

DOE

FY 2019 budget request released

As with FY 2018, the fate of this latest budget request is uncertain, as President Trump once again makes cuts to popular programs while expanding spending in others.

The Trump administration on February 12 released its fiscal year 2019 budget request, which includes \$30.6 billion to support Department of Energy offices and programs. According to the DOE, “The FY 2019 budget request advances key mission areas through significant investments to achieve exascale computing, protect the national electric grid from cyberattack, promote energy dominance, conduct early-stage scientific research, modernize the nuclear security enterprise, and advance the nation’s nuclear waste management program.”

Under the DOE’s FY 2019 budget request to Congress, the National Nuclear Security Administration (NNSA) would see an increase of about \$2.2 billion over the FY 2017 enacted level of \$13 billion (the FY 2018 budget had not been enacted when the current budget request was prepared). This includes an additional \$1.8 billion to modernize and rebuild a nuclear force and nuclear security enterprise in line with the Department of Defense’s 2018 Nuclear Posture Review.

To protect energy infrastructure, the budget proposes a separate account for Cybersecurity, Energy Security, and Emergency Response, which would consolidate funding supporting the expanded national security responsibilities assigned to the DOE. The budget request includes \$70 million for grid cybersecurity and \$394.5 million for DOE enterprise cybersecurity, an increase of \$98 million from FY 2017.

The FY 2019 budget also requests \$636 million to support the development of an exascale computing software ecosystem, including \$473 million in the Office of Science and \$163 million in the NNSA, \$376 million above the FY 2017 enacted level. The DOE hopes to achieve exascale computing (capable of processing at least one exaflops, or 1,000 petaflops) in 2021.

The administration is once again proposing deep cuts to Energy Efficiency and Renewable Energy, along with a 26 percent cut to Nuclear Energy, down \$259 million from FY 2017 to \$757 million. The budget also eliminates the Advanced Research Projects Agency–Energy (ARPA-E) program. The White House moved to eliminate ARPA-E for the current budget year, but the Senate approved record funding levels for the program, which remains popular in Congress.

As only Volume 1 (NNSA) and Volume 4 (Science) of the FY 2019 budget request had been released as of this writing, full details were not available on all of the department’s allocations. Highlights from the current DOE budget request, however, are listed below, along with an overview of the Nuclear Regulatory Commission’s FY 2019 budget request.

NNSA

The NNSA’s \$15.091-billion budget request includes \$11.017 billion for Weapons Activities, which supports the nation’s nuclear deterrent. This is a 19.2 percent increase over FY 2017. The Naval Reac-

tors appropriation would be increased by 26 percent, to \$1.8 billion. The budget for Defense Nuclear Nonproliferation, however, would decrease about 1 percent, to \$1.862 billion. According to the DOE, the decrease in nonproliferation activities is mainly due to the DOE’s decision to terminate construction work on the Mixed Oxide Fuel Fabrication Facility and switch to a dilute-and-dispose option for the disposition of plutonium.

Nuclear Energy

As mentioned, the Office of Nuclear Energy would see its budget drop by almost 26 percent, with appropriations for the Integrated University Program, Supercritical Transformational Electric Power R&D, and Small Modular Reactor Licensing Support being zeroed out. Fuel Cycle R&D would also see a 71 percent decrease in funding, to \$60 million. The Reactor Concepts Research, Development, and Demonstration program, which includes research into advanced reactor technologies, would increase by nearly 24 percent, to \$163 million.

Fusion

The DOE Office of Science’s \$5.4-billion budget request includes \$340 million for Fusion Energy Sciences, a decrease of \$40 million from FY 2017, to support research and design that will contribute to U.S. leadership in fusion technological advances. The Fusion budget includes \$75 million for the ITER nuclear fusion reactor proj-

FUNDING BY APPROPRIATION (IN THOUSANDS OF DOLLARS)

Department of Energy Budget by Appropriation	FY 2017 Enacted	FY 2018 Annualized CR*	FY 2019 Request	FY 2019 Request vs. FY 2017 Enacted	
				\$	%
Energy and Water Development, and Related Agencies					
Energy Programs					
Energy Efficiency and Renewable Energy	2,034,582	2,040,249	695,610	-1,338,972	-65.8%
Electricity Delivery and Energy Reliability	229,585	228,026	0	-229,585	-100.0%
Electricity Delivery	0	0	61,309	+61,309	N/A
Cybersecurity, Energy Security, and Emergency Response	0	0	95,800	+95,800	N/A
Nuclear Energy	1,015,821	1,008,922	757,090	-258,731	-25.5%
Fossil Energy Programs					
Fossil Energy Research and Development	421,154	425,093	502,070	+80,916	+19.2%
Naval Petroleum and Oil Shale Reserves	12,005	14,848	10,000	-2,005	-16.7%
Strategic Petroleum Reserve	222,605	221,485	175,105	-47,500	-21.3%
Northeast Home Heating Oil Reserve	6,497	6,456	10,000	+3,503	+53.9%
Total, Fossil Energy Programs	662,261	667,882	697,175	+34,914	+5.3%
Uranium Enrichment Decontamination and Decommissioning Fund	767,929	763,106	752,749	-15,180	-2.0%
Energy Information Administration	122,000	121,171	115,035	-6,965	-5.7%
Non-Defense Environmental Cleanup	246,762	245,324	218,400	-28,362	-11.5%
Science	5,390,972	5,354,362	5,390,972	0	N/A
Advanced Research Projects Agency–Energy (ARPA-E)	305,245	303,172	0	-305,245	-100.0%
Nuclear Waste Disposal (30M in DNWF 050)	0	0	90,000	+90,000	N/A
Departmental Administration	120,692	120,009	139,534	+18,842	+15.6%
Inspector General	44,424	44,122	51,330	+6,906	+15.5%
Title 17–Innovative Technology Loan Guarantee Program	139	16,749	7,000	+6,861	+4,936.0%
Advanced Technology Vehicles Manufacturing Loan Program	3,883	4,966	1,000	-2,883	-74.2%
Tribal Energy Loan Guarantee Program	9,000	8,939	-8,500	-17,500	-194.4%
Total, Energy Programs	10,953,295	10,926,999	9,064,504	-1,888,791	-17.2%
Atomic Energy Defense Activities					
National Nuclear Security Administration					
Weapons Activities	9,240,739	9,241,675	11,017,078	+1,776,339	+19.2%
Defense Nuclear Nonproliferation	1,879,738	1,885,970	1,862,825	-16,913	-0.9%
Naval Reactors	1,419,792	1,410,455	1,788,618	+368,826	+26.0%
Federal Salaries and Expenses	387,366	384,736	422,529	+35,163	+9.1%
Total, National Nuclear Security Administration	12,927,635	12,922,836	15,091,050	+2,163,415	+16.7%
Environmental and Other Defense Activities					
Defense Environmental Cleanup	5,404,217	5,368,298	5,630,217	+226,000	+4.2%
Other Defense Activities	781,703	778,676	853,300	+71,597	+9.2%
Defense Nuclear Waste Disposal (90M in 270 Energy)	0	0	30,000	+30,000	N/A
Total, Environmental and Other Defense Activities	6,185,920	6,146,974	6,513,517	+327,597	+5.3%
Total, Atomic Energy Defense Activities	19,113,555	19,069,810	21,604,567	+2,491,012	+13.0%
Power Marketing Administrations					
Southeastern Power Administration	0	0	0	0	N/A
Southwestern Power Administration	11,057	10,982	10,400	-657	-5.9%
Western Area Power Administration	94,742	94,099	89,372	-5,370	-5.7%
Falcon and Amistad Operating and Maintenance Fund	232	230	228	-4	-1.7%
Colorado River Basins	-23,000	-22,844	-23,000	0	N/A
Total, Power Marketing Administrations	83,031	82,467	77,000	-6,031	-7.3%
Federal Energy Regulatory Commission (FERC)	0	0	0	0	N/A
Subtotal, Energy and Water Development, and Related Agencies	30,149,881	30,079,276	30,746,071	+596,190	+2.0%
Uranium Enrichment D&D Fund Discretionary Payments	-563,000	-559,177	0	+563,000	+100.0%
Defense EM Funded Uranium Enrichment D&D Fund Contribution	563,000	559,177	0	-563,000	-100.0%
Excess Fees and Recoveries, FERC	-16,645	-9,000	-16,000	+645	+3.9%
Title XVII Loan Guarantee Program Section 1703 Negative Credit Subsidy Receipt	-37,000	-37,000	-44,000	-7,000	-18.9%
Sale of Northeast Gas Reserve	0	0	-77,000	-77,000	N/A
Defense Programs Rescission of Balances (Undistributed)	-43	-43	0	+43	+100.0%
Title 17–Loan Guarantee Program Rescission	-9,000	-8,939	0	+9,000	+100.0%
Total, Funding by Appropriation	30,087,193	30,024,294	30,609,071	+521,878	+1.7%

*Note: A full-year 2018 appropriation for this account was not enacted at the time the budget was prepared; therefore, the budget assumes this account is operating under the Continuing Appropriations Act, 2018 (Division D of P.L. 115–56, as amended). The amounts included for 2018 reflect the annualized level provided by the continuing resolution.

ect in France. While this is \$25 million more than the FY 2017 enacted level, and \$12 million more than the \$63 million requested for FY 2018, it is only about half of planned U.S. contributions. As reported by Reuters on March 6, the United States has given about \$1 billion to ITER so far, and had been planning to contribute an additional \$500 million through 2025.

Environmental Management

Under the FY 2019 budget request, the DOE's Office of Environmental Management would receive \$6.6 billion, \$128 million more than the FY 2017 enacted budget, to continue managing the cleanup resulting from six decades of nuclear weapons development and production and government-sponsored nuclear energy research. The budget includes \$1.7 billion (\$287 million more than enacted for FY 2017) to provide support at the Savannah River Site for the Liquid Tank Waste Management Program, as well as an additional \$33 million for cleanup at the Portsmouth Site. The Waste Isolation Pilot Plant in New Mexico would also see an increase, including \$85 million for ventilation system and utility shaft projects to increase airflow to the underground. The Hanford, Oak Ridge, Idaho, and Paducah sites would see modest funding decreases.

Yucca Mountain

The Trump administration has once again requested \$120 million for Yucca Mountain and interim storage, with \$110 million for the resumption of the licensing process for the geological repository in Nevada and \$10 million for the development of an interim storage program for spent nuclear fuel, but it appears unlikely that Congress will approve that funding. According to a March 6 report by *Bloomberg News*, Rep. Mike Simpson (R., Idaho), chairman of the House Appropriations Committee's Energy and Water Development Subcommittee, said that House and Senate appropriators have no plans to provide funds for Yucca Mountain this year.

More detailed information on the DOE's FY 2019 budget request is available at <<https://www.energy.gov/cfo/downloads/fy-2019-budget-justification>>.

NRC

NRC requests increase of \$60 million over FY 2018

The Nuclear Regulatory Commission has proposed a \$970.7-million FY 2019 budget, including funding for the Office of the Inspector General. As the agency receives approximately 90 percent of its

budget from licensee fees, the resulting net appropriation request is \$155 million.

The budget request, which the NRC said focuses on the agency's continued efforts to enhance effectiveness and efficiency, includes 3,247 full-time equivalent (FTE) employees, 149 fewer than the FY 2018 annualized continuing resolution budget. It is nearly \$60 million higher than the FY 2018 amount, however, as it includes \$10 million to develop a regulatory infrastructure for advanced reactor technologies and \$48 million for work related to the Yucca Mountain repository.

More information on the NRC's FY 2019 budget request is available at <<https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1100/v34/>>.

On March 13, the House Energy and Commerce Committee's Energy Subcommittee, chaired by Rep. Fred Upton (R., Mich.), and Environment Subcommittee, chaired by Rep. John Shimkus (R., Ill.), announced a March 20 joint subcommittee hearing on the 2019 NRC budget proposal to "provide us the opportunity to ensure the NRC's budget request is appropriately aligned to fulfill [its] mission amid a shifting nuclear industry." The testimony and webcast will be available online at <<https://energycommerce.house.gov/hearings/fiscal-year-2019-nuclear-regulatory-commission-budget>>. **N**