Sen. Lisa Murkowski
Powering the Future
Ensuring that Federal Policy Fully Supports Electric Reliability

The Critical Issue of Electric Reliability

- No other electricity network on Earth provides as much power to as many people as reliably and affordably as the American grid. But keeping the lights on is a highly complex undertaking.

- Diversity is the key characteristic of the U.S. electric system. No single source provides a majority of the nation's power and each makes a distinct contribution to electric generation: coal (37 percent); natural gas (30 percent); nuclear (19 percent); hydropower (6.8 percent); and other renewables (5.4 percent).

- The energy mix that sustains the grid is changing. Coal has been the leading fuel source for decades, but its use has fallen as natural gas use has increased.

- The use of variable renewable resources is also increasing, with wind and solar adding record levels of new capacity in 2012. EIA predicts these resources, combined with other renewables, including hydropower, will reach the same market penetration (16 percent) as nuclear by 2040.

- Maintaining the stability of the electric grid as coal and nuclear baseload plants come offline as a result of both market forces and regulatory constraints, while managing an increasingly variable energy mix, including intermittent renewable sources, is the central challenge in ensuring electric reliability in the coming decades.

- The impact of new environmental regulations on power plants, coupled with federal government preferences and subsidies for power generation and use, must be taken into consideration.

Will Tomorrow's Grid Be Less Reliable?

- Bulk power system outages are rare and can be caused by many factors. In recent years, especially given the 2005 Energy Policy Act's mandatory requirements, the electric industry has invested significant resources to address both physical and cyber security threats and vulnerabilities.

- The fact that the April 2013 attack on a substation in California did not result in a power outage is a testament to the grid's resiliency and the importance of building redundancy into the system.

- The recent polar vortex resulted in at least 50,000 megawatts of power-plant outages and should serve as a wake-up call to the importance of baseload capacity in maintaining grid reliability.

- Our reliance on installed, dispatchable power generation during extreme weather demonstrates why diversity of baseload capacity and robust transmission and distribution systems are necessary to secure grid reliability.

EPA Should Not Propose Regulations Impacting Grid Reliability in a Vacuum

- EPA has not sought from NERC or FERC an analysis examining the impact of all of its rules in concert with one another

- Government experts, however, have done the math and according to the estimates, approximately 10 to 20 percent of existing coal capacity could be retired by the middle of the next decade. And EPA conceded that the MATS rule alone could result in "localized" reliability issues in some areas "due to transmission constraints or location-specific ancillary services provided by retiring generation."

- Today it is uncertain how many plants will retrofit to comply with various EPA regulations or simply close.

- While these should be recognized as red flags, the federal government continues to give short shrift to the potential consequences of its own rules and regulations – thereby increasing the likelihood of impacts to the nation's electric reliability.

Call to Action

- Our goal must be a grid that is more reliable and more affordable. We need to recognize the central challenge of electric reliability in the coming decade: finding a way to replace retiring baseload capacity, while managing an increasingly variable energy mix.

- Policymakers must use their oversight authority to gather facts concerning the impact of government requirements on baseload capacity and the reliability of the grid.

- Federal agencies must formally review and recognize the realistic and predictable consequences of their regulatory actions with the dual goal of prevention and mitigation. FERC must be the unambiguous champion of reliability.

- Industry, regulators, and other leaders need to more vigorously share their views on the challenges facing today's grid – including physical security, cyber security, and regulatory impacts.

- The burdens of maintaining the grid must be fairly borne, and powerful regulatory laws must be judiciously administered.

- Federal regulators and legislators must recognize the importance of maintaining and improving reliability, affordability, and environmental performance in balance.

- Regulatory and legislative reforms should be considered to ensure a more robust role for electric reliability professionals in evaluating environmental rules.