119TH CONGRESS
*1st Session*
HOUSE OF REPRESENTATIVES
REPORT
119–304

# ELECTRIC SUPPLY CHAIN ACT

SEPTEMBER 19, 2025.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. GUTHRIE, from the Committee on Energy and Commerce, submitted the following

# R E P O R T

together with

## MINORITY VIEWS

[To accompany H.R. 3638]

The Committee on Energy and Commerce, to whom was referred the bill (H.R. 3638) to direct the Secretary of Energy to prepare periodic assessments and submit reports on the supply chain for the generation and transmission of electricity, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

CONTENTS



59–006

## PURPOSE AND SUMMARY

H.R. 3638, the "Electric Supply Chain Act", was introduced by Representative Latta on May 29, 2025, and referred to the Committee on Energy and Commerce on May 29, 2025. H.R. 3638 directs the Department of Energy (DOE) to conduct periodic assessments of trends, risks, and vulnerabilities in the supply chain for electric generation and transmission infrastructure and grid components. As part of the ongoing assessment of electric grid supply chains, the Department would consult stakeholders across the electric grid ecosystem and provide recommendations to address the identified emerging issues and secure domestic supply chains. Periodic reports from the Department would be submitted to the Committee.

## BACKGROUND AND NEED FOR LEGISLATION

The United States maintains one of the most advanced and complex energy systems in the world. This includes an extensive system for producing and transporting oil, natural gas, and refined product; vast, complex electricity systems that produce and deliver uninterrupted power; and the supply chains of the energy resources and materials necessary for these energy systems and technologies to be built, maintained, operated. Our nation's economy, security, and the health and safety of its citizens depend upon the reliable and uninterrupted supply of fuels and electricity.

The urgency of addressing supply chains is particularly acute as our nation is in the midst of a growing electric reliability crisis while historic levels of demand seek interconnection to the bulk power system. These increases follow several decades of relatively flat electricity demand growth. Data centers alone could consume upwards of 132 GW by 2028.[1] The North American Electric Reliability Corporation (NERC) projects peak demand to grow by 151 GW by 2034.[2] At the same time, NERC reports that as much as 115 GW of thermal generation has announced to retire within the same time period.[3]

The nation's bulk power system, commonly referred to as the most complex piece of machinery built by man, is comprised of vast networks of high voltage transmission lines, fuel distribution facilities, generating facilities, and other critical infrastructure to ensure the delivery of adequate and reliable supplies of electricity when Americans need it most. Electricity is the backbone of the entire U.S. economy and is the only product that must be consumed at the immediate point of production. Our nation's reliance on electricity for key parts of the economy will only rise with the development of next generation industries, such as artificial intelligence. Because of the criticality of the power sector, and interconnected nature of the bulk power system, there is a need to maintain constant vigilance against threats, disruptions, supply chain con-

[1] Arman Shehabi et al., *2024 United States Data Center Energy Usage Report,* LAWRENCE BERKELY NATIONAL LABORATORY (Dec. 20, 2024), [https://escholarship.org/uc/item/32d6m0d1].

[2] North American Reliability Corp. (NERC), *2024 Long-Term Reliability Assessment* (Dec. 2024, updated Jul. 15, 2025), https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_Long%20Term%20Reliability%20Assessment_2024.pdf.

[3] *Id.*

straints, or other vulnerabilities that may inhibit our nation's ability to keep the lights on.

Underpinning the bulk power system is a complex supply chain for components, equipment, and infrastructure utilized in the bulk power system. Within this system there are myriad pieces of equipment and grid components made up of processed minerals that are necessary to manufacture equipment capable of maintaining essential reliability services of the electric system. As recently as 1990, the United States was the world's number-one producer of minerals. By 2018, the United States had fallen to 12th overall in global non-fuel minerals production.[4] The severity of this overdependence on other countries for critical minerals was brought to the public's attention by the report released during the Trump administration, which found the United States relies on imports for 31 of the 35 critical minerals necessary for the U.S. defense and economy.[5]

Disruption in the supply chains for manufactured grid components and infrastructure could result in significant delays to critical generation and transmission development needed to address growing demands. As an example, beginning at the onset of the COVID–19 pandemic, our nation faced severe shortages of distribution and transmission transformers that are essential components to ensure the delivery of reliable and affordable electricity for businesses and households. In 2021, lead times for new transformer orders reached over 150 weeks.[6] These supply chain constraints were further exacerbated by transformer demand stemming from significant federal subsidies under the Biden administration for clean energy technologies and renewable energy resources.[7] As this committee has found during hearings with regional grid operators, the introduction of significant inverter based resources onto the electric grid is also introducing novel operational challenges for grid operators and new technologies needed to maintain frequency and voltage support.

Most recently, some reports indicate growing backlogs on orders for certain manufactured natural gas turbines, some of which found upwards of seven-year lead times.[8] Constraints on natural gas turbine order backlogs may differ across supplier, however, as one of the nation's largest gas turbine manufacturers submitted letters to the Committee highlighting a 3-year timeline, which aligns with historical norms. Constraints on orders of some natural gas turbines are largely driven by the interest from data centers for AI and new manufacturing facilities that require constant, baseload

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[4] *Building a 100 Percent Clean Economy: Opportunities for and Equitable, Low-Carbon Recovery: Hearing before the H. Subcomm. on Environment and Climate Change of the H. Comm. On Energy and Com.,* 116th Cong. (September 16, 2020) (testimony of Michelle Michot Foss).

[5] *Unleashing American Energy, Lowering Energy Costs, and Strengthening Supply Chains: Hearing before the H. Subcomms. Energy, Climate and Grid Security, and also Environment, Manufacturing, and Critical Minerals of the H. Comm. On Energy and Com.,* 118th Cong. (Feb. 7, 2023) (Testimony by the Honorable Mark W. Menezes).

[6] Isabel Schwartz & Kevin Jacobs, *4 years into the difficult transformers market in the US, is there a potential end in sight?*, WOOD MACKENZIE (Jun. 27, 2024) https://www.woodmac.com/news/opinion/4-years-into-a-difficult-transformers-market-in-the-us-is-there-a-potential-end-in-sight/.

[7] *Id.*

[8] Jared Anderson, *US gas fired turbine wait times as much as seven years; costs up sharply,* S&P GLOBAL (May 20, 2025), https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/052025-us-gas-fired-turbine-wait-times-as-much-as-seven-years-costs-up-sharply.

electricity supplies that affordably come from natural gas power plants.

The Electric Supply Chain Act will ensure that the Department of Energy remains in a proactive posture to uncover and address supply chain constraints or vulnerabilities affecting the bulk power system. The legislation would require periodic assessments by the Department, along with close coordination from industry stakeholders and members of academia, to equip the federal government with the most accurate data from the power sector in order to make informed public policy decisions.

## COMMITTEE ACTION

On April 30, 2025, the Subcommittee on Energy held a legislative hearing on H.R. 3638, titled "Assuring Abundant, Reliable American Energy to Power Innovation." The Subcommittee received testimony from:

- Mike Goff, Acting Undersecretary of Energy, U.S. Department of Energy;
- David L. Morenoff, Acting General Counsel, Federal Energy Regulatory Commission;
- Terry Turpin, Director, Office of Energy Projects, Federal Energy Regulatory Commission;
- Jim Matheson, Chief Executive Officer, National Rural Electric Cooperative Association;
- Amy Andryszak, President and Chief Executive Officer, Interstate Natural Gas Association of America;
- Todd A. Snitchler, President and Chief Executive Officer, Electric Power Supply Association and;
- Kim Smaczniak, Partner, Roselle LLP.

On June 5, 2025, the Subcommittee on Energy met in open markup session and forwarded H.R. 3638, without amendment, to the full Committee by a voice vote. On June 25, 2025, the full Committee on Energy and Commerce met in open markup session and ordered H.R. 3638, without amendment, favorably reported to the House by a record vote of 33 yeas and 16 nays.

## COMMITTEE VOTES

Clause 3(b) of rule XIII requires the Committee to list the record votes on the motion to report legislation and amendments thereto. The following reflects the record votes taken during the Committee consideration:

As of 02 24 2025

**COMMITTEE ON ENERGY AND COMMERCE**
**119TH CONGRESS**
**ROLL CALL VOTE # 9**

**BILL:** H.R. 3638, Electric Supply Chain Act

**AMENDMENT:** Final Passage

**DISPOSITION:** **Agreed to,** by a roll call vote of 33 yeas and 16 nays.

| REPRESENTATIVE | YEAS | NAYS | PRESENT | REPRESENTATIVE | YEAS | NAYS | PRESENT |
|---|---|---|---|---|---|---|---|
| Mr. Guthrie | X | | | Mr. Pallone | | X | |
| Mr. Latta | X | | | Ms. DeGette | | X | |
| Mr. Griffith | X | | | Ms. Schakowsky | | X | |
| Mr. Bilirakis | X | | | Ms. Matsui | | | |
| Mr. Hudson | | | | Ms. Castor | | X | |
| Mr. Carter (GA) | X | | | Mr. Tonko | | X | |
| Mr. Palmer | X | | | Ms. Clarke | | X | |
| Mr. Dunn | X | | | Mr. Ruiz | | X | |
| Mr. Crenshaw | X | | | Mr. Peters | X | | |
| Mr. Joyce | X | | | Mrs. Dingell | | X | |
| Mr. Weber | X | | | Mr. Veasey | | X | |
| Mr. Allen | X | | | Ms. Kelly | | X | |
| Mr. Balderson | X | | | Ms. Barragán | | X | |
| Mr. Fulcher | X | | | Mr. Soto | X | | |
| Mr. Pfluger | | | | Ms. Schrier | X | | |
| Mrs. Harshbarger | X | | | Ms. Trahan | X | | |
| Mrs. Miller-Meeks | X | | | Ms. Fletcher | | X | |
| Mrs. Cammack | X | | | Ms. Ocasio-Cortez | | | |
| Mr. Obernolte | X | | | Mr. Auchincloss | X | | |
| Mr. James | X | | | Mr. Carter (LA) | | X | |
| Mr. Bentz | X | | | Mr. Menendez | | X | |
| Mrs. Houchin | X | | | Mr. Mullin | | X | |
| Mr. Fry | X | | | Mr. Landsman | X | | |
| Ms. Lee | | | | Ms. McClellan | | X | |
| Mr. Langworthy | X | | | | | | |
| Mr. Kean | X | | | | | | |
| Mr. Rulli | X | | | | | | |
| Mr. Evans | X | | | | | | |
| Mr. Goldman | X | | | | | | |
| Mrs. Fedorchak | X | | | | | | |

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## OVERSIGHT FINDINGS AND RECOMMENDATIONS

Pursuant to clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII, the Committee held hearings and made findings that are reflected in this report.

## NEW BUDGET AUTHORITY, ENTITLEMENT AUTHORITY, AND TAX EXPENDITURES

Pursuant to clause 3(c)(2) of rule XIII, the Committee finds that H.R. 3638 would result in no new or increased budget authority, entitlement authority, or tax expenditures or revenues.

## CONGRESSIONAL BUDGET OFFICE ESTIMATE

Pursuant to clause 3(c)(3) of rule XIII, at the time this report was filed, the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974 was not available.

## FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

## STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

Pursuant to clause 3(c)(4) of rule XIII, the general performance goal or objective of this legislation is to require the Department of Energy to conduct periodic assessments and report to Congress on trends, risks, or vulnerabilities that impact the supply chain for electric generation and transmission infrastructure and grid components.

## DUPLICATION OF FEDERAL PROGRAMS

Pursuant to clause 3(c)(5) of rule XIII, no provision of H.R. 3638 is known to be duplicative of another Federal program, including any program that was included in a report to Congress pursuant to section 21 of Public Law 111–139 or the most recent Catalog of Federal Domestic Assistance.

## RELATED COMMITTEE AND SUBCOMMITTEE HEARINGS

Pursuant to clause 3(c)(6) of rule XIII, the following related hearings were used to develop or consider H.R. 3638:

On February 5, 2025, the Subcommittee on Energy held a hearing on H.R. 3638, titled "Powering America's Future: Unleashing American Energy." The Subcommittee received testimony from:

- Amanda Eversole, Executive Vice President and Chief Advocacy Officer, American Petroleum Institute;
- Brigham McCown, Senior Fellow and Director, Initiative on American Energy Security, The Hudson Institute;
- Gary Arnold, Business Manager, Denver Pipefitters Local 208 and;
- Tyler O'Connor, Partner, Crowell & Moring LLP.

On March 5, 2025, the Subcommittee on Energy held a hearing on H.R. 3638, titled "Scaling for Growth: Meeting the Demand for

Reliable, Affordable Electricity." The Subcommittee received testimony from:

- Todd Brickhouse, CEO and General Manager, Basin Electric Power Cooperative;
- Asim Haque, Senior Vice President for Governmental and Member Services, PJM;
- Noel W. Black, Senior VP of Regulatory Affairs, Southern Company and;
- Tyler H. Norris, James B. Duke Fellow, Duke University.

On March 25, 2025, the Subcommittee on Energy held a hearing on H.R. 3638, titled "Keeping the Lights On: Examining the State of Regional Grid Reliability." The Subcommittee received testimony from:

- Gordon van Welie, President and Chief Executive Officer, ISO New England;
- Richard J. Dewey, President and Chief Executive Officer, New York Independent System Operator;
- Manu Asthana, President and Chief Executive Officer, PJM Interconnection LLC;
- Jennifer Curran, Senior Vice President for Planning and Operations, Midcontinent ISO;
- Lanny Nickell, Chief Operating Officer, Southwest Power Pool;
- Elliot Mainzer, President and Chief Executive Officer, California Independent System Operator and;
- Pablo Vegas, President and Chief Executive Officer, Electric Reliability Council of Texas, Inc.

On April 9, 2025, the Committee on Energy and Commerce held a hearing on H.R. 3638, titled "Converting Energy into Intelligence: The Future of AI Technology, Human Discovery, and American Global Competitiveness." The Committee received testimony from:

- Eric Schmidt, Chair, Special Competitive Studies Project;
- Manish Bhatia, Executive Vice President of Global Operations, Micron Technology;
- Alexander Wang, Founder and Chief Executive Officer, Scale AI, and;
- David Turk, Distinguished Visiting Fellow, Center on Global Energy Policy, Columbia University.

On April 30, 2025, the Subcommittee on Energy held a legislative hearing on H.R. 3638, titled "Assuring Abundant, Reliable American Energy to Power Innovation." The Subcommittee received testimony from:

- Mike Goff, Acting Undersecretary of Energy, U.S. Department of Energy;
- David L. Morenoff, Acting General Counsel, Federal Energy Regulatory Commission;
- Terry Turpin, Director, Office of Energy Projects, Federal Energy Regulatory Commission;
- Jim Matheson, Chief Executive Officer, National Rural Electric Cooperative Association;
- Amy Andryszak, President and Chief Executive Officer, Interstate Natural Gas Association of America;
- Todd A. Snitchler, President and Chief Executive Officer, Electric Power Supply Association and;
- Kim Smaczniak, Partner, Roselle LLP.

COMMITTEE COST ESTIMATE

Pursuant to clause 3(d)(1) of rule XIII, the Committee adopts as its own the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974. At the time this report was filed, the estimate was not available.

EARMARK, LIMITED TAX BENEFITS, AND LIMITED TARIFF BENEFITS

Pursuant to clause 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that H.R. 3638 contains no earmarks, limited tax benefits, or limited tariff benefits.

ADVISORY COMMITTEE STATEMENT

No advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act were created by this legislation.

APPLICABILITY TO LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act.

SECTION-BY-SECTION ANALYSIS OF THE LEGISLATION

*Section 1. Short title*

Section 1 provides that the act be cited as the "Electric Supply Chain Act"

*Section 2. Assessment and report on the supply chain for the generation and transmission of electricity*

Section 2 requires the Department of Energy to carry out periodic assessments of trends, risks, and vulnerabilities in the supply chain for the generation and transmission of electricity and report to Congress.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

This legislation does not amend any existing Federal statute.

## MINORITY VIEWS

H.R. 3638, the "Electric Supply Chain Act," directs the Department of Energy (DOE) to conduct an assessment and periodic reports on the state of the electric supply chain.

While the goal of assessing the electric supply chain is important, the larger context for H.R. 3638 makes this bill irresponsible in its current form. The assessments required by H.R. 3638 would likely be conducted by the Office of Manufacturing and Energy Supply Chains at DOE. This office was recently subject to Elon Musk's personnel purges at DOE, which saw over 3,500 staffers fired or forced to retire.[1] It is currently unclear how the office is managing its existing workload and directives.

We are opposed to tasking the Office of Manufacturing and Energy Supply Chains with additional work without proper visibility into the office. Secretary of Energy Chris Wright has refused to provide up to date and accurate personnel numbers for the Office to Congress and has ignored Committee Democrats' inquiries into how the Department of Energy is being run under the Trump Administration.

During the Full Committee markup for H.R. 3638 on June 25, 2025, Committee Democrats offered an amendment to H.R. 3638 that would address personnel issues by asking the Secretary to certify that existing DOE staff levels can support programs and projects authorized and appropriated by Congress, as well as the new directives included in H.R. 3638. This amendment did not receive support from Committee Republicans and was not adopted.

While we agree that studying the electric supply chain is an important end goal, we cannot support an irresponsible bill that unfairly burdens Department of Energy staff with additional directives without assessing their existing capacities. For the reasons stated above, I oppose this legislation.

FRANK PALLONE, JR.,
*Ranking Member.*

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[1] *Details Emerge Around Surge of DOE Departure,* E&E News (April 21, 2025).