

## **DOE should consider expanding its report on the role of fossil fuel plants to address affordability and resilience questions**

The subject of a Senate Energy and Natural Resources Committee meeting scheduled for Wednesday, July 23<sup>rd</sup>, the recent Department of Energy report *Evaluating the Reliability and Security of the United States Electric Grid* raises important questions, especially related to the cost and effectiveness of expanding generation capacity in the United States.

- **What is the cost of the expansion of fossil energy?** Is the DOE recommendation that only fossil fuels can address a potential generation shortfall cost-effective compared to other approaches? The report does not provide cost estimates comparing types of generation (wind, solar, batteries, gas, coal, etc.). In non-liberalized US power markets, utilities are required to conduct least-cost planning exercises so that big-ticket decisions resulting in long-lived investments such as power plants will result in the lowest-cost strategy for meeting resource adequacy needs. In liberalized markets, capacity mechanisms are designed to serve a similar purpose.
- **Who will pay?** Proposed generating capacity in non-liberalized US markets must undergo a rate review process at the state level, because new generation is usually paid for by all customers on the electric system. The DOE report associates the need for new generation with the growth of a very specific customer group – data centers. Will the data centers pay for the generation, perhaps under novel tariffs? Will the rest of the system pay? What happens if some of the projected data center load does not materialize?
- **Will the DOE plan prevent potentially deadly shortfalls under extreme conditions?** The reliability metric DOE used to determine the volume of capacity that could be needed is “Normalized Unserved Energy.” This metric is an annual average of energy not delivered over a year. But an outage of 3-4 days (72-96 hours) would be potentially deadly in the middle of winter, whereas total outages of 96 hours would be much less impactful if spread across the year. How would the DOE plan help cope with extreme weather?
- **How would a fossil-based system handle fuel issues during extreme weather?** During Winter Storm Uri in February 2021, a deadly blackout resulted in part from natural gas wells freezing off or shutting in, and gas-fired power plants which

could not operate owing to the cold. During that and other extreme weather events, coal plants have reported that coal inventories froze and could not be fed into the power plant. What will be the operating standards and requirements to ensure that fossil plants can be relied upon during extreme weather events?

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