

# The Office of Electricity Delivery and Energy Reliability

## Strategic Plan Summary

### OE's MANDATE

### & INTEGRATED APPROACH


**Vision:** A secure, reliable, resilient, efficient energy system to drive a strong, growing U.S. economy.

**Mission and Program Goal:** Lead national efforts to modernize the electric grid; enhance security and reliability of the energy infrastructure; and facilitate recovery from disruptions to energy supply.

**Strategic Approach:** OE accomplishes its diverse mission by capitalizing on the interrelationships and interdependencies between its three programmatic divisions (i.e. Research and Development, Permitting, Siting and Analysis, and Infrastructure Security and Energy Restoration). Enhancing the security and reliability of the energy infrastructure invariably involves modernizing the electric grid and modernizing the electric grid through advanced technologies and innovative policies will facilitate recovery from disruptions to the energy supply. In pursuing an integrated approach to these synergies, OE strives to leverage limited resources to achieve significant results in all three arenas.

### STRATEGIC GOALS: DOE & OE

**ENERGY SECURITY (DOE's Strategic Theme #1)** In advancing Energy Security, OE improves the U.S. energy infrastructure (DOE's Goal 1.3) with the following strategic

§ : Facilitate recovery from disruptions to energy supply. Analyze the energy infrastructure security, resiliency and reliability;


- Strengthen grid infrastructure security, resiliency and reliability through real-time

monitoring, increased system efficiency, reduced energy losses, integrated system planning, and improved load management and asset utilization

- Develop innovative electric policies that provide real-time information, stimulate advanced technology investment and enable market competition.

**SCIENTIFIC DISCOVERY & INNOVATION (DOE's Strategic Theme #3)** OE works with other DOE program offices and stakeholders to achieve major scientific discoveries that will drive U.S. competitiveness and revolutionize approaches to the nation's energy, national security, and environmental quality challenges. (DOE Goal 3.1)

OE helps to integrate basic and applied research to accelerate innovation and to create transformational solutions for energy and other U.S. needs. (DOE Goal 3.3).

**MANAGEMENT  ELLENCE (Strategic Theme #5)** OE strives for management excellence by pursuing best practices with an integrated approach to management, planning, performance, human capital, and financial resources. (DOE Goals 5.1, 5.2 and 5.4)

### MEASURING OE's SUCCESS

By 2007, designate corridors for oil, gas, and hydrogen pipelines and electricity transmission and distribution on Federal land in certain contiguous Western States, and, by 2009, in the East, Hawaii and Alaska. (Energy Policy Act of 2005, section 368)

By 2010, deploy a cutting-edge, wireless communication system that provides reliable, real-time voice and video transmission for energy emergencies between DOE headquarters, FEMA, emergency responders, equipment inventory overseers, weather forecasting mapping information, and other essential emergency response assets.

By 2014, develop tools and algorithms to enable an automatic, smart, real-time switchable network for transmission system operations that enables secure and reliable grid operations for major regions of the grid that is hardened against cyber attacks.

By 2015, demonstrate 20% peak load reduction or improved load management/asset utilization on distribution feeders with the implementation of Distributed Energy (DE) and Energy Management Systems (EMS).

By 2020, develop prototype wire achieving 1,000,000 length-critical current (A-m) for second generation wire.

By 2025, demonstrate a prototype solid state breaker (switch) with less than 1 millisecond response to 