



DEPARTMENT OF ENERGY FY 2018 BUDGET REQUEST

FACT SHEET

MAY 23, 2017

The President's Budget for Fiscal Year (FY) 2018 requests \$28.0 billion for the Department of Energy (DOE) to make key investments in science and technology innovation that support its missions in nuclear security, basic scientific research, energy innovation and security, and environmental cleanup.

The FY 2018 Budget Request provides:

- \$13.9 billion for the National Nuclear Security Administration (NNSA) to fulfill the President's vision of rebuilding and restoring the Nation's security through robust investments to modernize the nuclear security enterprise.
- \$6.4 billion for energy and science research and development programs, with a renewed focus on cutting-edge innovation and transition of those breakthroughs to the private sector for commercialization. This includes \$4.5 billion for the Office of Science to maintain American leadership in scientific research.
- \$6.5 billion for Environmental Management, including \$225 million for an Excess Facilities program to address high-risk contaminated facilities that are not in the current project inventory.

DEPARTMENT OF ENERGY	
DOE Programs	FY18 (\$M)
• National Nuclear Security Administration	13,931
• Science	4,473
• Energy	2,214
• Environmental Management	6,508
• Other Defense Activities	816
• Power Marketing Administrations	82
• Administration and Oversight	178
• <i>Savings and Receipts</i>	-159
DOE Total	28,042

To advance the DOE mission in several key areas, the FY 2018 Budget Request:

- Includes \$120 million to advance the Nation's nuclear waste management program. This investment will accelerate fulfillment of the Federal Government's obligations to address nuclear waste, enhance national security, and reduce future burdens on American taxpayers.
- Invests \$508 million to reduce the timeline to achieve an exascale computing system, including \$347 million in the Office of Science and \$161 million in NNSA. With the \$286 million increase over the FY 2016 Enacted level, DOE intends to accelerate delivery of an exascale machine to 2021 to be closely followed by a second machine with a different architecture.
- Addresses cyber threats through \$330 million to secure networks and infrastructure across the DOE enterprise and over \$40 million to strengthen and protect the Nation's energy sector.
- Invests \$10.2 billion for NNSA to continue refurbishment of the nuclear weapon stockpile and replacement of aging and degrading facilities that support nuclear stockpile operations.

NATIONAL NUCLEAR SECURITY ADMINISTRATION

The FY 2018 Budget Request proposes \$13.9 billion for the NNSA, \$1.4 billion, over the FY 2016 Enacted level. The request ensures the reliability of the nuclear stockpile, modernizes the Nation’s aging nuclear infrastructure, addresses nuclear proliferation and radiological threats at home and abroad, and meets the current and future national defense requirements of America’s nuclear navy. The Budget Request includes:

NATIONAL NUCLEAR SECURITY ADMINISTRATION	
NNSA Programs	FY18 (\$M)
• Weapons Activities	10,239
• Defense Nuclear Nonproliferation	1,793
• Naval Reactors	1,480
• Federal Salaries and Expenses	419
NNSA Total	13,931

- \$10.2 billion for Weapons Activities, \$1.4 billion above the FY 2016 Enacted level, to maintain the safety, security, and effectiveness of the nuclear stockpile, to continue the nuclear modernization program, and to modernize NNSA’s nuclear security infrastructure portfolio.
- \$1.8 billion for Defense Nuclear Nonproliferation, \$147 million below the FY 2016 Enacted level, to continue missions across the entire nuclear threat spectrum. The Budget Request includes \$270 million, \$70 million below FY 2016, to terminate the Mixed Oxide (MOX) Fuel Fabrication Facility with an orderly and safe closure of the facility, and \$9 million to pursue the dilute and dispose method as an alternative.
- \$1.5 billion for Naval Reactors (NR), an increase of \$104 million from the FY 2016 level, to support the current fleet and to create the future fleet.

SCIENCE

The FY 2018 Budget Request includes \$4.5 billion for the Office of Science, \$874 million below FY 2016 Enacted, to focus on its core mission of conducting cutting edge, early-stage research. Highlights of the Request include:

- \$722 million for Advanced Scientific Computing Research, an increase of \$101 million from FY 2016 Enacted, includes \$347 million for research, development, and design to accelerate delivery of exascale computing systems.
- \$1.6 billion for Basic Energy Sciences (BES), \$295 million below FY 2016 Enacted, to support facilities and core research activities.

SCIENCE	
Science Programs	FY18 (\$M)
• Advanced Scientific Computing Research	722
• Basic Energy Sciences	1,555
• Biological and Environmental Research	349
• Fusion Energy Sciences	310
• High Energy Physics	673
• Nuclear Physics	503
• Infrastructure and Administration	348
• Workforce Development for Teachers and Scientists	14
Science Total	4,473

- \$349 million for Biological and Environmental Research, \$260 million below FY 2016 Enacted.
- \$310 million for Fusion Energy Sciences, a decrease of \$128M from FY 2016 Enacted levels, including \$247 million for domestic research and fusion facilities, and \$63 million for the ITER project.
- \$673 million for High Energy Physics, a decrease of \$122 million from FY 2016 Enacted levels, to support the highest-priority activities and projects.
- \$503 million for Nuclear Physics, \$114 million below FY 2016 Enacted levels, to support ongoing high-priority research and vital projects.

ENERGY

The FY 2018 Request provides \$2.2 billion, \$2.4 billion below the FY 2016 Enacted level, for energy programs that enhance U.S. security and economic growth through transformative science, technology innovation, and market solutions to meet the Nation’s energy challenges. The Budget Request consolidates programs focused on bringing technologies to the market into one office, the Office of Technology Transitions, to create a robust technology transfer program to transfer breakthroughs from the national laboratories to the private sector.

The request provides \$1.9 billion for energy research and development (R&D), \$2.3 billion below FY 2016 Enacted. Highlights include:

- \$636 million for Energy Efficiency and Renewable Energy, \$1.4 billion below the FY 2016 Enacted level, focusing on early stage R&D to support American energy independence and domestic job-growth. The Weatherization and State Energy subprograms are eliminated to reduce Federal intervention in State-level energy policy and implementation.

ENERGY	
Energy Programs	FY18 (\$M)
• Energy Efficiency and Renewable Energy	636
• Electricity Delivery and Energy Reliability	120
• Fossil Energy Research and Development	280
• Fossil Energy Petroleum Reserves	200
• Nuclear Energy	703
• Yucca Mountain and Interim Storage	120
• Indian Energy	10
• Office of Technology Transitions	7
• Advanced Research Projects Agency—Energy	20
• Loan Programs	–
• Energy Information Administration	118
Energy Total	2,214

- \$120 million for Electricity Delivery and Energy Reliability, a decrease of \$86 million from FY 2016 Enacted, including \$42 million for R&D on next-generation, early-stage grid cybersecurity solutions.
- \$703 million for Nuclear Energy, \$283 million below FY 2016 Enacted, focusing on early stage R&D. The request includes \$20 million for R&D to explore different SMR designs.
- \$120 million for the Yucca Mountain and Interim Storage Program to accelerate progress on fulfilling the Federal Government’s obligations to address nuclear waste by restarting NRC licensing activities for the Yucca Mountain nuclear waste repository and establishing a robust interim storage program to develop a capability for earlier acceptance of spent nuclear fuel.
- \$280 million for Fossil Energy Research and Development, \$352 million below the FY 2016 Enacted level, for cutting edge, early stage R&D to bolster energy security and domestic energy production while advancing clean coal technologies. The request proposes to initiate consolidation of National Energy Technology Laboratory sites.
- In line with Administration priorities, the Request terminates the Advanced Research Projects Agency—Energy and the Department’s Loan Programs, while funding federal staff to oversee existing awards to completion and monitor the loan portfolio.

The Request provides \$200 million for the Petroleum Reserves, including the Strategic Petroleum Reserve (SPR), Naval Petroleum and Oil Shale Reserves, and Northeast Home Heating Oil Reserve. The President’s Budget includes a mandatory budget proposal to sell approximately 270 million barrels of SPR crude oil by 2027, roughly half of the remaining SPR inventory after all sales currently authorized by law are completed, resulting in deficit

reduction of \$17 billion over 10 years, and proposes to liquidate the Northeast Gasoline Supply Reserve, resulting in an estimated \$69 million in receipts that offset discretionary spending.

The President’s Budget includes a mandatory budget proposal to sell the transmission assets of the Western Area Power Administration (WAPA), the Bonneville Power Administration (BPA), and the Southwestern Power Administration (SWPA) and to repeal WAPA’s \$3.25 billion emergency borrowing authority.

ENVIRONMENTAL MANAGEMENT

The Budget Request includes \$6.5 billion for Environmental Management, \$290 million above the FY 2016 Enacted level, to continue managing the cleanup resulting from five decades of nuclear weapons development and production and Government-sponsored nuclear energy research. Highlights of the FY 2018 Budget Request include:

- \$225 million to establish an Excess Facilities program to address specific high-risk contaminated facilities at the Y-12 National Security Complex and Lawrence Livermore National Laboratory.
- \$1.5 billion, \$90 million above the FY 2016 Enacted level, for the Office of River Protection, to continue cleanup activities at Hanford, including ongoing construction of the Low Activity Waste Pretreatment facility.
- \$1.4 billion, \$111 million above the FY 2016 Enacted level, for cleanup activities at the Savannah River Site, including commissioning and start-up of the Salt Waste Processing Facility.
- \$800 million, \$190 million below FY 2016 Enacted, for Richland cleanup at Hanford.
- \$418 million, \$129 million above FY 2016 Enacted, for the decontamination and decommissioning project and other cleanup at the Portsmouth Site.

ENVIRONMENTAL MANAGEMENT	
DOE Cleanup Sites and Program	FY18 (\$M)
• River Protection	1,504
• Savannah River	1,448
• Richland/Hanford	800
• Portsmouth	418
• Oak Ridge	390
• Idaho	359
• Program Direction	300
• Carlsbad/Waste Isolation Pilot Plant (WIPP)	323
• Paducah	270
• Excess Facilities	225
• Los Alamos	192
• West Valley Demonstration Project	64
• Nevada	60
• Headquarters Operations	43
• Moab	35
• Uranium Thorium Reimbursements	30
• Technology Development	25
• Energy Technology Engineering Center	9
• Other Sites	5
• Sandia National Laboratory	3
• Separation Process Research Unit (SPRU)	2
• Brookhaven	2
• Lawrence Livermore National Laboratory	1
Environmental Management Total	6,508

- \$390 million, \$78 million less than the FY 2016 Enacted level, for cleanup activities at the Oak Ridge site, including continued deactivation and demolition at the East Tennessee Technology Park.
- \$359 million, \$43 million less than FY 2016 Enacted, to continue major cleanup at the Idaho site, including commissioning the Integrated Waste Treatment Unit and operating the Advanced Mixed Waste Treatment Project.
- \$323 million, \$18 million above FY 2016 Enacted, to safely continue waste emplacement at the Waste Isolation Pilot Plant (WIPP), the Nation’s only mined geologic repository for permanent disposal of defense-generated transuranic waste, including \$65 million for projects to increase underground airflow.
- \$270 million, \$2 million more than FY 2016 Enacted, for the Paducah site to continue ongoing cleanup activities.