BRETT GUTHRIE, KENTUCKY
CHAIRMAN

FRANK PALLONE, JR., NEW JERSEY
RANKING MEMBER

ONE HUNDRED NINETEENTH CONGRESS

Congress of the United States

House of Representatives

COMMITTEE ON ENERGY AND COMMERCE

2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6115
Majority (202) 225-3641
Minority (202) 225-2927

March 12, 2026

MEMORANDUM

TO: Members of the Subcommittee on Energy
FROM: Committee Majority Staff
RE: Hearing titled "Winter Storm Fern Lessons: Supplying Reliable Power to Meet Peak Demand"

I. INTRODUCTION

The Subcommittee on Energy has scheduled a hearing on Tuesday, March 17 at 10:00 AM (ET) in 2123 Rayburn House Office Building. The title of the hearing is "Winter Storm Fern Lessons: Supplying Reliable Power to Meet Peak Demand."

II. WITNESSES

- **Jim Robb,** President and Chief Executive Officer, North American Electric Reliability Corporation (NERC)
- **José Costa,** President and Chief Executive Officer, Northeast Gas Association
- **Brett Mattison,** President and Chief Operating Officer, Southwestern Electric Power Company (SWEPCO)
- **Michael Goggin,** Executive Vice President, GridStrategies

III. BACKGROUND

The nation's electric power system is comprised of vast networks of high voltage transmission lines, generating resources, local distribution lines, and other critical infrastructure to ensure the delivery of adequate and reliable supplies of electricity. The success of the grid relies on real-time communication and coordination between the grid operators and the many entities that participate in its markets, including generators, transmission owners, energy traders, marketers, and demand response providers, among others. Reliable delivery of electric power is essential for all aspects of modern life and, especially, public health and welfare.

During severe weather events, the bulk power system is placed under extreme duress, affecting the performance of generation resources and electric transmission and distribution infrastructure. In recent years, severe weather events have coincided with an accelerated rate of premature retirements of thermal generation and increased reliance on intermittent and weather dependent generation resources. Prolonged periods of severe weather limit the performance of certain resources, undermining efficient delivery of electric power, especially as demand for that power spikes. Through the duration of severe weather events, baseload and dispatchable resources are needed to replace unavailable sources that may be weather dependent. Analyzing the performance of the bulk power system through these extreme weather events informs policy makers, regulators, and the general public about how the bulk power system must be planned, designed, and operated to ensure delivery of power when it is needed the most.

Reliability Challenges Posed by Severe Weather Events

Winter Storms Uri[1] and Elliot[2] in 2021 and 2022, respectively, brought extreme cold weather across substantial portions of the country for extended periods of time. In both cases, reliability vulnerabilities and failures led to considerable power outages affecting millions of households and, in some cases, caused tragic deaths in impacted communities. These severe weather events highlighted the limitations of certain resources' ability to maintain resiliency and reliability and the need for effective preparation to secure critical infrastructure. Through both severe weather events, grid operators and utilities have continued to evolve in their preparation activities to harden systems to prevent undue harm to the general public.

From January 23 to January 26 this year, a massive winter storm swept across 20 states and covered more than half the country in snow, sleet, and freezing rain with dangerously cold temperatures persisting for several days. This storm, colloquially referred to as Winter Storm Fern, left more than one million electric customers without power at its peak, with outages most significantly impacting southeastern states.[3] In anticipation of the winter storm, the Department of Energy issued 20 emergency orders under Section 202(c) of the Federal Power Act to maintain operation of thermal generating resources for the duration of the storm, as well as the subsequent cold snap.[4]

Across the affected regions of our country, thermal generating resources supplanted shortfalls of electricity supply when inclement weather limited production from intermittent resources. During the peak of the storm, coal fired generation increased 25 percent, natural gas generation increased 47 percent, and fuel oil generation increased 1,953 percent compared to normal winter days in the

---

[1] FED. ENERGY REG. COMM'N, , *The February 2021 Cold Weather Outages in Texas and the South Central United States* (Dec. 2021), https://www ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and.

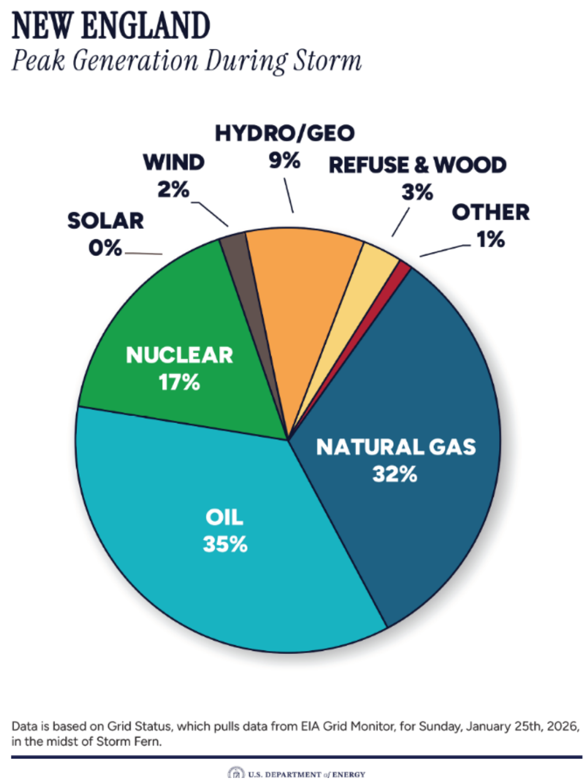
[2] FED. ENERGY REG. COMM'N, *Inquiry into Bulk Power System Operations During December 2022 Winter Storm Elliot* (Oct. 2023), https://www.ferc.gov/news-events/news/ferc-nerc-release-final-report-lessons-winter-storm-elliott.

[3] NAT'L OCEANIC AND ATMOSPHERIC ADMIN.,., *NOAA Satellites Monitor Massive Winter Storm* (Jan. 30, 2026), https://www.nesdis noaa.gov/news/noaa-satellites-monitor-massive-winter-storm.

[4] U.S. DEPT. OF ENERGY, *Energy Department Prevented Blackouts & Saved American Lives During Winter Storms* (Feb. 6, 2026), https://www.energy.gov/documents/energy-department-prevented-blackouts-saved-american-lives-during-winter-storms.

previous year. Comparatively, solar resources only produced 11 percent of their nameplate capacity while wind generation produced 23 percent of its nameplate capacity.[5] Nameplate capacity refers to the theoretical maximum amount of electrical output, rather than the real-time operating capacity of a resource.

In particular, the generation mix in ISO-New England is a unique warning in resource adequacy and state public policy. Refuse, wood, and landfill biomass overperformed generation from wind and solar resources.[6] Limited pipeline capacity for natural gas into the New England region incentivized the use of fuel oil and the importation of liquified natural gas. While ISO-New England's service territory avoided catastrophic failures of the bulk power system, continuing efforts to replace further fossil resources with intermittent wind and solar could exacerbate challenges during major weather events in the future.



Ongoing Challenges to Reliability and Resource Adequacy

The retirement of dispatchable generating sources (e.g., coal, natural gas, and nuclear) and the increase in intermittent generation from wind and solar resources has created reliability challenges. These challenges are most pronounced during severe weather events—such as Winter Storm Fern—when the public health and welfare of American communities depend on a reliable, resilient grid. Retirements of thermal generating resources coincide with historic projections of

[5] *Id.*
[6] ISO-NEWSWIRE, *Winter 2025/2026 recap: Grid stays reliable during prolonged cold* (Mar. 5, 2026), https://isonewswire.com/2026/03/05/winter-2025-2026-recap-grid-stays-reliable-during-prolonged-cold/.

increasing electricity demands that are coming from data centers, manufacturing, and general economy-wide electrification.

The North American Electric Reliability Corporation's (NERC) 2026 Long-Term Reliability Assessment found that a majority of the nation's bulk power system faces mounting resource adequacy challenges. Specifically, the report finds that over the next 10 years more than104 GW of generation is projected to retire while demand may grow by over 224 GW in the same time period.[7] The report also finds that less overall capacity, particularly dispatchable capacity, is being added to the system than what was projected, and needed, to meet future demands. The head of NERC recently called the reliability challenges facing the United States a "five alarm fire."[8]

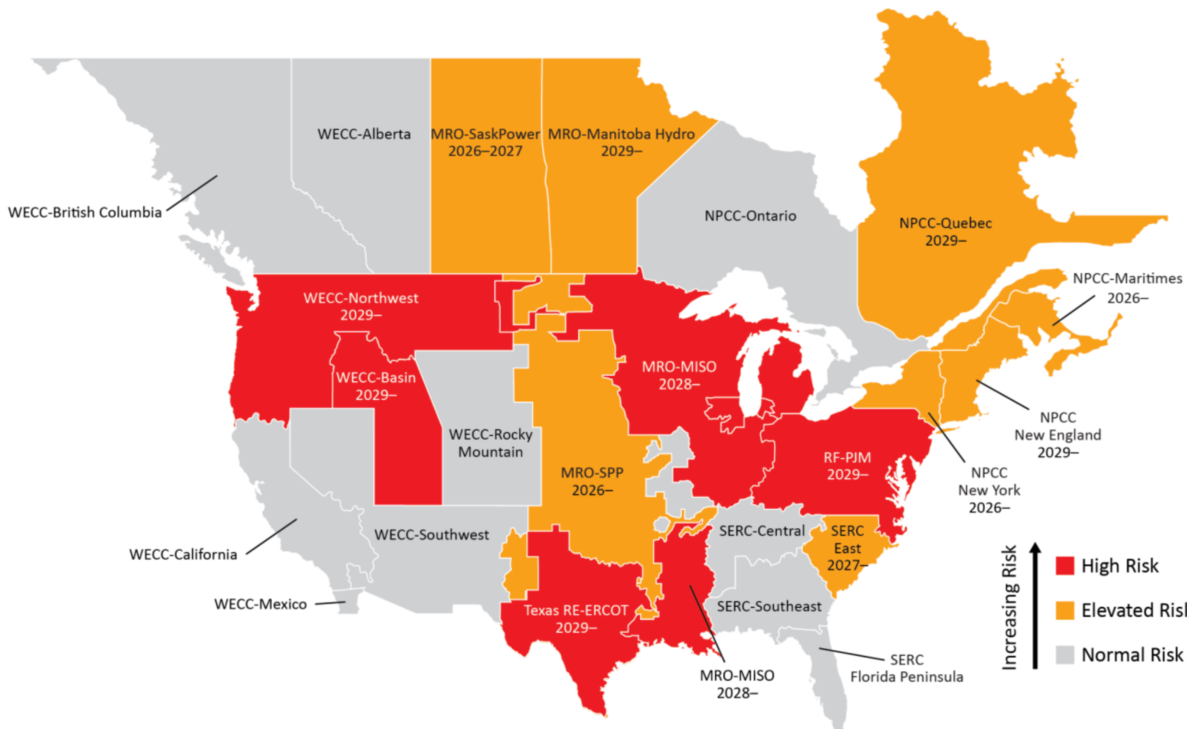


Figure 1: Risk Area Summary 2026–2030
Shows highest risk classification that occurs in the first 5 years and states initial year of occurrence

These data points are confirmed by recent reports from the Department of Energy that found that the pace of thermal generation retirements combined with projected demand growth could increase potential for blackouts by 100 times in 2030. In addition, the same report found that of the 209 GW of planned capacity additions as of July 2025, only 22 GW would come from baseload generation sources.[9]

Meanwhile, the rapid addition of intermittent resources in recent years—largely due to profitable tax credits and public policy decisions—distorts the understanding of real time power

[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.
[8] 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/.
[9] U.S. DEPT. OF ENERGY, *Resource Adequacy Report* (July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE%20Final%20EO%20Report%20%28FINAL%20JULY%207%29.pdf.

generation availability. This is particularly concerning during severe weather events in impacted regions of the country where wind and solar resources generated less than 10 percent of their nameplate capacity.[10] For example in ISO-NE, renewables produced 9 percent of the generation mix through the duration of the weather event and solar produced virtually no power through the peak of the storm.[11]

Future Electricity Demand and Electricity Affordability

It is estimated that electricity prices have increased by 27 percent between January 2021 and January 2025 and have increased another 11 percent over the past year. These increases are most pronounced in states that have aggressive mandates on the use of preferred renewable energy resources.[12] 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.[13]

The drivers behind increased electricity prices vary by region, but key factors include state public policy decisions on renewable resource mandates and wildfire mitigation and restoration.[14] Recent winter storms highlight how renewable portfolio standards significantly contribute to electricity rate increases: the weather-dependent nature of variable generation resources requires sufficient backup infrastructure to maintain reliability through inclement conditions. From 2003 to 2023, utility spending to produce electricity fell by 24 percent, mainly due to lower fuel costs, while investments in transmission systems nearly tripled over the same time period.[15]

IV. ISSUES

- Performance of the bulk power system through severe weather events;
- Generation resource mix necessary to maintain reliability through severe weather events;
- Bulk power system designing, planning, and operating to meet peak demand of the future; and
- Affordability of electric service and drivers behind recent rate increases.

---

[10] Alex Epstein, *Energy Talking Points by Alex Epstein*, Substack (Feb. 17, 2026) https://alexepstein.substack.com/p/solar-and-wind-arent-real-power-sources.

[11] Stephen M. George, *NEPOOL Participants Committee, Systems & Market Operations Report – February 2026*, ISO-New England (Feb. 2026), https://www.iso-ne.com/static-assets/documents/100032/system-and-market-ops-report-feb-2026.pdf.

[12] 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/.

[13] 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.

[14] Ryan H. Wiser, et. al., *Factors Influencing Recent Trends in Retail Electricity Prices in the United States*, Lawarence Berkeley National Laboratory (Oct. 2025), https://emp.lbl.gov/publications/factors-influencing-recent-trends.

[15] U.S. ENERGY INFORMATION ADMIN.., *Grid infrastructure investments drive increase in utility spending over last two decades* (Nov. 18, 2024), https://www.eia.gov/todayinenergy/detail.php?id=63724.

V. STAFF CONTACTS

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