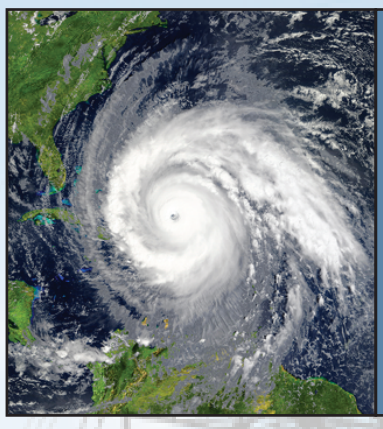
2022 STATE OF RELIABILITY

The State of Reliability provides analysis of past bulk power system performance to identify system trends and emerging reliability risk. It also highlights the health of the interconnected bulk power system and the effectiveness of reliability risk mitigation activities.

Leading indicators show that the bulk power system continues to perform in a highly reliable and resilient manner overall with year-over-year improvement, demonstrating the success of industry actions. However, the rapidly changing risk profile requires new approaches to navigate reliability effectively. Significant events in 2021 highlight the need for aggressive action.

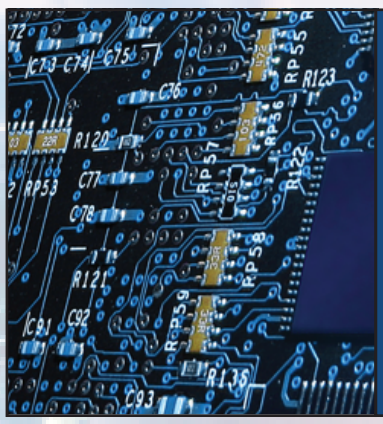
Extreme cold weather across South Central United States and Texas led to largest controlled load shedding event in North American history. Unserved energy demand underscores the need for winterization requirements in power generation and addressing resource availability issues.



Severe weather—such as extreme cold and heat, hurricanes, and drought-related wildfires—challenged the bulk power system, underscoring the need for more robust resilience tools to withstand extreme events.

Electricity and natural gas industry interdependencies have evolved from an emerging risk to a realized one, requiring reconsideration of the regulatory framework and coordination between the two sectors.

Multiple solar loss events in Texas and California in 2021 demonstrated that unaddressed inverter issues increase reliability risk, particularly in those large assessment areas that have become dependent upon renewable resources to meet peak loads. New Reliability Standards under development will mitigate inverter risk.



The cyber security threat landscape continues to degrade as demonstrated by geopolitical events, new vulnerabilities, changing technologies, and increasingly bold adversaries. Continued vigilance and effective industry/government information sharing are essential.

Reliability | Resilience | Security

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