

radiological emergency response capabilities, assess foreign nuclear weapons development programs, and analyze the lifecycle of fissile materials. We will design and develop integrated Navy nuclear propulsion systems, and address an array of technologies to enhance transportation security.

Objective D: Support Responsible Civilian Nuclear Power Development and Fuel Cycle Management

President Obama has called for the development of a new framework for international nuclear energy cooperation to reduce incentives for countries to pursue their own fuel-cycle facilities. The Department will help craft international nuclear technology rules and provide sound technology for implementation and enforcement.

Objective E: Complete Environmental Remediation of Our Legacy and Active Sites

The Department has the monumental task of cleaning up the environmental legacy from five decades of nuclear weapons development and government-sponsored nuclear energy research. We are on a path to reduce our footprint 40% by 2011 and 90% by 2015. We will continue to build waste treatment facilities and identify options for permanent disposition of 88 million gallons of highly radioactive tank waste.

Goal 4: Management and Operational Excellence

Establish an operational and adaptable framework that combines the best wisdom of all Department stakeholders to maximize mission success

Objective A: Achieve Operational and Technical Excellence

The *American Recovery and Reinvestment Act* showed that we can reinvent our business processes. We will apply Recovery Act best practices in operational processes, management tools, and communications across the Department. We will also align roles and responsibilities, develop our federal workforce, apply research and development standards, leverage our infrastructure, foster a smart regulatory environment, and enhance contract and project management.

Objective B: Implement a Performance-Based Culture

The Department will continue to identify opportunities to streamline operations and improve performance. We will develop a performance management framework that links work plans to mission goals. We will advance our safeguards and security standards, cyber security policies, business analytics and data collection tools, and develop an information distribution strategy.

Management Principles

1. Our mission is vital and urgent.
2. Science and technology lie at the heart of our mission.
3. We will treat our people as our greatest asset.
4. We will pursue our mission in a manner that is safe, secure, legally and ethically sound, and fiscally responsible.
5. We will manage risk in fulfilling our mission.
6. We will apply validated standards and rigorous peer review.
7. We will succeed only through teamwork and continuous improvement.



“This is our ‘Sputnik Moment’ to mobilize America’s innovation and ingenuity to advance clean energy and national security solutions.”

Steven Chu
Secretary of Energy



U.S. DEPARTMENT OF
ENERGY

STRATEGIC PLAN

MAY 2011



Mission:
To ensure America’s security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions

Goal 1: Transform Our Energy Systems

Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies

Objective A: Deploy the Technologies We Have

The Department will drive energy efficiency by enforcing the standards we have, reviewing minimum appliance standards at least every 5 years, and developing test procedures to address at least 75% of the energy used in the building sector. We will leverage funds and partnerships to support the cost-effective retrofitting of a million homes by 2013. We will also continue efforts to double renewable energy generation by 2012. We will continue to support the battery manufacturing investment for 500,000 Plug-in Hybrid Electric Vehicles (PHEVs) and the goal to put 1 million electric vehicles on the road by 2015. A smarter grid deployed with advanced phasers and smart meters will allow us to efficiently manage loads while integrating renewables and PHEVs.



The Department is working toward 80% clean energy by 2035

Objective B: Discover the New Solutions We Need

The Department will partner with industry and focus our research on reducing innovation cycle times to bring new technologies to market. We will validate simulations of internal combustion engines, fission, and conventional power plants in commercial use by 2015. We will focus on energy supply technologies that can be commercially applied at a minimum of 1 quad annually by 2030. The Advanced Research Projects Agency-Energy (ARPA-E), Energy Frontier Research Centers, the Energy Innovation Hubs, and a reinvigorated technology transfer program will accelerate breakthroughs.

Objective C: Lead the National Conversation on Energy

The Department will be a highly trusted authority for informing energy policy decisions and consumer choice through sound techno-economic analyses. We will actively participate in the development and implementation of a coordinated, national energy education, or “energy literacy” effort. We will lead the effort to reduce greenhouse gases in Department operations by 28% by 2020.

Goal 2: The Science and Engineering Enterprise

Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity, with clear leadership in strategic areas

Objective A: Extend Our Knowledge of the Natural World

The Department's basic research programs address fundamental questions in the physical sciences, and produce novel hardware and analytical tools.

We will continue to advance discoveries by investing in the design, construction and operation of unique, world-leading facilities and research tools. Advanced X-ray light sources will enable breakthroughs in chemistry, materials science, biology, and nanoscience.



National Synchrotron Light Source II at Brookhaven National Laboratory

Objective B: Deliver New Technologies to Advance Our Mission

The Department must enhance its capacity for technical innovation through a tight union of science and technology efforts. We will conduct critical research in advancing the materials in energy- and security-related systems. We will use systems biology to create viable biofuels processes. We will invest in applied mathematics, computer science, and networking tools necessary to develop exascale computing platforms.

Objective C: Sustain a World-Leading Technical Workforce

To conduct discovery and mission-driven research, the Department's national laboratories must attract and retain a critical mass of the most skilled and talented researchers. We will invest in the next generation of scientists and engineers and a faster entrepreneurial environment in our national laboratories.

Goal 3: Secure Our Nation

Enhance nuclear security through defense, nonproliferation, and environmental efforts

Objective A: Support the U.S. Nuclear Stockpile and Future Military Needs

The ongoing Stockpile Stewardship and Management Program has enabled annual certification of the U.S. stockpile since 1992 without further nuclear testing. While the nuclear stockpile is being reduced to levels outlined in the new Strategic Arms Reduction Treaty, we will maintain the safety, security and reliability of the nuclear deterrent.

Objective B: Reduce Global Nuclear Dangers

In his Prague speech in April 2009, President Obama presented a path forward to reduce nuclear danger while enabling access to peaceful nuclear power. The Department has a vital role to play in securing all vulnerable nuclear materials worldwide in 4 years. We will also demonstrate and develop the technologies to detect movement of special nuclear material by 2013.

Objective C: Apply Our Capabilities for Other Critical National Security Missions

The Department has long provided support to national security missions in defense, homeland security, and the intelligence communities. We will provide nuclear and



President Obama, Prague, Czech Republic, April 5, 2009