Chart of the Week #2026-04
Power Generation During Winter Storm Fern

Energy Policy Research Foundation

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- **A major mid-winter arctic blast has kept temperatures below freezing from Texas throughout the Midwest and into the Mid-Atlantic and New England states. From January 22 to 26, 2026, a massive snow and ice storm, dubbed Winter Storm Fern, moved across this area, challenging three major grid operators: ERCOT (mostly Texas), MISO (the Mid-Continent from the Gulf to Canada), and PJM (Mid-Atlantic states with some connection to parts of Indiana and Illinois servicing a large concentration of data centers in Northern Virginia)*.**
- **These areas are heavily dependent on electric heat (please see EPRINC COW 2024-04 - "U.S. Residential Heating by County"). Consequently, power demand went up considerably in these three areas.**
- ***** ***ERCOT - Electricity Reliability Council of Texas; MISO - Midcontinent Independent System Operator; PJM - Pennsylvania, New Jersey, Maryland regional transmission operator.***
- **… continuing …**

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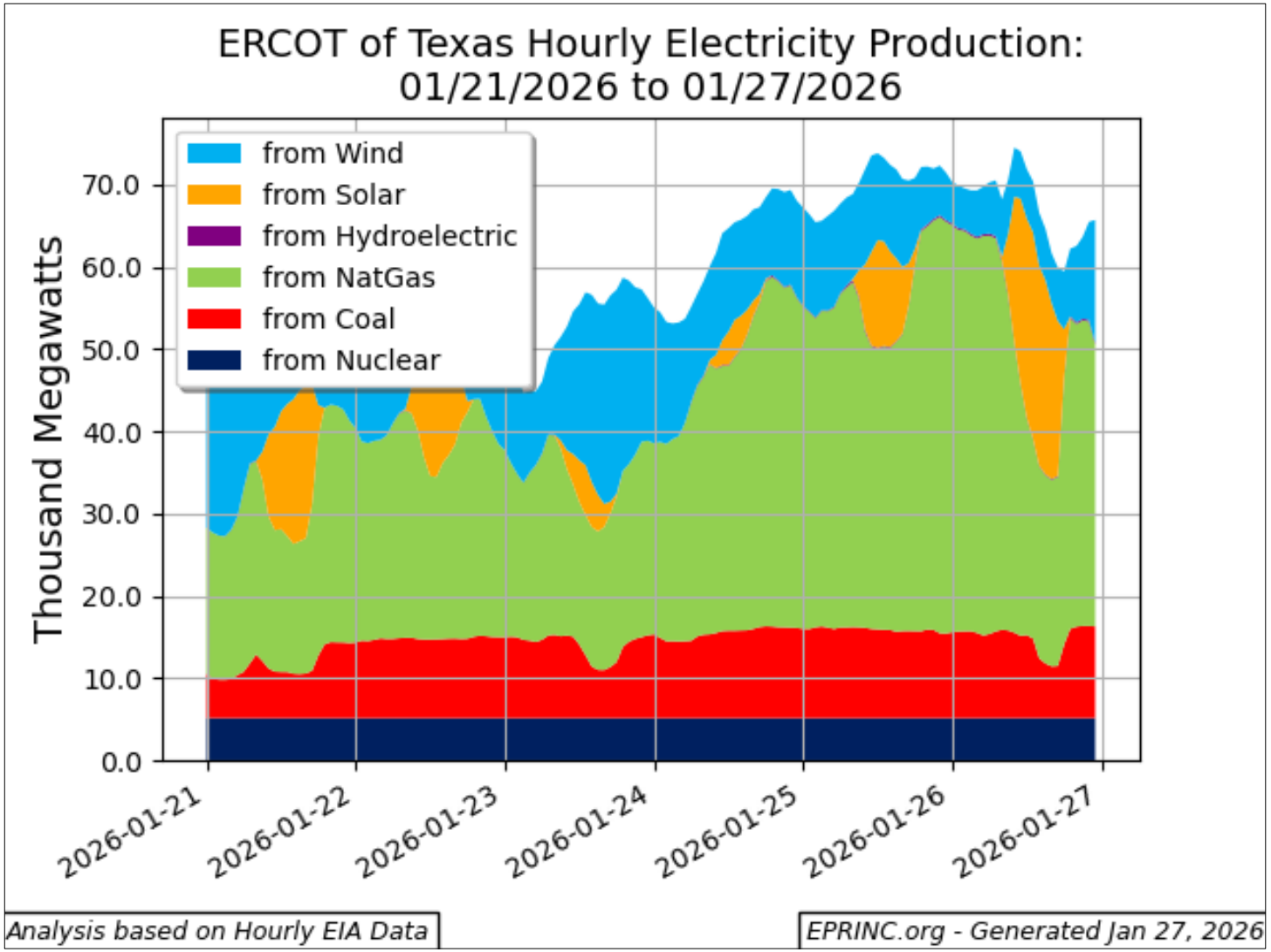

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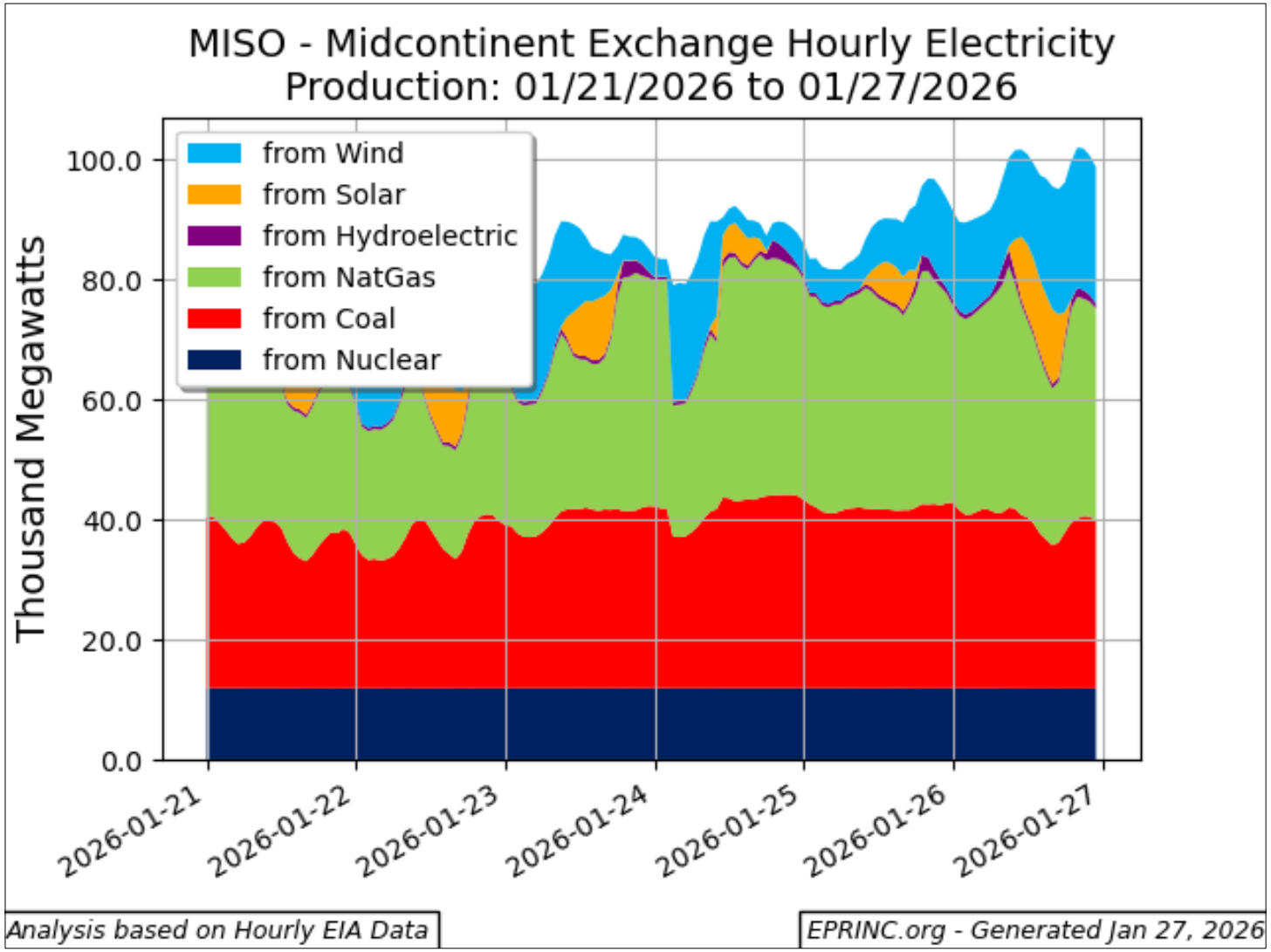

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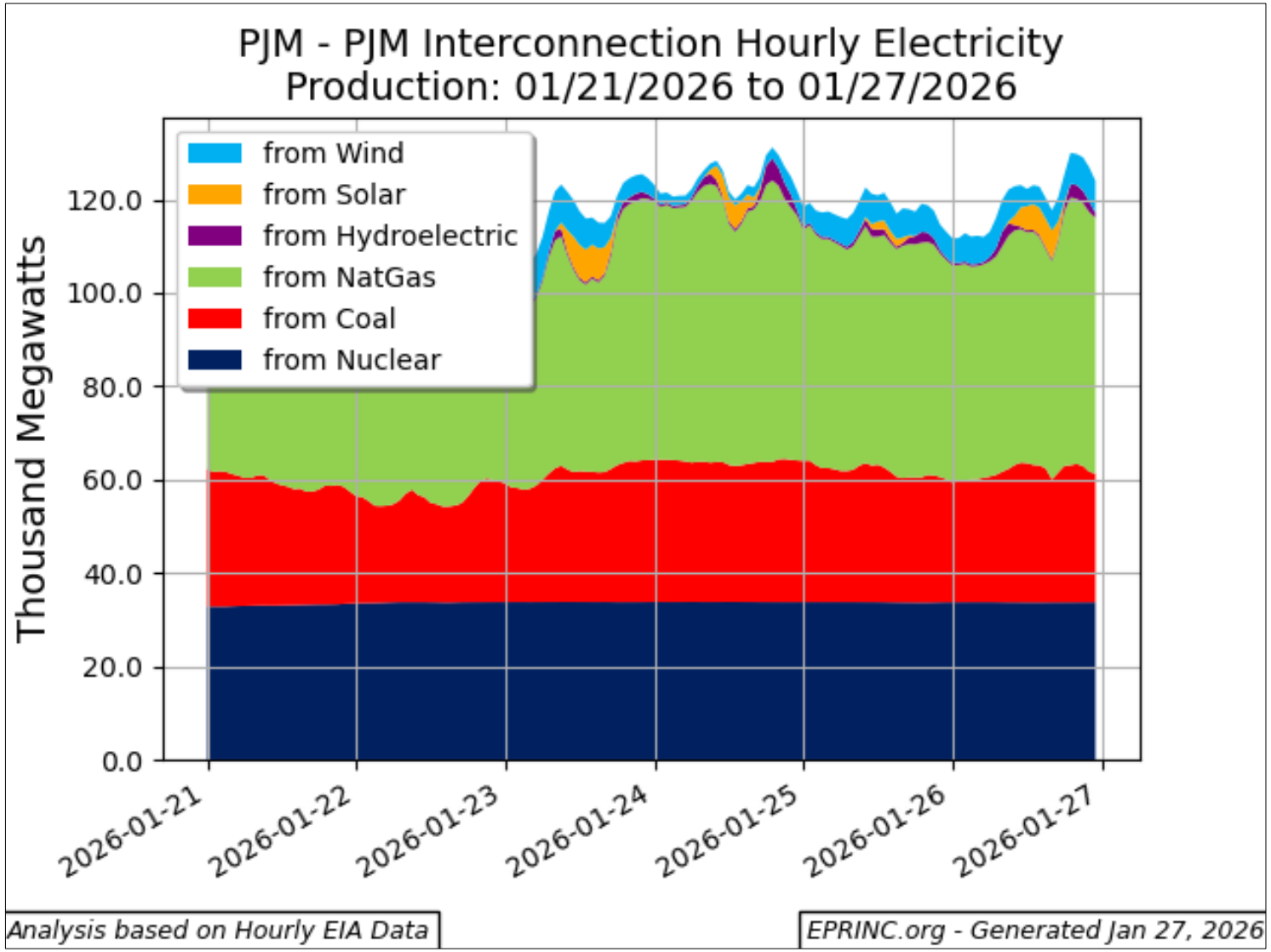

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- **Average load for the duration of the storm was approximately 264 gigawatts (GWs) with 85% from dispatchable sources (19% from nuclear, 24.4% from coal, and 41% from natural gas) and 15% from weather-dependent intermittent ones (3% from solar, 12% from wind).**
- **Peak load hit 298 GWs (or about 40% of total available U.S. generating capacity) at 10am ET on January 26, 2026. At that point, dispatchable resources were providing 90% of load with intermittent generating the balance.**
- **Notably, coal with a strong presence in MISO and PJM areas, generated an average of 54 GWs combined for these two regions during the storm period. with peak coal reliance hitting 44% in PJM.**
- **Many coal plants that have notified authorities of their pending shutdown have been kept running due to DOE's 202(c) authority under the Federal Power Act (FPA). Under 202(c), the DOE authorizes the emergency use of power plants in the event of potential power outages or demand spikes. This authority needs to be renewed every 90 days per plant.**
- **At the peak of Storm Fern and according to PowerOutage US, there were about 1.1 million electricity customers without power primarily in Texas, Louisiana, Mississippi, and Tennessee. During Winter Storm Uri in February 2021, there were almost 10 million customers in Texas alone that were without power.**
- **One challenge of operating legacy coal plants in these emergency situations is that they are frequently cycled over a 24-hour period. Rather than kept running continuously for days or weeks. The cycling leads to faster degradation, substantial metal fatigue, and the occasional forced permanent shutdown due to the cycling's irreparable damage.**

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- This slide deck is available at: https://eprinc.org/chart-of-the-week/
- For more information on these charts, please contact Max Pyziur (maxp@eprinc.org).