

Media Release

Reserve Margins Down in Some Areas; NERC Integrated Analysis Shows Impact of Environmental Regulations on Planning Decisions, Retrofits

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WASHINGTON, DC – A decrease in projected generation resources leads to declining planning reserve margins in some areas; however, a majority of areas appear to have adequate resource plans to meet projected peak demands over the next ten years, the North American Electric Reliability Corporation’s (NERC) *2011 Long-Term Reliability Assessment* finds.

The annual long-term reliability assessment provides an independent, ten-year view of the electric industry by evaluating key reliability indicators, including peak demand, energy forecasts, resource adequacy, transmission development, changes in overall system characteristics and operating behavior, and other issues that may impact the reliability of the bulk power system.

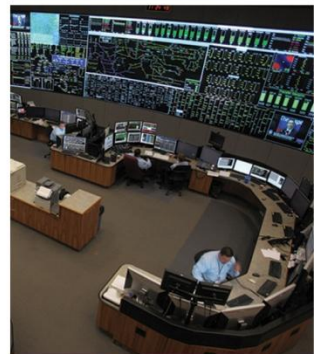
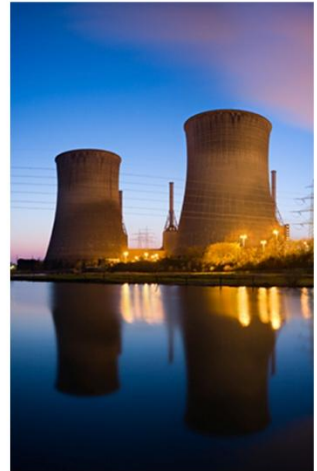
“Though sufficient conceptual resource plans are in progress, for the ERCOT portion of Texas and for New England, more certainty is needed to address resource adequacy in the coming years,” said Gerry Cauley, president and chief executive officer at NERC. “We will monitor these two areas in the upcoming year for progress in firming these resource projections.”

Key issues and risks to bulk power system reliability identified in the long-term assessment include:

- **Reserve margins.** A decrease in projected generation resources has led to a decline in planning reserve margins in some Assessment Areas.
- **Gas-electric interdependency.** The growing dependence on natural gas as a primary fuel source of on-peak capacity must be considered in planning, and operational measures must be in place to minimize interdependency risks.

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- **Variable generation.** Significant growth in wind and solar generation continues to be projected, surpassing on-peak growth forecasts of all other types of generation.
- **Demand-side management.** Increases in demand-side management continue to help offset future resource needs.
- **Transmission.** Growth is responding to increased demand for integrating and delivering new resources; construction is on pace with projections.
- **Environmental regulations.** While more flexibility is provided in some proposed rules, the cumulative effect from environmental regulations may reduce reserve margins in ways that could affect bulk power system reliability, depending on the scope and timing of final regulation implementation.

The report also provides a section that updates NERC's [2010 Special Reliability Assessment: Resource Adequacy Impacts of Potential U.S. Environmental Regulations](#). In the United States, the Environmental Protection Agency is in the process of promulgating four regulations: the proposed Coal Combustion Residuals rule, the proposed Mercury and Air Toxics Standards for Utilities, the proposed Cooling Water Intake Structures rule -316(b), and the final Cross-State Air Pollution rule.

While not all of these four regulations are final, and their affects cannot be completely measured, material changes have occurred to these regulations since NERC's 2010 assessment. While many factors affect an owner's decision to retire or retrofit a facility, NERC's analysis of the integrated impact of these regulations on planning decisions shows 36 GW in the 2018 moderate case of projected accelerated retirements and derates. Though this amount appears lower than the 2010 assessment projected, 25 GW of retirements have been announced since then and are no longer included in the projected retirement numbers. More importantly, industry information continues to show that significant retrofits will be needed over the next four years in order to comply with proposed utility air toxics regulations.

"With MACT as the primary driver, the industry faces considerable operational challenges to complete, coordinate and schedule the necessary environmental retrofits," Cauley said. "To ensure bulk power system reliability, sufficient time and certainty to schedule retrofits of more than 500 units, as well as acquire replacement resources or prepare system reinforcements is needed."

The assessment shows five key conclusions:

- **Timing.** Compliance deadlines will challenge the electric industry's planning horizons, processes and schedules. Implementation of the proposed rules, while successfully preserving bulk power system reliability, may be highly dependent on the amount of time given to the industry to comply with future regulations, and the tools in place to support the industry's transition.
- **Regionality.** The fuel-mix differs greatly across the country, and each area will face different dynamics. States decisions on rule implementation could greatly influence cumulative impacts.
- **Outage coordination.** Given the tight window for compliance, many affected units may need to take maintenance outages concurrently, which can exacerbate resource adequacy concerns and reduce needed flexibility.

- **Transmission and operational issues.** The retirement of larger and/or strategically situated generating units will cause changes to the power flows and stability dynamics of the bulk power system. These changing characteristics will require enhancements to the interconnected transmission system to provide reactive and voltages support, address thermal constraints and provide system stability.
- **Uncertainty.** A major concern is the lack of certainty on both the generating supply side and from the Environmental Protection Agency due to rules not being finalized.

Recommendations from the assessment to address these key issues include:

- **Regulators.** Consider time and scope of regulation and affects on bulk power system reliability. Coordination is needed among federal agencies to ensure the industry is not forced to violate one regulation in order to meet another.
- **Industry.** Employ available tools to mitigate potential reliability concerns through any resource transition.
- **NERC.** Continue to assess implications of regulations as greater certainty emerges around industry obligations, technologies, timelines and targets.

Click [here](#) to download the *2011 Long-Term Reliability Assessment*.

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The North American Electric Reliability Corporation's mission is to ensure the reliability of the North American bulk power system. NERC is the electric reliability organization (ERO) certified by the Federal Energy Regulatory Commission in the United States to establish and enforce reliability standards for the bulk-power system. NERC has equivalent relationships with provincial and federal authorities in Canada. NERC develops and enforces reliability standards; assesses adequacy annually via a 10-year forecast, and summer and winter forecasts; monitors the bulk power system; and educates, trains and certifies industry personnel. Learn more at www.nerc.com