

## Media Release

### Scenario Highlights Potential Risks from Accelerated Retirements; Urges Risk-Informed Planning, Review of Existing Tools to Assure Reliability

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**ATLANTA** – The bulk power system is undergoing a significant transformation in its generation resource mix, which alters the operating characteristics and constraints of the grid. NERC conducted a stress-test scenario to evaluate the impact of accelerated generation retirements on resource adequacy, transmission adequacy and bulk power system plans. Further, this scenario provides insights that could otherwise be overlooked if perspectives are limited to only currently confirmed retirements. The scenario affirmed that risk-informed planning and existing tools can assure continued reliability of the grid as the generation resource mix undergoes this evolutionary change.

NERC's [Generation Retirement Scenario](#) incorporates significant retirements into an aggressive timeframe and is intended solely to identify risk — not be a predictive forecast. The scenario uses data from NERC's *2017 Long-Term Reliability Assessment* and the U.S. Energy Information Administration to identify potential coal-fired and nuclear generation retirements by 2025 and then accelerates those retirements to occur in 2022.

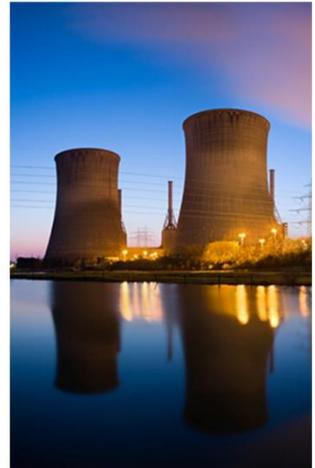
“Our accelerated scenario examines 10 assessment areas, finding that future planned generation capacity is sufficient in six of those areas for meeting peak demand,” said John Moura, director of Reliability Assessment. “In the other four areas, new resources would be required to accommodate large-scale generation retirements contemplated in this stress test. In nearly all areas assessed, large-scale retirements would likely create the need for electric and natural gas infrastructure, expedited buildout of new generation and increased use of demand-side resources. These findings underscore the challenge and the need for risk-informed planning.”

Other findings include:

- On a regional scale, the need for replacement resources could create conditions for expediting generation in Interconnection queues. The rapid increase in renewable generation is accompanied by an equal shift to natural gas

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generation, which could leave the bulk power system vulnerable to fuel delivery risks in areas where firm pipeline service is not procured. Flexibility requirements from conventional generation to balance increased variable energy resources would also increase.

- Transmission upgrades or reinforcements, combined with new generation dispatch requirements and operating procedures, could be necessary to maintain the reliability of the bulk power system during the transition.
- Processes, mechanisms and backstops are in place to manage generator retirements. Tools such as forward capacity markets, regional transmission expansion processes, market-based mechanisms and out-of-market actions are available to address short-term reliability needs arising from these retirements. However, their efficacy should be evaluated to ensure they are effectively managing the pace of the transition.

Industry, market operators and policymakers have successfully employed these processes to manage generation retirements. This is a normal part of resource planning that occurs on an ongoing basis across North America. NERC's scenario serves to highlight this transformative change to raise awareness of potential constraints.

The scenario recommendations include:

- **Review planning processes and market mechanisms to mitigate reliability risks.** Market operators should explore mechanisms valuing attributes that support reliability, or use out-of-market solutions to manage generator retirements. In areas with traditionally regulated utilities, the integrated resource planning process and mandatory resource adequacy requirements can mitigate the reliability risk from accelerated generator retirements.
- **Incorporate fuel assurance analyses in generator retirement processes.** Fuel assurance analyses should consider specific regional fuel mixes, fuel supply infrastructure and contractual provisions governing fuel delivery.
- **Provide regulatory flexibility to respond to changing infrastructure needs.** Regulatory flexibility may be needed to facilitate timely construction of new infrastructure or to accommodate short-term extension of generating units scheduled for retirement.

The pace of current change creates potential challenges to reliability that should be understood and addressed. The bulk power system has reliably undergone many changes and each potential change requires adaptation, education and continuous learning.