

Analysis of EPA's Proposed Carbon Rules One-Pager

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American Experiment modeled the resource adequacy, reliability, and cost of EPA's proposed Section 111 rules. We determined that EPA's modeled MISO grid under the rules would not meet resource adequacy or reliability, and reliably meeting EPA's emissions targets would cost MISO ratepayers an additional \$246 billion compared to EPA's assumed grid.

Resource (In)Adequacy

- EPA assumes massive changes to the MISO grid stemming from the Inflation Reduction Act (IRA). However, EPA did not conduct a resource adequacy or reliability analysis on this base case, it simply assumed the Post-IRA base case was adequate and reliable.
- **EPA's decision to narrowly tailor the resource adequacy analysis to only study the difference between the proposed rule and the Post-IRA base case is like studying the structural integrity of the top floor of a 100-story building without doing so for the preceding 99 floors.**
- EPA uses unrealistically high capacity values for wind (19% for existing 9-25% for new), solar (55% existing 55-32% for new), and 100% for battery and thermal resources.
- EPA's modeled MISO grid relies on wind, solar, and battery storage to meet projected peak demand and the target reserve margin, which is why EPA's modeled grid results in massive rolling blackouts.

Reliability: EPA's Modeled Grid Results in Massive Rolling Blackouts

- EPA did not evaluate the reliability of its modeled MISO grid.
- American Experiment compared EPA's modeled power plant capacity portfolio to historical hourly electricity demand and hourly wind and solar capacity factors in 2019, 2020, 2021, and 2022 and determined EPA's modeled MISO grid would result in rolling blackouts in each of these Historical Comparison Years (HCY).
- One blackout event would be a 26 GW capacity shortfall in January 2040 using the 2021 HCY, representing 19.5 percent of the demand at the time of the capacity shortfall. This means one in every five homes would experience a rolling power outage in the region.
- **EPA's modeled generation mix cannot prevent blackouts while hindcasting observed historical conditions. Therefore, we should have no confidence in its assurances that it will have no impact on future electric reliability.**

Cost: \$246 billion in additional costs for ratepayers compared to EPA's assumptions

- EPA's rules will result in \$246 billion in additional compliance costs in MISO, which is \$7.7 billion in annual compliance costs for the MISO region alone.
- This figure exceeds EPA's totaled modeled benefits of \$5.9 billion annually for the entire nation.

EPA is attempting to transform the entire U.S. electric grid using a process that is less rigorous and less transparent than a state integrated resource plan. More time and transparency is needed to thoroughly evaluate the impact of the proposed Section 111 rules in the entire country.