



DEPARTMENT OF ENERGY

The President's 2016 Budget is designed to bring middle class economics into the 21st Century. This Budget shows what we can do if we invest in America's future and commit to an economy that rewards hard work, generates rising incomes, and allows everyone to share in the prosperity of a growing America. It lays out a strategy to strengthen our middle class and help America's hard-working families get ahead in a time of relentless economic and technological change. And it makes the critical investments needed to accelerate and sustain economic growth in the long run, including in research, education, training, and infrastructure.

These proposals will help working families feel more secure with paychecks that go further, help American workers upgrade their skills so they can compete for higher-paying jobs, and help create the conditions for our businesses to keep generating good new jobs for our workers to fill, while also fulfilling our most basic responsibility to keep Americans safe. We will make these investments, and end the harmful spending cuts known as sequestration, by cutting inefficient spending and reforming our broken tax code to make sure everyone pays their fair share. We can do all this while also putting our Nation on a more sustainable fiscal path. The Budget achieves about \$1.8 trillion in deficit reduction, primarily from reforms to health programs, our tax code, and immigration.

With the help of the Department of Energy's (DOE) programs, the U.S. has strengthened its economy, advanced clean energy, and increased energy and nuclear security. At a time when America's energy diversity is driving significant job growth across the gas, oil, and renewable sectors, as well as reinvigorating our country's manufacturing, the Department is poised to continue doing its part to accelerate that job growth and realize the full potential of our economic competitiveness. The Department leads the nation in the research, development, demonstration, and deployment of an extensive range of clean energy and efficiency technologies, supporting the President's Climate Action Plan and an "all of the above" energy strategy. And the Department will continue meeting the challenges of cleaning up our Cold War environmental legacy and modernizing our nuclear deterrent while securing dangerous nuclear and radiological materials around the world. To support this mission, the Budget provides \$30 billion in discretionary funding for DOE. This funding level will support the President's goals in the areas of nuclear security, clean energy, environmental cleanup response, climate change, science and innovation.

Funding Highlights:

- The President's FY 2016 Budget provides \$30 billion to support the Department of Energy in the areas of nuclear security, clean energy, environmental cleanup, climate change response, science and innovation. This includes:
 - Supporting a nearly \$5 billion all-of-the-above transformational research and development portfolio in critical energy technology areas, including advanced manufacturing, energy efficiency, solar and other renewable energy, grid modernization, nuclear safety, and advanced coal and natural gas technologies with integrated carbon capture and storage;
 - Providing \$5.3 billion to support DOE's role as the backbone for America's research community, especially in the physical sciences, as the foundation for discovery and innovation;;
 - Continuing to investment in our nuclear security with \$12.6 billion for the National Nuclear Security Administration to maintain a safe, reliable and effective stockpile without testing, modernizing the nuclear security infrastructure, reduce the threats of nuclear proliferation and nuclear terrorism, and provide a 21st century capability for the nuclear Navy;
 - Investing \$5.8 billion in the Department's critical nuclear legacy cleanup responsibilities to protect human health and the environment; and
 - Expanding crosscutting initiatives introduced in the President's FY 2015 Budget Request to advance key priorities and improve project integration while avoiding duplication across programs.

Reforms:

- Supports DOE's renewed emphasis on management and performance by investing in efforts to improve and institutionalize project management, human resource delivery and information technology infrastructure.

Invests in Clean Energy, Science, and Jobs of the Future

The \$10.7 billion for science and energy supports the President's all-of-the-above energy strategy to innovate across a diverse portfolio of energy technologies as we work to enhance economic competitiveness and America's long-term energy security. These requests include over \$1.2 billion in crosscutting research and development across six Secretarial initiatives focusing on electric grid modernization, subsurface science and engineering, supercritical CO₂ in electric power generation, the water-energy nexus, exascale computing, and cybersecurity. Through deliberate and enterprise-wide planning and coordination of these research efforts, the crosscutting initiatives will help bolster DOE's efforts to institutionalize enhanced program management and coordination across program offices, while accelerating progress on key priorities.

The Budget proposes \$2.72 billion for the Office of Energy Efficiency and Renewable Energy to build on the Administration's success in reducing U.S. dependence on fossil fuels, promoting energy efficiency, and doubling U.S. renewable electricity generation through investments in a diverse suite of sustainable transportation technologies, renewable generation technologies, development of manufacturing technologies, and enhanced energy efficiency in our homes, buildings and industries. The Budget proposes \$560 million for Fossil Energy Research and Development to continue work on carbon capture and storage technologies, improve advanced energy systems integrated with CCS, and conduct research and development related to reducing the environmental impacts and greenhouse gas emission of natural gas technologies. The Budget includes \$325 million for the Advanced Research Projects Agency–Energy to accelerate transformative applied energy research and development. It also proposes \$908 million to support research and development of nuclear energy technologies, including advanced reactors and fuel cycle technologies.

The Budget includes more than \$5.3 billion for the Office of Science in continued support for basic science research and supporting infrastructure to keep America competitive. The Budget funds research grants and unique scientific facilities in multiple areas of science, including physics, biology, climate science and environmental sciences, fusion, computational and mathematical sciences, materials science and chemistry. The DOE national laboratory system provides unparalleled scientific research facilities for nearly thirty thousand scientists annually.

It also supports continued oversight of more than \$34 billion in loans, loan guarantees, and conditional commitments, as well as more than \$40 billion in remaining loan and loan guarantee authority to finance advanced nuclear energy, advanced fossil energy, renewable energy and efficiency, and advanced technology vehicle manufacturing projects.

Protects Americans from Nuclear Threats

The \$12.6 billion nuclear security budget includes almost \$2 billion for Defense Nuclear Nonproliferation to continue the critical missions of securing or eliminating nuclear and radiological materials worldwide, preventing proliferation of nuclear technologies, and ensuring that the United States is ready to respond to nuclear and radiological incidents at home and abroad. It provides \$8.8 billion to ensure a safe, secure and effective nuclear stockpile. In addition to funds to continue the B61, W76, W88 and cruise missile warhead life extension programs, the Budget includes support for the ongoing weapons dismantlement program, stockpile surveillance, and research and development to maintain the nuclear arsenal without conducting nuclear tests.

The Budget also includes \$1.4 billion to support U.S. Navy nuclear propulsion, including development of a new reactor for the replacement ballistic missile submarine program, and additional funding for a new facility to store spent nuclear fuel from naval reactors.

Continued Progress on Nuclear Legacy Waste Cleanup

The Budget includes \$5.8 billion to position the Department to meet its responsibilities for the cleanup of millions of gallons of liquid radioactive waste, thousands of tons of spent nuclear fuel, huge quantities of contaminated soil and water, and decommissioning thousands of excess facilities used during development of the nation's nuclear weapons program. This includes \$248 million to maintain critical progress toward returning the Waste Isolation Pilot Plant to normal operations following the fire and radiation leak that shut the facility down in 2014.

Cuts Wasteful Spending and Improves Efficiency

The Budget implements the President's priorities that reflect the application of costs savings through program efficiencies and support for six crosscutting research initiatives that encompass enterprise-wide approaches to achieve more effective outcomes while avoiding duplication between program offices.

The Budget for FY 2015 reflected a substantial reorganization of the Department, establishing the Under Secretary for Management and Performance to oversee environmental cleanup responsibilities and institutionalize an enterprise-wide focus on improving the efficiency and effectiveness of DOE administration and programs. DOE is aggressively pursuing implementation of a Secretarial initiative to improve project management across all programs, human resources service delivery recommendations to implement a more cost-efficient and effective human resources model across DOE, and improvements to the DOE-wide information technology infrastructure. The Budget also emphasizes DOE's leadership role in implementing the Federal agency energy efficiency and sustainability goals that support the President's Climate Action Plan.