements. The legislation would establish that a utility is precluded from recovering any costs for conductors, except for conductors meeting the standard, unless the utility can demonstrate that use of such conductors is not prudent and the associated costs are not just and reasonable. (Rep. Fedorchak introduced this legislation on December 11, 2025.)

G. H.R. 6529, Protecting Families from AI Data Center Energy Costs Act

This legislation would require FERC to hold a Commissioner-led technical conference on strategies and rate structures for protecting residential and small commercial ratepayers from increased costs associated with large loads. Participants would include DOE, utilities, transmission providers, State regulators, consumer advocates, and large loads. FERC would report to Congress on recommendations and best practices resulting from the conference. (Rep. Landsman introduced this legislation on December 12, 2025.)

V. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Mary Martin, Peter Spencer, or Andrew Furman of the Committee Staff at (202) 225-3641.