Pre-Requisites for a Reliable, Resilient Decarbonized Grid

**New Grid Operation Capabilities**
New protection, control, and other technologies to reliably and resiliently operate the grid

**Efficient Regulation and Collaboration**
Faster timelines for siting, permitting, and building new infrastructure and developing and deploying new technology

**Revised Market Designs**
Markets must incent investment and properly compensate resources for grid services provided

**Integrated Planning for Reliability and Resiliency**
Tools and processes for regional investment plans across electric and other energy systems in context of changing climate and other hazards

**Grid Investment and Development**
Adequate investment, supply chain, and workforce to develop extensive new supply, demand, and T&D resources
Resource Adequacy as the Grid Evolves

Role: 2X Electricity Share of Final Energy
A greater portion of societal needs will be dependent on the reliable supply of electricity.

Challenge: Evolving Grid and Hazards
The resource mix will have significantly different performance characteristics and the grid must adapt.

Opportunity: Resilient Energy Supplier
Meeting customer expectations for reliable energy supply will build trust and create new opportunities.

Resource Adequacy is the ability to meet customer energy needs at a targeted risk level considering planned and unplanned outages.

Resource Adequacy processes and tools must evolve.