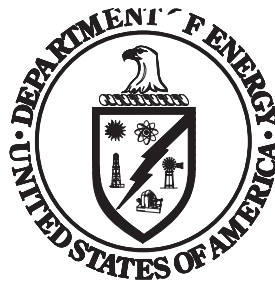


# **Department of Energy**

## **FY 2019 Congressional Budget Request**



**Other Defense Activities**  
**Departmental Administration**  
**Inspector General**  
**Working Capital Fund**  
**Crosscutting Activities**  
**Pensions**



# Department of Energy

## FY 2019 Congressional Budget Request



### Other Defense Activities Departmental Administration Inspector General Working Capital Fund Crosscutting Activities Pensions



**Volume 2**  
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**FUNDING BY APPROPRIATION**

Department of Energy Budget by Appropriation Energy and Water Development, and Related Agencies	(\$K)				
	FY 2017 Enacted	FY 2018 Annualized CR*	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted	
				\$	%
<b>Energy Programs</b>					
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%
<b>Fossil Energy Programs</b>					
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%
<b>Total, Fossil Energy Programs</b>	<b>662,261</b>	<b>667,882</b>	<b>697,175</b>	<b>+34,914</b>	<b>+5.3%</b>
Uranium Enrichment Decontamination and Decommissioning (D&D) 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	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%
<b>Total, Energy Programs</b>	<b>10,953,295</b>	<b>10,926,999</b>	<b>9,064,504</b>	<b>-1,888,791</b>	<b>-17.2%</b>
<b>Atomic Energy Defense Activities</b>					
<b>National Nuclear Security Administration</b>					
Federal Salaries and Expenses	387,366	384,736	422,529	+35,163	+9.1%
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%
<b>Total, National Nuclear Security Administration</b>	<b>12,927,635</b>	<b>12,922,836</b>	<b>15,091,050</b>	<b>+2,163,415</b>	<b>+16.7%</b>
<b>Environmental and Other Defense Activities</b>					
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
<b>Total, Environmental and Other Defense Activities</b>	<b>6,185,920</b>	<b>6,146,974</b>	<b>6,513,517</b>	<b>+327,597</b>	<b>+5.3%</b>
<b>Total, Atomic Energy Defense Activities</b>	<b>19,113,555</b>	<b>19,069,810</b>	<b>21,604,567</b>	<b>+2,491,012</b>	<b>+13.0%</b>
<b>Power Marketing Administrations</b>					
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
<b>Total, Power Marketing Administrations</b>	<b>83,031</b>	<b>82,467</b>	<b>77,000</b>	<b>-6,031</b>	<b>-7.3%</b>
<b>Federal Energy Regulatory Commission (FERC)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>N/A</b>
<b>Subtotal, Energy and Water Development, and Related Agencies</b>	<b>30,149,881</b>	<b>30,079,276</b>	<b>30,746,071</b>	<b>+596,190</b>	<b>+2.0%</b>
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%
<b>Total, Funding by Appropriation</b>	<b>30,087,193</b>	<b>30,024,294</b>	<b>30,609,071</b>	<b>+521,878</b>	<b>+1.7%</b>

\*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.





# **Other Defense Activities**

# **Other Defense Activities**

**Other Defense Activities**

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**Other Defense Activities**  
**Proposed Appropriation Language**

*For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses, necessary for atomic energy defense, other defense activities, and classified activities, in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$853,300,000, to remain available until expended: Provided, That \$299,085,000 shall be available until September 30, 2020, for program direction.*

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.

**Explanation of Changes**

The Environment, Health, Safety and Security budget funds the costs of investigations for its own employees. The headquarter program offices will fund their own security investigations.



**Other Defense Activities  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
Subtotal, Other Defense Activities	784,000	778,676	853,300	+69,300
Rescission	-2,297	0	0	+2,297
<b>Total, Other Defense Activities</b>	<b>781,703</b>	<b>778,676</b>	<b>853,300</b>	<b>+71,597</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Overview**

The Other Defense Activities appropriation funds elements that relate to and support the defense-oriented activities within the Department. These include Environment, Health, Safety and Security (EHSS), Enterprise Assessments (EA), Specialized Security Activities (SSA), Legacy Management (LM), Hearings and Appeals (OHA), and Defense Related Administrative Support (DRAS). Funding from DRAS is used to offset administrative expenses for work supporting defense-oriented activities.

**Highlights and Major Changes in the FY 2019 Budget Request**

- The SSA funding increase in FY 2019 is to assure coverage of national security related activities.
- The EHSS budget funds the costs of investigations for its own employees. The headquarter program offices will fund their own security investigations.
- In LM a decrease in pension and benefit funding requirements is offset by increases to program direction for more personnel to address additional site responsibility, and additional funding requirements for records/IT management at site locations and managing infrastructure and facilities at 100 LM sites.

**Other Defense Activities  
Funding by Congressional Control  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
Environment, Health, Safety and Security	190,972	189,675	205,847	+14,875
Office of Enterprise Assessments	75,580	75,067	76,770	+1,190
Specialized Security Activities	237,912	236,296	254,378	+16,466
Office of Legacy Management	154,320	153,272	158,877	+4,557
Defense-Related Administrative Support	119,716	118,903	153,689	+33,973
Office of Hearings and Appeals	5,500	5,463	3,739	-1,761
<b>Subtotal, Other Defense Activities</b>	<b>784,000</b>	<b>778,676</b>	<b>853,300</b>	<b>+69,300</b>
<b>Rescission</b>	<b>-2,297</b>	<b>0</b>	<b>0</b>	<b>+2,297</b>
<b>Total, Other Defense Activities</b>	<b>781,703</b>	<b>778,676</b>	<b>853,300</b>	<b>+71,597</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).



## Environment, Health, Safety and Security

### Overview

The Office of Environment, Health, Safety and Security (EHSS) provides corporate leadership and strategic approaches in enabling the Department of Energy (DOE) mission and furthering the protection afforded the DOE workers, the public, the environment and national security assets. This is accomplished through the maintenance of corporate-level policies and standards and providing implementation guidance; sharing operating experience, lessons learned, and best practices; and providing assistance and supporting services to line management with the goal of mission success as DOE's environment, health, safety and security advocate.

EHSS accomplishes its overall mission in the following focus areas:

#### Environment, Health and Safety Policy and Support:

- Protecting the health and safety of DOE's Federal and contractor workforce, addressing the health effects legacy of the Nation's nuclear weapons program, and conducting national and international health studies.
- Minimizing DOE's radiological and other environmental footprints and improving DOE's safety performance through analysis, policy development, and sharing lessons learned.
- Promoting the safe design, construction and operation of DOE's facilities, both nuclear and non-nuclear, and providing cross-organizational leadership in resolving related issues.

#### Security Policy and Support:

- Establishing effective policies, through a collaborative, enterprise approach, by which the national security assets entrusted to the Department are protected and secured.
- Furthering DOE's national security, nonproliferation and open governmental goals through the identification of classified, controlled and unclassified information.
- Providing specialized security services, to include protective force and personnel security, to DOE Headquarters facilities and securing the work environment for Federal and contractor personnel.

As the Department's environment, health, safety and security advocate, EHSS supports the Department by identifying the risks in these areas that could jeopardize DOE's mission. EHSS works closely with DOE line management who is ultimately responsible for ensuring that the Department's work is managed and performed in a manner that protects workers, the public, the environment, and the Department's material and information assets. As part of this partnership, EHSS develops and promulgates environment, health, safety and security policy and provides expert advice and implementation assistance to help line management accomplish the Department's mission in a safe and secure manner. EHSS also represents the Department in national and international environment, health, safety, and security matters.

EHSS plays a leadership role in meeting the Department's expectation that all of its organizations embrace a healthy organizational culture where safe and secure performance of work and involvement of workers are deeply, strongly, and consistently held by managers and workers. EHSS contributes to more efficient and cost-effective mission accomplishment by providing quality products and timely expertise aimed at eliminating or mitigating major risks that can lead to adverse impacts to mission. EHSS also informs Secretarial decisions and improves DOE performance by providing expert advice to the Department's senior nuclear safety and nuclear security decision makers.

**Environment, Health, Safety and Security  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Environment, Health, Safety and Security</b>				
<b>Environment, Health and Safety</b>				
Worker Safety	4,511	-	5,013	+502
Nuclear Safety	5,376	-	5,841	+465
Environment	2,407	-	2,371	-36
Health Programs				
Domestic Health Programs				
Health Research	2,370	-	3,370	+1,000
Former Worker Medical Screening	19,850	-	19,850	0
Employee Compensation Program	5,027	-	6,840	+1,813
International Health Programs				
Russian Health Studies	2,750	-	2,750	0
Japanese Health Studies	14,000	-	14,000	0
Marshall Islands Program	6,300	-	6,300	0
<b>Total, Environment, Health and Safety</b>	<b>62,591</b>	<b>-</b>	<b>66,335</b>	<b>+3,744</b>
<b>Security</b>				
Insider Threat Program	3,000	-	3,000	0
Security Operational Support	5,462	-	6,562	+1,100
Classification, Declassification and Controlled Information	9,303	-	11,179	+1,876
Security Investigations	7,545	-	5,200	-2,345
Headquarters Security Operations	39,071	-	42,918	+3,847
<b>Total, Security</b>	<b>64,381</b>	<b>-</b>	<b>68,859</b>	<b>+4,478</b>
<b>Total, Environment, Health, Safety and Security</b>	<b>126,972</b>	<b>126,110</b>	<b>135,194</b>	<b>+8,222</b>
<b>Program Direction</b>	<b>64,000</b>	<b>63,565</b>	<b>70,653</b>	<b>+6,653</b>
<b>Subtotal, Environment, Health, Safety and Security</b>	<b>190,972</b>	<b>189,675</b>	<b>205,847</b>	<b>+14,875</b>
<b>Recession of prior year balances</b>	<b>-1,146</b>	<b>-</b>	<b>--</b>	<b>+1,146</b>
<b>Total, Environment, Health, Safety and Security</b>	<b>189,826</b>	<b>189,675</b>	<b>205,847</b>	<b>+16,021</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Other Defense Activities/  
Environment, Health, Safety and  
Security**

**Explanation of Major Changes  
(\$K)**

<b>FY 2019 Request vs FY 2017 Enacted</b>
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**Environment, Health, Safety and Security:**

**Program Direction:** Funding provides for increases in Federal Employee Salaries and Benefits from FY 2017 to FY 2018 (+1.361M); increase in Federal Employee costs for fringe benefit increases and “with-in grade” increases and promotions (+.530M); Working Capital Fund (+2.041M); Travel (+0.550M); Training (+0.142M); Information Technology and Other Related Expenses costs (+2.014M), and Support Services (+0.015M). **+6,653**

**Headquarters Security Operations:** Funding provides an increase for the Headquarters Protective Force as built into the existing contract (+0.942M); an increase in security costs for replacement of aging items such as security alarms and access control systems, including security screening equipment, vehicle inspection scanning devices, turnstiles, and for additional labor costs and maintenance of existing equipment (+0.705M); an increase (+1.2M) for vehicle barrier replacement at the Forrestal building; these barriers are over 20 years old and are past their life expectancy, and have experienced increased malfunctions, deterioration and increased maintenance costs and need to be replaced; and an increase (+1.0M) for Personnel Security support. **+3,847**

**Nuclear Safety:** An increase for cost escalation required by the Filter Test Facility fixed price contract, and an increase for Nuclear Safety Research and Development activities to provide corporate-level leadership supporting the coordination and integration of nuclear safety science and technology. **+465**

**Health:** Increase (+1.0M) for the Million Person Radiation Workers and Veterans Study that will provide the most precise estimate possible of lifetime risk of cancer resulting from low levels of chronic radiation exposure, and be of significant value to workers and the general public. Results also would appreciably improve the data used for compensation of workers with prior exposures to ionizing radiation. Increase to the Energy Employees Occupational Illness Compensation Program (+1.813M) to update the Site Exposure Matrices database, and expected increased records searches based on trends to date, and increased costs for the recently established Advisory Board on Toxic Substances and Worker Health; and additional funding for the United States Transuranium Registry for increased operation and maintenance costs (+0.300M). Decrease for Other Public Health activities (-0.300M). **+2,813**

**Security Operational Support:** Funding provides additional support for the Foreign Visits and Assignments (+0.100M) activity to cover expected cost increases of the new support contract that this activity is funded through. Funding is eliminated for Security Technology (-0.500M) per congressional direction and re-directed to the Safeguards and Security Information Management System (+0.500M) for upgrades to this centralized classified database that serves as the repository of current and historical DOE safeguards and security information. **+1,100**

**Security Investigations:** Reduction (-3.505M) to adhere to FY 2018 congressional language directing that EHSS only pays for security clearances of its own program and no other program offices at headquarters. **-2,345**  
**+1,876**

**Other Defense Activities/  
Environment, Health, Safety and  
Security**

<p><b>FY 2019 Request vs FY 2017 Enacted</b></p>
--

**Environment, Health, Safety and Security:**

**Classification/Declassification:** Provide additional support for the timely review of classified documents based on the existing and increasing document review workload to strengthen efforts to prevent the inadvertent release of sensitive information to the public.

**Worker Safety:** Increase is for the Employee Concerns Program and increased costs for Information Technology and Worker Safety technical support. **+502**

**Environment:** No significant change. **-36**

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**Total, Environment, Health, Safety and Security** **+16,021**

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## Environment, Health and Safety

### Description

The Environment, Health and Safety subprogram provides technical and analytical expertise to protect and enhance the safety of DOE workers, the public, and the environment. This subprogram maintains policies and guidance for the establishment of safe, environmentally sound work practices to achieve best-in-class performance in occupational, facility, nuclear, and radiation safety; protection of the environment and cultural and natural resources; and quality assurance. Environment, Health and Safety provides assistance to DOE offices and laboratories through site-specific activities, such as nuclear facility safety basis reviews, and corporate-wide services, such as accrediting commercial laboratories used by DOE sites for regulatory compliance and employee monitoring programs; administering the accident investigation and analytical services programs; supporting the Radiation Emergency Assistance Center/Training Site; and testing of high efficient particulate air filters. Corporate databases, such as those pertaining to accidents and illnesses, occurrence reporting, radiation monitoring and dose assessment, safety basis information, and hazardous substances inventories are maintained and used to support analyses of health and safety performance for senior management.

Environment, Health and Safety subprogram provides technical support for the implementation of Department-wide safety and environmental programs such as the DOE Federal occupational safety and health program, the voluntary protection program which encourages and rewards safety performance that exceeds industry averages through universally recognized certifications, environmental management systems which support sustainable practices that promote pollution prevention, greenhouse gas reduction, and effective resource utilization, and radiological clearance and control programs for the safe reuse and recycle of DOE equipment and materials and radiological release of lands and buildings. These DOE-wide safety and environmental programs are integrated with mission activities to optimize protection and effective implementation.

The Environment, Health and Safety subprogram also provides support to the Department of Labor for the implementation of the Energy Employees Occupational Illness Compensation Program Act, and supports the former worker medical screening program, and radiation health studies in Japan and Russia. These projects and programs provide for the evaluation and documentation of health effects and outcomes that support the basis for national and international worker protection policies and standards, which, in turn, provide updated levels of protection appropriate for the risk posed to DOE workers and the public.

In FY 2019, Environment, Health and Safety will continue:

- Developing cost-effective solutions for achieving best-in-class safety performance founded on integrated safety management and enhanced through such concepts as safety culture, voluntary protection, and environmental management systems.
- Honoring the national and Departmental commitment to current and former workers through cost-effective implementation of the former worker medical screening program and support to the Department of Labor for the implementation of the Energy Employees Occupational Illness Compensation Program Act.

### Worker Safety

Worker safety and health policies establish Department-wide safe work practices to achieve best-in-class safety performance as compared to industrial operations resulting in work conducted with a full understanding of health and safety related risks and controls necessary to mitigate those risks leading to minimization or avoidance of worker compensation liabilities. Funding provides for the maintenance of existing standards and the development of new requirements based on new or evolving working conditions and new developments in health science; technical assistance to DOE programs, laboratories, and sites in implementing health and safety requirements and programs; promotion of improvements in overall safety culture; and implementation of corporate health- and safety-related programs and information technology systems. Funding also provides for collecting, analyzing, and trending operational data to identify strengths and weaknesses of safety programs in support of continuous improvement in safety performance and cost effective implementation. Funding provides for the Employee Concerns Program that manages and provides a DOE enterprise approach to ensure that employee concerns related to environment, health, safety and security and the management of DOE and NNSA programs and facilities are addressed.

### Nuclear Safety

Nuclear Safety activities include establishing and maintaining nuclear safety policies and requirements to ensure adequate protection of workers, the public, and the environment from hazards associated with the design and operation of DOE nuclear facilities. This includes the establishment of general facility safety requirements in fire protection, response to natural phenomena, maintenance, and quality assurance to ensure that products and services meet or exceed the Department's objectives. Nuclear safety provides assistance to field elements in implementing requirements and resolving issues; and provides oversight of DOE nuclear operations and facilities.

### Environment

Environmental activities support DOE's efficient use of resources and energy and its compliance with environmental requirements. Funding provides technical support for the development of policies, requirements, and guidance related to responsible management of natural and cultural resources on and around DOE sites, and performance tracking across the DOE complex. Environmental activities also fund technical analyses supporting AU's role representing DOE to external agencies and stakeholders to develop cost effective and efficient means of meeting environmental and public protection objectives and avoiding future liabilities. Funding is used to identify requirements or recommendations that are not cost beneficial or based on sound science and to identify and assist with implementing suitable alternatives. Environmental activities also support the development of guidance and tools for implementation of consensus standards that are practical and broadly accepted. Funding supports programs that provide assurance that environmental monitoring and sampling data meet DOE data quality objectives and ensures computer codes that are used to demonstrate compliance with DOE public and environmental protection requirements are appropriate and employ the best science. Funding also supports the development and maintenance of plans, models, and guidance to respond to radiological and nuclear-related emergencies and support for interagency and national consensus standard development with a goal to harmonize Federal radiation protection policies and guidance for protection of the public and environment.

### Domestic Health Programs:

#### *Health Research*

Domestic health research activities provide for the conduct of health studies on DOE workers and communities surrounding DOE sites, technical assistance to DOE Programs in addressing specific health issues, support to national assets used to respond to radiological events throughout the country, and expertise to support national and international efforts in response to disease outbreaks. These activities also support the maintenance of the electronic comprehensive epidemiologic data resource; the beryllium and U.S. transuranium and uranium registries; and the illness and injury surveillance database and access to the data these systems contain.

#### *Former Worker Medical Screening*

Former worker medical screening activities provide for the conduct of medical screenings for former DOE and DOE-related beryllium vendor employees to identify adverse health conditions that may have resulted from work conducted at DOE facilities. In addition, EHSS also screens DOE-related beryllium vendor facilities on behalf of DOE, as mandated by Congress in the FY 1993 Defense Authorization Act (Public Law 102-484). Workers who are found to have illnesses related to work on behalf of DOE are referred to the Department of Labor for potential compensation through the Energy Employees Occupational Illness Compensation Program Act.

#### *Employee Compensation Program*

DOE Energy Employees Occupational Illness Compensation Program Act (EEOICPA) activities support the implementation of Parts B and E of the Act by the Department of Labor to provide compensation to DOE and DOE-related vendor employees who have become ill as a result of work for DOE. Part B provides for compensation to workers with beryllium disease, silicosis, or radiation-induced cancer, and Part E provides for compensation and medical benefits to DOE contractor and subcontractor employees whose illnesses were caused by exposure to any toxic substance, such as beryllium or other chemical hazards. DOE's support consists primarily of providing information regarding employment status, exposures to radiation and toxic substances, and operational history of DOE facilities to the Department of Labor, the National Institute for Occupational Safety and Health, and the President's Advisory Board on Radiation and Worker Health in support of claims filed by current and former DOE Federal and contractor employees.

## International Health Programs:

### *Russian Health Studies*

The Russian health studies program supports the collaborative radiation health effects research program between U.S. and Russian scientists to determine the risks associated with working at or living near Russian former nuclear weapons production sites. The research is performed under the Cooperation in Research on Radiation Effects for the Purpose of Minimizing the Consequences of Radioactive Contamination on Health and the Environment, an agreement between the United States and Russia that was signed in 1994 and renewed in 2000, 2007, and 2011. The agreement is implemented through the Joint Coordinating Committee for Radiation Effects Research, representing agencies from the United States and the Russian Federation. The goals of the program are to better understand the relationship between health effects and chronic, low-to-medium radiation exposure; determine radiation-induced cancer risks from exposure to gamma, neutron, and alpha radiation; and improve and validate U.S. and international radiation protection standards and practices.

### *Japanese Health Studies*

The Japanese health studies activity supports the Radiation Effects Research Foundation, managed through a bi-national agreement between the United States and Japan, to conduct epidemiologic studies and medical surveillance of the survivors of the atomic bombings of Hiroshima and Nagasaki. The foundation engages in innovative science to develop new research methods and approaches for assessing radiation health effects that are used as a basis for the development of radiation standards.

### *Marshall Islands Program*

The Marshall Islands program provides for medical surveillance and treatment of Marshallese citizens affected by the nuclear weapons testing conducted by the United States in the Pacific Ocean between 1946 and 1958. The program also provides for environmental monitoring in support of safe resettlement of four atolls affected by the testing. The work is performed as required by the Compact of Free Association Acts of 1986 and 2003 between the United States and the Republic of the Marshall Islands and the Insular Areas Act of 2011 requiring enhanced monitoring of Runit Island Nuclear Waste Containment Structure beginning in FY 2013.

**Health and Safety**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Environment, Health, Safety \$62,591,000</b>	<b>\$66,335,000</b>	<b>+\$3,744,000</b>
<b>Worker Safety \$4,511,000</b>	<b>\$5,013,000</b>	<b>+\$502,000</b>
<ul style="list-style-type: none"> <li>• Research, update, and maintain existing DOE regulations, directives and technical standards, and develop new safety and health requirements based on new or evolving working conditions, when warranted;</li> <li>• Provide technical assistance to DOE programs, laboratories, and sites in the implementation of health and safety requirements and programs, such as integrated safety management;</li> <li>• Provide support in development of technical qualification standards and description of required competencies and training for Federal staff involved in management of defense nuclear facilities;</li> <li>• Promote the implementation of the DOE voluntary protection program, which encourages and rewards safety performance that exceeds industry averages;</li> <li>• Provide technical support for the implementation of the DOE contractor employee assistance program that provides for the collection and analysis of causes of lost time and disabilities and the medical and psychological interventions available to reduce those losses;</li> <li>• Maintain the electronic Radiation Exposure Monitoring System, which serves as the Department’s central repository for radiation exposure information at DOE in support of 10 C.F.R. 835, Occupational Radiation Protection, Subpart I, requirements regarding annual monitoring of individual occupational radiation exposure records for DOE employees, contractors, and subcontractors, as well as members of the public who visit DOE sites;</li> <li>• Provide technical support for the implementation of</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase is for the Employee Concerns program transferred from the Office of Economic Impact and Diversity in FY 2017. There is also an increase to Information Technology and Worker Safety technical support due to increased costs of services.</li> </ul>

**Other Defense Activities/  
Environment, Health, Safety and  
Security/**



FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>the DOE Federal employee occupational safety and health program, as required by Presidential Executive Order 12196, Occupational Safety and Health Programs for Federal Employees; Section 19 of Public Law 91-596, the Occupational Safety and Health Act of 1970; and 29 C.F.R. 1960, Basic Program Elements for Federal Employee Occupational Safety and Health Programs and Related Matters;</p> <ul style="list-style-type: none"> <li>• Conduct and communicate analysis and trending of safety performance information to identify excellent performance and areas needing improvement in order to reduce or prevent adverse events and injuries and minimize mission interruptions;</li> <li>• Provide information to DOE operating entities regarding operating experience, lessons learned, and suspect, defective, and counterfeit items;</li> <li>• Provide overall program administration and assistance, including training, to DOE program offices in support of implementing the Department’s accident investigation program, which provides for independent Federal investigations of high-consequence incidents involving worker fatalities or serious injuries, acute exposures to radiation or chemicals, environmental releases, or significant loss of capital assets. Upon request or as directed by DOE leadership, assist DOE program offices in conducting specific accident investigations;</li> <li>• Maintain the differing professional opinion program and process, including a web page and online submittal form that DOE and contractor employees can use to identify and document differing professional opinions concerning technical issues;</li> <li>• Maintain corporate health- and safety-related information management technology systems, such as the Computerized Accident/Incident Reporting System, the Occurrence Reporting and Processing System, the</li> </ul>		

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>Radiation Exposure Monitoring System, and the lessons learned system; and</p> <ul style="list-style-type: none"> <li>• Support continuous improvement in meeting the Department’s safety culture and safety conscious work environment (SCWE) across the complex and to ensure consistent leadership and focus on all aspects of DOE’s safety culture initiatives.</li> <li>• Support the DOE enterprise-wide Employee Concerns Program that provides management and administration of the program to ensure that employee concerns related to environment, health, safety, and security and the management of DOE and NNSA programs and facilities are addressed utilizing well established processes that include prompt identification, reporting, and resolution of employee concerns regarding DOE facilities or operations in a manner that provides the highest degree of safe operations.</li> </ul>		
<p><b>Nuclear Safety \$5,376,000</b></p>	<p><b>\$5,841,000</b></p>	<p><b>+\$465,000</b></p>
<ul style="list-style-type: none"> <li>• Assess, update, and maintain DOE regulations, directives, and technical standards and lead the development of nuclear safety and quality assurance requirements based on new or evolving facility hazards and/or operating conditions, when warranted (including fire protection, natural phenomena hazards, nuclear materials packaging, and maintenance);</li> <li>• Maintain a DOE-wide nuclear safety research and development program to provide corporate-level leadership supporting the coordination and integration of nuclear safety science and technology, share nuclear safety research and development information across the Department, and coordinate the conduct of nuclear safety research and development activities;</li> <li>• Provide technical assistance to DOE program and line</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased funding for additional Nuclear Safety Research and Development activities to provide corporate-level leadership supporting the coordination and integration of nuclear safety science and technology and an increase for cost escalation required by the Filter Test Facility fixed price contract.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>organizations, national laboratories, and sites in implementing nuclear safety and quality assurance requirements and programs and resolving issues and recommendations identified by the Defense Nuclear Facilities Safety Board;</p> <ul style="list-style-type: none"> <li>• Provide technical assistance to national standards development organizations in developing and maintaining nuclear safety and quality assurance consensus standards;</li> <li>• Support DOE program offices in assessing conduct of operations, maintenance, and/or training evaluations for hazard category 1, 2, and 3 nuclear facilities prior to authorizing startup or restart of these facilities or their operations;</li> <li>• Facilitate continuous improvement to the DOE facility representative and safety system programs, supporting approximately 280 site office resident nuclear safety subject matter experts funded by and reporting to DOE line management;</li> <li>• Assist in coordinating information exchanges in various safety concepts relevant to DOE including nuclear safety; safety and organizational culture, high reliability performance and human performance improvement; and probabilistic risk assessment with the Institute of Nuclear Power Operations, a non-profit organization established by the commercial nuclear power industry to promote the highest levels of safety and reliability in the operation of nuclear power plants;</li> <li>• Maintain web-based systems to provide the status of the safety basis of each hazard category 1, 2, or 3 DOE nuclear facility and provide public information on how to obtain copies of safety basis and related documents for DOE nuclear facilities;</li> <li>• Implement safety software quality assurance activities that provide for the maintenance of the DOE safety</li> </ul>		

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>software central registry of approved computer codes, including a user-oriented communication forum, and operation of the safety software expert working group for enabling effective and consistent use of high-quality safety software across DOE; and</p> <ul style="list-style-type: none"> <li>• Provide for the testing of 100 percent of all high efficiency particulate air filters used in safety class and safety significant systems, and other ventilation systems for confinement of radioactive materials prior to their use at DOE nuclear facilities.</li> </ul>		
<p><b>Environment \$2,407,000</b></p>	<p><b>\$2,371,000</b></p>	<p><b>\$-36,000</b></p>
<ul style="list-style-type: none"> <li>• Research, update, and maintain existing DOE regulations, directives, and technical standards, and develop new environmental protection, and public radiation protection requirements based on new or evolving science, protection strategies, national radiation protection guidance, and techniques based on new or evolving DOE activities and programs when warranted;</li> <li>• Provide technical assistance to DOE programs, laboratories, and sites in implementing public radiation protection requirements and programs;</li> <li>• Provide technical support to DOE site and program offices and laboratories in evaluating and resolving regulatory compliance issues through the interpretation of regulatory requirements, development of cost-effective implementation strategies, and maintenance of web-based compliance tools;</li> <li>• Coordinate and develop consolidated responses to proposed changes in environmental regulations that may impact Departmental operations, in order to improve implementation and optimize the use of protective resources;</li> <li>• Review data from environmental reports required by</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No significant change.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>Federal and state environmental protection agencies to validate adherence to reporting requirements; evaluate the effectiveness of the Department’s toxic chemical release reduction and pollution prevention efforts; produce annual reports on DOE environmental performance; and develop annual radionuclide emissions summaries submitted to the Environmental Protection Agency under an interagency agreement;</p> <ul style="list-style-type: none"> <li>• Conduct proficiency and quality assurance audits and reviews of environmental analytical laboratories and commercial waste treatment, storage, and disposal vendors used by DOE operating entities in support of ongoing operations, remediation, and other cleanup projects, compliance programs, and long-term monitoring and surveillance activities to ensure consistency of services while minimizing the number of DOE audits of these commercial service providers;</li> <li>• Support development and maintenance of software toolkits to assist DOE operating elements in meeting data quality objectives related to environmental field sampling and to support user training at DOE field element sites;</li> <li>• Provide assistance to and oversight of DOE site property radiological clearance and control programs to ensure the public and environment are protected from radiological harm associated with the use or disposition of DOE property;</li> <li>• Continue development and maintenance of residual radioactivity models and codes that support evaluations and safe disposition of lands, structures, equipment, soil, and other material that may contain small amounts of residual radioactive material;</li> <li>• Support development of Federal radiation protection policies and guidelines and consistent, cost effective implementation of radiation protection programs</li> </ul>		

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>within DOE including the review, evaluation and implementation of the 2014 and 2015 updates to the recommendations of the International Commission on Radiological Protection and associated revisions to Federal guidance reports on radiation protection;</p> <ul style="list-style-type: none"> <li>• Provide assistance to support development and effective use of national consensus standards for radiation protection, radioactive waste and materials management, environmental protection, and operational resilience;</li> <li>• Support the Center for Radiation Protection Knowledge at the Oak Ridge National Laboratory to ensure U.S. leadership in radiation dosimetry and risk assessment; and</li> <li>• Maintain operational guidelines and other radiological criteria that support protective action decisions and Federal policy governing response to and recovery from radiological and nuclear terrorism incidents (radiological dispersal devices and improvised nuclear devices) and major nuclear accidents and support NNSA emergency response and preparedness activities associated with such incidents;</li> <li>• Provide technical assistance to DOE programs, laboratories, and sites in implementing natural and cultural resource protection requirements and programs.</li> </ul>		
<b>Domestic Health Programs \$27,247,000</b>	<b>\$30,060,000</b>	<b>+\$2,813,000</b>
<i>Health Research \$2,370,000</i>	<i>Health Research \$3,370,000</i>	<i>+\$1,000,000</i>
<ul style="list-style-type: none"> <li>• Provide for the operation and maintenance of the electronic comprehensive epidemiologic data resource, the illness and injury surveillance database, and the U.S. Transuranium and Uranium Registry;</li> <li>• Support the Radiation Emergency Assistance Center/Training Site, which provides medical expertise to DOE occupational medicine clinics, supplies</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities with a decrease in public health studies, plus:</li> <li>• Provides funding for the Million Person Radiation Workers and Veterans Study that will provide the most precise estimate possible of the lifetime risk of cancer resulting from low levels of chronic radiation exposure, and to be of significant value to workers</li> </ul>	<ul style="list-style-type: none"> <li>• Increase (+1.0M) for the Million Person Radiation Workers and Veterans Study. Increase (+0.300M) for the United States Transuranium Registry for increased operation and maintenance costs. Decrease of -0.300M for Other Public Health activities.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>chelating pharmaceuticals to treat radiation-exposed workers, and trains physicians to respond to radiological accidents anywhere in the United States;</p> <ul style="list-style-type: none"> <li>• Provide for the maintenance of the beryllium registry, which collects, analyzes, summarizes, and disseminates health and exposure data to improve chronic beryllium disease prevention programs; and</li> <li>• Provide for the conduct of public health studies and other activities performed by the Department of Health and Human Services through the National Institute for Occupational Safety and Health, the National Center for Environmental Health, and the Agency for Toxic Substances and Disease Registry to provide third-party objectivity regarding the effect of DOE operations on communities surrounding DOE sites.</li> </ul>	<p>and the general public. Results also would appreciably improve the data used for compensation of workers with prior exposures to ionizing radiation.</p>	
<p><i>Former Worker Medical Screening \$19,850,000</i></p> <ul style="list-style-type: none"> <li>• Conduct site assessments to identify groups of at-risk former DOE Federal and contractor/ subcontractor workers and DOE site-specific exposures;</li> <li>• Provide for outreach efforts to inform former workers of the availability and benefits of the program;</li> <li>• Provide for approximately 8,000 medical screenings annually to check for adverse health effects that could be related to occupational exposures to radiation, noise, beryllium, asbestos, silica, lead, cadmium, chromium, and solvents, conducted by independent health experts through seven cooperative agreements held by a consortia of universities, labor unions, and commercial organizations throughout the United States with expertise in administration of medical programs;</li> <li>• Refer workers who are found to have illnesses related to work on behalf of DOE to the Department of Labor for potential compensation through the Energy</li> </ul>	<p><i>Former Worker Medical Screening \$19,850,000</i></p> <ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change in work scope.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>Employees Occupational Illness Compensation Program Act; and</p> <ul style="list-style-type: none"> <li>• Support the DOE central institutional review board, jointly funded with Science and the National Nuclear Security Administration, which reviews all medical screening programs funded by DOE and/or involving the DOE workforce to ensure that the risks to human participants are minimized and reasonable in relation to the anticipated benefits.</li> </ul>		
<p><i>Employee Compensation Program \$5,027,000</i></p> <ul style="list-style-type: none"> <li>• Conduct searches for records related to the employment and hazardous exposures for workers who applied to the Department of Labor for benefits under EEOICPA, declassify relevant records, and provide copies of those records to the Department of Labor and the National Institute for Occupational Safety and Health;</li> <li>• Provide for large-scale records research projects conducted by the Department of Labor, the National Institute for Occupational Safety and Health, and the President’s Advisory Board on Radiation and Worker Health;</li> <li>• Provide for the continued transition of hard copy, paper records to electronic records, as well as records indexing projects to improve the efficiency of responses to the Department of Labor and the National Institute for Occupational Safety and Health; and</li> <li>• Continue coordination and interface between former worker medical screening activities and EEOICPA activities, including identifying mechanisms for outreach to former workers and enhancing the exchange of medical, site, and exposure information among former worker medical screening service providers, the Department of Labor, and the National</li> </ul>	<p><i>Employee Compensation Program \$6,840,000</i></p> <ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<p><i>\$+1,813,000</i></p> <ul style="list-style-type: none"> <li>• Increase (+1.813M) for the Energy Employees Occupational Illness Compensation Program to update the Site Exposure Matrices database, and expected increased records searches based on trends to date, and increased costs for the recently established Advisory Board on Toxic Substances and Worker Health.</li> </ul>



FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
Institute for Occupational Safety and Health to assist the agencies tasked with adjudicating claims.		
<b>International Health Program \$23,050,000</b>	<b>\$23,050,000</b>	<b>\$0</b>
<i>Russian Health Studies \$2,750,000</i>	<i>Russian Health Studies \$2,750,000</i>	\$0
<ul style="list-style-type: none"> <li>• Provide for the conduct of radiation exposure historical dose reconstruction studies, epidemiologic studies, and for a tissue repository of Russian nuclear workers and people living in communities surrounding the Russian nuclear facilities;</li> <li>• Assess radiation health effects of ionizing radiation; and</li> <li>• Publish analyses of radiation health effects assessments.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change in work scope.</li> </ul>
<i>Japanese Health Studies \$14,000,000</i>	<i>Japanese Health Studies \$14,000,000</i>	\$0
<ul style="list-style-type: none"> <li>• Conduct epidemiologic studies and medical surveillance of the survivors of the atomic bombings of Hiroshima and Nagasaki at the Radiation Effects Research Foundation;</li> <li>• Assess radiation health effects of ionizing radiation; and</li> <li>• Publish analyses of radiation health effects assessments.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change in work scope.</li> </ul>
<i>Marshall Islands Program \$6,300,000</i>	<i>Marshall Islands Program \$6,300,000</i>	\$0
<ul style="list-style-type: none"> <li>• Conduct whole-body counting and plutonium urinalyses to measure individual exposure to radionuclides;</li> <li>• Conduct comprehensive annual screening examinations;</li> <li>• Provide medical care for specified Marshallese; and</li> <li>• Provide environmental monitoring services in support of resettlement activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change in work scope.</li> </ul>

## Security

### Description

The Security subprogram provides support to develop and assist in the implementation of safeguards and security programs that provide protection to national security and other vital national assets entrusted to DOE, and to implement the U.S. Government's nuclear weapons-related technology classification and declassification program. Policies and guidance related to physical, personnel, and information security and nuclear materials accountability are designed to promote responsiveness to national security needs and changing threat environments. Assistance is provided to DOE programs and site offices and laboratories via working groups, site-specific support, and corporate program support to implement cost-effective security measures tailored to Departmental mission accomplishment. Corporate security-related information management systems are maintained to identify and reduce the potential for undue risk to individual sites, the Department, and national security. This subprogram also provides for the continuous physical protection and security of DOE facilities and information in the National Capital Area and access authorization security background investigations for DOE Headquarters Federal and contractor personnel. Additionally, DOE implements the information control program for the U.S. Government to mitigate national security threats by preventing the release of information regarding weapons of mass destruction and other data that could lead to damage of the Nation's energy infrastructure. Support is also provided to review over 400 million pages of documents at the National Archives for potential release as required by Executive Order 13526.

In FY 2019, Security activities will include developing comprehensive, reasonable, and cost effective security policies and operational guidelines to assure that the Nation's nuclear and energy assets and DOE's personnel and facilities are secure from insider and external threats.

### Insider Threat Program

The DOE Insider Threat Program is intended to deter cleared employees from becoming insider threats; detect insiders who pose a risk to personnel, facilities, or classified or sensitive information; and mitigate the risks through administrative, investigative or other response actions. The Deputy Secretary of Energy designated an EHSS Senior Executive as the Senior Insider Threat Official to provide guidance and oversight for the Insider Threat Program. On a continuing basis this Designated Senior Official advises and reports directly to the Secretary and Deputy Secretary regarding the planning, construct and operation of the Insider Threat Program. In FY 2019, the Insider Threat Program will continue to cut across several components of DOE and the Designated Senior Official will continue to coordinate implementation with those components. This budget justification shows only the funding to implement EHSS's share of program responsibilities. Funding provides the DOE share for the inter-agency Security, Suitability and Credential Line of Business (SSCLOB) budget supporting Executive Branch-wide reforms to the security clearance, employment suitability, and credentialing processes.

### Security Operational Support

Security operational support provides technical expertise to develop safeguards and security policy requirements and guidance; provide assistance to DOE operations, to include foreign ownership, control and influence analysis; conduct security technology research, development, test and evaluations to effectively mitigate current and emerging threats; and maintain and manage corporate-level safeguards and security-related programs and information technology systems. These activities support Departmental objectives by providing an appropriately tailored level of security requirements and cost effective protection options for a wide range of scientific, research, and national security operations based on the significance of the national assets involved. Security policies, requirements, and guidance are developed to be clear and easily implemented, with the goal of securing nuclear material and classified matter and protecting the highly specialized DOE workforce. Funding provides for the management of the regulation 10 C.F.R. 712 Human Reliability Program for trending, analysis and training to ensure compliance and a consistent enterprise approach to implementation.

### Classification, Declassification, and Controlled Information

The classification, declassification, and controlled information activity ensures that the Department meets its statutory responsibility to implement the U.S. Government-wide program to classify and declassify nuclear weapons-related information (i.e., Restricted Data and Formerly Restricted Data) in order to prevent proliferation of nuclear weapons and technology. This activity supports the implementation of Executive Order 13526, Classified National Security Information, to classify other information critical to national security (i.e., National Security Information), such as security-related

### **Other Defense Activities/**

information concerning U.S. nuclear sites, energy critical infrastructure, and chemical/biological and radiological dispersal devices. Funding provides for declassification review of DOE records and the development of policies, requirements, and guidance and technical support for the protection of controlled unclassified information.

#### Security Investigations

Security investigation activities provide for background investigations conducted by the National Background Investigations Bureau and the Federal Bureau of Investigation of EHSS Headquarters Federal and contractor personnel who require access to classified information or certain quantities of special nuclear material, as required by Section 145 of the Atomic Energy Act of 1954 (as amended) and Executive Order 12968, Access to Classified Information. The conduct of investigations and granting of access authorizations are based on 10 C.F.R. 710, Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material. DOE program offices provide funding for security investigations for Federal and contractor personnel whose access authorizations are managed through offices other than DOE Headquarters as well as their Federal and contractor personnel at DOE Headquarters. Funding in the EHSS budget pays only for the costs of investigations for its own employees. Separately, and apart from this budget, all other headquarter program offices to pay for their security investigations.

This activity also provides support to personnel security programs associated with maintaining access authorizations to personnel who meet the criteria noted above. The conduct of investigations and granting of access authorizations is based on 10 C.F.R. 710, Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material.

#### Headquarters Security Operations

Headquarters security operations provide a comprehensive safeguards and security program for the protection of DOE Headquarters facilities and assets in the Washington, DC, area. This is accomplished through the deployment of a protective force; security education programs; the management and operation of countermeasures, alarms, and access control equipment; and the implementation of security-related programs. Funding provides for a secure work environment and assures management, workers, and stakeholders that activities within Headquarters facilities are effectively protected.

**Security**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Security \$64,381,000</b>	<b>Security \$68,859,000</b>	<b>+\$ 4,478,000</b>
<b>Insider Threat Program \$3,000,000</b>	<b>\$3,000,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>• Develop and maintain a robust program to deter, detect, and centrally analyze and respond to insider threats facing the Department;</li> <li>• Enhance existing information-sharing partnerships with law enforcement, intelligence, and community organizations;</li> <li>• Assist Field Sites in the establishment of Local Insider Threat Working Groups.</li> <li>• Assist Local Insider Threat Working Groups in the implementation of the Insider Threat Program.</li> <li>• Develop measures of success and program review criteria.</li> <li>• Develop and implement insider threat program training in fundamentals of counterintelligence, security, agency procedures for insider threat response, as well as applicable laws and regulations on gathering, integrating, retaining, safeguarding and use of collected insider threat data;</li> <li>• Produce an annual report for the Secretary to provide to the President, and</li> <li>• Provide for the inter-agency Security, Suitability and Credentialing Line of Business operating budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change to work scope.</li> </ul>
<b>Security Operational Support \$5,462,000</b>	<b>\$6,562,000</b>	<b>+\$1,100,000</b>
<ul style="list-style-type: none"> <li>• Research, update, and maintain existing DOE regulations, directives and technical standards, and develop new safeguards and security requirements based on new or evolving threats or working conditions, when warranted;</li> <li>• Provide technical assistance to DOE programs, laboratories, and sites in implementing safeguards and security requirements and programs;</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding provides additional support for the Foreign Visits and Assignments (+0.100M) activity to cover expected cost increases of the new support contract that this activity is funded through. Funding is eliminated for Security Technology (-0.500M) per congressional direction and re-directed to the Safeguards and Security Information Management System (+0.500M) for upgrades to this centralized classified database</li> </ul>

**Other Defense Activities/  
Environment, Health, Safety and  
Security**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<ul style="list-style-type: none"> <li>• Provide technical support, training, and awareness materials for the security-related aspects of the human reliability program, including deployment of the human reliability program database and standard certification management system to ensure that over 10,000 individuals with access authorizations/clearances who occupy positions requiring access to special nuclear materials, nuclear explosive devices, or related facilities and information meet the highest standards of reliability and physical and mental suitability;</li> <li>• Provide support to the security awareness special interest group for DOE and contractor safeguards and security awareness coordinators to share security awareness methods and products, solve problems, and disseminate security-related information to satisfy Presidential and other regulatory requirements;</li> <li>• Operate, maintain, and perform data analysis of the electronic Safeguards and Security Information Management System, a centralized classified browser-based database that serves as the repository of current and historical DOE safeguards and security information pertaining to inspection deficiencies, corrective action status, facility clearance levels, classified addresses, and asset information;</li> <li>• Provide technical support and assistance for risk communication, risk management, vulnerability assessments, and security system performance evaluations, verifications, and validations, which are used to identify and cost-effectively address and mitigate current and emerging threats to Departmental assets at the site level;</li> <li>• Provide assistance to DOE programs, sites, and</li> </ul>		<p>that serves as the repository of current and historical DOE safeguards and security information.</p>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>laboratories in the use of security technology as a means to mitigate vulnerabilities, reduce recurring costs, and lessen environmental impacts;</p> <ul style="list-style-type: none"> <li>• Maintain corporate security-related information technology systems, such as the DOE electronic Foreign Ownership, Control, or Influence program mandated by the Federal acquisition regulations system (48 C.F.R. 904.7003, 952.204-2, 970.0404, 904.404, and 952.204-73) and by Executive Order 12829, National Industrial Security Program; the DOE foreign visits and assignments (FACTS) program that enables foreign nationals' participation in unclassified DOE work, as well as classified visits involving foreign nationals; and the Radiological Source Registry and Tracking (RSRT) database, which is used to inventory approximately 18,000 radioactive sealed sources at DOE sites in support of the Department's nonproliferation and antiterrorist programs, U.S. and DOE regulatory compliance, and international treaty obligations.</li> </ul>		
<b>Classification, Declassification and Controlled Information</b> <b>\$9,303,000</b>	<b>\$11,179,000</b>	<b>+\$1,876,000</b>
<ul style="list-style-type: none"> <li>• Provide technical support in developing U.S. Government and DOE-wide policy and technical guidance to ensure that classified nuclear weapons-related information and other information critical to national security and to U.S. Governmental, commercial, or private interests is identified for proper protection;</li> <li>• Provide specialized technical expertise to foreign governments and to DOE and other U.S. departments and agencies regarding the national security implications of classification and declassification decisions for nuclear proliferation issues;</li> <li>• Provide training and certification of DOE and other</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase is to provide additional support for the timely review of classified documents based on the existing and increasing document review workload to strengthen efforts to prevent the inadvertent release of sensitive information to the public.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>agency personnel in classification and information control programs and related areas;</p> <ul style="list-style-type: none"> <li>• Provide support to the National Declassification Center for review of 400 million pages at the National Archives and follow-on record collections;</li> <li>• Review documents in support of DOE operations and other U.S. Government entities, such as Congress, Presidential Libraries, U.S. Patent Office, the Defense Nuclear Facilities Safety Board, the Government Accountability Office, and the Inspector General; and</li> <li>• Perform the final review of classified DOE documents and documents containing DOE equities from all U.S. Government departments and agencies, including DOE, when they are requested under the Freedom of Information Act and the mandatory provisions of Executive Order 13526, to ensure that DOE classified and controlled information is identified and protected from unauthorized release to the public as required by 10 C.F.R. 1004, Freedom of Information, and 10 C.F.R. 1045, Nuclear Classification and Declassification.</li> </ul>		
<p><b>Security Investigations \$7,545,000</b></p>	<p><b>\$5,200,000</b></p>	<p><b>\$-2,345,000</b></p>
<ul style="list-style-type: none"> <li>• Provide for the Federal Bureau of Investigation to conduct background investigations of DOE Headquarters Federal and contractor employees applying for or occupying sensitive positions, as dictated by the Atomic Energy Act (as amended). Provides for initial background investigations, periodic reinvestigations, and reimbursement for fingerprint and name checks;</li> <li>• Provide for the National Background Investigations Bureau to conduct most background investigations of DOE Headquarters Federal and contractor employees. Funding provides for initial single-scope</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities with the exception that EHSS will only fund Federal Bureau of Investigation and National Background Investigation Bureau background investigations costs for EHSS Headquarters Federal and contractor employees and will not provide funds for these costs for other DOE Headquarters program background investigations.</li> </ul>	<ul style="list-style-type: none"> <li>• Reduction (-2.595M) to adhere to FY 2018 congressional language directing that EHSS only pays for security clearances of its own employees and no other program offices at Headquarters. Increase (+.250M) for increased costs for the eDISS system.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>background investigations, periodic reinvestigations, and initial and reinvestigation national agency checks, and continuous evaluation special agreement checks;</p> <ul style="list-style-type: none"> <li>• Research, update, and maintain existing DOE regulations, directives, and technical standards, and develop new personnel security requirements based on new or evolving threats or working conditions, when warranted;</li> <li>• Provide technical assistance to DOE programs, laboratories, and sites in implementing personnel security requirements and programs;</li> <li>• Conduct corporate-level access authorization adjudications (i.e., performing case reviews, conducting evaluations, and preparing decision packages), as necessary;</li> <li>• Operate and manage the electronic DOE Integrated Security System (eDISS), which consists of interrelated databases and associated client applications and web pages that automate the processing and tracking of access authorizations, access and visitor control, personal identity verification, and related personnel security processes; and</li> <li>• Continue deployment of the personnel security case management system, as well as the integration of this system with DOE field site human resources, financial management, and access control systems to reduce overall personnel security program costs by eliminating redundant systems at DOE field sites and reduce processing time by integrating directly with other databases.</li> </ul>		
<b>Headquarters Security Operations \$39,071,000</b>	<b>\$42,918,000</b>	<b>+\$3,847,000</b>
<ul style="list-style-type: none"> <li>• Provide a protective force engaged in the physical protection of classified information, facilities, and the workforce 24 hours a day, 365 days a year at</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase for the Headquarters Protective Force as built into the existing contract (+0.942M); an increase in security costs for replacement</li> </ul>

**Other Defense Activities/  
Environment, Health, Safety and  
Security**



FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>DOE Headquarters facilities and satellite facilities in Washington, DC, and Germantown, MD;</p> <ul style="list-style-type: none"> <li>• Operate and maintain security alarms and access control systems, including security screening equipment, vehicle inspection scanning devices, internet protocol video, turnstiles, unmanned access/egress portals, other access control equipment; and protective force shelters;</li> <li>• Conduct performance testing of information control systems to ensure the protection of sensitive and classified information vital to both national and economic security;</li> <li>• Conduct technical surveillance countermeasures activities, such as surveys, inspections, in-conference monitoring, pre-construction consultation services, and threat analysis, in support of Presidential Decision Directive 61, Energy Department Counterintelligence, to detect and prevent hostile intelligence collection operations intent on penetrating DOE installations to steal technology or sensitive or classified information;</li> <li>• Conduct the telecommunications security activities consisting of emission security, protected transmission systems, and communications security to ensure the protection of DOE's sensitive unclassified and classified telecommunications through various security components;</li> <li>• Provides Communications Security (COMSEC) and TEMPEST support and oversight to all of the DOE/ NNSA entities, develops and implements training for the various elements of the Technical Surveillance Program (TSP), performs COMSEC Audits/Inspections, and maintains DOE policy and guidance for TSP activities.</li> <li>• Serves as the COMSEC Central office of record and</li> </ul>		<p>of aging items such as security alarms and access control systems, including security equipment, vehicle inspection scanning devices, turnstiles, and for additional labor costs and maintenance of existing equipment (+0.705M); an increase (+1.2M) for vehicle barrier replacement at the Forrestal building: these barriers are over 20 years old and are past their life expectancy, and have experienced increased malfunctions, deterioration and increased maintenance costs and need to be replaced; and an increase (+1.0M) for Personnel Security support.</p>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
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- national command and controlling authorities for classified key material;
- Provide access authorization adjudication services (i.e., case reviews and analysis, interviews, and use of court reporters and consulting physicians as needed) for DOE Headquarters personnel to assure that access to DOE classified information is permitted only after a determination that such access will not endanger the common defense and national security;
  - Implement Homeland Security Presidential Directive 12 requirements related to the secure and reliable identification of DOE Federal and contractor employees;
  - Provide technical support for the implementation of the DOE Headquarters security awareness and classified matter protection and control programs;
  - Administer the DOE Headquarters facility clearance registration and foreign ownership, control, or influence programs for contractors granted access to classified information; and
  - Conduct safeguards and security surveys, self-assessments, and program reviews to ensure that DOE Headquarters operations comply with Departmental and national-level requirements.
  - Replace and repair of Headquarters physical security systems at both the Forrestal and Germantown facilities.

## Program Direction

### Overview

Program Direction provides for Federal staffing and mission support services to provide overall direction and execution of the EHSS mission of conducting the Department's activities in environment, health, safety, and security policy, technical assistance, analysis, and corporate programs.

### Technical Support Services: Defense Nuclear Facilities Safety Board (DNFSB) Liaison Activities

The Office of the Departmental Representative ensures effective cross-organizational leadership and coordination to resolve DNFSB-identified technical and management issues to ensure the health, safety, and security of the workers, public, and environment.

### Other Related Expenses

Other related expenses provide support required for EHSS to accomplish its mission. Support includes Working Capital Fund services; training for Federal employees; funding for information technology equipment and services and DOE common operating environment fees; and executive protection and other security-related equipment.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction Summary</b>				
<b>Program Direction</b>				
Salaries and Benefits	46,945	-	48,836	+1,891
Travel	1,900	-	2,450	+550
Mission Support	271	-	285	+14
Other Related Expenses	14,884	-	19,082	+4,198
<b>Total, Program Direction</b>	<b>64,000</b>	<b>63,565</b>	<b>70,653</b>	<b>+6,653</b>
<b>Federal FTEs</b>	<b>262</b>	<b>262</b>	<b>262</b>	<b>0</b>
<b>Support Service and Other Related Expenses</b>				
		-		
<b>Support Services</b>				
Technical Support				
Defense Nuclear Facilities Safety Board Liaison Activities	271	-	285	0
Total, Technical Support	271	-	285	0
<b>Total, Support Services</b>	<b>271</b>	<b>-</b>	<b>285</b>	<b>+14</b>
<b>Other Related Expenses</b>				
Working Capital Fund	10,113	-	12,154	+2,041
Tuition/Training of Federal Staff	223	-	365	+142
Other Services Procured	4,548	-	6,563	+2,014
<b>Total, Other Related Expenses</b>	<b>14,884</b>	<b>-</b>	<b>19,082</b>	<b>+4,198</b>

**Other Defense Activities/  
Environment, Health, Safety and Security/  
Program Direction**

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$64,000,000</b>	<b>\$70,653,000</b>	<b>+\$6,653,000</b>
<b>Salaries and Benefits \$46,945,000</b>	<b>\$48,836,000</b>	<b>+\$1,891,000</b>
<ul style="list-style-type: none"> <li>• Provide: corporate-level leadership and strategic vision to coordinate and integrate environment, health, safety, and security policy development and technical assistance; analysis; corporate safety and security programs including insider threat activities and Employee Concerns Program; quality assurance programs; and effective cross-organizational coordination to resolve Defense Nuclear Facilities Safety Board-related technical and management issues necessary to ensure worker and public health and safety;</li> <li>• Provides an Executive Protection Program in accordance with the authority of United States Code (USC) Title 42, Chapter 23, Section 161.k and 2201k (the Atomic Energy Act); 10 Code of Federal Regulation 1047; and USC Title 18, Chapter 203, Section 3053.</li> <li>• Manage the conduct of domestic and international health programs;</li> <li>• Implement physical and personnel security programs for DOE Headquarters facilities; and</li> <li>• Manage the U.S. Government-wide program to classify and declassify nuclear weapons-related technology and other national security information.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding provides for increases in Federal Employee Salaries and Benefits from FY 2017 to FY 2018 (+1.361M); increases from FY 2018 to FY 2019 for Federal Employee costs for fringe benefit increases and “with-in grade” increases and promotions (+.530M).</li> </ul>
<b>Travel \$1,900,000</b>	<b>\$2,450,000</b>	<b>+\$550,000</b>
<ul style="list-style-type: none"> <li>• Supports the management and conduct of environment, health, safety, and security programs for the Department; and</li> <li>• Supports executive protection activities for the Secretary, Deputy Secretary, and other dignitaries as assigned.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase is to provide for projected travel costs.</li> </ul>
<b>Technical Mission Support \$271,000</b>	<b>\$285,000</b>	<b>+\$14,000</b>

**Other Defense Activities/  
Environment, Health, Safety and Security/  
Program Direction**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p><i>Defense Nuclear Facilities Safety Board (Board) Liaison Activities</i></p> <ul style="list-style-type: none"> <li>• Coordinate resolution of Board recommendations and agreed-upon defense nuclear facility safety issues;</li> <li>• Provide requested reports/information on defense nuclear facility safety issues;</li> <li>• Coordinate ready access to such defense nuclear facilities, personnel, and information as are necessary for the Board to carry out its responsibilities;</li> <li>• Provide technical evaluation and analysis of defense nuclear safety and management issues identified by the Board; Provide assistance, advice and support to DOE/NNSA Program and Field Offices, including line management on addressing and resolving such issues; and</li> <li>• Monitor Department-wide performance in addressing Board related defense nuclear safety and management issues.</li> </ul>	<p><i>Defense Nuclear Facilities Safety Board (Board) Liaison Activities</i></p> <ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• No change in work scope.</li> </ul>
<p><b>Other Related Expenses \$14,884,000</b></p>	<p><b>\$19,082,000</b></p>	<p><b>+\$4,198,000</b></p>
<ul style="list-style-type: none"> <li>• Working Capital Fund fees, based on guideline estimates issued by the Working Capital Fund manager, for the cost of common administrative services such as building occupancy and alterations, computer and telephone infrastructure and usage, mail service, copying, printing and graphics, procurement closeouts, supplies, online learning, computer network support, and payroll processing;</li> <li>• Federal employee training to obtain and/or maintain the technical competence of Federal employees, assuring that Federal personnel are fully capable of performing current and future missions of the Department;</li> <li>• The DOE common operating environment initiative that provides a single point of contact for all common information technology systems and services and brings security, service, efficiency, and scale to these</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of all FY 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Increases for Working Capital Fund (+2.041M), Training (+.142M), and Information Technology and Other Related Expenses costs (+2.014M).</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
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- projects;
- Information technology investments that support Headquarters Federal and contractor staff with hardware, software, hotline, and other desktop computer maintenance support on per-user count and level of service;
  - Information technology systems exclusive to EHSS such as the classified local area network that includes a Secret/Restricted Data network that supports Headquarters users and the Secret Internet Protocol Router Network that provides access to the Department of Defense classified network to effect coordination between the two departments;
  - Executive protection services to the Secretary of Energy and others designated by the Secretary; and the conduct of inquiries and investigations into significant matters of security concern; and
  - Specialized security equipment and services.

**Environment, Health, Safety and Security  
Safeguards and Security Crosscut  
(\$K)**

	FY 2017 Enacted	FY 2019 Request	FY 2019 vs FY 2017 Enacted \$ Chg.	FY 2019 vs FY 2017 Enacted % Chg.
<b><u>Environment, Health, Safety and Security (EHSS)</u></b>				
Protective Forces	31,391	32,333	+942	+3.0%
Physical Security Systems	5,588	7,493	+1,905	+34.1%
Information Security (Class/Declass)	9,303	11,179	+1,876	+20.2%
<b><u>Cyber Security</u></b>				
Identify	811	828	+17	+2.1%
Protect	3,917	4,063	+146	+3.7%
Detect	423	433	+10	+2.4%
Respond	70	72	+2	+2.1%
Recover	125	128	+3	+2.1%
Subtotal, Cyber Security	5,346	5,524	+178	+3.3%
Personnel Security	5,442	6,692	+1,250	+23.0%
Program Management (Sec. Oper. Support)	5,462	6,562	+1,100	+20.1%
Security Investigations Clearances	4,195	1,600	-2,595	-61.9%
<b>Total, EHSS</b>	<b>66,727</b>	<b>71,383</b>	<b>+4,656</b>	<b>+7.0%</b>



**Environment, Health, Safety and Security Funding by Appropriation by Site  
(\$K)**

	FY 2017 Enacted	FY 2019 Request
<b><u>Environment, Health, Safety and Security</u></b>		
Argonne National Laboratory	945	945
Brookhaven National Laboratory	250	250
Chicago Operations Office	50	50
Consolidated Business Center	259	259
Idaho National Laboratory	150	150
Idaho Operations Office	400	400
Kansas City Plant	10	10
Lawrence Berkeley National Laboratory	0	0
Lawrence Livermore National Laboratory	3,050	3,050
Lexington Project Office	200	200
Los Alamos National Laboratory	95	95
Nevada Site Office	15	15
NNSA Service Center	1,000	1,000
Oak Ridge Institute for Science and Education	1,305	1,305
Oak Ridge National Laboratory	1,035	1,035
Oak Ridge Operations Office	2,795	2,795
Office of Scientific and Technical Information	300	300
Ohio Field Office	5	5
Pacific Northwest National Laboratory	1,905	1,905
Pantex Plant	10	10
Richland Operations Office	1,000	1,000
Sandia National Laboratory	1,210	1,210
Savannah River Operations Office	500	500
Savannah River Site	10	10
Washington, D.C., Headquarters	174,453	189,328
Y-12 National Security Complex	20	20
<b>Total, Environment, Health, Safety and Security</b>	<b>190,972</b>	<b>205,847</b>

**Health, Safety and Security  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Former Worker Satisfaction - Obtain an average rating of no less than satisfactory on 90 percent of customer satisfaction surveys from former worker medical screening program participants who receive medical screenings.</b>		
Target	90 percent satisfactory rating on customer satisfaction surveys	90 percent satisfactory rating on customer satisfaction surveys	90 percent satisfactory rating on customer satisfaction surveys
Result	Met – 98.3	TBD	TBD
Endpoint Target	Achieve 90% satisfactory rating on customer satisfaction surveys annually.		

## Office of Enterprise Assessments

### Overview

The Office of Enterprise Assessments (EA) supports the Department's mission priorities and strategic plan for the secure and safe operation of the nuclear weapons complex, science and energy research, and environmental cleanup activities by conducting independent assessments of security and safety performance throughout the Department, holding contractors accountable for violations of security and safety regulations, and providing training programs that institutionalize enterprise security and safety lessons learned. EA activities complement, but do not replace the responsibility of DOE line management to ensure compliance with security and safety requirements.

EA is organizationally independent of the DOE entities that develop and implement security and safety policy and programs and therefore can objectively provide timely information to DOE senior leadership, contractor organizations, and other stakeholders on whether national security material and information assets are appropriately protected; and whether Departmental operations provide for the safety of its employees and the public. EA activities also evaluate whether the Department is effective in promoting protection strategies and informed risk management decisions. In addition, EA has been designated to implement congressionally authorized contractor enforcement programs pertaining to classified information security, nuclear safety, and worker safety and health. Also, EA operates the DOE National Training Center (NTC) in Albuquerque, New Mexico, and maintains collaborative relationships with security and safety related organizations within and outside the Department.

EA's key initiatives in FY 2019 are:

- Strengthening the Department's ability to protect national security assets (special nuclear material [SNM], controlled unclassified information, and classified matter) by:
  - Conducting comprehensive independent security performance assessments and follow-up assessments at DOE National Security / Category I SNM sites (those with high value assets),
  - Utilizing "limited notice" safeguards and security performance tests to provide accurate, up-to-date assessments of DOE site security response capabilities, and
  - Focusing on insider threats from employees who may seek to compromise National security and/or the ability of the Department to meet its mission.
- Enhancing the methods and tools used to conduct comprehensive independent cybersecurity assessments, including unannounced "red team" performance testing, to identify vulnerabilities in the Department's National Security, Intelligence, scientific, and other information systems against external and internal attacks.
- Conducting independent performance assessments on nuclear safety, worker safety and health, and emergency management of the Department's high hazard nuclear construction projects and operations such as those at the Los Alamos National Laboratory, Y-12 National Security Complex, Savannah River Site, Hanford Site, and Idaho National Laboratory.
- Supporting and promoting secure and safe operations throughout the Department by:
  - Maintaining and operating the NTC to provide advanced security and safety training programs, implementing the training reciprocity program to enhance performance and increase operational efficiency and effectiveness across the Department, and supporting security and safety related qualification programs.
  - Administering the DOE contractor Enforcement activities for violations of the Department's security and safety requirements.

**Office of Enterprise Assessments  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Office of Enterprise Assessments</b>				
Nuclear Safety Assessments	6,621	-	7,621	+1,000
Enforcement	1,946	-	435	-1,511
Security and Safety Training (HS)	15,512	-	15,512	0
Outreach and Analysis	500	-	500	0
<b>Total, Office of Enterprise Assessments</b>	<b>24,580</b>	-	<b>24,068</b>	<b>-512</b>
<b>Program Direction</b>	<b>51,000</b>	-	<b>52,702</b>	<b>+1,702</b>
<b>Total, Office of Enterprise Assessments</b>	<b>75,580</b>	<b>75,067</b>	<b>76,770</b>	<b>+1,190</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Office of Enterprise Assessments  
Explanation of Major Changes (\$K)**

	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Office of Enterprise Assessments</b>	
Funding supports increased Nuclear Safety and cybersecurity Independent Assessment activities; a shift from contractor to Federal staff for implementation of the security and safety Enforcement activity; and increased Salaries and Benefits and other operational support for the Federal staff.	<b>+1,190</b>
<b>Total, Office of Enterprise Assessments</b>	<b>+1,190</b>

## Enterprise Assessments

### **Description**

The EA Program provides for the assessment of DOE performance in nuclear safety; the implementation of the Congressionally authorized contractor enforcement programs for classified information security, nuclear safety, and worker health and safety; the development and administration of security and safety training that reflects the most current Departmental policy and lessons learned through enforcement investigations and independent assessments to enhance performance of the workforce; and the establishment and maintenance of collaborative relationships with internal and external organizations.

### Nuclear Safety Assessments

Provides for the planning and execution of independent assessments of DOE high hazard nuclear facility construction projects and nuclear facilities and operations to determine performance compared with nuclear safety requirements contained in Title 10 Code of Federal Regulations (C.F.R.) Part 830, Nuclear Safety Management, and related DOE directives. EA will continue its focus of nuclear safety performance assessments on nuclear weapons complex infrastructure projects, e.g., at the Y-12 National Security Complex; and at clean-up and related operations, e.g., the construction of the Hanford Site Waste Treatment and Immobilization Plant, and monitoring operations at the Waste Isolation Pilot Plant.

### Enforcement

Provides the Department with the capability to implement regulatory DOE contractor enforcement programs specified in Title 10 C.F.R. Part 824, Procedural Rules for the Assessment of Civil Penalties for Classified Information Security Violations; Title 10 C.F.R. Part 820, Procedural Rules for DOE Nuclear Activities; and Title 10 C.F.R. Part 851, Worker Safety and Health Program. These activities provide a consistent and transparent method of contractor accountability for classified information security, nuclear safety, and worker health and safety performance that complements the Department's contract management mechanisms. The goal of this activity is to ensure that DOE contractors adhere to classified information security, nuclear safety, and worker safety and health requirements, and to promote proactive performance improvement through timely self-identification, reporting, and correction of noncompliant conditions to enable contractors to achieve excellence in mission accomplishment without the need for enforcement actions.

### Security and Safety Training

Security and safety training activities provide the Department a means to improve security and safety performance by developing and maintaining the proficiency and competency of DOE security and safety contractor and Federal employees. These activities also improve senior executives' performance and capabilities to fulfill security and safety leadership responsibilities through standardized training for the security of critical Departmental and national security assets, the safety and health of the workforce, and the protection of the public and the environment. The DOE National Training Center (NTC), located in Albuquerque, New Mexico, serves as the primary resource for DOE security and safety training. Funding provides for the operation and maintenance of the facility and the development and presentation of various security and safety-related training and certification programs at the NTC, through e-learning mechanisms, and at DOE sites via mobile training teams. The NTC is also responsible for certifying training programs in accordance with DOE Policy 364.1, Health and Safety Training Reciprocity. The NTC certifies certain health and safety training programs in order for those training programs to be accepted at various DOE sites and contractor organizations, thus reducing or eliminating the need for employees to complete redundant training programs required prior to conducting work at DOE sites. The NTC also incorporates lessons learned and best practices identified during EA enforcement investigations and independent assessments into more effective training programs.

### Outreach and Analysis

Establishes and maintains collaborative relationships with DOE line management, other U.S. Government entities and external stakeholders in order to inform DOE senior management of their input and positions, and foster improvements in security and safety performance at DOE sites. This helps determine complex-wide crosscutting issues and trends and provides analytic materials to help EA leadership determine areas of critical need and vulnerability and address Departmental issues.

**Office of Enterprise Assessments**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Office of Enterprise Assessments \$24,580,000</b>	<b>\$24,068,000</b>	<b>-\$512,000</b>
<b>Nuclear Safety Assessments \$6,621,000</b>	<b>\$7,621,000</b>	<b>+\$1,000,000</b>
<ul style="list-style-type: none"> <li>• Conduct independent assessments of high hazard nuclear facility construction projects to ensure compliance with nuclear safety requirements; and</li> <li>• Provide independent assessments of DOE nuclear facilities and operations to ensure compliance with nuclear safety requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct independent assessments of high hazard nuclear facility construction projects to ensure performance in the implementation of nuclear safety requirements; and</li> <li>• Provide independent assessments of DOE nuclear facilities and operations to ensure performance in the implementation of nuclear safety requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Reflects an increase in nuclear safety oversight assessment activities conducted at DOE high-hazard nuclear construction projects and operations.</li> </ul>
<b>Enforcement \$1,946,000</b>	<b>\$435,000</b>	<b>-\$1,511,000</b>
<ul style="list-style-type: none"> <li>• Review and analyze operational data from the DOE data management system designed for noncompliance reporting, as well as reports from independent assessment activities, the DOE Occurrence Reporting and Processing System, the DOE Computerized Accident/Incident Reporting System, the DOE Safeguards and Security Information Management System, Federal accident investigations, and DOE site and program office assessments and evaluations to determine whether enforcement investigations are warranted and to identify trends in noncompliance events;</li> <li>• Conduct enforcement investigations;</li> <li>• Develop and issue enforcement case outcomes, such as notices of violation, enforcement letters, and consent orders, and assess civil penalties or other sanctions for regulatory violations; and</li> <li>• Conduct periodic outreach and training activities to communicate the Department’s approach to safety and security enforcement, convey noncompliance reporting expectations, and provide information about DOE regulatory performance.</li> </ul>	<ul style="list-style-type: none"> <li>• Review and analyze performance data from the DOE data management system designed for noncompliance reporting, as well as reports from independent assessment activities, the DOE Occurrence Reporting and Processing System, the DOE Computerized Accident/Incident Reporting System, the DOE Safeguards and Security Information Management System, Federal accident investigations, and DOE site and program office assessments and evaluations to determine whether enforcement investigations are warranted and to identify performance trends;</li> <li>• Conduct periodic outreach and training activities to communicate the Department’s approach to security and safety enforcement, convey noncompliance reporting expectations, and provide information about DOE regulatory performance.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding reflects a shift from contractor to Federal staff for implementation of the Enforcement activity.</li> </ul>
<b>Safety and Security Training (HS) \$15,512,000</b>	<b>\$15,512,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>• Develop and provide security-and safety-related</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and provide security and safety-related</li> </ul>	<ul style="list-style-type: none"> <li>• No change in funding.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>training and professional development programs at the NTC and at DOE sites through mobile training teams, Webinars, video conferencing, and synchronous distance learning;</p> <ul style="list-style-type: none"> <li>• Maintain and upgrade equipment and technologies to support a greater web presence and “just-in-time” online training products, such as webcasts and topical area seminars;</li> <li>• Expand the use of the training reciprocity and collaboration program whereby certified safety training programs are recognized by other DOE contractors and sites and provide mechanisms for DOE contractors to work together to share training content and develop DOE-wide courses;</li> <li>• Expand the incorporation of best practices and lessons learned from EA assessments into NTC training programs; and</li> <li>• Operate and maintain the NTC, including classrooms, administrative offices, weapons live-fire ranges, and the Integrated Safety and Security Training and Evaluation Complex, a simulated DOE research and operational facility designed to allow for the use and evaluation of training methodologies and evolving safety and security technologies through hands-on, performance-based instruction.</li> </ul>	<p>training and professional development programs at the NTC and at DOE sites through mobile training teams, Webinars, video conferencing, and synchronous distance learning to enhance performance throughout the Department;</p> <ul style="list-style-type: none"> <li>• Maintain and upgrade equipment and technologies to support a greater web presence and “just-in-time” online training products, such as webcasts and topical area seminars;</li> <li>• Continue the implementation of the training reciprocity and collaboration program whereby certified safety training programs are recognized by other DOE contractors and sites and provide mechanisms for DOE contractors to work together to share training content and develop DOE-wide courses;</li> <li>• Incorporate best practices and lessons learned from EA enforcement investigations and independent assessments into NTC training programs to enhance performance of the workforce; and</li> <li>• Operate and maintain the facility, including classrooms, administrative offices, weapons live-fire ranges, and the Integrated Safety and Security Training and Evaluation Complex, a simulated DOE research and operational facility designed to allow for the use and evaluation of training methodologies and evolving safety and security technologies through hands-on, performance-based instruction.</li> </ul>	
<b>Outreach and Analysis \$500,000</b>	<b>\$500,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>• Establish and maintain collaborative relationships with organizations both internal and external to DOE;</li> <li>• Establish outreach mechanisms to industry, government, and academic organizations to leverage expertise for addressing and resolving departmental issues;</li> </ul>	<ul style="list-style-type: none"> <li>• Establish and maintain collaborative relationships with organizations both internal and external to DOE;</li> <li>• Establish outreach mechanisms to industry, government, and academic organizations to leverage expertise for improving security and safety performance;</li> </ul>	<ul style="list-style-type: none"> <li>• No change in funding.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<ul style="list-style-type: none"> <li>• Analyze site-wide issues and trends and determine complex-wide crosscutting issues and trends; and</li> <li>• Leverage and provide analytic materials techniques and means to help EA leadership understand areas of critical need and vulnerability.</li> </ul>	<ul style="list-style-type: none"> <li>• Analyze site-wide issues and trends and determine complex-wide crosscutting issues and trends; and</li> <li>• Leverage and provide analytic materials techniques and means to help EA leadership understand areas of critical need and performance vulnerabilities.</li> </ul>	



## Program Direction

### Overview

Program Direction provides for Federal staffing and mission support services to provide overall direction and execution of the EA mission to conduct independent assessments of the Department's performance in security, safety, and other areas; implement classified information security, nuclear safety, and worker health and safety contractor enforcement programs; develop and administer security and safety training that reflects the most current Departmental policy on security and safety issues; and establish and maintain collaborative relationships with organizations both internal and external to DOE.

Critical to achieving its vision and goals is the ability of EA to maintain a highly qualified workforce with the expertise and skills necessary to support, manage, and conduct its mission. The EA workforce is composed of security and safety professionals highly educated in science, engineering, and technology that are led by effective program and project managers with exceptional communication and leadership skills and supported by innovative resource management experts. The judicious use of contractor support continues to be a practical and cost-effective means of providing a surge pool of technical experts.

### Support Services - Independent Assessments

Independent assessment activities provide high value to the Department by assessing performance and identifying gaps and vulnerabilities in physical security and cybersecurity programs, safety (worker and nuclear safety, and emergency management), and related performance. Independent assessment activities are selected based on careful consideration and analysis of risk to Departmental operations and performance trends, and are tailored to the unique missions and needs of each DOE program and site / field office. Safeguards and security, information security, and cybersecurity-related independent performance assessment activities are designed to determine whether special nuclear materials, classified matter (parts and information), and controlled unclassified and sensitive information are adequately protected from unauthorized or inadvertent disclosure or diversion, including from the actions of malicious insiders. Independent performance assessment activities are also designed to evaluate whether the Department's overarching management and governance structure is effective in promoting robust protection strategies and informed risk management decisions. Safety-related independent performance assessment activities determine whether workers and the public are protected from the hazards associated with the Department's operations, and to identify events that could negatively impact the Department's ability to perform its mission and achieve its goals. Independent assessment activities provide accurate and timely information and analysis to the Department's senior leadership regarding the performance of the Department's security and safety programs and other functions of interest. Information is made available to Department management, congressional committees, and stakeholders, such as unions and local public interest groups, to provide confidence that the Department's operations are performed in a secure and safe manner.

Independent performance assessment activities complement but do not replace DOE line management's responsibility for security, safety, and contract performance management as required by Departmental policies. EA provides a check-and-balance function for the Department that is vital to provide assurance of its security and safety performance to its leadership, its workers, the public and Congress, and to maintain confidence in the Department's ability to be an effective self-regulator. As required by DOE Order 227.1A, Independent Oversight Program, independent assessment activities are performed by personnel who are organizationally independent of the DOE program and site / field offices that develop and implement policies and programs, and who can therefore objectively observe and report on the performance of those policies and programs as they relate to Departmental operations. Independent assessment processes are governed by documented, formal protocols that are continuously evaluated, revised, and refined based on Departmental and national events and activities that have an impact on DOE security and safety in order to provide more useful performance data and related information to DOE management.

### Other Related Expenses

Support includes working capital fund services; training for Federal employees; information technology equipment and services, and the Energy Information Technology Services.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction</b>				
Salaries and Benefits	17,496	-	18,325	+829
Travel	1,667	-	1,500	-167
Support Services	27,544	-	27,765	+221
Other Related Expenses	4,293	-	5,112	+819
<b>Total, Program Direction</b>	<b>51,000</b>	-	<b>52,702</b>	<b>+1,702</b>
<b>Federal FTEs</b>	<b>92</b>	-	<b>92</b>	<b>0</b>
 <b>Support Services</b>				
Technical Support				
Independent Assessments	27,544	-	27,765	+221
<b>Total, Technical Support</b>	<b>27,544</b>	-	<b>27,765</b>	<b>+221</b>
<b>Total, Support Services</b>	<b>27,544</b>	-	<b>27,765</b>	<b>+221</b>
 <b>Other Related Expenses</b>				
Working Capital Fund	2,719	-	3,106	+387
Training	113	-	113	0
Other Services Procured	1,461	-	1,893	+432
<b>Total, Other Related Expenses</b>	<b>4,293</b>	-	<b>5,112</b>	<b>+819</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$51,000,000</b>	<b>\$52,702,000</b>	<b>+\$1,702,000</b>
<b>Salaries and Benefits \$17,496,000</b>	<b>\$18,325,000</b>	<b>+\$829,000</b>
<ul style="list-style-type: none"> <li>Federal staffing and mission support services to provide overall direction and execution of the EA mission to conduct expert evaluations of management performance in safety, security and other areas; implement health and safety, nuclear safety, and classified information security enforcement programs; develop and administer safety and security training that reflects the most current Departmental policy on safety and security issues; and establish and maintain collaborative relationships with organizations both internal and external to DOE in order to foster improvements in health, safety, environmental and security performance at DOE sites.</li> </ul>	<ul style="list-style-type: none"> <li>Provides for Federal staffing to manage and oversee direction and execution of the EA mission related to: independent assessments; enforcement; security and safety training; and outreach activities; conduct enforcement investigations of DOE contractors for potential violations of security and safety requirements; develop and issue enforcement outcomes as necessary; conduct security and safety independent assessments; conduct outreach activities; and provide infrastructure support related to EA resources and communication.</li> </ul>	<ul style="list-style-type: none"> <li>Increased funding supports salaries, benefits and other costs associated with EA's Federal workforce.</li> </ul>
<b>Travel \$1,667,000</b>	<b>\$1,500,000</b>	<b>-\$167,000</b>
<ul style="list-style-type: none"> <li>Provides for Federal employee travel in support of EA enforcement, independent assessment, training outreach and other mission-related activities as directed by the Secretary.</li> </ul>	<ul style="list-style-type: none"> <li>Provides for Federal employee travel in support of EA enforcement, independent assessment, training, outreach, and other mission-related activities.</li> </ul>	<ul style="list-style-type: none"> <li>Reflects reduced site orientation visits for Federal employees hired in FY 2017.</li> </ul>
<b>Support Services \$27,544,000</b>	<b>\$27,765,000</b>	<b>+\$221,000</b>
<ul style="list-style-type: none"> <li>Independent Assessments</li> <li>Observe operations and conduct technical assessments and performance tests that examine the effectiveness of safety and security programs and policies, giving priority to the highest security interests, such as strategic quantities of special nuclear material, and activities that present the most significant safety risks to workers and the public, such as nuclear facilities and operations;</li> <li>Conduct performance tests for critical safeguards and security interests, including protective force tests (e.g., force-on-force exercises) using weapons</li> </ul>	<ul style="list-style-type: none"> <li>Independent Assessments</li> <li>Observe operations and conduct technical assessments and performance tests that examine the effectiveness of security and safety programs and policies, giving priority to the highest security interests, such as strategic quantities of special nuclear material, and activities that present the most significant safety risks to workers and the public, such as nuclear facilities and operations;</li> <li>Conduct performance tests for critical security interests, including protective force tests (e.g., force-on-force exercises) using weapons simulation</li> </ul>	<ul style="list-style-type: none"> <li>Independent Assessments</li> <li>Increase supports enhanced cyber security independent oversight activities.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>simulation systems and a specially trained composite adversary team to assess overall security effectiveness;</p> <ul style="list-style-type: none"> <li>• Conduct limited-notice performance testing of site protective forces to maximize response realism and broaden the spectrum of tested threat scenarios;</li> <li>• Conduct assessments of the implementation of the Department’s insider threat program to deter, detect, and mitigate potential insider threats posed by Federal and DOE contractor employees;</li> <li>• Conduct announced and unannounced internal and external network penetration testing to provide a full understanding of a site’s cybersecurity protection posture;</li> <li>• Conduct the annual independent evaluation of classified information systems security programs for DOE as required by the Federal Information Security Modernization Act;</li> <li>• Conduct an annual evaluation of classified information systems security programs for systems that process intelligence information on behalf of the DOE Office of Intelligence and Counterintelligence;</li> <li>• Provide input to the DOE Office of Inspector General for the annual evaluation of the DOE unclassified information systems security program;</li> <li>• Conduct annual “red team” cybersecurity assessments of the computer networks within the National Nuclear Security Administration weapons laboratories;</li> <li>• Conduct targeted reviews of selected nuclear safety functional areas across the DOE complex based on such factors as performance trends, changes to applicable requirements, and/or performance information gaps;</li> <li>• Maintain the nuclear safety site lead program to</li> </ul>	<p>systems and a specially trained composite adversary team to assess overall effectiveness;</p> <ul style="list-style-type: none"> <li>• Conduct limited-notice performance testing of site protective forces to maximize response realism and broaden the spectrum of tested threat scenarios;</li> <li>• Conduct performance assessments of the implementation of the Department’s insider threat program to deter, detect, and mitigate potential insider threats posed by Federal and DOE contractor employees;</li> <li>• Conduct announced and unannounced internal and external network penetration testing to provide a full understanding of a site’s cybersecurity protection posture;</li> <li>• Conduct the annual independent evaluation of DOE classified information systems security programs as required by the Federal Information Security Modernization Act;</li> <li>• Conduct an annual evaluation of DOE classified information systems security programs for systems that process intelligence information on behalf of the DOE Office of Intelligence and Counterintelligence;</li> <li>• Provide input to the DOE Office of Inspector General for the annual evaluation of the DOE unclassified information systems security program;</li> <li>• Conduct annual “red team” cybersecurity performance assessments of the computer networks within the National Nuclear Security Administration nuclear weapons sites and laboratories;</li> <li>• Conduct targeted reviews of selected nuclear safety functional areas across the DOE complex based on such factors as performance trends, changes to applicable requirements, and/or performance information gaps;</li> </ul>	

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>monitor the status of DOE nuclear facilities and activities and facilitate the selection and execution of risk-informed assessment activities;</p> <ul style="list-style-type: none"> <li>• Conduct risk-informed reviews of worker safety and health programs.</li> <li>• Conduct reviews to assess emergency planning, preparedness, and response and recovery capabilities.</li> <li>• Conduct special reviews and studies of safety and security policies, programs, and implementation to identify needed program corrections;</li> <li>• Develop reports identifying findings and opportunities for improvement;</li> <li>• Develop and broadly disseminate abstracts of key results to promote performance improvements;</li> <li>• Continuously analyze results, and develop periodic summary reports that identify cross-cutting issues and performance trends;</li> <li>• Conduct follow-up reviews to evaluate corrective action effectiveness; and</li> <li>• Provide lessons learned and trending of inspection results to the NTC to be used to develop or amend safety and security curricula.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain the nuclear safety site lead program to monitor the status of DOE nuclear facilities and activities and facilitate the selection and execution of risk-informed assessment activities;</li> <li>• Conduct risk-informed reviews of worker safety and health programs;</li> <li>• Conduct reviews to assess performance of emergency planning, preparedness, and response and recovery capabilities;</li> <li>• Conduct special reviews and studies of security and safety policies, programs, and implementation to identify needed program corrections;</li> <li>• Develop reports to communicate security and safety performance, findings, and opportunities for improvement;</li> <li>• Develop and broadly disseminate assessment report abstracts of key results to promote performance improvements;</li> <li>• Continuously analyze results, and develop periodic summary reports that identify cross-cutting issues and performance trends;</li> <li>• Conduct follow-up performance reviews to evaluate corrective action effectiveness; and</li> <li>• Provide lessons learned and trending of assessment results to the NTC to be used to develop or amend security and safety curricula to enhance performance of the workforce.</li> </ul>	
<p><b>Other Related Expenses \$4,293,000</b></p>	<p><b>\$5,112,000</b></p>	<p><b>+\$819,000</b></p>
<ul style="list-style-type: none"> <li>• Working capital fund fees, based on guideline estimates issued by the working capital fund manager, for the cost of common administrative services such as building occupancy and alterations, computer and telephone infrastructure and usage, mail service, copying, printing and graphics, procurement closeouts, supplies, online learning,</li> </ul>	<ul style="list-style-type: none"> <li>• Working Capital Fund (WCF) fees, based on guideline estimates issued by the working capital fund manager, for the cost of common administrative services such as building occupancy and alterations, computer and telephone infrastructure and usage, mail service, copying, printing and graphics, procurement closeouts,</li> </ul>	<ul style="list-style-type: none"> <li>• Reflects an estimated increase in WCF fees, based on guidance provided and approved by the WCF board, and miscellaneous expenses in support of EA operations.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p>computer network support, and payroll processing;</p> <ul style="list-style-type: none"> <li>• Federal employee training to obtain and/or maintain the technical competence of EA Federal employees, assuring that Federal personnel are fully capable of performing missions of the Department; and</li> <li>• The Energy Information Technology System that provides a single point of contact for all common information technology systems and services and brings security, service, efficiency.</li> </ul>	<p>supplies, online learning, computer network support, and payroll processing;</p> <ul style="list-style-type: none"> <li>• Federal employee training to obtain and/or maintain the technical competence of EA Federal employees, assuring that Federal personnel are fully capable of performing missions of the Department; and</li> <li>• The Energy Information Technology Services that provide a single point of contact for all common information technology systems and services at DOE Headquarters, promoting security, service, and efficiency.</li> </ul>	

**Other Defense Activities  
Facilities Maintenance and Repair**

The Department's Facilities Maintenance and Repair activities are tied to its programmatic missions, goals, and objectives. The Facilities Maintenance and Repair activities funded by this budget and displayed below are intended to halt asset condition degradation.

**Costs for Direct-Funded Maintenance and Repair (including Deferred Maintenance Reduction) (\$K)**

	<b>FY 2017 Actual Cost</b>	<b>FY 2017 Planned Cost</b>	<b>FY 2018 Planned Cost</b>	<b>FY 2019 Planned Cost</b>
National Training Center	1,150	1,192	1,200	1,670
<b>Total, Direct-Funded Maintenance and Repair</b>	<b>1,150</b>	<b>1,192</b>	<b>1,200</b>	<b>1,670</b>

**Report on FY 2017 Expenditures for Maintenance and Repair**

This report responds to legislative language set forth in Conference Report (H.R. 108-10) accompanying the Consolidated Appropriations Resolution, 2003 (Public Law 108-7) (pages 886-887), which requests the Department of Energy provide an annual year-end report on maintenance expenditures to the Committees on Appropriations. This report compares the actual maintenance expenditures in FY 2017 to the amount planned for FY 2017, including Congressionally directed changes.

**Other Defense Activities  
Total Costs for Maintenance and Repair (\$K)**

	<b>FY 2017 Actual Cost</b>	<b>FY 2017 Planned Cost</b>
National Training Center	1,150	1,192
<b>Total, Maintenance and Repair</b>	<b>1,150</b>	<b>1,192</b>

**FY 2019  
Funding by Appropriation by Site (\$K)**

	<b>FY 2017</b>	<b>FY 2018*</b>	<b>FY 2019</b>
Enterprise Assessments			
National Training Center	250	-	150
Pacific Northwest National Laboratory	160	-	0
Washington Headquarters	75,170	-	76,620
<b>Total, Enterprise Assessments</b>	<b>75,580</b>	<b>75,067</b>	<b>76,770</b>

**Enterprise Assessments  
Safeguards and Security (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 vs FY 2017</b>
Cybersecurity	4,710	-	5,741	+1,031
<b>Total, Safeguards and Security</b>	<b>4,710</b>	<b>-</b>	<b>5,741</b>	<b>+1,031</b>

\* A full-year 2018 appropriation was not enacted at the time the budget was prepared; therefore, the budget assumes operating under the Continuing Appropriations Act, 2018 (Division D of P.L. 115-56). The amounts included for 2018 reflect the annualized level provided by the continuing resolution. These amounts are shown only at the Congressional control level and above, below that level, a dash (-) is shown.





Legacy Management		
FY 2017 Enacted	FY 2018 Annualized CR*	FY 2019 Request
153,254	153,272	158,877

**Overview**

The Office of Legacy Management (LM) assists the Department in providing a long-term solution to the environmental legacy of the Cold War and ensures that DOE fulfills its long-term commitments to: protect human health and the environment; preserve and share records and information about sites where active remediation is complete, and provides post-retirement benefits to former contractor workers. By funding the long-term activities at about 100 closed sites in the LM subprogram, other DOE programs are able to concentrate on risk reduction and site closure at the remaining operating sites.

LM provides funding for Long-Term Surveillance and Maintenance (LTS&M), Archives and Information Management (AIM), Pensions and Benefits Continuity, Asset Management, Environmental Justice (EJ), Public and Intergovernmental Engagement, and Program Direction.

**Highlights and Major Changes in the FY 2019 Budget Request**

LM will continue its core activities at \$4.5 million above the FY 2017 funding level. The funding levels of the program request will allow LM to perform LTS&M at 100 sites, provide funding for payment of post-retirement benefits to almost 10,000 former contractor employees and their spouses, support termination of pension plans for remaining closure sites, manage records and information, pursue beneficial reuse of properties, engage the public and perform outreach, and support an interagency agreement to address abandoned uranium mines.

**Legacy Management  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Legacy Management</b>				
Legacy Management				
Long-Term Surveillance and Maintenance	49,923	50,337	50,361	+438
Environmental Justice	1,303	1,643	1,731	+428
Archives and Information Management	14,400	16,211	18,274	+3,874
Pension and Benefit Continuity	64,880	60,000	57,519	-7,361
Asset Management	9,800	10,762	11,282	+1,482
Public Intergovernmental Engagement	0	400	1,408	+1,408
<b>Subtotal, Legacy Management</b>	<b>140,306</b>	<b>139,353</b>	<b>140,575</b>	<b>+269</b>
<b>Rescission</b>	<b>-1,066</b>			<b>+1,066</b>
<b>Total, Legacy Management</b>	<b>139,240</b>	<b>139,353</b>	<b>140,575</b>	<b>+1,335</b>
<b>Program Direction</b>	<b>14,014</b>	<b>13,919</b>	<b>18,302</b>	<b>+4,288</b>
<b>Total, Legacy Management</b>	<b>153,254</b>	<b>153,272</b>	<b>158,877</b>	<b>+5,623</b>
<b>Federal FTEs</b>	<b>67</b>	<b>69</b>	<b>71</b>	<b>+4</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Legacy Management  
Explanation of Major Changes (\$K)**

<b>FY 2019 Request vs FY 2017 Enacted</b>
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- |   |             |
|---|-------------|
| <p>• <b>Long-Term Surveillance and Maintenance:</b> The increase supports the transfer of new sites to LM and DOE’s contribution to an interagency effort to address the legacy of defense-related uranium mines.</p> | <b>+438</b> |
|---|-------------|
  
- |  |             |
|--|-------------|
| <p>• <b>Environmental Justice:</b> Increase in Science, Technology, Engineering , and Mathmatics (STEM) and tribal outreach.</p> | <b>+428</b> |
|--|-------------|
  
- |   |               |
|---|---------------|
| <p>• <b>Archives and Information Management:</b> Increase supports requirements for records/ IT management at site locations.</p> | <b>+3,874</b> |
|---|---------------|
  
- |  |               |
|--|---------------|
| <p>• <b>Pension and Benefit Continuity:</b> Decrease due to actions taken by the responsible contractors for health insurance payments in accordance with DOE Order 350.1, Contractor Human Resource Management Programs, Chapter V. Also reflects completed termination of the two Rocky Flats pension plans.</p> | <b>-7,361</b> |
|--|---------------|
  
- |   |               |
|---|---------------|
| <p>• <b>Asset Management:</b> Increase reflects additional requirements for managing infrastructure and facilities at LM sites.</p> | <b>+1,482</b> |
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- |   |               |
|---|---------------|
| <p>• <b>Public Engagement:</b> The increase breaks out funding as a separate effort from Archives and Information Management and Asset Management. Increase in town hall meetings and multimedia education.</p> | <b>+1,408</b> |
|---|---------------|
  
- |   |               |
|---|---------------|
| <p>• <b>Rescission:</b> Reflects elimination of rescission of balances.</p> | <b>+1,066</b> |
|---|---------------|
  
- |   |               |
|---|---------------|
| <p>• <b>Program Direction:</b> Increase supports 4 FTEs to address additional site responsibility and pending retirements of site managers for major sites.</p> | <b>+4,288</b> |
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<b>Total, Legacy Management</b>	<b>+5,623</b>
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## Legacy Management

### Overview

Long-Term Surveillance and Maintenance (LTS&M), Environmental Justice (EJ), Archives and Information Management (AIM), Pension and Benefit Continuity, and Asset Management.

### Long-Term Surveillance and Maintenance

This activity is required for remediated sites that have been closed. Before transferring to LM, cleanup is performed to a level that protects human health and the environment, and treatment systems are in place if there are contaminants in water. DOE maintains the sites to ensure the cleanup remains protective of human health and the environment. Site conditions must meet the regulatory requirements established by state and federal agencies in cooperation with local governments, Tribal Nations, and public stakeholders.

The funding requested for FY 2019 will allow LM to monitor and conduct LTS&M and implement additional institutional control commitments at its sites in accordance with legal, contractual and regulatory agreements. Routine functions include soil, water, and air monitoring, long-term treatment of contaminants, maintenance of disposal cells, and security. Funding for this activity is required to meet legal and regulatory requirements for LM sites. LM is planning to manage 97 sites by the close of FY 2018 and 100 sites by the close of FY 2019. LM is also planning projects to understand and address maintenance issues at Rocky Flats and other sites.

LM led the effort to produce the defense-related uranium mines (DRUM) report as required by Congress and delivered in August 2014. One conclusion of the report was there are still numerous data gaps associated with abandoned uranium mines in order to fully comply with the intent of Congress. Beginning in FY2016, DOE has participated in intergovernmental coordination efforts to fill the data gaps and quantify the risks. The funding requested for FY 2019 will support LM's continued involvement in a multi-agency effort to fill existing data gaps and to validate and verify existing information at 500 mines. This effort will help DOE better define potential safety and environmental issues at DRUM sites.

A related cost, directly supporting this activity and embedded within the total activity cost, is safeguards and security for LM properties. The costs include protective forces and physical security systems, as follows (in whole dollars): FY 2017 - \$184,000; FY 2018 - \$186,000; and FY 2019 - \$190,000. The cost is derived from protective forces and physical security systems as planned for the Weldon Spring and Fernald sites.

### Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice (EJ) in Minority and Low-Income Populations, directed each Federal agency to make achieving EJ part of its mission. LM provides leadership and coordination of Departmental EJ activities and represents the Department in interagency planning and activities. The FY 2019 funding continues actions under a Memorandum of Understanding that includes participation from 17 Federal agencies to work collaboratively with communities to increase their ability to sustain a healthy quality of life.

### Archives and Information Management

LM is the custodian of legacy physical and electronic records for LM sites, including the major closure sites of Fernald, Mound, and Rocky Flats. LM is responsible for approximately 114,000 cubic feet of physical records and approximately 54 terabytes of electronic records.

Within this activity, LM provides records management services for its active program elements and maintains legacy archives of inherited collections, including paper and electronic records and records in other media. Elements include records management policy and procedure development, planning, and development of oversight processes and actions that guide and govern physical and electronic records management operations, including preservation efforts for fragile or deteriorating records. Functions within this activity encompass operational records retention, records maintenance and use, and records disposition processes and activities to ensure proper documentation of LM's environmental protection, and hazardous waste disposition-related policies and activities.

The activity includes responding to requests associated with the Freedom of Information Act (FOIA), Privacy Act, and other information requests (e.g., DOE stakeholders processing claims associated with the Energy Employees Occupational Illness Compensation Program Act). LM currently receives ~1,600 information requests each year.

This activity also provides LM's information management and technology needs. This work involves the coordination of information collection, storage, dissemination, and destruction as well as managing the policies, guidelines, and standards regarding information management. LM maintains its information technology (IT) infrastructure – including maintaining functional equipment, operating systems, and software capable of accessing electronic records – and provides planning, design, and maintenance of an IT infrastructure to effectively support automated needs (e.g., platforms, networks, servers, printers, etc.) and provides IT security for LM's unclassified computing networks. Specific accomplishments will include fully implementing a realistic programming level of performing IT projects, ongoing Drum support, and added GIS capabilities and storage/manipulation of increasing drone-related data.

IT security involves all processes and activities pertaining to the securing of Federal data and systems through the creation and definition of security policies, procedures and controls covering such services as identification, authentication, and non-repudiation in accordance with Federal Information Processing Standards (FIPS) and the Federal Information Security Modernization Act of 2014. The cost of the embedded cyber security and information security functions are as follows (in whole dollars): FY 2017 - \$1,190,000; FY 2018 - \$1,130,000; and FY 2019 - \$953,000.

#### Pension and Benefit Continuity

This activity fulfills the Department's commitment to its former contractor employees who previously worked at sites prior to closure. For sites that have been closed following the end of active programs and completion of site remediation, LM is responsible for ensuring that former contractor employees, their dependents, and their beneficiaries receive the pensions and post-retirement benefits (PRB) that are part of the contractual agreements for the respective sites. Dependent upon the contract provisions for the respective sites, LM funds the contractor cost of providing retirement benefits to former contractor employees. These retirement benefits include pension plans, health insurance, health reimbursement account stipends, Medicare Part B reimbursement, and life insurance. A DOE contractor responsible for closure site pension plans is in the process of terminating two pension plans through a combination of lump sum buyouts and the purchase of insurance company annuities that reduces DOE administrative costs but maintains benefits that former site workers have earned.

In FY 2019, LM will support the administration of pensions and/or PRB for the following sites: Fernald (OH), Grand Junction (CO), Mound (OH), Paducah (KY), Pinellas (FL), Portsmouth (OH), and Rocky Flats (CO). There are almost 10,000 participants in the pension and/or other benefit plans (including spouses covered under the retiree medical plans). The total number of participants in these plans decrease over time due to a closed participant population and normal mortality.

#### Asset Management

LM manages tens of thousands of acres of land and other assets. This activity focuses on management of those assets – including administration of leases for property used in program functions, infrastructure and facility management – and on reuse or transfer of the real and personal property to other agencies or private interests. Transferring land to a private interest allows the land to be reused productively, reduces the Department's "footprint" of the Cold War legacy, and enables resumption of local property taxes. Transfer of excess assets to non-DOE ownership is a priority. LM has disposed of more than ten properties since being created in FY 2004, and continues to evaluate assets for future property disposition. Asset Management also administers LM's Environmental Management Systems (EMS) for maintaining environmental compliance and sustainably managing LM sites.

This activity also includes management of lease tracts for royalties paid to the US government from uranium production on BLM managed lands in Colorado. Uranium lease management continues to strengthen LM's capacity for long-term management of uranium-mine-related issues.

A related cost directly supporting this activity and embedded within the total activity cost is safeguards and security for LM properties. The costs include protective forces, physical security systems, personnel security, information security, and program management, as follows (in whole dollars): FY 2017 - \$856,000; and FY 2018 - \$868,000, and FY 2019 - \$948,000.

Public Intergovernmental Engagement

This activity provides for robust outreach to the public, intergovernmental collaboration, and effective dialogue with tribal nations integral to the Office of Legacy Management's work. This activity focuses on ensuring that stakeholders are involved and informed of LM's current and planned work.

**Legacy Management**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Long-Term Surveillance and Maintenance- \$49,923,000</b>		
	<b>\$50,361,000</b>	<b>+438,000</b>
<ul style="list-style-type: none"> <li>• Conduct surveillance and maintenance at 92 sites.</li> <li>• Conduct transition actions for sites prior to them transferring to LM.</li> </ul>	<ul style="list-style-type: none"> <li>• Conduct surveillance and maintenance at 100 sites.</li> <li>• Accept responsibility for three additional sites by the end of FY 2019.</li> <li>• Conduct transition actions for sites prior to them transferring to LM</li> <li>• Supports an interagency effort to address defense-related uranium mines.</li> </ul>	<ul style="list-style-type: none"> <li>• The increase supports the transfer of new sites to LM and DOE’s contribution to an interagency effort to address the legacy of defense-related uranium mines.</li> </ul>
<b>Environmental Justice (EJ)- \$1,303,000</b>		
	<b>\$1,731,000</b>	<b>+\$428,000</b>
<ul style="list-style-type: none"> <li>• Continue EJ functions as the Departmental focus for that program element.</li> <li>• Promote EJ functions in the communities affected by DOE closure actions.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue EJ functions as the Departmental focus for that program element.</li> <li>• Promote EJ functions in the communities affected by DOE closure actions.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in STEM and tribal outreach.</li> </ul>
<b>Archives and Information Management- \$14,400,000</b>		
	<b>\$18,274,000</b>	<b>+\$3,874,000</b>
<ul style="list-style-type: none"> <li>• Continue records/IT management functions for all sites and activities.</li> <li>• Accept responsibility for records/IT for sites transferred to LM during the fiscal year.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue records/IT management functions for all sites and activities.</li> <li>• Accept responsibility for records/IT for sites transferred to LM during the fiscal year.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase in DRUM support</li> <li>• Added GIS capabilities, and storage/manipulation of increasing drone-related data</li> <li>• Increase in programming level of performing IT projects and IT governance.</li> </ul>
<b>Pension and Benefit Continuity- \$64,880,000</b>		
	<b>\$57,519,000</b>	<b>-\$7,361,000</b>
<ul style="list-style-type: none"> <li>• Continue to reimburse contractor costs for pensions and/or PRB administration for seven sites.</li> <li>• Support termination of pension plans for the retirees at three sites, as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to reimburse contractor costs for pensions and/or PRB administration for seven sites.</li> <li>• Support termination of pension plans for the retirees at three sites, as needed.</li> </ul>	<ul style="list-style-type: none"> <li>• PRB costs reduced through the use of health reimbursement arrangements.</li> </ul>



<b>Asset Management- \$9,800,000</b>		<b>\$11,282,000</b>	<b>+\$1,408,000</b>
<ul style="list-style-type: none"> <li>• Continue asset management support for 92 sites.</li> <li>• Add two sites by the end of FY 2017.</li> <li>• Manage infrastructure and facilities at LM sites.</li> <li>• Continue management of the Uranium Leasing Program.</li> <li>• Continue to increase and manage beneficial reuse initiatives at sites available for reuse.</li> </ul>	<ul style="list-style-type: none"> <li>• Initiate asset management support for five additional sites for a total of 97 sites.</li> <li>• Manage infrastructure and facilities at LM sites.</li> <li>• Continue management of the Uranium Leasing Program.</li> <li>• Continue to increase and manage beneficial reuse initiatives at sites available for reuse.</li> </ul>	<ul style="list-style-type: none"> <li>• The increase supports additional requirements in managing infrastructure and facilities at LM sites.</li> </ul>	
<b>Public and Intergovernmental Engagement- \$0</b>		<b>\$1,408,000</b>	<b>+\$1,408,000</b>
<ul style="list-style-type: none"> <li>• Continue to increase stakeholder awareness and engage the public.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to increase stakeholder awareness and engage the public.</li> </ul>	<ul style="list-style-type: none"> <li>• The increase breaks out funding as a separate effort from Archives and Information Management and Asset Management. Increase in town hall meetings and multimedia education.</li> </ul>	

**Legacy Management  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Environmental Remedies - Conduct surveillance and maintenance activities to ensure the effectiveness of cleanup remedies in accordance with legal agreements or identify sites subject to additional remedial action in order to ensure effectiveness at all sites within Legacy Management's responsibility.</b>		
Target	= 93 Sites	97 Sites	100 sites
Result	Not Met - 92	TBD	TBD
Endpoint Target	Inspections will continue indefinitely. Inspection of 100 percent of the sites will continue to be the goal.		
Performance Goal (Measure)	<b>Surveillance and Maintenance Cost - Reduce the cost of performing long-term surveillance and monitoring activities while meeting all regulatory requirements to protect human health and the environment. Reduction is measured in percent from the life-cycle baseline. Goal is a 2 percent reduction below the baseline each year.</b>		
Target	≥ 2 percent reduction	≥ 2 Percent Reduction	≥ 2 percent reduction
Result	Met - 2	TBD	TBD
Endpoint Target	Achieve a 2 percent reduction below the baseline each year.		

## **Program Direction**

### **Overview**

The LM mission is carried out by a workforce composed mainly of contractors paid mostly from program funds. Oversight, policy, and inherently governmental functions (e.g., contract administration and budget formulation and execution) are provided by a federal workforce funded from program direction. Within the program direction subprogram, most costs are associated with Federal personnel salaries and benefits.

### **Highlights of the FY 2019 Budget Request**

The FY 2019 Request includes four additional FTEs (and additional travel and training costs) to address growing site management responsibilities.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	10,720	8,448	12,433	+1,713
Travel	598	790	820	+222
Support Services	524	2,190	2,544	+2,020
Other Related Expenses	2,172	2,491	2,505	+333
<b>Total, Program Direction</b>	<b>14,014</b>	<b>13,919</b>	<b>18,302</b>	<b>+4,288</b>
<b>Federal FTEs</b>	<b>67</b>	<b>69</b>	<b>71</b>	<b>+4</b>
<b>Support Services</b>				
Technical Support				
System Definition	50	51	52	+2
<b>Total, Technical Support</b>	<b>50</b>	<b>51</b>	<b>52</b>	<b>+2</b>
Management Support				
Manpower Systems Analysis	51	82	84	+33
Training and Education	72	21	21	-51
Analysis of DOE Management Processes	50	250	255	+205
Reports and Analyses Management and General Administrative Support	301	1,786	2,132	+1,831
<b>Total Management Support</b>	<b>474</b>	<b>2,139</b>	<b>2,492</b>	<b>+2,018</b>
<b>Total, Support Services</b>	<b>524</b>	<b>2,190</b>	<b>2,544</b>	<b>+2,020</b>
<b>Other Related Expenses</b>				
Other Services and Supplies	224	387	403	+179
Energy IT Services	166	324	342	+176
Working Capital Fund	1,782	1,780	1,760	-22
<b>Total, Other Related Expenses</b>	<b>2,172</b>	<b>2,491</b>	<b>2,505</b>	<b>+333</b>

**Other Defense Activities/Legacy Management/  
Program Direction**

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction- \$14,014</b>	<b>\$18,302</b>	<b>+\$4,288</b>
<b>Salaries and Benefits- \$10,720</b>	<b>\$12,433</b>	<b>+\$1,713</b>
<ul style="list-style-type: none"> <li>Continue functions to manage LM's activities in order to achieve LM's program goals.</li> </ul>	<ul style="list-style-type: none"> <li>Continue functions to manage LM's activities in order to achieve LM's program goals.</li> <li>Increase the number of federal employees to meet the additional site management responsibility and address defense-related uranium mine issues.</li> </ul>	<ul style="list-style-type: none"> <li>The increase will allow 4 additional FTEs.</li> </ul>
<b>Travel- \$598</b>	<b>\$820</b>	<b>+\$222</b>
<ul style="list-style-type: none"> <li>Travel enables staff to conduct surveillance and maintenance functions, business and site operations, oversight, and related activities.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to conduct functions at a growing number of closed sites.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in field activities with stakeholders.</li> </ul>
<b>Support Services- \$524</b>	<b>\$2,544</b>	<b>+\$2,020</b>
<ul style="list-style-type: none"> <li>Support services assist in the preparation of both routine and ad hoc reports. In addition, contractual support assists with staff training.</li> </ul>	<ul style="list-style-type: none"> <li>Continue effort to prepare more analyses and reports with Federal staff.</li> </ul>	<ul style="list-style-type: none"> <li>Additional Support Services is required to address responsibility for an increased number of sites.</li> </ul>
<b>Other Related Expenses- \$2,172</b>	<b>\$2,505</b>	<b>+\$333</b>
<ul style="list-style-type: none"> <li>Other services include LM's contribution to the DOE Working Capital Fund (WCF) as well as expenses not encompassed by the fund, supplies, computer software and hardware, and the Department's IT support.</li> </ul>	<ul style="list-style-type: none"> <li>Continue with procuring services and supplies at relatively the same level with the exception of WCF.</li> </ul>	<ul style="list-style-type: none"> <li>The increase is due to higher WCF expenses and CIO expenses.</li> </ul>

**Legacy Management  
Facilities Maintenance and Repair**

The Department’s Facilities Maintenance and Repair activities are tied to its programmatic missions, goals, and objectives. Facilities Maintenance and Repair activities funded by this budget are displayed below.

**Costs for Direct-Funded Maintenance and Repair (including Deferred Maintenance Reduction) (\$K)**

	<b>FY 2017 Planned Cost</b>	<b>FY 2018 Planned Cost</b>	<b>FY 2019 Planned Cost</b>
Office of Legacy Management Comprehensive Environmental Response Compensation and Liabilities Act (CERCLA) Sites	2,327	1,149	1,600
Non-CERCLA Sites	1,192	3,257	3,025
<b>Total, Direct-Funded Maintenance and Repair</b>	<b>3,519</b>	<b>4,406</b>	<b>4,625</b>

**Report on FY 2014 Expenditures for Maintenance and Repair**

This report responds to legislative language set forth in Conference Report (H.R. Conf. Rep. No. 108-10) accompanying the Consolidated Appropriations Resolution, 2003 (Public Law 108-7) (pages 886-887), which requests the Department of Energy provide an annual year-end report on maintenance expenditures to the Committees on Appropriations.

**Legacy Management  
Safeguards and Security Crosscut (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
Protective Forces	539	548	558	+19
Physical Security Systems	136	137	139	+3
Information Security	56	6	6	-50
Cyber Security	1,140	1,130	953	-187
Personnel Security	33	34	35	+2
Material Control and Accountability	0	0	0	0
Program Management	473	329	400	-73
Security Investigations	0	0	0	0
Transportation Security	0	0	0	0
Construction	0	0	0	0
<b>Total, Safeguards and Security</b>	<b>2,377</b>	<b>2,184</b>	<b>2,091</b>	<b>-286</b>





## **Office of Hearings and Appeals Program Direction**

### **Overview**

The Office of Hearings and Appeals (OHA) provides adjudicatory and conflict resolution services for DOE's programs so that disputes may be resolved at the agency level in a fair, impartial and efficient manner. OHA supports all DOE strategic goals. The bulk of OHA work is defense-related and consists of the adjudication of security clearance cases that determine the eligibility of employees to have access to special nuclear material or classified information.

Within the Other Defense Activities Appropriation, OHA operates with three staffs: the Personnel Security and Appeals Division, the Employee Protection and Exceptions Division, and the Alternative Dispute Resolution Office (ADRO).

OHA offers fair, timely, impartial, and customer-friendly processes for adjudicating matters pursuant to regulatory authority or special delegation from the Secretary. Such matters include: (i) eligibility for a security clearance, (ii) whistleblower protection for employees of DOE contractors, (iii) Freedom of Information Act and Privacy Act appeals, (iv) relief from DOE product efficiency regulations to prevent special hardship, and (v) and other matters that the Secretary may delegate. With respect to alternative dispute resolution, OHA's ADRO offers mediation and other services for a variety of matters.

### **Highlights of the FY 2019 Budget Request**

The FY 2019 Budget Request supports a staff of 22 FTEs to accomplish its primary mission of adjudicating security clearance cases, adjudicating exception relief from DOE product efficiency regulations, and providing ADR support for the Department.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction</b>				
Salaries and Benefits	3,914	-	4,244	+330
Travel	40	-	45	+5
Support Services	60	-	50	-10
Other Related Expenses	1,486	-	1,400	-86
<b>Subtotal, Program Direction</b>	<b>5,500</b>	<b>5,463</b>	<b>5,739</b>	<b>+239</b>
<b>Use of Prior Year Balances</b>	<b>-80</b>	<b>0</b>	<b>-2,000</b>	<b>-2080</b>
<b>Total, Program Direction</b>	<b>5,420</b>	<b>5,463</b>	<b>3,739</b>	<b>-1,681</b>
<b>Federal FTEs</b>	<b>26</b>	<b>22</b>	<b>22</b>	<b>-4</b>
<b>Support Services</b>				
Legal Research Support	60	44	50	-10
<b>Other Related Expenses</b>				
Energy IT Services	195	-	205	+10
Working Capital Fund	1,291	-	1,195	-96
<b>Total, Other Related Expenses</b>	<b>1,486</b>	<b>-</b>	<b>1,400</b>	<b>-86</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
<b>Program Direction</b> \$5,500,000	\$5,739,000	<b>+\$239,000</b>
<b>Salaries and Benefits</b> \$3,914,000	\$4,244,000	<b>+\$330,000</b>
• Supports staffing level of 26 FTEs.	• Supports staffing level of 22 FTEs.	• Increase (+\$410,000) to funds salary and benefits escalation at 22 FTE level.
<b>Travel</b> \$40,000	\$45,000	<b>+\$5,000</b>
• Supports travel to conduct security hearings at DOE field locations.	• Continuation of FY18 activities.	• Increase (+\$5,000) to fund escalating travel costs
<b>Support Services</b> \$60,000	\$50,000	<b>-\$10,000</b>
• Supports computer legal research services for FY 2018.	• Supports computer research services for FY 2019.	• Decreased (-\$10,000) funding requirement for computer research services cost for current 22 FTE level.
<b>Other Related Expenses</b> \$1,486,000	\$1,400,000	<b>-\$86,000</b>
• Funding supports the Working Capital Fund (WCF), which provides for shared service costs and Departmental overhead expenses; Energy IT Services; and other services.	• Continuation of FY 2018 activities.	• Decreased (-\$101,000) funding requirement for overhead expenses for current 22 FTE level. • Includes \$15,000 for security clearance funding.

**Hearings and Appeals  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>OHA Effectiveness Measure - Improve the timeliness of security cases by reducing the number of cases over 120 days old.</b>		
Target	3 cases	3 cases	3 cases
Result	Met - 0	TBD	TBD
Endpoint Target	Continuously assure that there are no more than 3 security cases more than 120 days old at any time.		

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Other Defense Activities</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Argonne National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	945	945	945
<b>Total, Argonne National Laboratory</b>	<b>945</b>	<b>945</b>	<b>945</b>
<b>Brookhaven National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	250	250	250
<b>Total, Brookhaven National Laboratory</b>	<b>250</b>	<b>250</b>	<b>250</b>
<b>Chicago Operations Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	50	50	50
<b>Total, Chicago Operations Office</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Consolidated Business Center</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	259	259	259
<b>Total, Consolidated Business Center</b>	<b>259</b>	<b>259</b>	<b>259</b>
<b>Fernald Site</b>			
<b>Office of Legacy Management</b>			
Legacy Management	13,369	12,400	12,276
<b>Total, Fernald Site</b>	<b>13,369</b>	<b>12,400</b>	<b>12,276</b>
<b>Grand Junction Office</b>			
<b>Office of Legacy Management</b>			
Legacy Management	35,501	37,362	43,553
<b>Total, Grand Junction Office</b>	<b>35,501</b>	<b>37,362</b>	<b>43,553</b>
<b>Idaho National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	150	150	150
<b>Total, Idaho National Laboratory</b>	<b>150</b>	<b>150</b>	<b>150</b>
<b>Idaho Operations Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	400	400	400
<b>Total, Idaho Operations Office</b>	<b>400</b>	<b>400</b>	<b>400</b>
<b>Kansas City National Security Complex (KCNSC)</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	10	10	10
<b>Total, Kansas City National Security Complex (KCNSC)</b>	<b>10</b>	<b>10</b>	<b>10</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Other Defense Activities</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Lawrence Livermore National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	3,050	3,050	3,050
<b>Total, Lawrence Livermore National Laboratory</b>	<b>3,050</b>	<b>3,050</b>	<b>3,050</b>
<b>Lexington Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	200	200	200
<b>Total, Lexington Office</b>	<b>200</b>	<b>200</b>	<b>200</b>
<b>Los Alamos National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	95	95	95
<b>Total, Los Alamos National Laboratory</b>	<b>95</b>	<b>95</b>	<b>95</b>
<b>Morgantown Office</b>			
<b>Office of Legacy Management</b>			
Legacy Management	12,500	16,211	18,274
<b>Total, Morgantown Office</b>	<b>12,500</b>	<b>16,211</b>	<b>18,274</b>
<b>Mound Site</b>			
<b>Office of Legacy Management</b>			
Legacy Management	15,283	14,500	14,446
<b>Total, Mound Site</b>	<b>15,283</b>	<b>14,500</b>	<b>14,446</b>
<b>Nevada Field Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	15	15	15
<b>Total, Nevada Field Office</b>	<b>15</b>	<b>15</b>	<b>15</b>
<b>NNSA Albuquerque Complex</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,000	1,000	1,000
<b>Enterprise Assessments</b>			
Enterprise Assessments	250	150	150
<b>Total, NNSA Albuquerque Complex</b>	<b>1,250</b>	<b>1,150</b>	<b>1,150</b>
<b>Oak Ridge Institute for Science &amp; Education</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,305	1,305	1,305
<b>Total, Oak Ridge Institute for Science &amp; Education</b>	<b>1,305</b>	<b>1,305</b>	<b>1,305</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Other Defense Activities</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Oak Ridge National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,035	1,035	1,035
<b>Total, Oak Ridge National Laboratory</b>	<b>1,035</b>	<b>1,035</b>	<b>1,035</b>
<b>Oak Ridge Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	2,795	2,795	2,795
<b>Total, Oak Ridge Office</b>	<b>2,795</b>	<b>2,795</b>	<b>2,795</b>
<b>Office of Scientific &amp; Technical Information</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	300	300	300
<b>Total, Office of Scientific &amp; Technical Information</b>	<b>300</b>	<b>300</b>	<b>300</b>
<b>Ohio Field Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	5	5	5
<b>Total, Ohio Field Office</b>	<b>5</b>	<b>5</b>	<b>5</b>
<b>Pacific Northwest National Laboratory</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,905	1,905	1,905
<b>Enterprise Assessments</b>			
Enterprise Assessments	160	0	0
<b>Total, Pacific Northwest National Laboratory</b>	<b>2,065</b>	<b>1,905</b>	<b>1,905</b>
<b>Paducah Gaseous Diffusion Plant</b>			
<b>Office of Legacy Management</b>			
Legacy Management	3,000	3,000	3,000
<b>Total, Paducah Gaseous Diffusion Plant</b>	<b>3,000</b>	<b>3,000</b>	<b>3,000</b>
<b>Pantex Plant</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	10	10	10
<b>Total, Pantex Plant</b>	<b>10</b>	<b>10</b>	<b>10</b>
<b>Pinellas Site</b>			
<b>Office of Legacy Management</b>			
Legacy Management	7,310	5,700	5,545
<b>Total, Pinellas Site</b>	<b>7,310</b>	<b>5,700</b>	<b>5,545</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Other Defense Activities</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Portsmouth Gaseous Diffusion Plant</b>			
<b>Office of Legacy Management</b>			
Legacy Management	4,200	3,000	3,000
<b>Total, Portsmouth Gaseous Diffusion Plant</b>	<b>4,200</b>	<b>3,000</b>	<b>3,000</b>
<b>Richland Operations Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,000	1,000	1,000
<b>Total, Richland Operations Office</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>
<b>Rocky Flats Site</b>			
<b>Office of Legacy Management</b>			
Legacy Management	38,029	37,137	34,346
<b>Total, Rocky Flats Site</b>	<b>38,029</b>	<b>37,137</b>	<b>34,346</b>
<b>Sandia National Laboratories</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	1,210	1,210	1,210
<b>Total, Sandia National Laboratories</b>	<b>1,210</b>	<b>1,210</b>	<b>1,210</b>
<b>Savannah River Operations Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	500	500	500
<b>Total, Savannah River Operations Office</b>	<b>500</b>	<b>500</b>	<b>500</b>
<b>Savannah River Site Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	10	10	10
<b>Total, Savannah River Site Office</b>	<b>10</b>	<b>10</b>	<b>10</b>



**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Other Defense Activities</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Washington Headquarters</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	110,453	109,591	118,675
Program Direction	64,000	63,565	70,653
<b>Total, Environment, Health, Safety and Security</b>	<b>174,453</b>	<b>173,156</b>	<b>189,328</b>
<b>Hearings and Appeals</b>			
Program Direction	5,500	5,463	5,739
<b>Office of Legacy Management</b>			
Legacy Management	15,317	15,962	21,441
<b>Enterprise Assessments</b>			
Enterprise Assessments	24,170	23,918	23,918
Program Direction	51,000	50,999	52,702
<b>Total, Enterprise Assessments</b>	<b>75,170</b>	<b>74,917</b>	<b>76,620</b>
<b>Specialized Security Activities</b>			
Specialized Security Activities	237,912	236,296	254,378
<b>Total, Washington Headquarters</b>	<b>508,352</b>	<b>505,794</b>	<b>547,506</b>
<b>Weldon Spring Site Office</b>			
<b>Office of Legacy Management</b>			
Legacy Management	7,911	8,000	2,996
<b>Total, Weldon Spring Site Office</b>	<b>7,911</b>	<b>8,000</b>	<b>2,996</b>
<b>Y-12 Site Office</b>			
<b>Environment, Health, Safety and Security</b>			
Environment, Health, Safety and Security	20	20	20
<b>Total, Y-12 Site Office</b>	<b>20</b>	<b>20</b>	<b>20</b>
<b>Yucca Mountain Site Office</b>			
<b>Office of Legacy Management</b>			
Legacy Management	1,900	0	0
<b>Total, Yucca Mountain Site Office</b>	<b>1,900</b>	<b>0</b>	<b>0</b>
<b>Total, Other Defense Activities</b>	<b>664,284</b>	<b>659,773</b>	<b>701,611</b>



# **Departmental Administration**

# **Departmental Administration**

## Departmental Administration

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**Departmental Administration**  
**Proposed Appropriation Language**

*For salaries and expenses of the Department of Energy necessary for departmental administration in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), \$235,534,000, to remain available until September 30, 2020, including the hire of passenger motor vehicles and official reception and representation expenses not to exceed \$30,000, plus such additional amounts as necessary to cover increases in the estimated amount of cost of work for others notwithstanding the provisions of the Anti-Deficiency Act (31 U.S.C. 1511 et seq.): Provided, That such increases in cost of work are offset by revenue increases of the same or greater amount: Provided further, That moneys received by the Department for miscellaneous revenues estimated to total \$96,000,000 in fiscal year 2019 may be retained and used for operating expenses within this account, as authorized by section 201 of Public Law 95–238, notwithstanding the provisions of 31 U.S.C. 3302: Provided further, That the sum herein appropriated shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2019 appropriation from the general fund estimated at not more than \$139,534,000.*

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.

**Explanation of Change**

In FY 2019 the Office of Policy will be established to serve as the principal policy office advising the Secretary of Energy.





## Departmental Administration

(\$K)

FY 2017 Enacted	FY 2018 Annualized CR*	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
120,692	120,009	139,534	+18,842

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

### Overview

The Departmental Administration (DA) appropriation funds 15 management and mission support organizations that have enterprise-wide responsibility for administration, accounting, budgeting, contract and project management, congressional and intergovernmental liaison, energy policy, information management, life-cycle asset management, legal services, workforce diversity and equal employment opportunity, ombudsman services, small business advocacy, sustainability, Indian energy policy, technology transition activities and public affairs.

The DA appropriation also budgets for estimated Strategic Partnership Projects which includes expenses and collections resulting in a net offset, and receives Miscellaneous Revenues from other sources. Additionally, the DA offices receive funding from the Other Defense Activities (ODA) appropriation, Defense-Related Administrative Support (DRAS), which is used to offset expenses that support defense-related administrative activities at DOE.

### Highlights of the FY 2019 Budget Request

In FY 2019, the DA Budget reflects a dedication to strengthen enterprise-wide management and mission support functions, as outlined below:

- Office of Technology Transitions (OTT): For FY 2019, funding will fully establish the OTT as an integral function within DOE and to operate the Technology-to-Market functions transferred and centralized from other offices. The resources requested are required to maintain adequate staffing to fulfill Congressional and Administration direction to increase DOE engagement for the transition of new and evolving energy technology to the U.S. markets.
- Office of the Chief Information Officer (OCIO): OCIO will continue to work on modernization initiatives building upon prior year activities. This includes improving cybersecurity, scaling capacity commensurate with demand, and establishing a foundation for future IT enterprise capabilities. OCIO will collaborate with the Department of Homeland Security to improve security protection for information and information systems/continuous diagnostic mitigation across the entire DOE enterprise. Also, OCIO will identify its High Value Assets (HVA) and expand its HVA Program to include Inventory Management, Assessment Management, Remediation Oversight, and Reporting.
- Office of Policy (OP): OP will serve as the principal policy office advising the Secretary of Energy and will report to the Under Secretary of Energy. The office will serve as the focal point for coordination within the Department on the formulation, analysis, and implementation of energy policy and related programmatic options and initiatives. OP will carry out strategic studies, policy analyses, and coordinate analytical capabilities. OP will also conduct assessments on the strength, resiliency, and anticipated challenges of national energy systems and identify and prioritize ways in which DOE programs may be strengthened to contribute to the economic well-being and national energy security of the United States.
- Office of Management (MA): MA's activities include policy development and oversight, and delivery of procurement services to DOE Headquarters (HQ) organizations, and the management of HQ facilities. MA also fulfills the statutory and Executive Order responsibilities of the Chief Acquisition Officer, Senior Real Property Officer, Senior Procurement Executive, Federal Historic Preservation Officer, Chief Sustainability Officer, and the Department's Advisory Committee Management Officer.
- Office of Project Management Oversight and Assessments (PM): PM is accountable to and serves the Deputy Secretary as the Executive Secretariat for the Department's Energy Systems Acquisition Advisory Board, the Project Management Risk Committee, Cost Estimating and Program Evaluation and overseeing the Project Management Career Development Program.

**Departmental Administration  
Funding by Congressional Control  
(\$K)**

	FY 2017 Enacted	FY 2018 Annualized CR <sup>2</sup>	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
<b>Departmental Administration</b>				
Office of the Secretary	5,089	5,054	5,395	+306
Congressional & Intergovernmental Affairs	6,200	6,158	4,212	-1,988
Chief Financial Officer	49,242	48,908	48,912	-330
Economic Impact & Diversity	10,169	10,100	10,005	-164
Office of Indian Energy Policy & Programs	16,000	15,891	10,005	-5,995
Chief Information Officer	74,492	73,986	96,793	+22,301
<b>Other Departmental Administration</b>				
Management	52,924	52,565	54,872	+1,948
Project Management Oversight and Assessments	12,373	12,289	15,005	+2,632
Chief Human Capital Officer	24,500	24,334	25,625	+1,125
Office of Small & Disadvantaged Business Utilization	3,000	2,980	3,170	+170
General Counsel	33,000	32,776	33,075	+75
Energy Policy and Systems Analysis	31,000	30,789	0	-31,000
Office of Policy	0	0	2,510	+2,510
International Affairs	18,000	17,878	24,545	+6,545
Public Affairs	3,431	3,408	6,594	+3,163
Office of Technology Transitions	6,906	6,859	8,505	+1,599
<b>Subtotal, Other Departmental Administration</b>	<b>185,134</b>	<b>183,878</b>	<b>173,901</b>	<b>-11,233</b>
Strategic Partnership Projects (SPP)	40,000	39,728	40,000	0
<b>Subtotal, Departmental Administration (Gross)</b>	<b>386,326</b>	<b>383,703</b>	<b>389,223</b>	<b>+2,897</b>
Use of Prior Year Balances	-20,610	-20,470	0	+20,610
Rescissions	-137	0	0	+137
Defense-Related Administrative Support	-119,716	-118,903	-153,689	-33,973
<b>Subtotal, Departmental Administration</b>	<b>-140,463</b>	<b>-139,373</b>	<b>-153,689</b>	<b>-13,226</b>
<b>Miscellaneous Revenues</b>				
Revenues Associated with SPP	-40,000	-39,728	-40,000	0
Other Revenues	-85,000	-84,593	-56,000	+29,171
<b>Subtotal, Miscellaneous Revenues</b>	<b>125,171<sup>1</sup></b>	<b>-124,321</b>	<b>-96,000</b>	<b>+29,171</b>
<b>Total, Departmental Administration (Net)</b>	<b>120,692</b>	<b>120,009</b>	<b>139,534</b>	<b>+18,842</b>
<b>Federal FTEs</b>	<b>1,165</b>	<b>1,139</b>	<b>1,164</b>	<b>-1</b>

<sup>1</sup> The FY 2017 Miscellaneous Revenues amount is shown as \$125,171,000 as in the FY 2017 President's Budget; however, \$103,000,000 is estimate in Enacted FY 2017 budget; and Miscellaneous Revenues actuals received during the course of FY 2017 execution were \$99,364,421.

<sup>2</sup> 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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

## Defense-Related Administrative Support

### Overview

Beginning in FY 1999, funding has been provided within the Other Defense Activities appropriation to offset expenses that support defense-related activities. This offset addresses the significant level of administrative support performed within DA offices in support of the Department's defense-related programs. DRAS represents one third of the Departmental Administration gross spending level as NNSA represents a little more than a third of DOE's total budget. The services provided by the offices within DA are performed without distinction between defense and non-defense related activities and provide benefit for all headquarters organizations proportionally

### Defense-Related Administrative Support Funding (\$K)

	FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request
<b>Defense-Related Administrative Support</b>	-119,716	-118,903	-153,689

### Strategic Partnership Projects

### Overview

The Strategic Partnership Projects (SPP) program provides funding to DOE's multi-purpose field offices and National Laboratories to finance the cost of products and services requested by non-DOE users, both foreign and domestic. The products and services provided by the Department under this program generally are not available from alternate sources and are either (1) a revenue program which results from a budgeted mission of the Department or (2) reimbursable work for non-federal entities where the sponsor is precluded by law from providing advance funding. The costs of the SPP program are offset by revenues received from the sale of products and services to customers and remain revenue neutral.

The SPP program includes a portion of the Department's Foreign Research Reactor Spent Fuel Program. This program, which involves the receipt and storage of foreign research reactor spent fuel, is provided for in the SPP program only to the extent of revenues provided.

The benefits for this program are: continued access to the Department's Laboratory complex and the availability of by-products for sale to non-federal customers. The SPP program satisfies the needs of our non-federal customers. For this reason, performance evaluation for this work is the responsibility of our customers. The success of this program is indicated by the steady influx of business from the targeted groups.

### Strategic Partnership Projects Funding (\$K)

	FY 2017 Enacted	FY 2019 Request
Chicago Operations Office	200	200
Idaho Operations Office	1,000	1,000
Lawrence Berkeley Laboratory	3,500	3,500
National Energy Technology Laboratory	150	150
National Renewable Energy Laboratory	500	500
NNSA Albuquerque Complex	8,500	8,500
Oak Ridge National Laboratory	9,025	9,025
Pacific Northwest Laboratory	10,325	10,325
Richland Operations Office	100	100
Savannah River Ops Office	6,700	6,700
<b>Total, Strategic Partnership Projects</b>	<b>40,000</b>	<b>40,000</b>

**Revenues Associated with Strategic Partnership Projects  
Funding (\$K)**

<u>Description of FY 2019 Activities</u>	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>
<b>Chicago Operations Office</b>	200	200
<ul style="list-style-type: none"> <li>• Work with universities and state and local governments.</li> </ul>		
<b>Idaho Operations Office</b>	1,000	1,000
<ul style="list-style-type: none"> <li>• Work with state and local governments.</li> </ul>		
<b>Lawrence Berkeley National Laboratory</b>	3,500	3,500
<ul style="list-style-type: none"> <li>• Additional university support for Composite for Basic Science Research;</li> <li>• University of Washington for comprehensive Identification of Worm and Fly Transcription Factors;</li> <li>• Fabricate the components in the ALICE (A Large Ion Collider Experiment)-USA scope and ALICE ITS (Inner Tracking System) upgrade;</li> <li>• Independent Technical Assistance for Management and Treatment of Groundwater and Drinking Water; and</li> <li>• National Laboratory High Energy Physics for Particle Data Group.</li> <li>• Washington State University project titled "Th-227/Zr-89 Theranostic Agents for Metastatic Prostate Cancer using an Albumin-Binding (PSMA)-Inhibitor Platform"</li> </ul>		
<b>National Energy Technology Laboratory</b>	150	150
<ul style="list-style-type: none"> <li>• Work with state and local governments.</li> </ul>		
<b>National Renewable Energy Laboratory</b>	500	500
<ul style="list-style-type: none"> <li>• Work with state and local governments.</li> </ul>		
<b>NNSA Complex</b>	8,500	8,500
<ul style="list-style-type: none"> <li>• Y-12 National Security Complex support to long-term supply contracts with foreign governments to provide uranium fuel;</li> <li>• Lawrence Livermore National Laboratory support to State of California Ambient Groundwater Monitoring &amp; Assessment (GAMA) program;</li> <li>• Y-12's Global Threat Reduction Initiative support to arrange for the return of enriched uranium from foreign countries; and</li> <li>• State of Washington aerial radiological survey of the City of Seattle performed by the Nevada Field Office Remote Sensing Laboratory.</li> </ul>		
<b>Oak Ridge Operations Office</b>	9,025	9,025
<ul style="list-style-type: none"> <li>• Oak Ridge National Laboratory support to Intercomparison Studies Program–Bioassay Samples; Alice Barrel Tracking Upgrade; Development of Scalable Solvers; Joint Faculty Agreements; Tennessee Manufacturing Innovation Program; Advanced Manufacturing of Materials and Characterization; National Institute of Computational Sciences Center Support; University of Tennessee Joint Institute for Computational Sciences, etc.;</li> <li>• Stanford Linear Accelerator Center (SLAC) support to U.S./Japan Cooperative Program in High Energy Physics;</li> <li>• Oak Ridge Institute for Science and Education support to Radiation Emergency Assistance Center/Training courses; and</li> <li>• Thomas Jefferson National Laboratory support for research and development on Superconducting Radio Frequency (SRF) cavity fabrication, processing and instrumented testing at cryogenic temperatures for high performance SRF cavities.</li> </ul>		

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>
<b>Pacific Northwest National Laboratory</b>	10,325	10,325
<ul style="list-style-type: none"> <li>Maritime Radiological/Nuclear training, logistics management, and technical assistance.</li> </ul>		
<b>Richland Operations Office</b>	100	100
<ul style="list-style-type: none"> <li>Training in support of disaster recovery, emergency response, fire protection, transportation, law enforcement, military readiness, technology deployment.</li> </ul>		
<b>Savannah River Operations</b>	6,700	6,700
<ul style="list-style-type: none"> <li>Savannah River Forest Service Timber Management program;</li> <li>Savannah River National Laboratory support to the University of Washington; and</li> <li>South Carolina Institute of Archaeology and Anthropology cooperative agreement to comply with archaeological regulatory requirements needed to support the U.S. Forest Service Savannah River timber program.</li> </ul>		
<b>Total, Revenues Associated with Strategic Partnership Projects</b>	<b>40,000</b>	<b>40,000</b>

**Description of FY 2019 Activities**

**Pacific Northwest National Laboratory**

- Maritime Radiological/Nuclear training, logistics management, and technical assistance.

**Richland Operations Office**

- Training in support of disaster recovery, emergency response, fire protection, transportation, law enforcement, military readiness, technology deployment.

**Savannah River Operations**

- Savannah River Forest Service Timber Management program;
- Savannah River National Laboratory support to the University of Washington; and
- South Carolina Institute of Archaeology and Anthropology cooperative agreement to comply with archaeological regulatory requirements needed to support the U.S. Forest Service Savannah River timber program.

**Total, Revenues Associated with Strategic Partnership Projects**

## Miscellaneous Revenues

### Overview

The Departmental Administration account receives Miscellaneous Revenues from the following:

- Revenues associated with Strategic Partnership Projects (SPP) represents the full-cost recovery offset to the SPP account. SPP is the program associated with providing products and services to our customers.
- Other Revenues received from the sale of by-products that have no cost associated with the Departmental Administration appropriation. These items are by-products of activities funded by other on-going Departmental programs and are collected as Miscellaneous Revenues. Included in this estimate are revenues collected from the Reimbursable Work program for Federal Administrative Charges.
  - Federal Administrative Charges – Revenues collected from other federal agencies as well as non-federal entities for reimbursable activity conducted by the Department in accordance with full-cost recovery policy.
  - Y-12 Site Office – Revenues generated from shipment of surplus Highly Enriched Uranium and Low Enriched Uranium for use in foreign research and test reactors.
  - Pittsburgh Naval Reactors Office - The Department of Navy reimburses the Pittsburgh Naval Reactors Office for the nuclear material burn-up while the core is in operation and when residual nuclear material is removed during refueling and defueling of the core. While nuclear material burn-up is relatively consistent across years, major fluctuations in this line item are attributable to the refueling and defueling schedules, which are based on ship availability and quantity of nuclear material left in the cores.
  - Other Revenues, including Timber Sales - Estimate based on current rate of collections for various miscellaneous revenues collected at all Departmental sites, including timber sales at Savannah River Site.

### Miscellaneous Revenues Funding (\$K)

	FY 2017 Enacted	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
Revenues Associated with Strategic Partnership Projects	-40,000	-40,000	0
Other Revenues	-85,171	-56,000	+29,171
Federal Administrative Charges	-59,785	-33,235	+26,550
Y-12 Site Office	-4,550	-4,044	+506
Pittsburgh Naval Reactors Office	-15,999	-14,221	+1,778
Other Revenues, including Timber Sales	-4,838	-4,500	+338
<b>Total, Miscellaneous Revenues</b>	<b>-125,171</b>	<b>-96,000</b>	<b>+29,171</b>

**Office of the Secretary  
Program Direction**

**Overview**

The Office of the Secretary (OSE) provides leadership and policy direction to the Department of Energy (DOE) in its commitment to advance U.S. national security and economic growth through transformative science and technology innovation that promotes affordable and reliable energy through market solutions and meets our nuclear security and environmental cleanup challenges. The OSE also provides oversight for fulfilling its work through DOE's Strategic Goals as outlined in the DOE 2018-2022 Strategic Plan. The Department will make progress in achieving each of its goals through continued investments in scientific research, technology innovation, nuclear security, and environmental cleanup.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	4,765	-	4,765	0
Travel	318	-	529	+211
Support Services	0	-	0	0
Other Related Expenses	6	-	101	+95
<b>Total, Program Direction</b>	<b>5,089</b>	<b>5,054</b>	<b>5,395</b>	<b>+306</b>
<b>Federal FTEs</b>	<b>32</b>	<b>32</b>	<b>32</b>	<b>0</b>
<b>Other Related Expenses</b>				
Training	6	-	6	0
Other Services	0	-	95	+95
<b>Total, Other Related Expenses</b>	<b>6</b>	<b>-</b>	<b>101</b>	<b>+95</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).



**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$5,089,000</b>	<b>\$5,395,000</b>	<b>\$306,000</b>
<b>Salaries and Benefits \$4,765,000</b>	<b>\$4,765,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>•Funding supports 32 FTEs in the Office of the Secretary, Deputy Secretary, and Under Secretaries for Science and Energy.</li> </ul>	<ul style="list-style-type: none"> <li>•Funding to support 32 FTEs.</li> </ul>	<ul style="list-style-type: none"> <li>• No changes</li> </ul>
<b>Travel \$318,000</b>	<b>\$529,000</b>	<b>\$211,000</b>
<ul style="list-style-type: none"> <li>•Funding for the Office of the Secretary, Deputy Secretary, Under Secretaries for Science and Energy, and Special Assistants to travel in support of the Department's mission.</li> </ul>	<ul style="list-style-type: none"> <li>•Funding for the Office of the Secretary, Deputy Secretary, Under Secretaries for Science and Energy, and Special Assistants to travel in support of the Department's mission.</li> </ul>	<ul style="list-style-type: none"> <li>•\$211,000 to restore the level of support for domestic and international travel costs for the Office of Secretary and approved designees.</li> </ul>
<b>Other Related Expenses \$6,000</b>	<b>\$101,000</b>	<b>+\$95,000</b>
<ul style="list-style-type: none"> <li>•Training and course registration cost for OSE employees for essential training activities.</li> </ul>	<ul style="list-style-type: none"> <li>•Continuation of activities.</li> </ul>	<ul style="list-style-type: none"> <li>•Additional funding to support security clearance investigations.</li> </ul>



**Chief Financial Officer  
Program Direction**

**Overview**

The Office of the Chief Financial Officer (CFO) is responsible for the effective management and financial integrity of Department of Energy (DOE) programs, activities and resources by developing, implementing, and monitoring DOE-wide policies and systems in budget formulation and execution, finance and accounting, internal controls and financial policy, corporate financial systems, and strategic planning.

**Highlights of the FY 2019 Budget**

The FY 2019 request is \$48,912,000, a reduction of \$330,000 from the FY 2017 Enacted Budget. It supports 217 full time equivalent employees which is a reduction of seven FTEs from FY 2017.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR *</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	31,230	-	30,800	-430
Travel	200	-	175	-25
Support Services	8,635	-	7,519	-1,116
Other Related Expenses	9,177	-	10,418	+1,241
<b>Total, Program Direction</b>	<b>49,242</b>	<b>48,908</b>	<b>48,912</b>	<b>-330</b>
<b>Total FTEs</b>	<b>224</b>	<b>224</b>	<b>217</b>	<b>-7</b>
<b>Support Services</b>				
Management Support				
Corporate Business Systems	4,702	-	3,586	-1,116
System Support/Other Support Services	3,933	-	3,933	0
<b>Total, Support Services</b>	<b>8,635</b>	<b>-</b>	<b>7,519</b>	<b>-1,116</b>
<b>Other Related Expenses</b>				
IT Services	1,900	-	1,900	0
Security Clearance Investigations	0	-	428	+428
Training	140	-	125	-15
Rent/Utilities Oak Ridge Financial Payment Center	137	-	137	0
Interagency Agreements	600	-	600	0
Working Capital Fund	6,400	-	7,228	+828
<b>Total, Other Related Expenses</b>	<b>9,177</b>	<b>-</b>	<b>10,418</b>	<b>+1,241</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

<b>Activities and Explanation of Changes</b>		
<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>Explanation of Changes FY 2019 Request vs FY 2017 Enacted</b>
<b>Salaries and Benefits \$31,230,000</b>	<b>\$30,800,000</b>	<b>-\$430,000</b>
<ul style="list-style-type: none"> <li>Funds 224 full-time equivalent employees (FTE).</li> </ul>	<ul style="list-style-type: none"> <li>Funds 217 FTE, a reduction of 7 from FY 2017.</li> </ul>	<ul style="list-style-type: none"> <li>Decrease (-\$430,000) reflects reduction of 7 FTE offset by other pay and benefit increases.</li> </ul>
<b>Travel \$200,000</b>	<b>\$175,000</b>	<b>-\$25,000</b>
<ul style="list-style-type: none"> <li>Supports travel requirements for 224 FTE.</li> </ul>	<ul style="list-style-type: none"> <li>Supports travel requirements for 217 FTE.</li> </ul>	<ul style="list-style-type: none"> <li>Decrease (-\$25,000) reflects the reduction of 7 FTE.</li> </ul>
<b>Support Services \$8,635,000</b>	<b>\$7,519,000</b>	<b>-\$1,116,000</b>
<ul style="list-style-type: none"> <li>The Corporate Business Systems (CBS) budget funds the operation and maintenance and cybersecurity requirements of the DOE financial, procurement, and human capital systems, including the Data Warehouse and Foreign Travel Management System. Funding is also provided for system support and other support services.</li> </ul>	<ul style="list-style-type: none"> <li>The FY 2019 CBS budget continues to fund the operation and maintenance and cyber security requirements of the DOE financial, procurement, and human capital systems, including the Data Warehouse and Foreign Travel Management System. Funding is also provided for system support and other support services.</li> </ul>	<ul style="list-style-type: none"> <li>Decrease (-\$1,116,000) reflects completion of integration of funds.</li> </ul>
<b>Other Related Expenses \$9,177,000</b>	<b>\$10,418,000</b>	<b>+\$1,241,000</b>
<ul style="list-style-type: none"> <li>Funding supports WCF, interagency agreements, employee training, and IT desktop support requirements. Funding also supports rent/utilities for the 12 FTE located at Oak Ridge.</li> </ul>	<ul style="list-style-type: none"> <li>Funding supports WCF, interagency agreements, employee training, and IT desktop support requirements. Funding also supports rent/utilities for the 12 FTE located at Oak Ridge. Beginning in FY 2019, costs for security clearance investigations are included within other related expenses.</li> </ul>	<ul style="list-style-type: none"> <li>Increase (+\$1,241,000) supports corporate activities funded in the WCF (+\$828,000) and security clearance investigations (+\$428,000) which is offset by a decrease in training (-\$15,000) as a result of the reduction in 7 FTE.</li> </ul>



## Office of Management Program Direction

### Overview

The Office of Management (MA) provides the Department of Energy (DOE) with centralized direction and oversight for the full range of management, procurement, administrative services, and conference management. These services are critical in supporting the mission of the Department and its program offices, as well as keeping the Headquarters (HQ) operational. MA's activities include policy development and oversight, and delivery of procurement services to DOE Headquarters (HQ) organizations, and the management of HQ facilities. MA also fulfills the statutory and Executive Order responsibilities of the Chief Acquisition Officer, Senior Real Property Officer, Senior Procurement Executive, Federal Historic Preservation Officer, Sustainability Performance Office and the Department's Advisory Committee Management Officer.

In FY 2019, MA will accomplish its mission through its program office components and associated Departmental budget lines:

- Acquisition Management – Provide corporate oversight, leadership, and develop and assist in the implementation of DOE-wide policies, procedures, programs, and management systems pertaining to procurement and financial assistance, contract management, professional development, and related activities to provide procurement services to Headquarters elements. The Director, Office of Acquisition Management serves as the Senior Procurement Executive.
- Administration – Manage HQ facilities and support services, including operations management, building automation, lease and office space management, supply management, travel (domestic and international), transportation/courier services, concession services (through the General Services Administration), exchange visitor program, mail/printing service, and the Department's Freedom of Information Act (FOIA).
- Asset Management – Develop and maintain DOE policies, regulations, standards, and procedures while tracking performance pertaining to real estate, facilities and infrastructure management, and personal property to include motor vehicle fleet management. Assist senior leadership with planning and execution decisions related to the acquisition, utilization, condition, maintenance, and disposition as they relate to real and personal property. Manage DOE's real property database and excess screening process. Manage the professional development, training, and certification of our personal property and realty specialists. The Director, Office of Asset Management serves as the Senior Real Property Officer and also serves as the Head of the Contracting Activity for Real Estate.
- Aviation Management – Manage all DOE-owned aircraft and contract aviation services world-wide by developing and implementing policies and procedures; provide technical and management assistance to program leaders and field elements with aviation responsibilities; and conduct oversight over all DOE elements that own or use aviation as a part of their mission.
- Directives Program – Manage the Department's Directive System, the primary system for establishing, promulgating, and maintaining long-term, crosscutting, departmental policies and procedures. Support the Department's Secretarial Delegations of Authority system.
- Executive Secretariat – Facilitate quality document management of executive correspondence, departmental actions and decisions; ensure timely delivery of Congressional reporting requirements, executive commitments and information; serve as the Department's Federal Historic Preservation Officer; serve as the Department's Advisory Committee Management Officer and manage the Department's Advisory Committee Management Program.
- Ombudsman – Provides an independent, confidential and informal option for all DOE federal employees to address any workplace issue and helps the Department's senior leaders, managers, and supervisors minimize unwarranted distractions; increase employee engagement; and expeditiously address individual and organization matters.
- Secretary of Energy Advisory Board (SEAB) – Administer and coordinate the activities of the Board and its subcommittees for the Secretary to obtain timely, balanced, and independent external advice on issues of national importance related to the missions of the Department.
- Scheduling and Advance – Manage scheduling, logistical, and advance preparations for the Office of the Secretary.

- Sustainability and Performance Office (SPO) – Ensure implementation of statutory and executive requirements across the Department; coordinate data collection, reporting, and analysis of DOE’s sustainability data, including energy, water, petroleum, and resource use; manage and implement DOE’s Strategic Sustainability Performance Plan; and provide oversight of energy, water, sustainable building, and resource assessments at DOE sites and National Laboratories.

#### **Highlights of the FY 2019 Budget Request**

The Department requests \$54,872,000 in FY 2019 for MA, which is \$1,948,000 above the FY 2017 Enacted level of \$52,924,000. The net changes include:

- The net adjustments of \$834,000 for the continuity of support for MA operations and resource allocation shifts within the budget control level.
- A \$190,000 increase for security clearance funding previously covered by EHSS but transferred to individual offices in FY 2019.
- A \$924,000 increase provides support for internal DOE FOIA processing costs to enable DOE compliance with the Freedom of Information Act, 5 U.S.C. § 552.



**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
Salaries and Benefits	31,892	-	31,861	-31
Travel	852	-	867	+15
Support Services	5,899	-	6,895	+996
Other Related Expenses	14,281	-	15,249	+968
<b>Total, Program Direction</b>	<b>52,924</b>	<b>52,565</b>	<b>54,872</b>	<b>+1,948</b>
<b>Federal FTEs—MA</b>	<b>202</b>	<b>206</b>	<b>206</b>	<b>0</b>
<b>Federal FTEs—WCF</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>0</b>
<b>Support Services</b>				
Management Support	3,417	-	4,413	+996
Other Support Services	2,482	-	2,482	0
<b>Total, Support Services</b>	<b>5,899</b>	<b>-</b>	<b>6,895</b>	<b>+996</b>
<b>Other Related Expenses</b>				
Training	143	-	151	+8
Energy IT Services (EITS)	1,404	-	1,152	-252
Working Capital Fund (WCF)	11,250	-	12,272	+1,022
Other Services	1,484	-	1,674	+190
<b>Total, Other Related Expenses</b>	<b>14,281</b>	<b>-</b>	<b>15,249</b>	<b>+968</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$52,924,000</b>	<b>\$54,872,000</b>	<b>+\$1,948,000</b>
<b>Salaries and Benefits \$31,892,000</b>	<b>\$31,861,000</b>	<b>-\$31,000</b>
<ul style="list-style-type: none"> <li>Funding in support of 202 FTEs. Funding provides for salaries/benefits, overtime, lump sum leave, and performance awards.</li> </ul>	<ul style="list-style-type: none"> <li>Funding in support of 206 FTEs provides for salaries/benefits, overtime, lump sum leave, and performance awards.</li> </ul>	<ul style="list-style-type: none"> <li>Funding adjustment for resource allocation within the budget control level (-\$31,000).</li> </ul>
<b>Travel \$852,000</b>	<b>\$867,000</b>	<b>+\$15,000</b>
<ul style="list-style-type: none"> <li>Funding in support of MA/SEAB staff travel; all travel associated with scheduling and logistics for Secretarial trips, meetings of the Laboratory Operations Board (LOB); travel associated with program oversight and evaluation, procurement, construction management activities. Includes the rental of vehicles from the General Services Administration motor pool and the DOE fleet.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of MA activities.</li> </ul>	<ul style="list-style-type: none"> <li>Additional funding to support SPO travel (+\$15,000).</li> </ul>
<b>Support Services \$5,899,000</b>	<b>\$6,895,000,000</b>	<b>+\$996,000</b>
<ul style="list-style-type: none"> <li>Funding in support of MA activities including contractual requirements, Internal Evaluation, ACMP, Cross Agency Priority Goals, LOB, and SPO contractual requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of MA activities including contractual requirements, Internal Evaluation, ACMP, Cross Agency Priority Goals, LOB, SPO contractual requirements, and FOIA processing costs</li> </ul>	<ul style="list-style-type: none"> <li>Additional funding to support SPO (+\$72,000).</li> <li>Increase to support FOIA processing costs (+\$924,000).</li> </ul>
<b>Other Related Expenses \$14,281,000</b>	<b>\$15,249,000</b>	<b>+\$968,000</b>
<ul style="list-style-type: none"> <li>Other related expenses to cover EITS, WCF, training and other services necessary for organizational mission support.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of MA activities.</li> </ul>	<ul style="list-style-type: none"> <li>Net change primarily reflects increased WCF funding to support operational estimates, security clearances, and resource allocation within the budget control level (+\$968,000).</li> </ul>

**Office of Management  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Achieve Cost-Savings - Promote management and operational excellence by streamlining operations and reducing costs. Promote a corporate approach (including the National Laboratories) for moving from a transactional strategic sourcing approach to a more robust Category Management concept to achieve at least a 4% cost savings/avoidance target against actionable procurement spending on products and services through the increased utilization of Best-in-Class (BIC) vehicles</b>		
Target	292.4 \$M Cost Savings	323.5 \$M Cost Savings	326 \$M Cost Savings
Result	Exceeded - 470.2	TBD	TBD
Endpoint Target	Annually achieve 4% cost savings target against actionable procurement spend on products and services.		
Performance Goal (Measure)	<b>Maintain certified acquisition professionals - Maintain levels of certified acquisition professionals</b>		
Target	85 %	85 %	85 %
Result	Exceeded – 96%	TBD	TBD
Endpoint Target	Achieve certification levels of at least 90% for acquisition professionals.		
Performance Goal (Measure)	<b>Reduce FOIA backlog - Reduce Freedom of Information Act (FOIA) backlog</b>		
Target	10 %	3 %	3 %
Result	Not Met - 24%	TBD	TBD
Endpoint Target	Continually reduce the FOIA backlog cases by 3% over the prior year backlog		
Performance Goal (Measure)	<b>Un-assessed DOE Buildings - Decrease percentage of un-assessed DOE Buildings, OSFs and Trailers with “active” status (excluding FERC, LM, NR and PMAs).</b>		
Target	5 % reduction of un-assessed buildings	N/A	N/A
Result	Exceeded – 11%	N/A	N/A
Endpoint Target			
Comment	The metric was calculated based on replacement plant value due to the various types of real property. In FY 2016, Unassessed assets had been at 12%. For FY 2017, unassessed assets are at 1%, a reduction of 11%.		

**Office of Management  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Functional Assessments</b> - Maintain a level of assessment for DOE owned and “active” Buildings, Trailers and Structures (excluding FERC, LM, NR and PMAs) based on replacement plant value and an assessment having occurred within five fiscal years.		
Target	N/A	90%	90%
Result	N/A	TBD	TBD
Endpoint Target	Maintain 90%		
Comment	A real property asset is to have a functional assessment every five years. The calculation will be based on replacement plant value (RPV) due to the mixed category of real property assets. Calculation: RPV of Assessed / RPV of All.		

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Performance Goal (Measure)	<b>Energy and Water Sustainability Performance</b> - In accordance with statutory and executive order requirements DOE will perform a sufficient number of building evaluations, such that, in a four-year period, at least 90% of owned buildings and/or square footage will be assessed for energy & water efficiency opportunities and incorporation of sustainability principles as required.		
Target	N/A	90%	90%
Result	N/A	TBD	TBD
Endpoint Target	Maintain 90%		

## **Chief Human Capital Officer Program Direction**

### **Overview**

The mission of the Office of the Chief Human Capital Officer (HC) is to provide the most efficient and effective human resources (HR) services and human capital programs to the Department of Energy (DOE). The vision of HC is to help DOE accomplish its mission through collaborative and responsive partnerships; proactive problem identification and resolution; and innovative and sound human capital management services. HC advises and assists the Secretary and Deputy Secretary of Energy (and other agency officials) in recruiting, staffing, developing, training, and managing a highly skilled, productive, and diverse workforce, in accordance with merit system principles and all applicable statutory requirements.

### **Highlights of the FY 2019 Budget Request**

The Department requests \$25,625,000 in FY 2019 for HC. This Request sustains current operational levels, while improving customer service, reducing administrative overhead, and building operational capacity to carry out personnel actions and strategic workforce planning related to proposed Departmental programmatic changes in the FY 2019 budget.

The new HR service delivery model completed in FY2017 has reduced HR business risk and redundancies and improved efficiency and effectiveness of HR service delivery.

- 22% reduction in HR costs across the Department (\$20.6M savings).
- 24% reduction in HR staff.
- 33% increase in efficiency (HR customer-servicing ratio improved from 1:28 to 1:45).
- Increased DOE-wide staff hiring by 71% from FY 2014 to FY 2016.

In addition to establishing the organizational structure and infrastructure for these five Shared Service Centers (SCs), the HR Service Delivery Initiative undertook significant efforts to improve the people, processes, and technology of the HR line of business to ensure the success of the new structure (i.e. competency-based learning and development; single set of HC Standard Operating Procedures and Processes followed by all SSCs; and implementation of automated tools).

Under Agency Reform, over the next three to five years, HC will further consolidate human capital functions and reduce from five to three Shared Service Centers across the DOE enterprise with an estimated savings of \$2M and 30 FTEs. HC is committed to continue providing HR services in the most effective manner possible to improve efficiency and effectiveness.

The FY 2019 Budget anticipates significant changes to several DOE programs and the composition of their federal staffs. . HC is strategically positioned to provide DOE oversight on Human Capital matters that pertain to DOE programmatic priorities which impact changing skill mix, increased or decreased staffing levels, with emphasis on workforce planning, and development of effective talent management strategies to ensure DOE can successfully pursue its mission now and in the future.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	18,965	-	19,791	+826
Travel	130	-	135	+5
Support Services	350	-	300	-50
Other Related Expenses	5,055	-	5,399	+344
<b>Total, Program Direction</b>	<b>24,500</b>	<b>24,334</b>	<b>25,625</b>	<b>+1,125</b>
<b>Federal FTEs</b>	<b>146</b>	<b>146</b>	<b>146</b>	<b>0</b>
<b>Support Services</b>				
Management Support				
Training and Education	100	-	100	0
Management Support, Other	250	-	200	-50
<b>Total, Support Services</b>	<b>350</b>	<b>-</b>	<b>300</b>	<b>-50</b>
<b>Other Related Expenses</b>				
Other Services	1,218	-	1,051	-167
Working Capital Fund	3,837	-	4,348	+511
<b>Total, Other Related Expenses</b>	<b>5,055</b>	<b>-</b>	<b>5,399</b>	<b>+344</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$24,500,000</b>	<b>\$25,625,000</b>	<b>+\$1,125,000</b>
<b>Salaries and Benefits \$18,965,000</b>	<b>\$19,791,000</b>	<b>+\$826,000</b>
<ul style="list-style-type: none"> <li>Provides for 146 full time equivalents (FTEs). In addition to salaries and benefits, funding is also provided for workers' compensation payments on behalf of all employees funded through the HQ Departmental Administration appropriation. FTEs support core HC mission functions of: policy, oversight and automation; learning and development; HR operations and services (including executive resources, staffing/classification, benefits and labor management relations); strategic alignment and measurement of human capital management; and internal business management.</li> </ul>	<ul style="list-style-type: none"> <li>Provides for 146 FTEs which support core HC mission functions as well as workers' compensation payments. Additional \$100K for ongoing workers compensation costs for two former federal employees of the now closed Alaska Power Administration (APA). Payments were coming out of APA remaining balances which have now been exhausted.</li> </ul>	<ul style="list-style-type: none"> <li>Inflationary increase in salaries and benefits based on FY18 pay raise. Additional \$100K for ongoing workers compensation costs for two former federal employees of the now closed Alaska Power Administration (APA). Payments were coming out of APA remaining balances which will be exhausted in FY 2018.</li> </ul>
<b>Travel \$130,000</b>	<b>\$135,000</b>	<b>+\$5,000</b>
<ul style="list-style-type: none"> <li>HC staff travel includes program oversight, program evaluation, recruitment, and permanent change of station moves. Primary travel need is associated with OPM-mandated HC/HR accountability audits critical to maintaining agency-delegated HR authority.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of required HC staff travel activities. HC will explore options to partner with other internal organizations and web and video conference as feasible.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in travel associated with assisting DOE programs which anticipate significant changes to the composition of their federal staff.</li> </ul>
<b>Support Services \$350,000</b>	<b>\$300,000</b>	<b>-\$50,000</b>
<ul style="list-style-type: none"> <li>Includes funding for: HC staff training; HC Core Contractors; and other minor items.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation Labor Relation Services and services for the Albuquerque office. HC will use no cost training opportunities, as feasible.</li> </ul>	<ul style="list-style-type: none"> <li>Decrease in contract support services.</li> </ul>
<b>Other Related Expenses \$5,055,000</b>	<b>\$5,399,000</b>	<b>+\$344,000</b>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<ul style="list-style-type: none"> <li>• Other Related Expenses provides for Working Capital Fund (WCF) and Energy IT Services. Includes funding for HC-internal office administration needs (e.g., software and hardware, Council fees, small automation system support, and rent for HC’s duty station facility in Albuquerque). HC’s Albuquerque duty station partners with the Office of Health Safety and Security, to utilize existing space, reduce rent, and offset other increases.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of activities and HC Headquarters Security Investigations.</li> </ul>	<ul style="list-style-type: none"> <li>• Working Capital Fund and IT contract support cost increases. Headquarters Security Investigation costs.</li> </ul>



**Human Capital Management  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
<b>Performance Goal (Measure)</b>	<b>Annual reductions in the average time-to-hire - Annual reductions in the average time-to-hire from 174 days in FY 09 to 100 days or less by end of FY 2011, and further to an annual average of 80 days.</b>		
<b>Target</b>	≤ 80 calendar days	≤ 80 Calendar Days	≤ 80 Calendar Days
<b>Result</b>	Not Met - 119.3	TBD	TBD
<b>Endpoint Target</b>	Maintain a DOE average annual time-to-hire of 80 days or less for all GS and GS-equivalent positions.		
<b>Performance Goal (Measure)</b>	<b>Implement a framework for performance-based culture - Percent of SES with compliant plans.</b>		
<b>Target</b>	≥ 90 %	≥ 90 %	N/A
<b>Result</b>	Met - 92	TBD	N/A
<b>Endpoint Target</b>	Improve and continue to refine DOE performance management systems/processes so they clearly link work to mission goals, expected outcomes and accomplishment measures. Ensure meaningful distinctions between levels of performance are identified and rewarded.		
<b>Comment</b>	An SES performance plan is compliant with DOE performance management policy if it is in place within 30-45 days of assignment, includes a mid-year progress review, and a final review completed within 30-days following the close of the fiscal year with a final rating issued by the end of the calendar year that the specific performance cycle closed.		
<b>FY 2019 Note</b>	The Performance Goal (Measure) is ending in 2018 and to be replaced with the following goal to better measure performance culture and retention of a high performance workforce.		
<b>Performance Goal (Measure)</b>	<b>Retention of a high performing workforce - Increase the retention of a high performing workforce</b>		
<b>Target</b>	N/A	N/A	< 38 % of all attrition is made up of High Performing Employees
<b>Result</b>	N/A	N/A	TBD
<b>Endpoint Target</b>	High performing employees (employees rated Exceeds or Significantly Exceeds) comprise 36% or less of all annual attritions by FY2020.		
<b>Comment</b>	Baseline: High performing employees, employees rated Exceeds or Significantly Exceeds (or equivalent) account for 39.4% of all Departmental attrition, based on attrition data from FY14 – FY17.		



## Office of the Chief Information Officer

### Overview

The OCIO leads information technology (IT) and cybersecurity coordination across the entire DOE enterprise.

### Highlights of the FY 2019 Budget Request

The FY 2019 request is \$96,793,000, which is \$22,301,000 or 23 percent higher than FY 2017 enacted. DOE's Federal IT infrastructure has become increasingly outdated, unsupported, and unreliable, causing significant cybersecurity and operational risks. Modernizing DOE's IT infrastructure, services, and operations to a level consistent with the needed capacity, flexibility, and resiliency of a modern secure enterprise remains a key priority. The proposed modernization initiatives included in the FY 2019 request will continue to improve cybersecurity, scale capacity commensurate with demand, and establish IT enterprise capabilities allowing for commercial/managed service implementations of services with engineered and inherent cybersecurity capabilities, such as Virtual Datacenter services, and Desktop-as-a-Service (DaaS), while providing foundational requirements for enhanced cybersecurity tools, products, and capabilities.

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Chief Information Officer</b>				
<b>Cybersecurity</b>				
Protecting Networks and Information (Protect)	14,059	-	21,970	+7,911
Detect, Analyze, and Mitigate Intrusions (Detect and Respond)	1,500	-	2,000	+500
Shaping the Cybersecurity Environment (Identify and Recover)	5,447	-	12,700	+7,253
<b>Total, Cybersecurity</b>	<b>21,006</b>	<b>20,863</b>	<b>36,670</b>	<b>+15,664</b>
<b>Corporate IT Program Support</b>				
IT Portfolio Summary	12,962	-	13,165	+203
IT Infrastructure	2,000	-	3,900	+1,900
End User- EITS	5,262	-	5,300	+38
<b>Total, Corporate IT Program Support</b>	<b>20,224</b>	<b>20,087</b>	<b>22,365</b>	<b>+2,141</b>
<b>Program Direction</b>				
Salaries and Benefits	19,663	-	20,092	+429
Travel	208	-	230	+22
Support Services	3,424	-	3,500	+76
Other Related Expenses	9,967	-	13,936	+3,969
<b>Total, Program Direction</b>	<b>33,262</b>	<b>33,036</b>	<b>37,758</b>	<b>+4,496</b>
<b>Total, Chief Information Officer</b>	<b>74,492</b>	<b>73,986</b>	<b>96,793</b>	<b>+22,301</b>
<b>Federal FTEs</b>	<b>113</b>	<b>113</b>	<b>113</b>	<b>+113</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

	<b>Total FY 2019 Request</b>	<b>WCF<sup>1</sup></b>	<b>Customer</b>	<b>Total</b>
<b>CYBERSECURITY</b>				
Protecting Networks and Information (Protect) <sup>2</sup>	21,970	11,859	6,765	40,594
Detect, Analyze, and Mitigate Intrusions (Detect and Respond)	2,000	25,972	0	27,972
Shaping the Cybersecurity Environment (Identify and Recover)	12,700	0	7,616	20,316
<b>TOTAL, CYBERSECURITY</b>	<b>36,670</b>	<b>37,831</b>	<b>14,381</b>	<b>88,882</b>
<b>CORPORATE IT PROGRAM SUPPORT<sup>3</sup></b>				
IT Portfolio Summary	13,165	9,807	0	22,972
IT Infrastructure	3,900	0	0	3,900
End User – EITS	5,300	33,059	72,357	110,716
<b>TOTAL, CORPORATE IT PROGRAM SUPPORT</b>	<b>22,365</b>	<b>42,866</b>	<b>72,357</b>	<b>137,588</b>
<b>PROGRAM DIRECTION</b>				
Federal Salaries & Benefits	20,092	0	0	20,092
Travel	230	0	0	230
Support Services	3,500	0	0	3,500
Other Related Expenses	13,936	0	0	13,936
<b>TOTAL, PROGRAM DIRECTION</b>	<b>37,758</b>	<b>0</b>	<b>0</b>	<b>37,758</b>
OCIO payments into Shared Services and WCF <sup>4</sup>		(3,652)	(7,100)	(10,752)
<b>Total, Chief Information Officer</b>	<b>96,793</b>	<b>77,045</b>	<b>79,638</b>	<b>253,476</b>
<b>Federal FTEs</b>	<b>113</b>	<b>8</b>	<b>0</b>	<b>121</b>

<sup>1</sup> The FY 2019 WCF Cybersecurity estimate reflects the WCF Request for CyberOne of \$34,831,000, plus \$3,000,000 for OPM credit monitoring under the Inter-Agency Transfers business line.

<sup>2</sup> Includes funding from both the CyberOne business line, corresponding to \$8,859,000 for the iJC3, and \$3,000,000 for the Inter-agency transfer business line for Office of Personnel Management credit monitoring expenses.

<sup>3</sup> The WCF Telecom business line request for FY 2019 is \$37,059,000, of which \$33,059,000 is for End User – EITS and \$4,000,000 is for the IT Portfolio Summary. The remaining \$5,807,000, in WCF Corporate IT Program Support, is from the Inter-Agency Transfers business line.

<sup>4</sup> OCIO provides funds to Shared Services and WCF as a customer as well as the rest of the contributing program offices. In order to not double count those payments in the totals available, a bottom line adjustment was made.



## Chief Information Officer Cybersecurity

### Overview

The OCIO leads the Department's cybersecurity program on behalf of the Secretary and in accordance with the Federal Information Security Modernization Act of 2014. The OCIO also provides unclassified network services to DOE Headquarter and participating field sites. This includes protecting DOE networks and information; detecting, analyzing, and mitigating intrusions; providing continuous monitoring of the network and infrastructure; and managing the DOE cybersecurity environment. This section of the request provides a summary of the OCIO FY19 cybersecurity budget request and provides amplifying information on the anticipated activities covered under the request.

OCIO's FY 2019 request is an increase of \$15,664,000 above the FY 2017 Enacted. The OCIO anticipates a cybersecurity budget of \$88,882,000 for FY 2019 with \$36,670,000 of that budget coming in direct appropriations within this request. The additional funds will be resourced from a Working Capital Fund (WCF) and customer charge back; \$37,831,000 dollars and \$14,381,000 dollars, respectively for cybersecurity services and EITS. The FY 2019 request includes funding for ongoing cybersecurity programs including policy management, security awareness training, data collection, and reporting. Funding will also provide additional capabilities and protections through the establishment or increased scope of program implementation for High-Value Assets (HVA), Continuous Diagnostics and Monitoring (CDM), and network security modernization.

### Highlights of the FY 2019 Budget Request

- Implement network security modernization initiative.
- Collaborate with DHS to improve security protection for information and information systems/continuous diagnostic management (Continuous Diagnostics and Mitigation) across the entire DOE enterprise.
- Expand the HVA Program (\$5M) which spans the lifecycle of the NIST Cybersecurity framework and is integrated with iJC3 functions for enhanced enterprise visibility and reporting. The program enables iJC3 focus on the Department's most critical assets, provides improved situational awareness, improved integrity of reporting, and prioritizes input into IT Modernization.
- Implement new cybersecurity products and services to protect the DOE IT infrastructure.

### Funding Breakout and Analysis

This section summarizes the program and activities associated with the overall projected OCIO cybersecurity budget. It captures activities under the following three budget lines:

- Protecting Networks and Information - Protect
- Detect, Analyze, and Mitigate Intrusions – Detect and Respond
- Shaping the Cybersecurity Environment – Identify and Recover

These three budget lines map to NIST core functions while also maintaining some framework for traceability to prior year requests. In some cases, programs, like HVA, will cross multiple budget lines. In those cases, activities and projected funding levels have been broken out and aligned.

**Budget Line: Protecting Networks and Information - Protect (\$21,970,000 – Request; \$11,859,000 – WCF; \$6,765,000 - Customer) (TOTAL = \$40,594,000)**

Provide programs to protect DOE networks and the information which reside on them.

#### Activity: Cyber Supply Chain Management (\$700,000)

Sustains an enterprise Supply Chain Risk Management program (SCRM) that provides proactive, defense-in-depth supply chain security support for the DOE Enterprise through risk modeling and threat assessment. The Program also provides capabilities that guide, educate, and manage supply chain risks to National Security Systems and Information and Communications Technology (ICT) components and includes shared services, a common lexicon, and best practice procedures in procurement, delivery, and deployment of IT products and services that are used across the enterprise.

Activity: Secure Communications for International Travel (Safe Passage) (\$2,750,000)

The Safe Passage Program will be implemented in six months within EITS to address multiple security and risk-related issues with respect to senior DOE officials traveling to foreign countries while on official business. These vulnerabilities, if exploited, could provide reach-back to the internal DOE network upon a traveler's return and potentially be leveraged by remote adversaries to ex-filtrate data, monitor critical communications between senior staff, or in other malicious ways that would significantly impact or degrade the security and effectiveness of the DOE mission. The program will significantly reduce travel devices as potential attack vectors on the DOE IP networks, foster risk awareness and best practices for foreign travel, and protect DOE information resources and assets through the use of a dedicated pool of mobile devices for foreign travel, and additional staffing and tools to perform pre-trip and post-trip provisioning and forensic analysis of the devices.

Activity: Requirements Analysis and Integration (\$4,500,000)

Collect and build the enterprise architecture view and the list of Technical and Cybersecurity Requirements that inform implementation. Later in the project lifecycle, maintain status on cybersecurity certifications and controls implemented, hosting agreements, contract consolidations, and implementation approaches. Continue design of the Shared Services architecture and process workflows for requested IT services across the enterprise. Enterprise implementation of like products with separate installations will start to see the cost savings and value of moving to shared government solutions.

Activity: Protect High Value Assets (HVA) (\$1,000,000)

Develop and implement a HVA Risk Management Dashboard enabling integration of automated information feeds from enterprise risk platforms, assessment findings, and threat intelligence providing increased visibility of enterprise risk to the Department's most critical assets.

Activity: Network Security Modernization (\$13,020,000)

Modernize DOE's Network Security through a secure, robust, and capable network, built on interoperable standards and architecture principles. Projects that make up the initiative, which when completed will support the DOE enterprise to improve Cybersecurity, scale capacity commensurate with demand, and establish the foundation for future IT enterprise capabilities, include:

*Sub-Activity: Core Infrastructure Service Expansion (\$4,000,000)*

This will support the expansion of core EITS IT infrastructure services, increase network bandwidth, and project activities in support of transitioning additional customers onto DOE enterprise cloud and managed services. The funding will address upgrades to the email gateway infrastructure, DOE Wide Area Network (WAN) upgrades to support new customer sites, and project activities to support the migration of ~2,000 customers, representing 8% of the DOE federal enterprise.

*Sub-Activity: Application Rationalization (\$4,500,000)*

Application Rationalization will seek to identify applications within the enterprise, verify their mission need, consolidate, and/or eliminate duplicative applications, and identify more efficient means for application delivery such as app-virtualization. This will allow DOE to streamline its portfolio of applications with the goal of improving efficiency, reducing complexity and redundancy, and lowering the cost of ownership. As recommended by the Government Accountability Office's (GAO) September 2016 Report, GAO-16-511: Agencies Need to Improve Their Application Inventories to Achieve Additional Savings, in which it recommended that Federal agencies including DOE improve their inventories and take actions to improve their processes to rationalize their applications more completely.

*Sub-Activity: Desktop as a Service (\$1,000,000)*

Funding is requested to begin the transition from on-premises desktop services to a managed cloud Desktop-as-a-Service (DaaS) solution. This will support an analysis of available DaaS solutions, development of the migration plan and migration of approximately 650 or ~8% of current EITS federal customers to the identified solution.

*Sub-Activity: Digital Business Technology Platform (\$3,520,000)*

The digital business platform will provide a single unit purchased from a vendor that incorporates information systems platform, customer experience platform, data and analytics platform, data management programs, Internet of Things



(IoT) platform, and ecosystems platform. The goal is to create an interoperable set of services that can be brought together to create applications, apps and workflows in support of DOE missions. This creates a symbiotic collection of technology capabilities and components that form a platform. A services-first versus applications-first mindset is one of the main attributes of a loosely coupled, interoperable platform.

Summary of Funding from Working Capital Fund – CyberOne business line (\$8,859,000)\*

*Coordinated Cyber Response (\$2,099,000)*

Cyberfire develops cyber incident responder specialized skills needed to defend against and mitigate cyber threats through extensive training and provides advanced teams of incident responders to respond to escalated cyber incidents.

*ICAM (\$5,760,000)*

Funding will support increasing the requirement for PIV or other Identity Assurance Level (IAL)/Federation Assurance Level (FAL)/Authenticator Assurance Level (AAL) for network access from 96% to 100% for privileged accounts and from 66% to 85% for un-privileged accounts. Funding will enable expansion of DOE's digital identity repository from 62% to 95% of DOE sites which will serve as the primary identity source for initial implementation of CDM phase 2 at DOE HQ supporting 9,000 identities. Funding will provide for expansion of federated authentication services from 51% to 95% of the DOE sites which in turn will result in raising the requirement for use of the proper credential based on a role based risk assessment to 30% as well as federation of the authentication service to external federated authentication services to include bi-directional federation with OMB MAX. Funding will provide for alignment and adoption of credentials based on the new NIST SP 800-63-3 standard and expansion to leading edge innovative commercial solutions meeting the new SP both at AAL2 and AAL3 with anticipation of serving as agency sponsor to FedRAMP one NIST certified AAL2 solutions and implementation of a solution supporting a commercially available NIST compliance IAL3/AAL3 Public Key Infrastructure (PKI) solution. Establish plan for implementation of derived credentials primarily for use on mobile and non-GFE (Government Furnished Equipment) at the appropriate assurance level once USAccess implements the derived PIV credential service for shared services customers anticipated late FY 2018.

*iJC3 Cyber Operational Technology (\$1,000,000)*

Support the discovery, cataloging, assessment, and monitoring of Operational Technology (OT).

Summary of Funding from Working Capital Fund – Interagency business line (\$3,000,000)\*

*Credit Monitoring*

*To provide funding for credit monitoring services for all DOE employees following the OPM PII data breach.*

Customer Cyber funding as part of EITS (\$6,765,000)\*

Funds Antivirus Software, PKI encryption, website filtering, and level 4 multifactor authentication.

*\* WCF and customer fund dollars include OCIO contributions*

**Budget Line: Detect, Analyze, and Mitigate Intrusions – Detect and Respond (\$2,000,000– Request; \$25,972,000 – WCF; (TOTAL= \$27,972,000)**

Funding enables OCIO to enhance and refine DOE's cybersecurity capabilities and approach to allow for nimble detection, analysis, and mitigation of cyber intrusions resulting in a DOE-centric cyber risk management approach that is aligned with the NIST Risk Management Framework and meets the needs of DOE's complex network environment. FY 2019 funding will enable the CIO to evaluate tools and technologies that can enhance the cybersecurity capabilities necessary to defend the Department against potential cyber adversaries. This activity also includes processes to introduce, test, pilot, and operationalize new cybersecurity products or services, such as hardware, software, applications, and equipment, designed to protect the DOE IT infrastructure.

Activity: Detect High Value Assets (HVA) (\$2,000,000)

This funding will support detection through increased assessments, tracking findings and remediation, and coordination of external auditing and reporting for DHS and OMB. Resources to provide analysis, prioritization, visibility, and response for HVAs.

Summary of Funding from Working Capital Fund – CyberOne business line (\$25,972,000)\*

*Integrated Joint Cybersecurity Coordination Center (IJCC) (\$22,660,000)*

The IJCC provides cybersecurity threat analysis in coordination with DOE laboratories; conducts attack trending and tracking of advanced persistent threats; and distributes threat information and indicators of compromise to DOE entities in an automated manner. Integrates DOE Incident Management capabilities and coordinates all enterprise activities including prevention, detection, containment, and recovery on both unclassified and classified networks through internal partnerships with the National Nuclear Security Administration (NNSA) and Counterintelligence and Intelligence (IN). The IJCC also coordinates communications for cybersecurity events and cyber emergency response with United States Computer Emergency Readiness Team (US-CERT) and other agency partners.

*Cyber Intelligence (\$3,312,000)*

The Cyber Federated Model (CFM) is an Integrated Joint Cybersecurity Coordination Center (IJCC) service that provides machine-to-machine sharing of cyber threat intelligence, speeding up proactive defense, and distributed detection for the National Laboratories and site offices. CFM can deliver signatures and indicators of compromise to automatically update cyber defenses, such as intrusion detection systems, intrusion prevention systems, and firewalls.

*\* WCF and customer fund dollars include OCIO contributions*

**Budget Line: Shaping the Cybersecurity Environment – Identify and Recover (\$12,700,000 – Request; \$7,616,000 – Customer) (TOTAL = \$20,316,000)**

The OCIO is responsible for enterprise strategic cybersecurity policy, including establishing policies, managing investments in initiatives to support strategic direction, and establishing programs to promote outreach and effective risk implementation.

Activity: Planning, Policy, and Risk Management (\$2,000,000)

Organize and capture enterprise cyber risk management goals to make informative, risk-based cybersecurity decisions. By providing policy, guidance, strategies, and implementation plans through an exclusive Department Enterprise Risk Management- Cybersecurity (ERM-CS) initiative. OCIO works closely with Department Programs and Sites to develop, document, and deploy fundamental approach(s) to cybersecurity and enterprise risk management. OCIO leverages OMB Circular A-123 risk profiles containing cybersecurity risks. Strategic planning is also leveraged to identify critical cybersecurity gaps, establish priorities, and determine appropriate actions to improve the Department's cyber posture.

Activity: Identify and Recover High Value Assets (HVA) (\$2,000,000)

The implementation of additional controls and expanded assessments to support Plan of Actions and Milestones (POAM) remediation. Activities include direct review of security requirements supporting HVA related IT Modernization efforts to support security enhancements in DHS specified risk areas: System Boundaries, Network Segmentation, Governance and Risk, Identity and Access management and Continuous Monitoring.

Activity: Operationalize new products- (\$2,700,000)

Operationalize new Cybersecurity products or services, such as hardware, software, applications, and equipment, designed to protect the DOE IT infrastructure.

Activity: Reporting - Data Collection, Analysis, and Metrics (\$500,000)

Analyze data to identify successful strategies, systemic weaknesses, anomalies, and root causes to ensure effective enterprise risk management and cybersecurity programs. Address weaknesses in FISMA and President's Management Council (PMC) reporting processes to ensure that DOE's security posture is accurately reported, identify weak links in the overall posture, and open lines of communication to facilitate information sharing. Evaluate the DOE organization

and its components, define effective metrics, and identify where additional effort is needed to further mature existing programs.

Activity: Network Security Modernization (\$5,500,000)

Modernize DOE's Network Security through a secure, robust, and capable network, built on interoperable standards and architecture principles. Projects that make up the initiative include:

*Sub-Activity: Continuity of Operations/Disaster Recovery Planning (\$1,700,000)*

Funding will enable the integration of the unclassified Security Operations Center (SOC) and Incident Response capabilities in DOE's Continuity of Operations and Disaster Recovery planning to ensure Unified Coordination Structure (UCS) response to any cybersecurity event. Full integration of these capabilities under the Unified Coordination Structure will enable the department to manage a cybersecurity event utilizing and incorporated with the UCS response to a stand-alone incident, or as part of a larger Continuity or Disaster Recovery event. The funding request also provides for the initial year licensing to expand the use of the DOE Alert, Warning, Accountability, and Response (DOE-AWAre) system across the DOE enterprise, and for implementation of an expanded accountability module within the system. DOE-AWAre utilizes a cloud-based service, and supports notification and accountability for emergency and continuity events.

*Sub-Activity: Cybersecurity Infrastructure Upgrades (\$3,800,000)*

Planned upgrades include \$1M for the deployment of additional infrastructure in support of the Continuous Diagnostic and Mitigation (CDM) program to provide redundancy and high-availability for CDM capabilities previously deployed within the enterprise. The funding provided to DOE by DHS does not provide for redundancy and high-availability for CDM capabilities deployed in CDM phase 1 and 2. Funding of \$2.8M supports technology refresh, and expansion of the EITS Security Operations Center infrastructure supporting PCAP (packet capture), SIEM (Security Information and Event Management), and the network security and Incident Response capabilities.

Customer funding provided as part of EITS (\$7,616,000)\*

*Cyber for EITS (\$4,113,000)*

Funds continuous monitoring, cybersecurity assurance and accreditation, and information systems security officer support for EITS customers.

*Cyber for EITS (Assessment and Authorization (A&A)) (\$3,503,000)\**

This funding provides A&A in cybersecurity control implementation, management and monitoring of the Energy Information Technology Services (EITS) Enclaves and Subsystems to ensure compliance with Federal Information Security Management Act (FISMA) and National Institute of Standards and Technology (NIST) requirements. OCIO is planning to transition to Ongoing Authorization (OA) as a key part of the EITS Authorization Process that leverages the Information Security Continuous Monitoring (ISCM) strategy and program. The OA plan will utilize the guidance and best practices available from OMB, NIST, DHS and others. Maturation of the EITS ISCM is anticipated to provide efficiencies in future years.

\* WCF and customer fund dollars include OCIO contributions

**Cybersecurity**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>\$21,006,000</b>	<b>\$36,670,000</b>	<b>+\$15,664,000</b>
<b>Protecting Networks and Information (Protect) (\$14,059,000)</b>	<b>\$21,970,000</b>	<b>+\$7,911,000</b>
<ul style="list-style-type: none"> <li>• Network Security Modernization Requirements Analysis and Integration ICAM</li> </ul>	<ul style="list-style-type: none"> <li>• Network security modernization, cyber supply chain management, secure communications for International Travel, and data collection and analytics are the planned initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase reflects Network Security Modernization projects. The project funding was initiated in FY 2018 and is not reflected in the FY 2017 comparison year.</li> </ul>
<b>Detect, Analyze, and Mitigate Intrusions (Detect and Respond) (\$1,500,000)</b>	<b>\$2,000,000</b>	<b>+\$500,000</b>
<ul style="list-style-type: none"> <li>• Technical initiatives designed to identify, test, and scale solutions to protect DOE assets by employing new technologies throughout the Department. Introduces, tests, pilots, and operationalizes new cybersecurity products or services, such as hardware, software, applications, and equipment, designed to protect the DOE IT infrastructure.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to enhance and refine DOE's cybersecurity capabilities and approach to allow for nimble detection, analysis, and mitigation of cyber intrusions resulting in a DOE-centric cyber risk management approach that is aligned with the NIST Risk Management Framework and meets the needs of DOE's complex network environment.</li> </ul>	<ul style="list-style-type: none"> <li>• The increase reflects additional resources to support HVA initiative offset by completion of investments in the Unclassified Security Operations Center.</li> </ul>
<b>Shaping the Cybersecurity Environment (Identify and Recover) (\$5,447,000)</b>	<b>\$12,700,000</b>	<b>+\$7,253,000</b>
<ul style="list-style-type: none"> <li>• Focuses funding on Planning, Policy and Management as well as Analysis and Integration activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of FY 2017 and FY 2018 Activities</li> </ul>	<ul style="list-style-type: none"> <li>• Program adjustments to take on new cybersecurity priorities. \$2M increase for HVA initiative. Increase of \$5.3M to include Network Security Modernization projects of Continuity of Operations and Cybersecurity Infrastructure upgrades.</li> </ul>

**Chief Information Officer  
Corporate IT Program Support**

**Overview**

OCIO is requesting \$22,365,000 for Corporate IT Program Support which provides capital planning guidance, strong privacy and records management, IT products and services, and an efficient and effective IT platform.

**Highlights of the FY 2019 Budget Request**

The FY 2019 funding request for Corporate IT Program Support is \$22.3 million, which is an increase of \$2.1 million over FY 2017 Enacted. It includes an increase of \$3.9M for E-mail Consolidation Project to migrate ~10,500 of the mailboxes supporting DOE federal on-premises Unclassified email systems to the Microsoft Office 365 cloud-based Software as a Service (SaaS). An increase of \$3.2M is for Records Management to stand up a records management solution for EITS and other DOE customers to be offset by a decrease in IT Portfolio activities (-\$3M) and a decrease in IT Infrastructure (-\$2M). The \$3M decrease in IT Portfolio activities is driven by the anticipated completion in FY 2018 of the 120-day study which baselined our activities and the decrease in resources required for the DOE HQ Network Refresh project, which is being funded with working capital funds only in FY 2019. The \$2M decrease in the request for IT Infrastructure is due to the anticipated completion of the DOE HQ Data Center Migration in FY 2018.

**Budget Line: IT Portfolio Summary (\$13,165,000 – Request; \$9,807,000 – WCF) (TOTAL = \$22,972,000)**

Activity: IT Policy, Governance, and Programs (\$12,465,000)

*Sub-Activity: IT Investments for Mission Delivery and Management Support (\$3,245,000)*

- Provide CIO governance advice and strategic recommendations and maintain project management reports.
- Develop and maintain knowledge base of emerging and disruptive technologies.
- Develop a comprehensive vision of next-generation IT with a focus on cross-cutting initiatives such as geospatial science and open data activities to support OCIO in interagency and intergovernmental sharing of geospatial data.
- Lead implementation of IRM Strategic Plan with relevant stakeholders, obtain feedback, and refine strategic documentation as necessary.
- Provide analysis/assessment support and data analysis to aid in leadership decisions.
- Provide partnership engagement and facilitated analysis support to maintain collaborative dialog with Program Office stakeholders.

*Sub-Activity: IT Investments for Enterprise Architecture, Capital Planning, and CIO Functions (\$4,740,000)*

- Manage governance of DOE strategic IT investment portfolio to ensure alignment with DOE missions; oversee Capital Planning and Investment Control programs; conduct portfolio analyses to drive IT investment decision-making.
- Lead IT planning, policy, and performance evaluation and manage strategic and tactical IT policy development, maintenance, and implementation through coordination with internal and external governance groups; ensure DOE compliance with E-Government requirements.
- Provide DOE enterprise oversight, support, and coordination on cybersecurity and information management issues; technical and administrative services for governance organizations to yield effective, efficient, and secure application of information and IT for mission enhancement, operational excellence, and risk management.

*Sub-Activity: Policy and Performance Management (\$4,480,000) No shared service available.*

- Stand up a records management solution for EITS and other email customers.

Records Management (\$3,780,000)

Provides records management activities in accordance with National Archives and Records Administration (NARA) and other Federal agency requirements. Additional funds requested for stand up of an Enterprise-wide electronic records management solution, as mandated by NARA and OMB. The solution will enable the Department to manage all permanent electronic records, including e-mail, in an automated manner. Records management is largely managed locally and manually, resulting in a disjointed and error-prone approach to records management, including electronic records management. Funding is needed to support the initial deployment of the selected records management solution to cover all email users that are provisioned by EITS, the Headquarters' based IT

service provider. Subsequent implementation will address other record types, and eventually provide functionality for additional DOE stakeholders with an interest in information and document management, like Freedom of Information Act (FOIA) processors, litigation participants for eDiscovery, and enterprise privacy officials conducting searches under the Privacy Act. The solution will be offered initially as a service for use to meet the business needs, including CAPSTONE. CAPSTONE is an optional approach developed by NARA that Federal agencies can use to manage and dispose of email records to meet the requirements in OMB guidance Managing Government Records Directive (M-12-18) to manage permanent and temporary email records. DOE's adoption of the CAPSTONE approach was approved by NARA in FY17. The records management solution will support Departmental Elements both as they currently operate and as they participate in the consolidation to Office 365. The end result will be a secure and scalable enterprise-wide solution, providing a consistent, accessible, and automated approach to electronic document and records management requirements.

- Privacy Information Management (\$700,000)

Funds HQ-driven enterprise-wide privacy information management activities in accordance with Privacy Act, E-Government Act, and OMB Privacy directives to ensure compliance with federal laws, regulations, and standards, under the direction of the DOE Senior Agency Official for Privacy, who is also the CIO.

Summary of Funding from Working Capital Fund – Interagency Transfers business line (\$5,807,000)\*

Records Storage at NARA

Funds annual agreement with NARA to provide records services and storage consistent with approved records schedules.

Integrated Acquisition Environment (IAE)

Funds required Interagency Agreement with the General Services Administration (GSA) to provide packaged services.

E- Government initiatives

Initiatives include consolidation studies of lines of businesses and other intergovernmental systems.

*\*WCF and customer fund dollars include OCIO contributions*

Activity: IT Investments for IT Infrastructure, Security, and Management (\$700,000)

Sub-Activity: Spectrum Management (\$700,000)

The DOE Spectrum Program is mandated under Title 47, U.S. Code of Federal Regulations, 901, et. seq., and manages DOE radio frequency spectrum-dependent resources for the National Nuclear Security Administration, Power Marketing Administrations, Office of Secure Transportation, and National Laboratory spectrum-dependent assets. As the 9<sup>th</sup> largest holder of radio frequencies with more than 7,300 individual radio assignments, the DOE Office of Spectrum Management (OSM) provides technical, logistical, and administrative support, as well as ongoing oversight and advocacy at an inter-agency level in the National Capital Region. There are thirty-four sites receiving services from OSM including HQ, the National Labs, the PMAs, and NNSA sites. Critical DOE missions and essential functions utilizing Spectrum services include the National Power Grid, Interstate Electricity Transmission, Satellite Missions, Nuclear Emergency Search, Radiological Assistance, Secure Transportation and Safeguards, and Protective Force Communications.

Summary of funding from Working Capital Fund – Network Refresh (\$4,000,000)\*

Annual network technology refresh as part of lifecycle management is necessary to address current risks in the areas of security and availability in the core and distribution layers of existing DOE (Headquarters in particular) network infrastructure. By investing in a more modern network infrastructure, the Department will enhance network cybersecurity controls and will further support the collaboration capabilities being requested within the Department.

*\*WCF and customer fund dollars include OCIO contributions*

**Budget Line: IT Infrastructure (\$3,900,000)**

Activity: E-mail Consolidation Project (\$3,900,000) – E-mail Consolidation Project for the migration of ~10,500 of the mailboxes supporting DOE federal on-premises Unclassified email systems to the Microsoft Office 365 cloud email Software as a Service (SaaS) within 18 months. Currently, DOE operates multiple, separate email systems across the enterprise, with the majority of them being Microsoft Exchange-based and being operated on-premises.

- Consolidating multiple on-premises email environments reduces risk by standardizing cybersecurity controls, improving visibility across the enterprise, and would decrease operating costs associated with on-premises hardware and storage requirements.
- Cloud-based email allows for scaling messaging services to accommodate future customer base changes without having to accommodate large infrastructure investments. Adoption of cloud-based email also improves usability, availability, reliability, efficiency, and interoperability across the enterprise.
- Email systems consolidation also facilitates larger enterprise opportunities for standardization and consolidation of identity management, records management, and mobile solutions with associated reductions in O&M costs.

**Budget Line: End User - EITS (\$5,300,000 – Request; \$33,059,000 – WCF; \$72,357,000 - Customer) (TOTAL = \$110,716,000)**

Activity: EITS Payment (\$5,300,000)

Funds desktop services for the EITS business line.

Summary of Funding from Working Capital Fund – Telecommunications business line (\$33,059,000)\*

Provides connectivity for DOE Headquarters and Field operations through Local and Wide Area Networks and telecommunications (telephone) services. LAN connections provide access to the EITS application host systems and cybersecurity for the internet, electronic mail, and other applications.

Summary of Funding from Customers – Shared Services direct billing (\$72,357,000)\*

*End User Services*

Includes asset management, Tier 1/Tier 2 phone and deskside support, platinum support, and ServiceNow support.

*\*WCF and customer fund dollars include OCIO contributions*

**Corporate IT Program Support**

<b>Explanation of Major Changes</b>		
<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>Explanation of Changes FY 2019 Request vs FY 2017 Enacted</b>
<b>\$20,224,000</b>	<b>\$22,365,000</b>	<b>\$2,141,000</b>
<b>IT Portfolio Summary (\$12,962,000)</b>	<b>\$13,165,000</b>	<b>+203,000</b>
		<ul style="list-style-type: none"> <li>Stand up a records management solution for EITS and other email customer's increase of \$3.9M. This is offset by a decrease in the HQ Network Refresh (End of life/Capacity) activities which will be completed in FY 2018.</li> </ul>
<b>IT Infrastructure (\$2,000,000)</b>	<b>\$3,900,000</b>	<b>+\$1,900,000</b>
<ul style="list-style-type: none"> <li>Funding for projects and activities including emerging and disruptive technologies, geospatial management, modernization activities, Network Refresh activities, and FITARA implementation efforts.</li> </ul>	<ul style="list-style-type: none"> <li>E-mail Consolidation Project to migrate ~10,500 mailboxes supporting DOE federal on-premises Unclassified e-mail systems to the Office 365 cloud-based Software as a Service (SaaS).</li> </ul>	<ul style="list-style-type: none"> <li>Increase for E-Mail Consolidation project (+\$3,900,000) offset by decrease for the completion of the Data Center Migration.</li> </ul>
<b>End User- EITS (\$5,262,000)</b>	<b>\$5,300,000</b>	<b>+\$38,000</b>
<ul style="list-style-type: none"> <li>This funding pays for the EITS staff as customers of their own products.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of FY 2017 and FY 2018 activities.</li> </ul>	<ul style="list-style-type: none"> <li>No significant change.</li> </ul>



## **Program Direction**

### **Overview**

Program Direction provides \$37,758,000 for OCIO federal staffing and associated costs for the overall management of OCIO activities.

### **Highlights of the FY 2019 Budget Request**

Funds OCIO corporate program management and operations, acquisitions/contract administration, human capital management and budget support, 113 FTEs, and Working Capital Fund requirements.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Headquarters</b>				
Salaries and Benefits	19,663	-	20,092	+429
Travel	208	-	230	+22
Support Services	3,424	-	3,500	+76
Other Related Expenses	9,967	-	13,936	+3,969
<b>Total, Program Direction</b>	<b>33,262</b>	<b>33,036</b>	<b>37,758</b>	<b>+4,496</b>
<b>Federal FTEs</b>				
Federal FTEs- Program Direction Funded	113		113	0
Federal FTEs- WCF Funded	8		8	0
<b>Total FTEs</b>	<b>121</b>		<b>121</b>	<b>0</b>
<b>Support Services</b>				
Technical Support Services	1,549	-	1,595	+46
Business, Finance, and Procurement	1,875	-	1,905	+30
<b>Total, Support Services</b>	<b>3,424</b>	<b>-</b>	<b>3,500</b>	<b>+76</b>
<b>Other Related Expenses</b>				
Training	120	-	120	0
Working Capital Fund (WCF)	8,714	-	11,584	+2,870
Desktop Services	1,133	-	1,882	+749
Security Investigations	-	-	350	+350
<b>Total, Other Related Expenses</b>	<b>9,967</b>	<b>-</b>	<b>13,936</b>	<b>+3,969</b>

\*A full-year 2018 appropriation was not enacted at the time the budget was prepared; therefore, the budget assumes 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. These amounts are shown only at the Congressional control level and above, below that level, a dash (-) is shown.

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$33,262,000</b>	<b>\$37,758,000</b>	<b>+\$4,496,000</b>
<b>Salaries and Benefits \$19,663,000</b>	<b>\$20,092,000</b>	<b>+\$429,000</b>
<ul style="list-style-type: none"> <li>• (\$19,663,000) funding supports federal staff and related benefits requirements for 113 FTEs</li> </ul>	<ul style="list-style-type: none"> <li>• (\$20,092,000) Continuation of activities</li> </ul>	<ul style="list-style-type: none"> <li>• (+\$429,000) Funding supports 113 FTEs. Increase for within grade, promotions, and FY 2018 COLAs impact on the FY 2019 rates for existing staff.</li> </ul>
<b>Travel \$208,000</b>	<b>\$230,000</b>	<b>+\$22,000</b>
<ul style="list-style-type: none"> <li>• (\$208,000) supports mission-critical travel for federal staff</li> </ul>	<ul style="list-style-type: none"> <li>• (\$230,000) Continuation of activities</li> </ul>	<ul style="list-style-type: none"> <li>• (+\$22,000) Increase in cost of travel</li> </ul>
<b>Support Services \$3,424,000</b>	<b>\$3,500,000</b>	<b>+\$76,000</b>
<ul style="list-style-type: none"> <li>• (\$1,549,000) Sustain operations within the front office of the CIO. Funds support contractor activities and memberships/subscription services for the CIO and senior staff.</li> </ul>	<ul style="list-style-type: none"> <li>• (\$1,595,000) Continuation of activities</li> </ul>	<ul style="list-style-type: none"> <li>• (+\$46,000) Increase in support service costs</li> </ul>
<ul style="list-style-type: none"> <li>• (\$1,875,000) Funding used to maintain contractor activities in the areas of Financial Management, Budget and Internal Controls; Acquisitions; and Human Capital. These activities are critical to programmatic operations and accomplishment of program goals.</li> </ul>	<ul style="list-style-type: none"> <li>• (\$1,905,000) Continuation of activities</li> </ul>	<ul style="list-style-type: none"> <li>• (+\$30,000) Increase in support service costs</li> </ul>
<b>Other Related Expenses \$9,967,000</b>	<b>\$13,936,000</b>	<b>+\$3,969,000</b>
<ul style="list-style-type: none"> <li>• (\$120,000) Training costs to ensure all FTEs are appropriately trained to perform their duties, and development opportunities are available to CIO's federal staff.</li> </ul>	<ul style="list-style-type: none"> <li>• (\$120,000) Continuation of activities</li> </ul>	<ul style="list-style-type: none"> <li>• \$0</li> </ul>

- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>• (\$8,714,000) WCF funding level accounts for estimated OCIO as the customer costs, as well as overhead expenses.</li> </ul> | <ul style="list-style-type: none"> <li>• (\$11,584,000) Continuation of activities</li> </ul> | <ul style="list-style-type: none"> <li>• (+\$2,870,000) Required to cover anticipated costs.</li> </ul>  |
| <hr/>  |   |  |
| <ul style="list-style-type: none"> <li>• (\$1,133,000) Desktop Services funds are used to provide IT services and hardware to employees.</li> </ul>                  | <ul style="list-style-type: none"> <li>• (\$1,882,000) Continuation of activities</li> </ul>  | <ul style="list-style-type: none"> <li>• (+\$749,000) Required to cover anticipated costs.</li> </ul>  |
| <ul style="list-style-type: none"> <li>• (\$0) Security Investigations</li> </ul>  | <ul style="list-style-type: none"> <li>• (\$350,000) New requirement</li> </ul>               | <ul style="list-style-type: none"> <li>• (+\$350,000) New Departmental requirement for offices to fund security investigations for their personnel.</li> </ul> |
| <hr/>  |   |  |

**Chief Information Officer  
Departmental Administration  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
<b>Performance Goal (Measure)</b>	<b>Detect - Anti-Phishing - Performance of Anti-Phishing measurements must be greater than or equal to 90% on at least 5 of 7 capabilities.</b>		
<b>Target</b>	≥ 5 capabilities greater than 90%	≥ 5 capabilities greater than 90%	≥ 5 capabilities greater than 90%
<b>Result</b>	Met - 6	TBD	TBD
<b>Endpoint Target</b>	Obtain performance of at least 5 of 7 anti-phishing capabilities at 90% or greater in FY 2017 and maintain annually thereafter.		
<b>Performance Goal (Measure)</b>	<b>Detect - Malware Defense - Performance of malware defense measurements must be greater than or equal to 90% on at least 3 of 5 capabilities.</b>		
<b>Target</b>	≥ 3 capabilities greater than 90%	≥ 3 capabilities greater than 90%	≥ 3 capabilities greater than 90%
<b>Result</b>	Met - 3	TBD	TBD
<b>Endpoint Target</b>	Obtain a performance of at least 3 of 5 malware defense capabilities at 90% or greater in FY 2017 and maintain annually thereafter.		
<b>Performance Goal (Measure)</b>	<b>Detect - Other Defenses - Performance of "Other Defenses" measurements to include specific Anti-Phishing and Malware capabilities must be greater than or equal to 90% on at least 2 of 4 capabilities.</b>		
<b>Target</b>	≥ 2 capabilities greater than 90%	≥ 2 capabilities greater than 90%	≥ 2 capabilities greater than 90%
<b>Result</b>	Met - 2	TBD	TBD
<b>Endpoint Target</b>	Obtain a performance of at least 2 of 4 other defense capabilities at 90% or greater in FY 2017 and maintain annually thereafter.		
<b>Comment</b>	The Other Defenses performance measure consists of the following Anti-Phishing and Malware capabilities: privileged user network accounts that have a technical control limiting access to only trusted sites, inbound network traffic that passes through a web content filter, which provides anti-phishing, anti-malware, and blocking of malicious websites (e.g., fake software updates, fake antivirus offers, and phishing offers), outbound communications traffic checked at the external boundaries to detect encrypted exfiltration of information (i.e. D/A's capability to decrypt/interrogate and re-encrypt), and email messages processed by systems that quarantine or otherwise block suspected malicious traffic.		

	FY 2017	FY 2018	FY 2019
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Performance Goal (Measure)	<b>Identify - Hardware Asset Management - Achieve performance of 95% or greater for both Hardware Asset Management metrics (asset detection and asset meta data collection)</b>		
Target	≥ 95 %	≥ 95 %	≥ 95 %
Result	Not Met - 85	TBD	TBD
Endpoint Target	Annually maintain performance of at least 95% for both Hardware Asset Management metrics by FY 2018 and maintain annually thereafter.		

Performance Goal (Measure)	<b>Identify - Software Asset Management - Achieve performance of greater than or equal to 95% for both Software Asset Management metrics (software inventory and software white-listing)</b>		
Target	≥ 95 %	≥ 95 %	≥ 95 %
Result	Not Met - 91	TBD	TBD
Endpoint Target	Obtain performance of at least 95% for both Software Asset Management metrics by FY 2018 and maintain annually thereafter.		

Performance Goal (Measure)	<b>Protect - Federated Identity Management Infrastructure - Implement Federated Identity Management Infrastructure linking identity sources across DOE to OneID</b>		
Target	75 %	95 %	95 %
Result	Not Met - 62	TBD	TBD
Endpoint Target	Obtain performance of at least 95% of all identity sources across DOE linked to OneID by FY 2018 and maintain annually thereafter.		

Performance Goal (Measure)	<b>Protect - High-Priority Application Authentication - Conduct a role-based risk assessment for all applications supporting high priority (FISMA) systems, identify the proper credential for each role within the application in accordance with the revised NIST 800-63 standard, and require the use of the proper credential for role-based access to the application.</b>		
Target	10 %	30 %	50 %
Result	Not Met - 0	TBD	TBD
Endpoint Target	Require the credential identified through the role based risk assessment for 80% of all applications supporting FISMA systems by FY 2021 and maintain annually thereafter.		

Performance Goal (Measure)	<b>Protect - MFA - Privileged Network Account performance - Privileged Network Accounts that use a PIV credential or other NIST 800-63 r3 IAL3/AAL3/FAL3 must be equal to 100%.</b>		
Target	100 %	100 %	100 %
Result	Not Met - 96	TBD	TBD

Departmental Administration/  
Chief Information Officer

	FY 2017	FY 2018	FY 2019
Endpoint Target	Achieve an LOA4 performance of 100% for Privileged Network Accounts by FY 2018 and maintain annually thereafter.		
Performance Goal (Measure)	<b>Protect - MFA - Unprivileged Network Account performance - Unprivileged Network Accounts that use a PIV credential or other NIST 800-63 r3 IAL3/AAL3/FAL3 must be equal to 85%.</b>		
Target	85 %	85 %	85 %
Result	Not Met - 66	TBD	TBD
Endpoint Target	Achieve an LOA4 performance of 85% for Unprivileged Network Accounts by FY 2018 and maintain annually thereafter.		
Performance Goal (Measure)	<b>Protect - Secure Configuration Management - Achieve performance of greater than or equal to 95% for Secure Configuration Management</b>		
Target	≥ 95 %	≥ 95 %	≥ 95 %
Result	Met - 99	TBD	TBD
Endpoint Target	Obtain performance of at least 95% for Secure Configuration Management by FY 2018 and maintain annually thereafter.		
Performance Goal (Measure)	<b>Protect - Standards Based Federated Access Management Infrastructure - Implement Standards Based Federated Access Management Infrastructure across DOE to enable single sign-on</b>		
Target	50 %	95 %	95 %
Result	Met - 51	TBD	TBD
Endpoint Target	Implement Standards Based Federated Access Management across 95% of DOE by FY 2018 and maintain annually thereafter.		
Performance Goal (Measure)	<b>Protect - Vulnerability Management - Achieve performance greater than or equal to 95% for the detection of hardware and software vulnerability and weakness management</b>		
Target	≥ 95 %	≥ 95 %	≥ 95 %
Result	Met - 99	TBD	TBD
Endpoint Target	Obtain performance of at least 95% for Vulnerability Management by FY 2018 and maintain annually thereafter.		
Comment	The Vulnerability Management performance measure involves the detection of hardware and software vulnerabilities and specifically addresses the organization's unclassified network(s) assessed for vulnerabilities using Security Content Automation Protocol (SCAP) validated and similar scanning products.		



**Department of Energy**  
Washington, DC 20585

January 12, 2018

**U.S. Department of Energy Fiscal Year 2019 President's Budget  
OMB Budget Justification - Information Technology Resource Statement**

In accordance with Office of Management and Budget (OMB) Circular A-11, Section 51.3, and as described in OMB Memorandum M-15-14, on behalf of the U.S. Department of Energy, we, the undersigned, do hereby affirm the following:

1. The Department's Chief Information Officer (CIO) reviewed and had significant input in approving the Department's budget request for Information Technology (IT) investments.
2. The CIO had a significant role in reviewing planned IT support for major programs and any significant changes in IT resources reflected in this budget. The Department wishes to note that its IT Portfolio Summary includes estimates of all of its IT resources included in its budget request.
3. The Department has fully implemented its baseline FITARA responsibilities for Element D ("CIO reviews and approves major IT investment portion of budget request").
4. The CIO certifies that major IT investments are using incremental development practices.

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Stephen (Max) Everett  
Chief Information Officer  
U.S. Department of Energy

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John G. Vonglis  
Chief Financial Officer  
U.S. Department of Energy





## **Congressional and Intergovernmental Affairs Program Direction**

### **Overview**

The Office of Congressional and Intergovernmental Affairs (CI) focuses on accurate and timely communication of Administration and Departmental objectives and activities with Congress, state, local and Tribal governments, and other stakeholder organizations. Specifically, CI:

- Directs, manages and ensures coordination between all Departmental organizations and their interaction with external stakeholders.
- Develops and recommends legislative strategies and engagements in alignment with Administration policy and DOE program initiatives.
- Monitors legislative activity to inform and advocate on behalf of the Department. Works with Members of Congress, staff, and committees to define, articulate and advance the Administration's position on pending legislation.
- Provides timely notifications to Members of Congress, Governors, Mayors, and Tribal officials on DOE matters of specific interest including pending awards/grants/contracts that may have an impact upon the State, tribal, congressional districts and other constituencies. Provides timely and complete response to inquiries, and requests for information.
- Coordinates and prepares Departmental officials for congressional briefings and meetings as well as gubernatorial and Tribal events.
- Directs and coordinates the preparation of congressional testimony, transcripts, pre- and post-hearing questions and answers, and other information provided for the record.
- Works with Governors' staff, local elected and appointed officials, as well as Tribal leaders to provide information on DOE activities and decisions; and to elicit concerns and interests for consideration in DOE decision processes.

### **Highlights of the FY 2019 Budget Request**

The Department requests \$6,212,000 in FY 2019 for CI to maintain operational levels consistent with Departmental needs and Secretarial priorities. Funding will ensure CI can continue to provide accurate and timely communications of Administration and Departmental activities and objectives to Congress, State, local and tribal governments and external organizations.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	4,663	--	4,663	0
Travel	95	--	65	-30
Support Services	246	--	250	+4
Other Related Expenses	1,196	--	1,234	+38
<b>Subtotal, Washington Headquarters</b>	<b>6,200</b>	<b>--</b>	<b>6,212</b>	<b>+12</b>
Use of Prior Year Balances	<b>0</b>	<b>--</b>	<b>-2,000</b>	<b>+2,000</b>
<b>Total, Program Direction</b>	<b>6,200</b>	<b>6,158</b>	<b>4,212<sup>2</sup></b>	<b>-1,988</b>
<b>Federal FTEs</b>	<b>33</b>	<b>33</b>	<b>33</b>	<b>0</b>
<b>Support Services</b>				
Management Support				
Print and electronic information subscription services	100	--	100	0
Contractor support	110	--	130	+20
Other, including office maintenance, furniture, etc.	36	--	20	-16
<b>Total, Support Services</b>	<b>246</b>	<b>--</b>	<b>250</b>	<b>+4</b>
<b>Other Related Expenses</b>				
Training	25	--	25	0
DOECOE	243	--	195	-48
Working Capital Fund	928	--	1,002	+74
Other Services	0	--	12	+12
<b>Total, Other Related Expenses</b>	<b>1,196</b>	<b>--</b>	<b>1,234</b>	<b>+38</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$6,200,000</b>	<b>\$6,212,000</b>	<b>+\$12,000</b>
<b>Salaries and Benefits \$4,663,000</b>	<b>\$4,663,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>Provides funding for 33 FTEs to include salaries and benefits.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of current activities.</li> </ul>	<ul style="list-style-type: none"> <li>No change. Prior year carryover balances will be used to offset salaries and benefits.</li> </ul>
<b>Travel \$95,000</b>	<b>\$65,000</b>	<b>-\$30,000</b>
<ul style="list-style-type: none"> <li>Funding for travel requirements to support the Department's engagements with congressional, intergovernmental and other stakeholders.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of current activities.</li> </ul>	<ul style="list-style-type: none"> <li>Assumes need for less travel</li> </ul>
<b>Support Services \$246,000</b>	<b>\$250,000</b>	<b>+\$4,000</b>
<ul style="list-style-type: none"> <li>The majority of costs are related to the acquisition of annual subscriptions to information sources essential to ensure staff is well-informed of congressional and intergovernmental activities and interests.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of current activities.</li> </ul>	<ul style="list-style-type: none"> <li>Reflects anticipated needs.</li> </ul>
<b>Other Related Expenses \$1,196,000</b>	<b>\$1,234,000</b>	<b>+\$38,000</b>
<ul style="list-style-type: none"> <li>Funds support business costs associated with the Department's Working Capital Fund (office space, phones, utilities, etc.); IT equipment and support; as well as staff development and training.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of current activities.</li> </ul>	<ul style="list-style-type: none"> <li>Reflects anticipated needs.</li> </ul>



**Office of Small and Disadvantaged Business Utilization  
Program Direction**

**Overview**

The Office of Small and Disadvantaged Business Utilization (OSDBU) is responsible for advocating the use of small businesses, including Small Disadvantaged Businesses (SDB), certified 8(a) businesses, small businesses from Historically Underutilized Business Zones (HUBZone), Service Disabled Veteran-Owned Small Businesses (SDVOSB), and Women-Owned Small Businesses (WOSB). This involves promoting small business prime and subcontracting opportunities in accordance with Federal laws, regulations, and policies and reporting to Congress on DOE utilization of small business.

The goals of the OSDBU are to institutionalize the use of small businesses and to fully integrate them into the U.S. Department of Energy's (DOE) competitive base of contractors and to help the Department of Energy meet statutory goals for small business utilization.

The DOE OSDBU is not a procurement office, but serves as a liaison between the small business community and the DOE procurement offices. The Small Business Act of 1953 as amended by Public Law 95-507 established the OSDBU.

**Highlights of the FY 2019 Budget Request**

FY19 Budget Requests supports the goal of meeting the full requirements of the Small Business (SB Act) Section 15(k). The OSDBU requires these resources to fully meet the requirements for DOE, including NNSA and Site Offices, which requires acquisition reviews for agency wide procurement actions at the \$750,000 threshold. Acquisition reviews ensure appropriate agency consideration of small businesses as this directly impacts local economies and job growth.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR *</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salary & Benefits	1,545	-	2,340	+795
Travel	34	-	50	+16
Support Services	1,022	-	170	-852
Other Related Expenses	399	-	610	+211
<b>Total, Program Direction</b>	<b>3,000</b>	<b>2,980</b>	<b>3,170</b>	<b>+170</b>
<b>Federal FTEs</b>	<b>11</b>	<b>12</b>	<b>18</b>	<b>+7</b>
<b>Other Related Expenses</b>				
EITS	40	-	100	+60
Working Capital Fund	333	-	470	+137
Training	26	-	40	+14
<b>Total, Other Related Expenses</b>	<b>399</b>	<b>-</b>	<b>610</b>	<b>+211</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$3,000,000</b>	<b>\$3,170,000</b>	<b>\$170,000</b>
<b>Salaries and Benefits \$1,545,000</b>	<b>\$2,340,000</b>	<b>+795,000</b>
<ul style="list-style-type: none"> <li>• Provides funding for salaries and benefits for 11 FTEs.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides funding for 18 FTEs.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase to support staffing needs.</li> </ul>
<b>Travel \$34,000</b>	<b>\$50,000</b>	<b>+16,000</b>
<ul style="list-style-type: none"> <li>• Funds travel for small business training, event participation and outreach, and one to one small business counseling.</li> </ul>	<ul style="list-style-type: none"> <li>• Funds travel for small business training, event participation and outreach, and one to one small business counseling.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase reflects inflation and additional staff travel.</li> </ul>
<b>Support Services \$1,022,000</b>	<b>\$170,000</b>	<b>-852,000</b>
<ul style="list-style-type: none"> <li>• Funds contractor support for communications and management support services, and subscription services.</li> </ul>	<ul style="list-style-type: none"> <li>• Funds contractor support for communications and management support services, and subscription services.</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease reflects reduction in contract support realigned to budget for federal staff.</li> </ul>
<b>Other Related Expenses \$399,000</b>	<b>\$610,000</b>	<b>+211,000</b>
<ul style="list-style-type: none"> <li>• Funds Working Capital Fund, IT services, and staff training and development, and other services.</li> </ul>	<ul style="list-style-type: none"> <li>• Funds Working Capital Fund, IT services, and staff training and development, and other services.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase reflects inflation and additional requirements.</li> </ul>

**Office of Small and Disadvantaged Business Utilization  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Prime contracting awards - Advocate for small business set-asides and track the agency prime contracting awards to small businesses with the goal of ensuring DOE meets or exceed the Small Business Administration's (SBA) determined percentage of DOE projected Federal Spend for primes.</b>		
Target	10.2 %	10.3 %	TBD
Result	Met - 12.02	TBD	TBD
Endpoint Target	Meet or exceed SBA's determined percentage of DOE projected Federal spend for prime SB contracts (inclusive of first-tier M&O subcontracts).		
Comment	DOE OSDBU does not unilaterally set the agency's goals; DOE goals are determined by DOE OSDBU collaborating with its internal program elements and externally with the Small Business Administration. SB-utilization goals for a given fiscal year are typically available by the end of November of that fiscal year. SB-utilization results for a given fiscal year are expected to be shared with DOE by the Small Business Administration in the March timeframe of the following fiscal year.		

Performance Goal (Measure)	<b>Subcontracting awards - Advocate for small business subcontracting and track the subcontracting awards with the goal of ensuring DOE meets or exceeds the Small Business Administration's (SBA) determined percentage of DOE projected Federal Spend for subcontracting.</b>		
Target	40 %	TBD	TBD
Result	Met - 43.3	TBD	TBD
Endpoint Target	Meet or exceed SBA's determined percentage of DOE projected Federal spend for prime SB subcontracts (not including first-tier M&O subcontracts).		
Comment	DOE OSDBU does not unilaterally set the agency's goals; DOE goals are determined by DOE OSDBU collaborating with its internal program elements and externally with the Small Business Administration. SB-utilization goals for a given fiscal year are typically available by the end of November of that fiscal year. SB-utilization results for a given fiscal year are expected to be shared with DOE by the Small Business Administration in the March timeframe of the following fiscal year.		



## **Economic Impact and Diversity Program Direction**

### **Overview**

The Office of Economic Impact and Diversity (ED) advises the Secretary on the impact of energy policies, regulations, and DOE programs on minority communities, minority institutions, and specific segments of the U.S. population. ED is tasked with facilitating involvement of minority serving institutions, minority businesses, and other organizations in all aspects of the energy sector, and monitoring and strengthening DOE programs and policies by implementing a wide range of initiatives that address underrepresented populations in the Department's activities, and the energy workforce.

ED ensures DOE compliance with Titles VI & VII of the Civil Rights Act of 1964 and Title IX of the Education Amendments Act of 1972. ED is also responsible to the Secretary for planning and executing a strategy that promotes a diverse DOE workforce and an inclusive work environment. ED is responsible for planning and leading a national initiative supporting minority and tribal participation in the energy sector, including business opportunities; science, technology, engineering, and mathematics (STEM) engagement; energy economic development; and minority serving institution programs. The Office of Minority Economic Impact links academia, industry, government, and nonprofits to address future challenges related to the energy workforce.

### **Highlights of the FY 2019 Budget Request**

There are no major programmatic changes for the Office of Economic Impact and Diversity in FY 2019.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Economic Impact and Diversity</b>				
Salaries and Benefits	5,860	-	5,860	0
Travel	120	-	123	3
Support Services	2,165	-	2,155	-10
Other Related Expenses	2,024	-	1,867	-157
<b>Total, Program Direction</b>	<b>10,169</b>	<b>10,100</b>	<b>10,005</b>	<b>-164</b>
<b>Federal FTEs</b>	<b>37</b>	<b>37</b>	<b>37</b>	<b>0</b>
<b>Support Services</b>				
<b>Management Support</b>				
Minority Economic Impact (OMEI)	1,009	-	1,009	0
Minority Business & Economic Development (MBED)	300	-	300	0
Office of Civil Rights & Equal Opportunity (OCR)	596	-	620	24
Diversity & Inclusion (D&I)	100	-	100	0
<b>Other Support Services</b>	160	-	126	-34
<b>Total Support Services</b>	<b>2,165</b>	<b>-</b>	<b>2,155</b>	<b>-10</b>
<b>Other Related Expenses</b>				
Training	95	-	80	-15
DOECOE	379	-	554	175
Working Capital Fund	1,550	-	1,233	-317
<b>Total, Other Related Expenses</b>	<b>2,024</b>	<b>-</b>	<b>1,867</b>	<b>-157</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$10,169,000</b>	<b>\$10,005,000</b>	<b>\$0</b>
<b>Salaries and Benefits \$5,860,000</b>	<b>\$5,860,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>Provides funding for 37 FTEs who directly support the ED mission.</li> </ul>	<ul style="list-style-type: none"> <li>Request assumes no change in FTE supporting the ED mission.</li> </ul>	<ul style="list-style-type: none"> <li>No increase.</li> </ul>
<b>Travel \$120,000</b>	<b>\$123,000</b>	<b>+\$3,000</b>
<ul style="list-style-type: none"> <li>Request reflects the mission requirements for outreach as well as regulatory activities of the Office of Civil Rights and the Equal Employment Opportunity function of the Office.</li> </ul>	<ul style="list-style-type: none"> <li>Mission outreach and regulatory activities undertaken with increased coordination with Agency programmatic activities.</li> </ul>	<ul style="list-style-type: none"> <li>Coordination of activities with local programs and agencies.</li> </ul>
<b>Support Services \$2,165,000</b>	<b>\$2,155,000</b>	<b>-\$10,000</b>
(\$1,009,000) <i>Minority Economic Impact (OMEI) (includes MIE)</i>	(\$1,009,000)	\$0
<ul style="list-style-type: none"> <li>Funding supports the following activities:               <ul style="list-style-type: none"> <li>MSI Grant Program that provides financial assistance to minority educational institutions and 501(3)(c) entities engaging in STEM-related programs and activities.</li> <li>Outreach to pre-college programs, primarily in minority communities, that promote energy literacy, academic excellence, and interest in STEM disciplines relevant to energy.</li> <li>Socioeconomic research and analysis that includes addressing environmental and energy-related concerns in underserved communities.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Continuation of FY 2017 activities</li> </ul>	<ul style="list-style-type: none"> <li>No increase.</li> </ul>
(\$300,000) <i>Minority Business &amp; Economic Development (MBED)</i>	(\$300,000)	\$0
<ul style="list-style-type: none"> <li>Request supports development of technical assistance programs to encourage, promote, and assist minority business enterprises in establishing and expanding energy-related business opportunities in minority communities that can provide jobs to residents. ED will bring together communities and corporations to support minority participation in major energy</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of FY 2017 activities. ED will continue regional activities that support minority business participation and employment opportunities in major regional energy development projects.</li> </ul>	<ul style="list-style-type: none"> <li>No increase</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
development projects. Resource applications include support of ED's partnerships to plan and execute local and regional programs that prepare minority businesses to participate in energy sector work.		
(\$596,000) <i>Office of Civil Rights and Equal Opportunity (OCREO)</i> <ul style="list-style-type: none"> <li>Request supports developing and delivering Civil Rights training tailored to the DOE enterprise. Funds support conducting investigations of civil rights issues and contractual resources to assist with integration of Headquarters EEO site-based EEO functions, as outlined in Management Directive 715 and other EEOC directives.</li> </ul>	(\$620,000) <ul style="list-style-type: none"> <li>Continue to provide Civil Rights support to DOE staff, DOE employees seeking redress, and address statutory requirements under Title VI, Title VII, and Title IX. Continue to manage processing of EEO complaints. Trend shows increasing number of complaints to be addressed.</li> </ul>	+\$24,000 <ul style="list-style-type: none"> <li>Increase to address anticipated increase in complaints which will require additional resources.</li> </ul>
(\$100,000) <i>Diversity &amp; Inclusion (D&amp;I)</i> <ul style="list-style-type: none"> <li>Request reflects a shift in activities to EEO. The Diversity and Inclusion staff will continue to work closely with EEO staff to extend the EEO principles and practices from a model EEO program to a fully inclusive DOE work environment that supports high performance and high employee satisfaction, while positioning DOE to attract a diverse workforce necessary to accomplish the mission responsibilities.</li> </ul>	(\$100,000) <ul style="list-style-type: none"> <li>Continue to work closely with the EEO staff to extend the EEO principles and practices from a model EEO program to a fully inclusive DOE work environment that supports high performance and high employee satisfaction. The Request fully implements a multi-year action plan for achieving DOE and OPM diversity and inclusion objectives.</li> </ul>	\$0 <ul style="list-style-type: none"> <li>No increase.</li> </ul>
(\$160,000) <i>Other Support Services</i> <ul style="list-style-type: none"> <li>Funding for internal evaluation and performance reviews strategy formulation and data collection.</li> </ul>	(\$126,000) <ul style="list-style-type: none"> <li>Analytic phase requires fewer resources.</li> </ul>	-\$34,000 <ul style="list-style-type: none"> <li>Stable mission space allows for analytic phase.</li> </ul>
<b>Other Related Expenses \$2,024,000</b>		
(\$95,000) <i>Training</i> <ul style="list-style-type: none"> <li>Funding for existing FTE count.</li> </ul>	(\$80,000) <ul style="list-style-type: none"> <li>Anticipates fewer new hires, transfers. Includes funding for security investigations</li> </ul>	-\$15,000 <ul style="list-style-type: none"> <li>Overall decrease in resource demand.</li> </ul>
(\$379,000) <i>DOE-COE</i> <ul style="list-style-type: none"> <li>Energy IT Services request supports the office desktop and any departmental mobile capabilities.</li> </ul>	(\$554,000) <ul style="list-style-type: none"> <li>Outreach includes generation of agency-wide training with IT delivery.</li> </ul>	+\$175,000 <ul style="list-style-type: none"> <li>Increase spending on multi-media resources to deliver agency-wide training</li> </ul>
(\$1,550,000) <i>Working Capital Fund</i>	(\$1,233,000)	-\$317,000

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<ul style="list-style-type: none"> <li>Working Capital Fund request supports rent and overhead costs associated with the office.</li> </ul>	<ul style="list-style-type: none"> <li>Fewer new hires, transfers</li> </ul>	<ul style="list-style-type: none"> <li>Decrease in demand.</li> </ul>



## **General Counsel Program Direction**

### **Overview**

The Office of the General Counsel (GC) is responsible for providing legal services to all Department of Energy offices, and for determining the Department's authoritative position on any question of law with respect to all Department offices and programs, except for those belonging exclusively to the Federal Energy Regulatory Commission. GC's responsibilities include the provision of legal opinions, advice, and services to administrative and program offices, and participation in or management of both administrative and judicial litigation. GC is responsible for the coordination and clearance of proposed legislation affecting energy policy and Department activities. The General Counsel serves as the Department's Regulatory Policy Officer under Executive Order 12866, and is responsible for ensuring consistency and legal sufficiency of the Department's regulations. GC administers and monitors standards of conduct requirements, conducts patent program and intellectual property activities, and coordinates rulemaking actions of the Department with other federal agencies.

GC includes the Office of NEPA (National Environmental Policy Act) Policy and Compliance, which provides independent technical and policy reviews to ensure that proposed Department actions comply with the NEPA and related environmental requirements. This office also serves as the focal point of the Department's NEPA expertise, develops NEPA compliance strategies, coordinates with other agencies on key policy matters, and prepares guidance and provides technical assistance to improve the efficiency and effectiveness of DOE's implementation of the NEPA process. GC also includes the Office of Standard Contract management which manages the Standard Contracts for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste between the Department and the nuclear industry under the Nuclear Waste Policy Act. This office also manages the Department's Nuclear Waste Fund activities.

### **Highlights of the FY 2019 Budget Request**

There are no major programmatic changes proposed for General Counsel.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	22,739	-	22,110	-629
Travel	88	-	100	+12
Support Services	948	-	610	-338
Other Related Expenses	9,225	-	10,255	+1,030
<b>Total, Program Direction</b>	<b>33,000</b>	<b>32,776</b>	<b>33,075</b>	<b>+75</b>
<b>Federal FTEs</b>	<b>145</b>	<b>145</b>	<b>145</b>	<b>0</b>
<b>Support Services</b>				
Technical Support				
NEPA Contract Services	937	-	600	-337
Intellectual Property Contract Services	11	-	10	-1
<b>Total, Support Services</b>	<b>948</b>	<b>-</b>	<b>610</b>	<b>-338</b>
<b>Other Related Expenses</b>				
Information Technology	1,428	-	1,602	+174
Working Capital Fund	6,356	-	7,013	+657
Other Services	1,441	-	1,640	+199
<b>Total, Other Related Expenses</b>	<b>9,225</b>	<b>-</b>	<b>10,255</b>	<b>+1,030</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).



**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$33,000,000</b>	<b>\$33,075,000</b>	<b>+\$75,000</b>
<b>Salaries and Benefits \$22,739,000</b>	<b>\$22,110,000</b>	<b>-\$629,000</b>
<ul style="list-style-type: none"> <li>• Provides funding for 145 FTE to include salaries, benefits, overtime, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior year balances will be used to provide for difference between actual costs and FY 2017 Enacted and FY 2019 Request.</li> </ul>
<b>Travel \$88,000</b>	<b>\$100,000</b>	<b>+\$12,000</b>
<ul style="list-style-type: none"> <li>• Provides funding for travel for hearings, depositions, court proceedings, site visits, conferences, and training.</li> </ul>	<ul style="list-style-type: none"> <li>• Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• Level of activity expected to increase in addition to inflationary increases.</li> </ul>
<b>Support Services \$948,000</b>	<b>\$610,000</b>	<b>-\$338,000</b>
<ul style="list-style-type: none"> <li>• <i>(\$937,000) NEPA</i> Provides contractor support for technical analysis of Environmental Impact Statements and other information required by the National Environmental Policy Act.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$600,000)</i> Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$-337,000)</i> Level of services required are expected to decrease.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>(\$11,000) Intellectual Property</i> Provides for outside patent law firms to process the Department's intellectual property actions.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$10,000)</i> Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$-1,000)</i> Level services required are expected to decrease.</li> </ul>
<b>Other Related Expenses \$9,225,000</b>	<b>\$10,255,000</b>	<b>+\$1,030,000</b>
<ul style="list-style-type: none"> <li>• <i>(\$1,428,000) Information Technology</i> Provides for all GC IT service including desktop workstations and support (DOE/COE), database systems hosting, FISMA reviews and reporting, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$1,602,000)</i> Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$+174,000)</i> Level of service expected to remain about the same. Cost of services received recently increased.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>(\$6,356,000) Working Capital Fund</i> Provides for rent, telecommunications, I-Manage, supplies, copiers, printing, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$7,013,000)</i> Continuation of 2017 activities.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$+657,000)</i> Increase due to GSA rent increase <i>(\$+394,000)</i> and increased cost of other services received.</li> </ul>
<ul style="list-style-type: none"> <li>• <i>(\$1,441,000) Other Services</i> Provides for Online Legal Services, Government Agencies – Intellectual Property, Law Library Materials, US Patent Office charges for DOE patents, training, E-Gov, office furniture, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$1,640,000)</i> Continuation of 2017 activities except that GC will begin providing funds for security investigations for GC personnel.</li> </ul>	<ul style="list-style-type: none"> <li>• <i>(\$+199,000)</i> Level of activity expected to remain the same except for addition of security investigations costs <i>(\$+75,000)</i>. Remainder of increase <i>(\$+124,000)</i> is due to anticipated Inflationary factors.</li> </ul>



**Office of Policy  
Program Direction**

**Overview**

The Office of Policy (OP) will serve as the principal policy office advising the Secretary of Energy. This DOE office will report to the Under Secretary of Energy and serve as a focal point for coordination within the Department on the formulation, analysis, and implementation of energy policy and related programmatic options and initiatives.

OP will carry out strategic studies and policy analysis, and maintain and coordinate a supporting set of analytical capabilities. OP will carry out assessments on the strength, resiliency, and anticipated challenges of national energy systems and identify and prioritize ways in which DOE programs may be strengthened to contribute to the economic well-being, environmental quality, and national energy security of the United States. Much of OP's work will be connected to expertise or information in the various program offices across the Department.

**Highlights of the FY 2019 Budget Request**

OP requests \$10,010K for FY 2019, which includes \$7,500K of unobligated funds from the former Office of Energy Policy and Systems Analysis (EPSA) and the Other Departmental Administration account. OP is the Department's lead office for domestic energy policy. In FY 2019, OP will support the Administration's policy goals, including promoting energy security and spurring innovation. OP will serve as the Departmental focal point for policy analysis, analytic support, and advice relating to energy supply and demand and energy markets. It will assist in developing long-term strategies to ensure energy security and to prepare for and respond to energy supply disruptions. OP will also analyze complex interactions within the energy system, which requires integrating overlapping policies, including those related to all aspects of energy supply and demand, such as the electric grid and natural gas delivery infrastructure. In FY 2019, developing policies to accelerate investment and deployment of energy security technologies that make use of innovative financing incentives will also be a priority.

**Program Direction**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR<sup>1</sup></b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	-	-	6,100	+6,100
Travel	-	-	75	+75
Support Services	-	-	500	+500
Other Related Expenses	-	-	3,335	+3,335
<b>Subtotal, Program Direction</b>	-	-	<b>10,010</b>	<b>+10,010</b>
<b>Prior Year Balance Use<sup>2</sup></b>	-	-	<b>-7,500</b>	<b>-7,500</b>
<b>Total, Program Direction</b>	-	-	<b>2,510</b>	<b>+2,510</b>
<b>Federal FTEs</b>	-	-	<b>40</b>	<b>+40</b>
 <b>Support Services</b>				
Other Support Services	-	-	500	+500
<b>Total, Support Services</b>	-	-	<b>500</b>	<b>500</b>
 <b>Other Related Expenses</b>				
Working Capital Fund	-	-	2,400	+2,400
Training	-	-	25	+25
Energy IT Service	-	-	900	+900
Security Investigations	-	-	10	+10
<b>Total, Other Related Expenses</b>	-	-	<b>3,335</b>	<b>+3,335</b>

<sup>1</sup>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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

<sup>2</sup>The OP FY 2019 Budget Request is comprised of \$2,510K in new Budget Authority, as well as \$7,500K in prior year balance use from the former Office of Energy Policy and Systems Analysis (EPSA) and the Other Departmental Administration account.

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$-</b>	<b>\$10,010,000</b>	<b>+\$10,010,000</b>
<b>Salaries and Benefits \$-</b>	<b>\$6,100,000</b>	<b>+\$6,100,000</b>
	<ul style="list-style-type: none"> <li>Funding for salaries and benefits for the 40 FTEs needed to establish the Office of Policy.</li> </ul>	<ul style="list-style-type: none"> <li>Funding for salaries and benefits for the 40 FTEs needed to establish the Office of Policy.</li> </ul>
<b>Travel \$-</b>	<b>\$75,000</b>	<b>+\$75,000</b>
	<ul style="list-style-type: none"> <li>Travel to support 40 FTEs.</li> </ul>	<ul style="list-style-type: none"> <li>Travel to support 40 FTEs.</li> </ul>
<b>Support Services \$-</b>	<b>\$500,000</b>	<b>+\$500,000</b>
	<ul style="list-style-type: none"> <li>Support services needed for FY 2019 analytical requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Support services needed for FY 2019 analytical requirements.</li> </ul>
<b>Other Related Expenses \$-</b>	<b>\$3,335,000</b>	<b>+\$3,335,000</b>
	<ul style="list-style-type: none"> <li>Funding needed to provide IT and other services for 40 FTEs</li> </ul>	<ul style="list-style-type: none"> <li>Funding needed to provide IT and other services for 40 FTEs</li> </ul>



## International Affairs Program Direction

### Overview

The Department of Energy's (DOE) Office of International Affairs (IA) has primary responsibility for international energy issues that have a direct impact on research, development, utilization, supply, and conservation of energy in the United States and to perform activities involving the integration of domestic and foreign policy relating to energy, including provision of independent technical and policy advice for the Administration on international negotiations involving energy resources, energy technologies, or nuclear weapons issues.

In furtherance of DOE's role as the lead agency for energy policy, IA develops, coordinates, and implements DOE's international engagement strategy and objectives, and develops policy and programs with the advice and counsel of the Administration and relevant DOE leadership in order to strategically implement the United States' international energy policy.

IA represents the Department in interagency processes, and leads the United States Government energy efforts in intergovernmental multilateral and bilateral energy forums, where energy agencies and their ministers meet. IA serves as DOE's lead on bilateral and multilateral energy engagement, including on matters relating to energy and science-related research and development, investment, market and trade activities, and energy security initiatives. IA also takes the lead on informing, coordinating and amplifying public and private sector efforts to promote energy technology and resource, market and investment opportunities for U.S. energy and related sectors with its global energy partners.

IA pursues its mission by applying the Department's vast knowledge of energy technologies and markets to policies and programs that advance U.S. energy policy and energy security, scientific and energy collaboration, broader economic objectives, and national security. IA works to accelerate development and deployment of clean and advanced energy solutions of all kinds in support of U.S. global energy, economic, and environmental goals.

### International Affairs Activities

#### *International Energy Policy Coordination*

IA serves as DOE's primary representative on interagency Policy Coordinating Committees (PCCs) held by the National Security Council (NSC) and functions as the conduit for policy and technical expertise between DOE and other Agencies. To achieve its mission, IA collaborates with DOE Senior Leadership, program offices and national laboratories, coordinating across the Department to leverage DOE's technical, policy, and market expertise with international partners. IA maintains authoritative knowledge of international energy matters relating to the activities, issues, and policies, for the Administration, Congress and energy producers and consumers. IA coordinates the Government's international energy relationships with other countries' energy ministries, working in concert with the Department of State and other relevant agencies, where appropriate to advance innovative policy, build capacity, remove barriers, and foster markets to best achieve U.S. energy goals.

#### *Coordination of Foreign Engagements with National Laboratories*

IA also serves as the coordinating body for international engagement with DOE's 17 national laboratories. In this function, IA manages the DOE approval process for the national laboratories' international partnerships, which include, *inter alia*, Strategic Partnership Projects (SPP), under which the national laboratories conduct fee for service sponsored research for international customers on a 100% reimbursable basis, Cooperative Research and Development Agreements (CRADA), under which international private sector participants enter a financial and operating arrangement to utilize the laboratories' technologies, processes, research and development (R&D) capabilities, or technical expertise, Memoranda of Understanding (MOU), Agreements for Commercializing Technology (ACT), Technical Assistance (TA) Agreements, User Agreements, Technology Licensing Agreements, and Material Transfer Agreements.

IA coordinates DOE review of these agreements to ensure that such work is consistent with or complementary to the missions of DOE and the individual laboratories, does not impede the laboratory's ability to accomplish its DOE mission, and that the foreign engagements meet requirements of DOE policy 485.1 to (1) align consistently with the strategic interests

and foreign policies of the United States, (2) be legally sound and compliant with U.S. laws and regulations, and (3) address any counterintelligence considerations.

*Committee on Foreign Investment in the United States (CFIUS)*

IA serves as DOE's representative on the CFIUS board to review matters of foreign investment into the U.S. energy, science and technology sectors and their implications for U.S. energy and national security.

**Highlights of the FY 2019 Budget Request**

IA's FY 2019 Budget Request of \$24,545,000 is \$6,545,000 more than the FY 2017 Enacted due to the consolidation and transfer of Fossil Energy and Nuclear Energy international functions (EERE international functions were proposed to transfer in the FY 2018 Budget) to centralize DOE's international efforts, in an effort to streamline and improve DOE IA implementation. The funding level supports salaries and benefits for needed staff and program funds to catalyze international cooperation in support of U.S. priorities. IA funds will also be used to create market opportunities for U.S. energy and technology exports of all types globally. Also, IA will increase engagement with key international energy partners through important multilateral groups including the G7, G20, International Energy Agency, Clean Energy Ministerial, Mission Innovation, APEC, and the International Energy Forum.

In FY 2019, IA will build on its successful efforts in FY 2017 and FY 2018, which include support for reforming energy policy to foster investment in Mexico and Israel; adding a focus on nuclear energy and carbon capture utilization and storage to the Clean Energy Ministerial; creating programs to increase resilience against cyber-attacks in Ukraine; developing a handbook to encourage the development of markets for liquefied natural gas (LNG) in Africa; encouraging policies to diversify pipeline and LNG access in Europe; creating market opportunities for coal trade in India and Ukraine; and supporting the development of policy structures to increase use of solar energy and energy efficiency technologies in Saudi Arabia and UAE.



**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	10,454	-	14,218	+3,764
Travel	700	-	1,000	+300
Support Services	2,959	-	3,927	+968
Other Related Expenses	3,887	-	5,400	+1,513
<b>Total, Program Direction</b>	<b>18,000</b>	<b>17,878</b>	<b>24,545</b>	<b>+6,545</b>
<b>Federal FTEs<sup>2</sup></b>	<b>72</b>	<b>72</b>	<b>88</b>	<b>+16</b>
<b>Support Services</b>				
Energy Security and Clean Energy Technology		-		
	2,371		3,141	+770
Subscriptions/Publications Services	45	-	79	+34
Management Support Services	221	-	275	+54
Outreach Activities	322	-	432	+110
<b>Total, Support Services</b>	<b>2,959</b>	<b>-</b>	<b>3,927</b>	<b>+968</b>
<b>Other Related Expenses</b>				
Working Capital Fund	3,217	-	4,482	+1,265
		-		
Energy IT and Other Services	670		918	+248
<b>Total, Other Related Expenses</b>	<b>3,887</b>	<b>-</b>	<b>5,400</b>	<b>+1,513</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$18,000,000</b>	<b>\$24,545,000</b>	<b>+\$6,545,000</b>
<b>Salaries and Benefits \$10,454,000</b>	<b>\$14,218,000</b>	<b>+\$3,764,000</b>
<ul style="list-style-type: none"> <li>• The IA budget for salaries and benefits supports FTE required to execute the Office mission.</li> </ul>	<ul style="list-style-type: none"> <li>• The IA budget for salaries and benefits supports FTE required to execute the Office mission.</li> </ul>	<ul style="list-style-type: none"> <li>• Increase covers salaries and benefits for current and proposed transfer of staff from FE and NE to support expanded mission.</li> </ul>
<b>Travel \$700,000</b>	<b>\$1,000,000</b>	<b>+\$300,000</b>
<ul style="list-style-type: none"> <li>• Travel funding is used for international travel to meetings and events relevant to international energy policy, science and technology, and multilateral national security engagements.</li> </ul>	<ul style="list-style-type: none"> <li>• Travel to support international policy, science and technology, and multilateral national security engagements.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased travel funds needed to support anticipated transfer of FTE, activities, and expanded mission.</li> </ul>
<b>Support Services \$2,959,000</b>	<b>\$3,927,000</b>	<b>+\$968,000</b>
<ul style="list-style-type: none"> <li>• IA is the DOE lead representative in international efforts relating to energy security and clean energy. Promote U.S. company investment and trade throughout key international markets                             <ul style="list-style-type: none"> <li>• Support multilateral efforts to advance S&amp;T expertise to accelerate clean energy deployment, encourage greater efficiency, promote grid integration and resilience, and boost economic opportunities.</li> <li>• Subscriptions/Publications.</li> <li>• Management Support – Provide administrative support services and technical experts for critical and complex initiatives (clean energy, innovation, energy security analysis, and infrastructure resilience.)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Management, technical and administrative support services to assist IA programmatic activities to support multilateral efforts to advance S&amp;T expertise to accelerate clean energy deployment, encourage greater efficiency, promote grid integration and resilience, and boost economic opportunities.                             <ul style="list-style-type: none"> <li>• Subscriptions/Publications.</li> <li>• Management Support – Provide administrative support services and technical experts for critical and complex initiatives (clean energy, innovation, energy security analysis, and infrastructure resilience.)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Increased funds needed to support transferred international functions, provide initial investment to support the United States-Israel Strategic Partnership and create market opportunities for U.S. energy and technology exports of all types.</li> </ul>
<b>Other Related Expenses \$3,887,000</b>	<b>\$5,400,000</b>	<b>+\$1,513,000</b>
<ul style="list-style-type: none"> <li>• Funds support Working Capital Fund expenses (including overseas presence), IT Services, and staff training.</li> </ul>	<ul style="list-style-type: none"> <li>• Funds support Working Capital Fund expenses (including overseas presence), IT Services, and staff training.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased funds needed to support additional FTEs due to the transferred international functions.</li> </ul>

## **Public Affairs Program Direction**

### **Overview**

The mission of the Office of Public Affairs (PA) is to communicate information about DOE's work in a timely, accurate, and accessible way to the news media and the general public.

The Office of Public Affairs (PA) directly supports the DOE mission by developing and implementing strategies for communicating the Department's message, its policies, initiatives and information to the news media and the general public. PA is also responsible for managing and coordinating public affairs activities for DOE headquarters, field offices, and laboratories; serving as DOE's primary spokesperson in the news media; responding to requests for information from the public and the news media; arranging interviews with Department officials; providing speechwriting and media support services to the Secretary, Deputy Secretary and Under Secretaries; and preparing written press releases, fact sheets, electronic media and other products that communicate Departmental activities.

Through its Digital Strategy and Communications Office, PA continues to affect cost savings at the Department by consolidating website platforms, reducing duplication and improving accessibility of information. The Digital Strategy and Communications Office drives the Department's mission online via the Energy.gov website, social networking tools, blog outreach, citizen engagement tools, and other emerging online communication technologies. Digital Strategy and Communications is an innovative and growing part of the mission, as PA seeks to serve the public in more efficient and effective ways online. It is through the Digital Strategy Office that PA is making government more, collaborative and participatory.

### **Highlights of the FY 2019 Budget Request**

The \$6,594,000 request is a \$3,163,000 increase from FY 2017 Enacted as it includes the transfer of communication functions and personnel from Energy Efficiency and Renewable Energy (EERE) Communications to the Office of Public Affairs to further reduce duplication and increase efficiency.

**Program Direction  
Funding (\$K)**

	FY 2017 Enacted	FY 2018 Annualized CR*	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
<b>Washington Headquarters</b>				
Salaries and Benefits	2,339	-	3,415	+1076
Travel	150	-	190	+40
Support Services	90	-	1,340	+1,250
Other Related Expenses	852	-	1,649	+797
<b>Subtotal, Program Direction</b>	<b>3,431</b>	<b>3,408</b>	<b>6,594</b>	<b>3,163</b>
<b>Recession of Prior Year Balances</b>	<b>-26</b>	<b>-</b>	<b>-</b>	<b>+26</b>
<b>Total, Program Direction</b>	<b>3,405</b>	<b>3,408</b>	<b>6,594</b>	<b>3,189</b>
<b>Federal FTEs</b>	24	24	30	6
<b>Support Services</b>				
Digital Communication and website support	90	-	1,340	+1,250
<b>Total, Support Services</b>	<b>90</b>	<b>-</b>	<b>1,340</b>	<b>+1,250</b>
<b>Other Related Expenses</b>				
Energy IT Services	58	-	113	+55
Working Capital Fund	794	-	1,536	+742
<b>Total, Other Related Expenses</b>	<b>852</b>	<b>-</b>	<b>1,649</b>	<b>+797</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Salaries and Benefits \$2,339,000</b>	<b>\$3,415,000</b>	<b>+\$1,076,000</b>
<ul style="list-style-type: none"> <li>Provides funding for 24 full time employees (FTE). This includes the Department's team of media spokespersons, a New Media team managing an innovative and cost-saving effort to help upgrade DOE's digital communications and website efforts, the speechwriting team that supports the Secretary and other senior officials, and the administrative staff required to support DOE's public affairs mission.</li> </ul>	<ul style="list-style-type: none"> <li>Provide funding for 30 FTE. This includes DOE's team of media spokespersons, a New Media team managing digital communications and website efforts, the speechwriting team that supports the Secretary and other senior officials and program offices, and the administrative staff required to support DOE's mission.</li> </ul>	<ul style="list-style-type: none"> <li>Increase due to transfer of EERE FTEs and consolidation of Communications Functions as well as anticipated pay increases and cost of living adjustments.</li> </ul>
<b>Travel \$150,000</b>	<b>\$190,000</b>	<b>+\$40,000</b>
<ul style="list-style-type: none"> <li>Travel expenses support the office's ability to provide appropriate staffing and support when the Secretary and Deputy Secretary travel.</li> </ul>	<ul style="list-style-type: none"> <li>Travel expenses support the office's ability to provide appropriate staffing to the Secretary and Deputy Secretary; Staff travel for video production and presentations at conferences to enhance the DOE mission; enhanced video projects across complex; and other media projects.</li> </ul>	<ul style="list-style-type: none"> <li>The increase accounts for additional FTEs and greater forecasted travel schedule to support more personnel and increased mission scope.</li> </ul>
<b>Support Services \$90,000</b>	<b>\$1,340,000</b>	<b>+\$1,250,000</b>
<ul style="list-style-type: none"> <li>Support Services includes the contractors utilized to lead a cost-saving effort to help upgrade the Department's digital communications and website efforts, reducing costly duplications while improving transparency and customer service to the public.</li> </ul>	<ul style="list-style-type: none"> <li>Support services include continued contractor support to upgrade and maintain the Department's digital communications and website efforts. Additional funding will be needed to initiate contract modification to bring on additional digital media and video support staff to accomplish increased mission scope.</li> </ul>	<ul style="list-style-type: none"> <li>The increase accounts for additional personnel and missions transfer from EERE program office to Office of Public Affairs.</li> </ul>
<b>Other Related Expenses \$852,000</b>	<b>\$1,649,000</b>	<b>+\$797,000</b>
<ul style="list-style-type: none"> <li>Funding to support Working Capital Fund (WCF) and Energy IT Services costs. WCF contribution provides for shared service cost and Departmental overhead expenses.</li> </ul>	<ul style="list-style-type: none"> <li>Funding of Working Capital Fund and Energy IT services for 30 FTEs</li> </ul>	<ul style="list-style-type: none"> <li>The increase is due to the consolidation of communications functions and related costs for additional FTEs</li> </ul>



## **Project Management Oversight and Assessments Program Direction**

### **Overview**

The Office of Project Management (PM) provides the Department of Energy (DOE) leadership and assistance in developing and implementing DOE-wide policies, procedures, programs, and management systems pertaining to project management, and manages the Department's project management career development program for DOE's Federal Project Directors. It also assumes responsibility for standup of Department-wide cost estimating and program evaluation. PM is directly accountable to and supports the Deputy Secretary as the Executive Secretariat of the Department's Energy Systems Acquisition Advisory Board (ESAAB), the Project Management Risk Committee (PMRC), and Cost Estimating and Program Evaluation (CEPE). The Deputy Secretary chairs the ESAAB.

In FY 2019, PM will accomplish its mission through its program office functions:

- Energy Systems Acquisition Advisory Board (ESAAB). The PM Director serves as Executive Secretariat (and member) of the ESAAB and the Project Management Risk Committee (PMRC) for the Deputy Secretary. The Board reviews all capital asset projects with a Total Project Cost (TPC) of \$100,000,000 or greater, focusing on those projects at risk of not meeting their performance baselines, and making critical decisions for capital asset projects with a TPC of \$750,000,000 or greater. The ESAAB is a standing board, meeting at least once a quarter. The ESAAB is supported by the PMRC, which will meet at least monthly.
- Project Management Policy and Systems. Provide DOE policy, guidance and oversight for project management. Provide monthly project status report for senior leaders with independent assessments of capital asset projects with a TPC greater than \$50,000,000, to drive improvements in project management outcomes. Maintain independent central repository, Project Assessment and Reporting System (PARS), of all relevant project data and performance metrics.
- Independent Cost Reviews/Estimates. Conduct independent cost reviews (ICRs) or prepare statutorily-required independent cost estimates (ICEs) at critical decisions and upon re-baselining as required by DOE Order 413.3B for capital asset projects with a TPC of \$100,000,000 or greater. All costs associated with the conduct of ICRs/ICEs, are funded by the Program Office/Project requiring it.
- Project Oversight. Conduct External Independent Reviews (EIRs) to validate the project performance baselines (scope, cost, and schedule) of all capital asset projects with a TPC of \$100,000,000 or greater, and ensure they are ready to be brought forward to the appropriate Project Management Executive (PME) for authorization to proceed.
- Earned Value Management System (EVMS) Certification. Conduct initial certification and periodic surveillance reviews to ensure contractor's EVMS for capital asset projects comply with industry standards. All costs associated with the conduct of Reviews for Cause (RFC) and recertification of a contractor's system that had its certification withdrawn, to include PM federal staff travel, will be funded by the Program Office/Project requiring the RFC or recertification reviews.
- Professional Development. Manage the Department's Project Management Career Development Program (PMCDP) to include the professional development, training and certification of Federal Project Directors (FPDs). PM Director serves as the co-chair and as Executive Secretariat for the FPD Certification Review Board.
- Cost Estimating and Program Evaluation (CEPE). Provide independent analyses on all aspects of DOE programs, including cost-effectiveness, and the development and evaluation of program alternatives. Develop DOE-wide program management and cost estimating policy and practices, future resourcing plan, develop and make available historic cost estimates, and perform independent cost estimation for the Department.

**Highlights of the FY 2019 Budget Request**

The Department requests \$15,005,000 in FY 2019 for PM. This Office is accountable to and serves the Deputy Secretary as the Executive Secretariat for the Department's Energy Systems Acquisition Advisory Board (ESAAB), the Project Management Risk Committee (PMRC), and Cost Estimating and Program Evaluation (CEPE). PM also executes other critical Department-wide functions to include preparing statutorily-required independent cost estimates, performing external independent reviews to validate performance baselines, conducting earned value management system certification and surveillance reviews, providing project management policy, guidance and oversight of all capital asset projects, and overseeing the Project Management Career Development Program (PMCDP).



**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction</b>				
Salaries and Benefits	6,004	-	5,680	-324
Travel	274	-	274	0
Support Services	4,789	-	7,587	+2,798
Other Related Expenses	1,306	-	1,464	+158
<b>Total, Program Direction</b>	<b>12,373</b>	<b>12,289</b>	<b>15,005</b>	<b>+2,632</b>
<b>Federal FTEs</b>	<b>34</b>	<b>30</b>	<b>30</b>	<b>-4</b>
<b>Support Services</b>				
External Independent Reviews (EIRs)	2,203	-	2,203	0
Earned Value Management System (EVMS) Certification	429	-	1,227	+798
Project Assessment and Reporting System (PARS)	2,000	-	2,000	0
Cost Estimating and Program Evaluation (CEPE)	0	-	2,000	+2,000
Other Support Services	157	-	157	0
<b>Total, Support Services</b>	<b>4,789</b>	<b>-</b>	<b>7,587</b>	<b>+2,798</b>
<b>Other Related Expenses</b>				
Training	20	-	40	+20
Energy IT Services	430	-	480	+50
Working Capital Fund (WCF)	856	-	944	+88
<b>Total, Other Related Expenses</b>	<b>1,306</b>	<b>-</b>	<b>1,464</b>	<b>+158</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

<b>Activities and Explanation of Changes</b>		
<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>Explanation of Changes FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction \$12,373,000</b>	<b>\$15,005,000</b>	<b>+\$2,632,000</b>
<b>Salaries and Benefits \$6,004,000</b>	<b>\$5,680,000</b>	<b>-\$324,000</b>
<ul style="list-style-type: none"> <li>Funding in support of 34 FTEs. Funding provides for salaries/benefits, overtime, lump sum leave, and performance awards.</li> </ul>	<ul style="list-style-type: none"> <li>Funding in support of 30 FTEs. Continuation of FY17 activities.</li> </ul>	<ul style="list-style-type: none"> <li>Anticipate reduction of FTE by 4 positions.</li> </ul>
<b>Travel \$274,000</b>	<b>\$274,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>Funding in support of PM staff travel. Travel is necessary to support review activities (excluding Baseline Change Proposals (BCPs), Reviews for Cause (RFC), and Earned Value Management System (EVMS) recertification reviews) of program/project activities in the field.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of FY17 activities.</li> </ul>	<ul style="list-style-type: none"> <li>No Change.</li> </ul>
<b>Support Services \$4,789,000</b>	<b>\$7,587,000</b>	<b>+\$2,798,000</b>
<ul style="list-style-type: none"> <li>Funding in support of contractual requirements, including External Independent Reviews (EIRs), Earned Value Management System (EVMS) certification and surveillance reviews, Project Assessment and Reporting System (PARS), Cost Estimating, and other support services.</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of FY17 activities along with the establishment of CEPE function.</li> </ul>	<ul style="list-style-type: none"> <li>Increased funding to cover nearly 50% of required EVMS certification and surveillance reviews and CEPE function.</li> </ul>
<b>Other Related Expenses \$1,306,000</b>	<b>\$1,464,000</b>	<b>+\$158,000</b>
<ul style="list-style-type: none"> <li>Other related expenses to cover Energy IT Services (EITS), Working Capital Fund (WCF) and other services.</li> </ul>	<ul style="list-style-type: none"> <li>Funding in support of 30 FTEs. Continuation of FY17 activities.</li> </ul>	<ul style="list-style-type: none"> <li>Increase in EITS and WCF services.</li> </ul>

**Support Services Descriptions and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p><b>External Independent Reviews (EIRs) \$2,203,000</b></p> <ul style="list-style-type: none"> <li>Finances EIRs, to assure projects can be executed at the proposed performance baseline (scope, cost, and schedule). EIRs are conducted for projects greater than \$100,000,000 for major programs and greater than \$50,000,000 for other programs without a Project Management Support Office. Focused attention will be on the largest, most complex projects. These reviews will be commensurate with project cost and complexity.</li> </ul>	<p><b>\$2,203,000</b></p> <ul style="list-style-type: none"> <li>Continuation of FY17 activities.</li> </ul>	<p><b>\$0</b></p> <ul style="list-style-type: none"> <li>No Change.</li> </ul>
<p><b>Earned Value Management System (EVMS) Certification \$429,000</b></p> <ul style="list-style-type: none"> <li>Finances EVMS certification and surveillance reviews to ensure contractors' EVMS complies with industry standards. EVMS helps ensure that projects are completed within scope, cost, and schedule against a baseline. EVMS enables trend analysis, risk assessment and evaluation of estimated cost at completion. It can provide a sound basis for problem identification, corrective actions, and management re-planning.</li> </ul>	<p><b>\$1,227,000</b></p> <ul style="list-style-type: none"> <li>Continuation of FY17 activities.</li> </ul>	<p><b>\$798,000</b></p> <ul style="list-style-type: none"> <li>Supports reviews.</li> </ul>

**Support Services Descriptions and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<p><b>Project Assessment and Reporting System (PARS) \$2,000,000</b></p> <ul style="list-style-type: none"> <li>• PARS is the Department’s central repository for project documentation and performance reporting. Project data is uploaded monthly into PARS including EVMS data provided directly from contractor’s cost and schedule systems. PARS and EVMS are inextricably linked. It provides project status and assessment information for senior management and other stakeholders. Provides operations and maintenance for the existing system, which is critical to enable appropriate project execution oversight, accurate monthly project assessments, and recommendations for senior management decision-making.</li> </ul>	<p><b>\$2,000,000</b></p> <ul style="list-style-type: none"> <li>• Continuation of FY17 activities.</li> </ul>	<p><b>\$0</b></p> <ul style="list-style-type: none"> <li>• No Change.</li> </ul>
<p><b>Cost Estimating and Program Evaluation (CEPE) \$0</b></p> <ul style="list-style-type: none"> <li>• Office not established in FY 17.</li> </ul>	<p><b>\$2,000,000</b></p> <ul style="list-style-type: none"> <li>• Provide independent analyses on all aspects of DOE programs, including cost-effectiveness, and the development and evaluation of program alternatives. Develop DOE-wide program management and cost estimating policy and practices, future resourcing plan, and perform independent cost estimation for the Department.</li> </ul>	<p><b>+\$2,000,000</b></p> <ul style="list-style-type: none"> <li>• Establishment of DOE-CEPE office.</li> </ul>
<p><b>Other Support Services \$157,000</b></p> <ul style="list-style-type: none"> <li>• Other related expenses to cover training, workshops, security investigations, and other services.</li> </ul>	<p><b>\$157,000</b></p> <ul style="list-style-type: none"> <li>• Continuation of FY17 activities.</li> </ul>	<p><b>\$0</b></p> <ul style="list-style-type: none"> <li>• No Change.</li> </ul>

**Project Management  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Project Management Success – Complete 90% of the construction projects at the original scope and within 10% of the cost baseline established at Critical Decision (CD)-2, approved performance baseline.</b>		
Target	90%	90%	90%
Result	Not Met – 88%	TBD	TBD
Endpoint Target	On a three-year rolling basis, complete at least 90% of departmental construction projects within the original scope baseline and not to exceed 110% of the cost as reflected in the performance baseline established at Critical Decision 2.		



**Office of Technology Transitions  
Program Direction**

**Overview**

The Office of Technology Transitions (OTT) seeks to expand the commercial impact of the Department of Energy's (DOE) innovation portfolio, thereby strengthening the security and economic prosperity of the Nation. To achieve high-impact outcomes, OTT coordinates technology transitions activities across DOE Programs, including NNSA, field offices and the National Laboratories, as well as with other federal agencies. Coordination reduces redundancies and improves likelihood and speed of outcomes toward technology transfer and development of DOE's research outputs.

OTT priorities are to strengthen the National Laboratories' capabilities and the researchers' competencies in engaging with industry and other partners, to reduce barriers to industry engagement with the National Laboratories, and to enhance the transfer of technologies from the laboratories to the private sector for commercialization.

**Highlights of the FY 2019 Budget Request**

The Department requests \$8,505,000 for the OTT in FY 2019. OTT operated under its first enacted budget in FY 2017, at \$6,906K. For FY 2019, this level of funding is consistent with the OTT's operational requirements, to fully establish the OTT as an integral function within DOE and to operate the Technology-to-Market functions transferred and centralized from other offices. The resources requested for FY 2019 are required to maintain adequate staffing to fulfill Congressional and Administration direction to increase Departmental engagement for the transition of new and evolving energy technology to the U.S. markets.

***Technology Transitions Activities***

*Technology Transfer*

To achieve its priorities, in FY 2019, OTT will continue streamlining central policies and procedures, easing and enabling private sector access to the capabilities and resources of the DOE National Laboratory enterprise, and expanding connections with a wide network of capital providers, entrepreneurs, and other stakeholders. OTT will assess, document, and disseminate best practices, and update the annual *Technology Transfer Execution Plan* first submitted to Congress in FY 2017.

OTT is streamlining industry-lab connections and access with a broad strategy of live interaction and tool development to increase, improve and integrate digital information flow for stakeholders, such as investors, entrepreneurs and industrial partners who develop and commercialize technologies. Through the Energy Investor Center (EIC), OTT is working to expand the DOE's network of capital providers beyond traditional investors (e.g. corporates, venture capital, private equity) to include non-traditional entities, such as foundations and family offices. By working with a diverse group of capital providers with various investment time horizons and innovators from the private sector and the National Laboratories, OTT is well positioned to identify effective ways to address gaps and to speed access to the National Laboratory capabilities, expertise, technologies and facilities. This knowledge is further incorporated in the Lab Partnering Service (LPS), a platform being developed by the EIC to streamline the ability to locate laboratory capabilities, intellectual property, and expertise, within which, for FY 2019, OTT will be growing the number of technology sectors and experts represented.

The LPS is being developed to streamline access to unique capabilities that are often difficult for investors, innovators and others to find because the capabilities are distributed across the National Laboratory enterprise and presented primarily for the scientific community. LPS is a searchable online platform to help identify specialized capabilities at the National Laboratories. In FY 2019, OTT will expand the number of laboratories represented in LPS, as well as the number of experts identified and technologies represented. In FY 2019, OTT will continue user testing and an impact evaluation of the LPS started in FY 2018, and continue integrating it with other tools that deliver additional value and information to stakeholders, further streamlining pathways for collaboration and other technology transfer activities with, and at, the National Laboratories.

Technology transitions capabilities across DOE will be strengthened by the outcomes of assessments initiated by OTT on various aspects related to partnering with and transferring technologies from the National Laboratories to the private

**Departmental Administration/**

sector. These assessments will inform and be followed by development of best practices, guidance, and policies to reduce barriers, streamline and improve predictability and consistency of technology transfer arrangements for industry, as well as for DOE and laboratory staff.

Using National Laboratory and Facility data gathered, verified and validated annually by OTT for statutory annual reporting, OTT conducts analyses that inform goals, objectives, best practices, policies and effective metrics for the National Laboratories, other partners and the Department. OTT further uses the data to supplement Department-wide reports and to inform impact studies and other activities across the enterprise.

Stakeholder engagement is assisted by a clear understanding of the capabilities and possibilities available at the National Laboratories. To supplement information on and streamlined access to the National Laboratories, OTT regularly develops the information and tools necessary to showcase the DOE innovation story threaded across the entire complex and update existing information and tools with new innovations. This will help bring to life the impacts that the National Laboratories have had on companies, industries, the nation and the world, further underscoring the future potential with streamlined access and strengthened technology transitions capabilities.

#### *Technology Commercialization Fund (TCF)*

In FY 2019, OTT will continue to implement the statutory Technology Commercialization Fund (TCF), which attracts matching funds from private partners to further develop promising National Laboratories' energy technologies with the potential for high impact commercialization. The fund is derived from using 0.9 percent of the amount available to the Department's applied energy research, development, demonstration, and commercial application budget for each fiscal year. These funds are from the Office of Electricity, Office of Energy Efficiency and Renewable Energy, Office of Fossil Energy, Office of Nuclear Energy, ARPA-e, and CESER. In FY 2017, the fund awarded \$19.7 million.

The TCF focuses on commercializing promising energy technologies from the National Laboratories in order to (1) increase the commercial impact and the number of National Laboratory-developed energy technologies transitioned into commercial development; and (2) enhance the outcomes of the Department's technology transitions system with a competitive and proactive approach to lab-industry partnerships.

The TCF assists in overcoming hurdles where there is not yet sufficient maturity in a technology for a private sector company to provide all the investment needed to move the technology toward the market. This shared risk approach requires the TCF funds be matched by private sector capital. The TCF will increase the number of National Laboratory technologies transitioned into private sector development and commercialization and increase taxpayer return on investment in National Laboratory research.

OTT will also continue evaluating the Technology Commercialization Fund (TCF), focusing on outcomes of the TCF awards over several years. This TCF Evaluation is one of several evaluations that OTT will continue to conduct to determine the effectiveness and efficiency of DOE technology transfer programs and mechanisms. These evaluations will inform improvements for or discontinuation of the relevant activity.

#### *Technology-to-Market (T2M)*

The Technology-to-Market activities function across the entire ecosystem, including technology developers, startups, small- and medium-sized enterprises, sources of capital, and other key stakeholders, providing them with tools, resources, and expertise to address barriers to commercializing promising technologies or otherwise develop new commercialization pathways.

OTT's mission spans the spectrum of the DOE enterprise. In 2019, OTT will focus the efforts initiated by the EERE Technology-to-Market (T2M) Program for continuation across, and coordination with, all Programs of the Department. Continued implementation of T2M activities will be led by OTT for a broader range of technology areas. The focus will be on the activities that strengthen the capabilities of the National Laboratories, their researchers and their engagement with the private sector. Energy I-Corps is the primary T2M program that fosters a market-based commercialization mindset among DOE National Laboratory researchers. Since the program's inception (formerly EERE's Lab-Corps) in 2015, 80 teams from 10 national labs have worked with industry to discover the commercial impact of technologies they have developed at the

#### **Departmental Administration/**



National Laboratories. Because of the teams' participation in the program, these technologies have reached a point of commercial viability that has already attracted nearly \$10 million in follow-on funding.

OTT will work with the National Laboratories, researchers, DOE Programs and the private sector to bring together existing activities, such as the Lab Accelerator piloted as part of the Technology-to-Market Lab Bridge initiative, the Small Business Vouchers Pilot, Build4Scale focused on manufacturing, that can expand the capabilities of National Laboratory researchers to engage easily with the private sector and other third parties, and to mature and move technologies in collaboration with the private sector for commercialization, including use of prize competitions and challenges. OTT will seek to identify gaps that impede engagement with industry and develop activities that can assist in closing those gaps.

T2M activities strengthen the National energy innovation ecosystem with new, innovative, high-impact partnerships and programs across startups and small businesses, industry, universities, DOE National Laboratories, investors, and non-profit organizations. This will reduce technology commercialization barriers, improve private investment in the U.S. innovation ecosystem and lead to increased jobs and U.S. competitiveness. T2M catalyzes successful energy commercialization, entrepreneurship, technology transfer, and manufacturing competitiveness outcomes from DOE's portfolio of research and development.

#### *Coordinating and Streamlining Across DOE and Other Agencies*

OTT will assume a leadership role in coordinating commercialization policies and activities across the DOE. National policy priorities of the Administration relating to technology transfer and as enacted into law by Congress, are also implemented by OTT, often in coordination with other federal agencies. This provides an opportunity for additional insights that can be shared across the federal government, and for best practices and program designs that can be implemented at DOE. The NSF I-Corps program is an example of inter-agency sharing of best practices. DOE, working with NSF, has tailored the original program to the needs of the DOE National Laboratories with Energy I-Corps, described above.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR<sup>1</sup></b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	2,064	-	2,986	+922
Travel	97	-	150	+53
Support Services	4,227	-	4,650	+423
Other Related Expenses	518	-	719	+201
<b>Total, Program Direction</b>	<b>6,906</b>	<b>6,859</b>	<b>8,505</b>	<b>+1,599</b>
<b>Total FTEs<sup>2</sup></b>	<b>11</b>	<b>16</b>	<b>18</b>	<b>+7</b>
<b>Support Services</b>				
Technology Transition Activities	2,983	-	3,675	+692
Technology Commercialization Fund Execution	1,244	-	975	-269
<b>Total, Support Services</b>	<b>4,227</b>	<b>-</b>	<b>4,650</b>	<b>+423</b>
<b>Other Related Expenses</b>				
Working Capital Fund (WCF)	318	-	518	+200
Other	200	-	201	+1
<b>Total, Other Related Expenses</b>	<b>518</b>	<b>-</b>	<b>719</b>	<b>+201</b>

<sup>1</sup>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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

<sup>2</sup> FY 2018 includes a functional transfer of EERE's Technology to Market activities, including staff.

**Authorizations**

- Public Law 109–58, “Energy Policy Act of 2005,” Title V
- 15 U.S. Code § 3708(b & c) - Administrative arrangements – Corporation & Administrative authorization
- 15 U.S. Code § 3710(a) - Utilization of Federal technology
- 42 U.S. Code § 2121(a) - Authority of Commission
- 42 U.S. Code § 16391(e) - Establishes the Energy Technology Commercialization Fund
- 42 U.S. Code § 16391 - Improved technology transfer of energy technologies & Technology Transfer Coordinator

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$6,906,000</b>	<b>\$8,505,000</b>	<b>+\$1,599,000</b>
<ul style="list-style-type: none"> <li>• OTT was formally established in the FY 2017 Enacted Budget</li> </ul>	<ul style="list-style-type: none"> <li>• Funding will be used to operate OTT’s operational requirements and Congressional and Administration direction.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding will support industry engagement activities, the Energy Investor Center, Small Business Vouchers, public-private partnerships, and lab industry activities.</li> </ul>
<b>Salaries and Benefits \$2,064,000</b>	<b>\$2,986,000</b>	<b>+\$922,000</b>
	<ul style="list-style-type: none"> <li>• Funding will be used to support the FY 2019 staffing level of 18 FTEs, which includes the FY 18 transfer of 6 FTE from EERE’s Technology-to-Market office.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding will support the FY 2019 staffing level of 18 FTEs.</li> </ul>
<b>Travel \$97,000</b>	<b>\$150,000</b>	<b>+\$53,000</b>
	<ul style="list-style-type: none"> <li>• Funding supports travel requirements for the bi-annual Technology Transfer Working Group meetings for OTT engagement with the Labs, Energy Investor Center information gathering, presentations needed for outreach, and lab events.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding will support additional scope of EIC and T2M functions to achieve administration direction.</li> </ul>
<b>Support Services \$4,227,000</b>	<b>\$4,650,000</b>	<b>+\$423,000</b>
	<ul style="list-style-type: none"> <li>• Funding supports activities associated with the industry-laboratory technology transitions activities, including technology transfer, Lab Partnering Service (LPS) and related information system integration, initiating assessments, developing guidance and policies, implementing the Administration’s technology transfer priorities and best practices, executing the Technology Commercialization Fund (TCF), Technology-to-Market activities with a focus on strengthening National Laboratory capabilities, and other statutory requirements of data collection, verification, validation and reporting.</li> </ul>	<ul style="list-style-type: none"> <li>• Funding supports OTT technology transfer, Technology Commercialization Fund (TCF) execution, Technology-to-Market activities, and other statutory requirements.</li> </ul>
<b>Other Related Expenses \$518,000</b>	<b>\$719,000</b>	<b>+\$201,000</b>

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- Supports the business costs associated with the Department's Working Capital Fund (office space, phones, utilities, etc.); the Energy IT Services (IT equipment and support); specialized software licensing; E-Gov costs; security investigations; as well as staff development and training to maintain and enhance work related skills and capabilities.

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- Reflects the need for additional FTE's WCF, overhead, IT equipment, network/LAN access/usage cost, and maintenance/enhancement of staff knowledge, skills and abilities.

**Office of Technology Transitions  
Performance Measures**

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Lab Partnering Service - Increase identifiable, available experts in the Lab Partnering Service to enable technology transfer to and commercialization by the private sector of DOE Lab technologies and capabilities.</b>		
Target	N/A	N/A	150 experts
Result	N/A	N/A	TBD
Endpoint Target	Increasing identified, available experts is one aspect of enabling technology transfer and commercialization. On an ongoing basis, meet annual targets for increasing publicly-available information on lab capabilities and technologies to make these more readily accessible to industry and other third parties for commercialization.		



## Office of Indian Energy Program Direction

### Overview

The Office of Indian Energy Policy and Programs (IE) serves all Federally-recognized Indian tribes including Alaska Native villages, Village and Regional Corporations, as well as tribal and intertribal organizations and associations.

According to the U.S. Department of the Interior, there are “15 million acres of potential energy and mineral resources” on Indian lands, but “only 2.1 million acres are being tapped,” and an estimated 86% of Indian lands with energy or mineral potential is unrealized.<sup>1</sup> Numerous factors burden Indian tribes interested in developing their vast energy resources. Energy and infrastructure development in Indian Country is limited due to inadequate financial and human capital and a complicated legal and regulatory structure governing Indian lands. As a result, more than 175 Alaska Native villages rely almost exclusively on diesel fuel for electricity and oil for heat. In some communities, electricity costs exceed \$1.00/kilowatt-hour, more than eight times the national average<sup>2</sup>. Overall, an estimated 14.2 percent of tribal households lack access to electricity, and an even larger fraction does not have reliable electricity.<sup>3</sup>

In consultation with tribal and other stakeholders, IE achieves its mission by promoting Indian energy development, electrifying Indian Country, and helping to reduce the cost while increasing the reliability of Indian energy. IE achieves the mission by implementing policies, facilitating partnerships between tribes and private industry, and deploying technical assistance, education, and financial assistance.

Policy initiatives include coordination and collaboration with various sectors of private industry and government that are critical to investment, job creation, project development, and operation of energy systems throughout Indian Country, including the Indian Country Energy and Infrastructure Working Group (ICEIWG). ICEIWG advises the Secretary of Energy on behalf of Indian tribes and Alaska Natives regarding policy priorities. Policy analysts survey energy needs and energy resources on Indian lands, including available infrastructure support, and develop strategies for electrification and energy deployment and development. Policy initiatives also include coordination and collaboration through a Memorandum of Understanding with the Department of the Interior on issues including electrification and energy development in Indian Country.

Public-private partnerships encompass industry sectors including finance (lending/debt, institutional and venture capital investment, foundation and other sources of capital), fossil fuel and renewable energy sources, research and development/technology, and human capital building.

Technical assistance involves the use of subject matter experts to assist Indian tribes and Alaska Native villages in deploying energy projects and providing support for energy planning, project development, transmission interconnection, utility formation, and intertribal coordination to (1) improve energy systems and promote electrification on tribal lands, (2) contribute to domestic energy development and export, and (3) enhance national energy security and the resilience of remote, rural tribal communities.

Financial assistance via cooperative agreements and grant awards to Indian tribes support the deployment of energy generation and energy efficiency projects, reducing the cost of energy on Indian lands and building the essential governmental and business capacity within and between tribes to foster tribal energy development and electrification in Indian Country.

Program direction provides federal staff responsible for the management and execution of IE’s programs and activities, as well as the associated support contractors, rent, supplies, travel, and other related expenses. The staff is responsible for

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<sup>1</sup> Indian Energy Development: Hearing before the Comm. on Indian Affairs, United States Senate, 110th Cong. 42 (2008)

<sup>2</sup> Schwabe, P. (2016). *Solar Energy Prospecting in Remote Alaska: An Economic Analysis of Solar Photovoltaics in the Last Frontier State* (No. NREL/TP-6A20-65834; DOE/IE-0040). NREL (National Renewable Energy Laboratory (NREL), Golden, CO (United States). <https://energy.gov/sites/prod/files/2016/02/f29/Solar-Prospecting-AK-final.pdf>.

<sup>3</sup> U.S. Department of Energy, Energy Information Administration. (2000). *Energy Consumption and Renewable Energy Development Potential on Indian Lands*. <https://www.eia.gov/cneaf/solar.renewables/page/pubs.html>

### Departmental Administration/

providing overall guidance and direction for DOE program offices on tribal energy activities and initiatives necessary to achieve IE's program objectives, and provides day-to-day management of technical assistance, financial assistance, and education programs. Program direction also provides managerial support for the reporting, compliance, and other statutory responsibilities of IE.

The FY 2019 Budget anticipates 7 federal staff: 3 FTEs in Washington, D.C., 2 FTEs in Anchorage, Alaska, and 2 FTEs in Golden, Colorado. The Washington, D.C. staff includes executive leadership, operations, and policy analysis. The Anchorage, Alaska staff provides education and technical assistance for the nearly 230 Alaska Native villages, over 200 Alaska Native regional and village corporations, 13 Alaska Regional Corporations, and 13 regional associations and organizations to promote IE policies and initiatives. The Golden, Colorado staff provides management and oversight for approximately 90 existing financial assistance awards throughout the nation, while delivering technical assistance within the contiguous US for nearly 340 Indian tribes and dozens of tribal and intertribal organizations.

**Highlights and Major Changes in the FY 2019 Budget Request**

The FY 2019 Request retains Financial Assistance as the principal method of achieving electrification and energy development in Indian Country. It maintains federal staffing and provides Technical Assistance required to provide educational activities in support of the electrification and energy development missions, in addition to the Indian Country Energy and Infrastructure Working Group (ICEIWG). IE will continue to administer existing financial assistance awards.



**Office of Indian Energy  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Tribal Energy Program</b>				
Technical Assistance	1,041	-	930	-111
Financial Assistance	12,444	-	6,750	-5,694
<b>Total, Tribal Energy Program</b>	<b>13,485</b>	<b>-</b>	<b>7,680</b>	<b>-5,805</b>
<b>Program Direction</b>				
Salaries and Benefits	1,427	-	1,265	-162
Travel	175	-	80	-95
Support Services	699	-	725	+26
Other Related Expenses	214	-	255	+41
<b>Total, Program Direction</b>	<b>2,515</b>	<b>-</b>	<b>2,325</b>	<b>-190</b>
<b>Total, Office of Indian Energy</b>	<b>16,000</b>	<b>15,891</b>	<b>10,005</b>	<b>-5,995</b>
<b>Federal FTEs</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>-2</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).



## Office of Indian Energy Tribal Energy Program

### Overview

The Tribal Energy Program's financial and technical assistance is critical to advancing electrification and energy development and deployment on Indian lands, reducing energy costs, and assisting economic development in tribal communities where unemployment and poverty rates far exceed national averages. This assistance is intended to overcome barriers to deploying energy generation projects (used for heat and electric power), as well as energy efficiency projects that result in reduced or stabilized energy costs.

Technical Assistance overcomes barriers to project development and builds knowledge and skills necessary to implement energy projects on tribal land. It is available in the following areas: energy efficiency, energy development, electrification, resilience and cost reduction, and human capital building activities that support tribal self-determination, self-sufficiency, and energy security.

The Financial Assistance program will support funding opportunities toward energy development and electrification in Indian Country.

Since 2002, the Office of Indian Energy has co-funded 250 tribal energy projects valued at over \$150 million, with a DOE investment of \$78.5 million. Specifically, between 2010 and 2016, IE co-funded the deployment of 43 tribal energy projects valued at more than \$70 million. DOE's investment of \$25 million in these energy and energy efficiency projects resulted in tangible results<sup>4</sup>, including:

- Approximately 18.5 MW of new tribal energy generation capacity
- Annual electricity savings of 51 million kilowatt-hours (kWh) – enough to power about 4,700 U.S. homes for 1 year.
- Lower electricity prices for more than 2,500 tribal buildings and more than 29,000 tribal members.
- Total cost savings of about \$10 million annually and more than \$0.5 billion over the life of the projects.
- Every \$1 of DOE funding results in \$7.22 savings for Indian tribes.
- Reduced the average price of electricity for Alaska Native communities from \$0.55/kWh to \$0.13/kWh – roughly equivalent to the current U.S. average electricity price.

In 2017, IE invested in 13 additional hardware installation projects which will result in an additional 6.3 megawatts of new energy generation for more than 3,000 tribal buildings and homes across the nation, saving communities more than \$2 million each year.

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<sup>4</sup> U.S. Department of Energy Office of Indian Energy. Tribal Energy Project Successes. Available at <https://energy.gov/indianenergy/tribal-energy-project-successes>.

**Office of Indian Energy**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Office of Indian Energy \$16,000,000</b>	<b>\$10,005,000</b>	<b>-\$5,995,000</b>
<b>Tribal Energy Program \$13,485,000</b>	<b>\$7,680,000</b>	<b>-\$5,805,000</b>
<b>Technical Assistance \$1,041,000</b>	<b>\$930,000</b>	<b>-\$111,000</b>
<ul style="list-style-type: none"> <li>• Technical Assistance disseminates information to Indian Country through in-person and on-line training, internships, regional/national workshops, webinars, and printed guides and materials.</li> <li>• On-request assistance efforts provides high-level support for energy planning, management, project development, finance education, transmission interconnection, micro-grid integration, renewable energy technical analysis, and utility formation.</li> <li>• Maintain internships at DOE National Laboratories and field sites for Native American graduate students interested in careers in the energy sector.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical Assistance disseminates information to Indian Country through in-person and on-line training, internships, regional/national workshops, webinars, and printed guides and materials.</li> <li>• On-request assistance efforts provides high-level support for electrification and energy development in Indian Country.</li> <li>• Efforts will also focus on building partnerships and leveraging resources to maximize education, training, and technical assistance.</li> </ul>	<ul style="list-style-type: none"> <li>• Provides technical assistance focused on energy development, energy cost savings, and electrification in Indian Country.</li> </ul>
<b>Financial Assistance \$12,444,000</b>	<b>\$6,750,000</b>	<b>-\$5,694,000</b>
<ul style="list-style-type: none"> <li>• Competitive grant program supported clean energy and energy efficiency deployment on tribal lands and in Alaska Native villages, and associated support contracts.</li> </ul>	<ul style="list-style-type: none"> <li>• Competitive grant program supporting energy development and electrification in Indian Country, and associated support contracts.</li> </ul>	<ul style="list-style-type: none"> <li>• Continues to provide grants for energy development, energy cost savings, and electrification in Indian Country.</li> </ul>
<b>Program Direction \$2,515,000</b>	<b>\$2,320,000</b>	<b>-\$195,000</b>
<b>Salaries and Benefits \$1,427,000</b>	<b>\$1,265,000</b>	<b>-\$162,000</b>
<ul style="list-style-type: none"> <li>• Federal Salaries and benefits to implement program activities, monitor over 200 grantee and contractor activities, and provide program management functions.</li> </ul>	<ul style="list-style-type: none"> <li>• Federal Salaries and benefits to implement program activities, monitor over 200 grantee and contractor activities, and provide program management functions.</li> </ul>	<ul style="list-style-type: none"> <li>• Maintains federal staffing at current on board level of 7 FTEs.</li> </ul>
<b>Travel \$175,000</b>	<b>\$80,000</b>	<b>-\$95,000</b>
<ul style="list-style-type: none"> <li>• Travel required for Federal staff delivery of program management and Tribal Energy Deployment activities, including outreach and education, technical assistance, and</li> </ul>	<ul style="list-style-type: none"> <li>• Travel required for Federal staff delivery of program management and Tribal Energy Deployment activities, including outreach and education, technical assistance, and</li> </ul>	<ul style="list-style-type: none"> <li>• Anticipates less federal travel.</li> </ul>

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
project management to support the 567 Indian tribes throughout the nation, many of which are located in remote and rural areas.	project management to support the 567 Indian tribes throughout the nation, many of which are located in remote and rural areas.	
<b>Support Services \$699,000</b>	<b>\$725,000</b>	<b>+\$26,000</b>
• Management, administrative, and operations support.	• Management, administrative, and operations support.	• No major changes.
<b>Other Related Expenses \$214,000</b>	<b>\$255,000</b>	<b>+\$41,000</b>
• Computer hardware and software provided through the OCIO, Working Capital Fund, office space, registration fees, supplies, and small purchases through the micropurchase credit card.	• Computer hardware and software provided through the OCIO, Working Capital Fund, office space, registration fees, supplies, and small purchases through the micropurchase credit card.	• No major changes.



**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Program Direction Summary</b>				
<b>Washington Headquarters</b>				
Salaries and Benefits	1,427	-	1,265	-162
Travel	175	-	80	-95
Support Services	699	-	725	+26
Other Related Expenses	214	-	255	+41
<b>Total, Washington Headquarters</b>	<b>2,515</b>	<b>-</b>	<b>2,320</b>	<b>-195</b>
<b>Total Program Direction</b>				
Salaries and Benefits	1,427	-	1,265	-162
Travel	175	-	80	-95
Support Services	699	-	725	+26
Other Related Expenses	214	-	255	+41
<b>Total, Program Direction</b>	<b>2,515</b>	<b>-</b>	<b>2,325</b>	<b>-190</b>
<b>Federal FTEs</b>	<b>9</b>	<b>9</b>	<b>7</b>	<b>-2</b>
<b>Support Services</b>				
Management Support				
Administrative Support Contracts	699	-	725	+26
<b>Total Management Support</b>	<b>699</b>		<b>725</b>	<b>+26</b>
<b>Total, Support Services</b>	<b>699</b>		<b>725</b>	<b>+26</b>
<b>Other Related Expenses</b>				
Energy IT Services - Desktop Services	50	-	61	+11
WCF	75	-	90	+15
Other Services	89	-	104	+15
<b>Total, Other Related Expenses</b>	<b>214</b>	<b>-</b>	<b>255</b>	<b>+41</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

In accordance with the GPRA Modernization Act of 2010, the Department sets targets for, and tracks progress toward, achieving performance goals for each program.

	FY 2017	FY 2018	FY 2019
Performance Goal (Measure)	<b>Generation Capacity - Increase total installed generation capacity from projects receiving Indian energy deployment grants (cumulative beginning in FY 2019, Megawatts, MW)</b>		
Target	N/A	N/A	4.4 MW
Result	N/A	N/A	TBD
Endpoint Target	Installation of at least 100 MW cumulative of new generation capacity in Indian Country by 2030.		
Performance Goal (Measure)	<b>Savings - Increase energy cost savings to tribal communities co-funded by the Office of Indian Energy over the life of the installed generation system or efficiency measures (cumulative beginning in FY 2019, \$M)</b>		
Target	N/A	N/A	\$100 million
Result	N/A	N/A	TBD
Endpoint Target	Cumulative energy cost savings to funded tribal communities over the life of the installed generation systems of more than \$2 billion dollars by 2030.		



**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

Departmental Administration	FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request
<b>Chicago Operations Office</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	200	200	0
<b>Total, Chicago Operations Office</b>	<b>200</b>	<b>200</b>	<b>0</b>
<b>Golden Field Office</b>			
<b>Office of Indian Energy</b>			
Office of Indian Energy	9,646	3,300	0
<b>Total, Golden Field Office</b>	<b>9,646</b>	<b>3,300</b>	<b>0</b>
<b>Idaho Operations Office</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	1,000	1,000	0
<b>Total, Idaho Operations Office</b>	<b>1,000</b>	<b>1,000</b>	<b>0</b>
<b>Lawrence Berkeley National Laboratory</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	4,634	3,500	0
<b>Total, Lawrence Berkeley National Laboratory</b>	<b>4,634</b>	<b>3,500</b>	<b>0</b>
<b>National Energy Technology Lab</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	150	150	0
<b>Total, National Energy Technology Lab</b>	<b>150</b>	<b>150</b>	<b>0</b>
<b>National Renewable Energy Laboratory</b>			
<b>Office of Indian Energy</b>			
Office of Indian Energy	1,950	2,583	800
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	510	500	0
<b>Total, National Renewable Energy Laboratory</b>	<b>2,460</b>	<b>3,083</b>	<b>800</b>
<b>NNSA Albuquerque Complex</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	6,630	8,500	0
<b>Total, NNSA Albuquerque Complex</b>	<b>6,630</b>	<b>8,500</b>	<b>0</b>
<b>Oak Ridge Office</b>			
<b>Chief Financial Officer</b>			
Program Direction	1,484	1,484	1,484
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	8,968	9,025	0
<b>Total, Oak Ridge Office</b>	<b>10,452</b>	<b>10,509</b>	<b>1,484</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

	FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request
<b>Departmental Administration</b>			
<b>Pacific Northwest National Laboratory</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	10,000	10,325	0
<b>Total, Pacific Northwest National Laboratory</b>	<b>10,000</b>	<b>10,325</b>	<b>0</b>
<b>Richland Operations Office</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	100	100	0
<b>Total, Richland Operations Office</b>	<b>100</b>	<b>100</b>	<b>0</b>
<b>Sandia National Laboratories</b>			
<b>Office of Indian Energy</b>			
Office of Indian Energy	750	700	800
<b>Total, Sandia National Laboratories</b>	<b>750</b>	<b>700</b>	<b>800</b>
<b>Savannah River Operations Office</b>			
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	6,700	6,700	0
<b>Total, Savannah River Operations Office</b>	<b>6,700</b>	<b>6,700</b>	<b>0</b>
<b>Undesignated Lab/Plant/Installation</b>			
<b>Office of Technology Transitions</b>			
Program Direction	0	6,876	0
<b>Total, Undesignated Lab/Plant/Installation</b>	<b>0</b>	<b>6,876</b>	<b>0</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Departmental Administration</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Washington Headquarters</b>			
<b>Chief Financial Officer</b>			
Program Direction	47,758	47,424	47,428
<b>Chief Information Officer</b>			
Program Direction	33,262	33,036	37,758
Cybersecurity and Secure Management	21,006	20,863	36,670
Corporate IT Program Support	20,224	20,087	22,365
<b>Total, Chief Information Officer</b>	<b>74,492</b>	<b>73,986</b>	<b>96,793</b>
<b>Congressional, and Intergovernmental Affairs</b>			
Program Direction	6,200	6,158	6,212
<b>Economic Impact &amp; Diversity</b>			
Program Direction	10,169	10,100	10,005
<b>Energy Policy and Systems Analysis</b>			
Energy Policy and Systems Analysis	31,000	30,789	0
<b>General Counsel</b>			
Program Direction	33,000	32,776	33,075
<b>International Affairs</b>			
Program Direction	18,000	17,878	24,545
<b>Program Direction</b>			
Program Direction	24,500	24,334	25,625
<b>Office of Indian Energy</b>			
Office of Indian Energy	3,369	9,158	8,405
<b>Management</b>			
Program Direction	52,924	52,565	54,872
<b>Office of Policy</b>			
Office of Policy	0	0	2,510
<b>Departmental Administration</b>			
Program Direction	12,373	12,289	15,005
<b>Small and Disadvantaged Business Utilization</b>			
Program Direction	3,000	2,980	3,170
<b>Office of the Secretary</b>			
Program Direction	5,089	5,054	5,395
<b>Public Affairs</b>			
Program Direction	3,431	3,408	6,594
<b>Strategic Partnership Projects</b>			
Strategic Partnership Projects	1,032	0	0
<b>Total, Washington Headquarters</b>	<b>326,337</b>	<b>328,899</b>	<b>339,634</b>
<b>Western Area Power Administration</b>			
<b>Office of Indian Energy</b>			
Office of Indian Energy	285	150	0
<b>Total, Western Area Power Administration</b>	<b>285</b>	<b>150</b>	<b>0</b>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

Departmental Administration

Total, Departmental Administration

FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request
379,344	383,992	342,718

**Inspector General**

**Inspector General**

**Office of Inspector General  
Proposed Appropriation Language**

*For expenses necessary for the Office of Inspector General in carrying out the provisions of the Inspector General Act of 1978, \$51,330,000 to remain available until September 30, 2020.*

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.

**Public Law Authorizations**

- Public Law 95-452, “Inspector General Act of 1978”
- Public Law 103-356, “Government Management Reform Act (GMRA) of 1994”
- Public Law 106-531, “Reports Consolidation Act of 2000”
- Public Law 107-347, “Federal Information Security Modernization Act (FISMA) of 2014”
- Public Law 111-5, “American Recovery & Reinvestment Act (ARRA) of 2009”
- Public Law 111-204, “Improper Payments Elimination and Recovery Act of 2010”
- Public Law 111-258, “Reducing Over-Classification Act”
- Public Law 112-194, “Government Charge Card Abuse Prevention Act of 2012”
- Public Law 112-199, “Whistleblower Protection Enhancement Act of 2012”
- Public Law 113-6, “Consolidated and Further Continuing Appropriations Act of 2013/2014 Omnibus Appropriations Act”
- Public Law 113-101, “Digital Accountability and Transparency Act”
- Public Law 114-117, “Grants Oversight and New Efficiency Act”
- Public Law 115-53, “Cybersecurity Act of 2015”
- Public Law 114-261, “To Enhance Whistleblower Protection for Contractor and Grantee Employees”





**Office of Inspector General  
(\$K)**

FY 2017 Enacted	FY 2018 Annualized CR	FY 2019 Request
44,424	44,122	51,330 <sup>1</sup>

**Overview**

The Office of the Inspector General (OIG) is dedicated to its mission to strengthen the integrity, economy and efficiency of the Department’s programs and operations. The OIG is able to accomplish its mission effectively, in part, because it has the authority to inquire into all Department programs and activities as well as the related activities of persons or parties associated with Department grants, contracts, or other agreements. As a result of its work, the OIG has consistently provided a positive return on its investment. The OIG’s FY 2015 through FY 2017 three year average Return on Investment (ROI) is \$9.62 for every dollar appropriated.

The OIG focuses its efforts to enhance the efficiency and effectiveness of the Department’s programs and operations in the following key areas:

- **Hotline Allegations.** The OIG uses hotline allegations to identify potential areas of fraud, waste, and abuse. Changes in the Department’s operating environment (e.g., program elimination, increased NNSA funding) may increase the number of allegations received through the OIG Hotline.
- **Contractor Whistleblower Retaliation.** OIG is required by statute to conduct reviews of alleged contractor and grantee whistleblower retaliation that serve to inform health and safety issues throughout DOE. These are the most resource intensive reviews conducted by the OIG which tripled the work load last year.
- **Contract Review.** OIG assesses the Department’s award and administration of approximately \$27,000,000,000<sup>2</sup> in contracts. Of particular concern is the oversight of subcontractors. Recent OIG work has resulted in sizeable settlements by subcontractors and brings into question internal controls governing subcontractors.
- **Cybersecurity Oversight Efforts.** Cyberattacks are becoming more prevalent. The OIG frequently partners with the Federal Bureau of Investigations to address attacks directly impacting the Department.
- **NNSA Modernization Efforts.** NNSA is undertaking a massive modernization effort that involves major projects (e.g., weapons complex transformation). Additionally, NNSA is slated to receive a significant increase in funding in FY 2019, which may increase operational risks. NNSA should benefit from OIG reviews that proactively seek to identify opportunities to improve the efficiency and effectiveness of their operations.
- **Environmental Management.** The Department’s environmental liability of \$371,786,000,000<sup>3</sup> was added to the Government Accountability Office’s (GAO) High Risk List in 2017. The OIG routinely reviews the efficacy of the Department’s environmental management programs, which annually expend approximately \$6,500,000,000, including the \$690,000,000 Hanford Waste Treatment Plant.
- **Mission Support Costs.** OIG assists in identifying potential costs savings in areas such as the estimated \$5,900,000,000<sup>4</sup> spent each year on National Laboratory support costs.
- **Loan Programs.** The proposed elimination of Title 17 Innovative Technology Loan Guarantee program and the Advanced Technology Vehicle Manufacturing direct loan program may require the OIG to hire experts to assist with reviews to confirm compliance with loan terms and conditions and program termination requirements.
- **Cost Accounting Standards (CAS).** OIG provides reviews of Department contractors’ incurred costs and compliance with Cost Accounting Standards.

**Highlights of the FY 2019 Budget Request**

<sup>1</sup> Historically, the OIG has used available no year and time-limited prior year funds to maintain minimally acceptable levels of coverage; however, as of the end of FY 2017, the OIG no longer had a significant balance of prior year funds to maintain current levels of operations.

<sup>2</sup> Source: USASpending.gov as referenced in the *Management Challenges at the Department of Energy – Fiscal Year 2017* report.

<sup>3</sup> Source: Department of Energy’s FY 2016 Agency Financial Report

<sup>4</sup> Source: Department of Energy’s FY 2016 Institutional Cost Report

The requested level for FY 2019 will ensure that the OIG can continue to operate at its current level and be able to focus on important areas identified below:

- Contractor and Grantee Whistleblower Retaliation – under Public Law 114-261, “To Enhance Whistleblower Protection for Contractor and Grantee Employees,” passed in December 2016, the OIG is the only avenue contractor and grantee employees for addressing alleged retaliation;
- Subcontractor Oversight – recent significant false claim settlements by subcontractors highlights the need for additional proactive oversight efforts by the OIG;
- Digital Accountability and Transparency Act – the OIG must assess the completeness, timeliness, quality, and accuracy of the Department’s implementation of the data standards required by the Act;
- Cybersecurity – under Public Law 114-53, “Cybersecurity Act of 2015,” the OIG must issue reports on the cybersecurity stance of the Department, while also working to provide additional oversight needed to address the increased frequency of cyberattacks; and
- Changes to Department Funding and Agency Realignment – may result in an increased level of OIG hotline complaints or potential fraud allegations.

**Program Direction  
Funding (\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR*</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Washington Headquarters</b>				
Salaries and Benefits	41,094	-	43,314	+2,220
Travel	1,706	-	1,571	-135
Support Services	500	-	500	0
Other Related Expenses	5,392	-	5,945	+553
<b>Subtotal, Program Direction</b>	<b>48,692</b>	<b>-</b>	<b>51,330</b>	<b>+2,638</b>
Use of Prior Year Balances	-4,268	-	0	+4,268
<b>Total, Program Direction</b>	<b>44,424</b>	<b>48,361</b>	<b>51,330</b>	<b>+6,906</b>
<b>Federal FTEs</b>	<b>279</b>	<b>279</b>	<b>279</b>	<b>0</b>
<b>Support Services</b>				
Management Support				
Federal Information Security Modernization Act (FISMA)	500	-	500	0
<b>Total, Support Services</b>	<b>500</b>	<b>-</b>	<b>500</b>	<b>0</b>
<b>Other Related Expenses</b>				
Council of the Inspectors General on Integrity and Efficiency (CIGIE)	135	-	115	-20
Information Technology	600	-	634	+34
Training	555	-	629	+74
Working Capital Fund	3,166	-	3,462	+296
Other Related Expenses	936	-	1,105	+169
<b>Total, Other Related Expenses</b>	<b>5,392</b>	<b>-</b>	<b>5,945</b>	<b>+553</b>

\*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. (These amounts are shown only at the Congressional control level and above; below that level, a dash (—) is shown).

**Program Direction**

**Activities and Explanation of Changes**

FY 2017 Enacted	FY 2019 Request	Explanation of Changes FY 2019 Request vs FY 2017 Enacted
<b>Program Direction \$48,692,000</b>	<b>\$51,330,000</b>	<b>+\$2,638,000</b>
<b>Salaries and Benefits \$41,094,000</b>	<b>\$43,314,000</b>	<b>+\$2,220,000</b>
<ul style="list-style-type: none"> <li>Funding supports Federal staff with specialized skill sets (e.g., Certified Public Accountants, Technology Crime Investigators, Certified Fraud Examiners) who identify significant Departmental program and operational challenges.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to identify significant Departmental challenges.</li> </ul>	<ul style="list-style-type: none"> <li>The funding increase reflects the OIG goal to increase its FTE usage to authorized levels. OIG will use a risk-based approach to focus resources on areas within DOE that have the greatest impact on the security and prosperity of the country, to include contractor and grantee whistleblower retaliation cases and cybersecurity oversight.</li> </ul>
<b>Travel \$1,706,000</b>	<b>\$1,571,000</b>	<b>-\$135,000</b>
<ul style="list-style-type: none"> <li>Funding supports travel to provide oversight at DOE's 25 geographically dispersed facilities.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to perform audit, inspections, and investigations across the DOE complex.</li> </ul>	<ul style="list-style-type: none"> <li>The funding decrease reflects more efficient uses of video conferencing tools and virtual work spaces resulting in reduced travel requirements.</li> </ul>
<b>Support Services \$500,000</b>	<b>\$500,000</b>	<b>\$0</b>
<ul style="list-style-type: none"> <li>Funding supports required FISMA work for DOE and FERC.</li> </ul>	<ul style="list-style-type: none"> <li>Continue performing FISMA work for DOE and FERC.</li> </ul>	<ul style="list-style-type: none"> <li>No change</li> </ul>
<b>Other Related Expenses \$5,392,000</b>	<b>\$5,945,000</b>	<b>+\$553,000</b>
<ul style="list-style-type: none"> <li>This funding includes training, which is critical for OIG staff to maintain required levels of proficiency and comply with the Inspector General Act. Funding also supports forensic hardware and software requirements needed to accomplish investigative responsibilities. Funds are included for mandatory support for CIGIE and to fund OIG's share of the DOE Working Capital Fund and Energy IT Services.</li> </ul>	<ul style="list-style-type: none"> <li>Continue to support training, information technology needs, and other requirements in the performance of OIG duties.</li> </ul>	<ul style="list-style-type: none"> <li>The funding increase reflects an increase in Energy IT Services costs, WCF, forensic efforts, training costs, and the cost of personnel security investigations. The OIG will also need to increase its investments in forensic hardware and software to keep pace with ever changing technology.</li> </ul>

**Department of Energy**  
**FY 2019 Congressional Budget**  
**Funding by Appropriation by Site**  
(\$K)

<b>Office of the Inspector General</b>	<b>FY 2017 Enacted</b>	<b>FY 2018 Annualized CR</b>	<b>FY 2019 Request</b>
<b>Washington Headquarters</b>			
<b>Office of the Inspector General</b>			
Office of the Inspector General	48,692	48,361	51,330
<b>Total, Washington Headquarters</b>	<b>48,692</b>	<b>48,361</b>	<b>51,330</b>
<b>Total, Office of the Inspector General</b>	<b>48,692</b>	<b>48,361</b>	<b>51,330</b>



# **Working Capital Fund**

# **Working Capital Fund**



**Working Capital Fund  
Program Mission**

	(\$K)	
FY 2017 Obligations	FY 2018 Estimate	FY 2019 Estimate
243,765	309,663	309,663

The Working Capital Fund (WCF or Fund) is a financial management tool for improving the financing and delivery of a range of common administrative services. Service delivery is assigned to business line service managers; financial responsibility resides in a Fund Manager and individual Business Line Managers are responsible for billing and funds control. The Fund creates a framework for business-like organization of support functions and market-like incentives for both customers and suppliers. The objectives of the Fund include:

- Improve the efficiency of administrative services by providing managers with the opportunity and responsibility to make choices on the amount, priority, and sources of administrative services used by their programs;
- Ensure that program mission budgets include a fair allocation of the costs of common administrative services; and
- Expand the flexibility of the Department's budget structure to permit service providers to respond to customer needs.

Fund businesses maintain performance-based plans that inform the budget and alert the Fund Manager of the need to change pricing policies. The Fund Manager reviews financial and business performance each quarter. These reviews culminate in an Annual Report that includes analysis of financial measures, including each business line's performance against its standards and its accomplishments.

WCF charges full cost recovery for each business line in its budget and program billings. Full costs in Fund prices improve cost accounting for WCF activities, support improved decision-making for business line operations and program spending, and allow the Fund Manager to benchmark against other federal agency equivalent costs. Good budgeting practice incorporates full costing, as laid out in OMB Circular A-94, to promote efficient resource allocation through well-informed decision-making that incorporates societal costs and benefits by the Federal Government.

This information will allow the Department to improve the efficiency of WCF service offerings. The Fund Manager has created controls to satisfy oversight requirements, including regular budget reports on spending. This is consistent with other agency WCFs and satisfies the need to recover costs in reimbursable activities. WCF operations are valued by customers, serve the Department, and remain within the fiscal and policy guidelines established by the Department and by Congressional Committees.

The Department continues to examine ways to use the Fund to gain greater management efficiencies. The Fund has reported efficiency and effectiveness performance metrics since its inception and documents continuous improvement efforts to provide program customers with the best goods and services possible in accordance with other statutory requirements. Performance baselines include data recorded before the inception of the Fund. In addition to specific goals, the businesses describe strategies to improve resource utilization and accomplish objectives.

**Working Capital Fund: Business Line Budgets**

Table 1 summarizes projected customer billings by business line. These billings are the result of established pricing policies, which provide the basis for programs to manage their utilization of the WCF and control their budgets. The FY 2019 guidance states that program office customers may utilize Program funding (as available and appropriate) for expenses that support program operations or agency mission/support and are independent of the number of staff: A-123/Internal Controls; Copy Services; Corporate Business Systems (all segments except Flexible Spending Accounts and Subsidy For Energy Employee Transit (SEET)); CyberOne; Financial Statement Audits; Interagency Transfers; Mail & Transportation; Pension Studies; Printing & Graphics; Project Management Career Development Program (PMCDP); and Procurement Management. WCF expenses that support staff operations or provide staff benefits and fluctuate based on the number of staff, are funded from Program Direction: Building Occupancy; Flexible Spending Accounts and Subsidy for Energy

Employee Transit (SEET); Corporate Training Services; Health Services; Overseas Presence; Supply; and Telecommunications. There are no changes to WCF business line amounts compared to the FY 2018 submission.

Table 1  
Working Capital Fund Budget Business Lines<sup>a</sup>  
(\$K)

	<b>FY 2017 Obligations</b>	<b>FY 2018 Estimate</b>	<b>FY 2019 Estimate</b>
A-123/Internal Controls	1,260	2,589	2,589
Building Occupancy	81,091	112,231	112,231
Copy Services	3,928	4,038	4,038
Corporate Business Systems	44,211	47,159	47,159
Corporate Training Services	2,230	2,888	2,888
CyberOne	32,885	34,831	34,831
Financial Statement Audits	7,936	12,166	12,166
Health Services	979	1,875	1,875
Indirect WCF	1,958	0	0
Interagency Transfers	8,038	8,807	8,807
Mail and Transportation Services	4,223	4,172	4,172
Overseas Presence	6,136	16,282	16,282
Pension Studies	632	557	557
Printing and Graphics	4,119	4,515	4,515
Procurement Management	9,268	16,264	16,264
Project Management Career Development Program (PMCDP)	1,408	1,627	1,627
Supplies	1,978	2,604	2,604
Telecommunications	31,484	37,059	37,059
<b>Total, Working Capital Fund</b>	<b>243,765</b>	<b>309,663</b>	<b>309,663</b>

<sup>a</sup> Numbers may not add due to rounding.

Table 2 summarizes projected customer billings by business line and by customer program office. Further descriptions of these changes are included in the individual business line sections that follow. Billing for customer organizations may change as a result of the final FY 2019 appropriations enacted for each program office and/or any changes approved by the WCF Board.

Table 2  
FY 2019 Working Capital Fund Budget Business Lines by Customer Program Office  
(\$K)

ORG	A-123/INT CNTRL	BLDG OCCUP	COPY SVCS	CORPORATE BUSINESS SYSTEMS	CORP TRNG SVCS	CYBERONE	FIN STMT AUDITS	HEALTH SVCS	INTER-AGENCY TRANS	MAIL & TRANSP	OVERSEAS PRESENCE	PENSION STUDIES	PMCDP	PRINT & GRAPH	PROC MGMT	SUPPLY	TELECOM	TOTAL ALL ACTIVITIES	ORG	
TYPE \$ *	P\$	PD\$	P\$	P\$/PD\$ (1)	PD\$	P\$	P\$	PD\$	P\$	P\$	PD\$	P\$	P\$	P\$	P\$	PD\$	PD\$	P\$+PD\$		
AR	\$ 31	\$ 2,139	\$ 10	\$ 647	\$ 8	\$ 420	\$ 147	\$ 16	\$ 76	\$ 55	\$ -	\$ -	\$ -	\$ 30	\$ 32	\$ 0	\$ 502	\$ 4,113	AR	
AU	\$ 16	\$ 7,759	\$ 465	\$ 493	\$ 86	\$ 219	\$ 77	\$ 88	\$ 78	\$ 198	\$ -	\$ -	\$ -	\$ 177	\$ 51	\$ 163	\$ 1,544	\$ 11,414	AU	
BPA	\$ -	\$ 121	\$ -	\$ 80	\$ 469	\$ -	\$ -	\$ 99	\$ 156	\$ 15	\$ -	\$ -	\$ -	\$ 1	\$ -	\$ 1	\$ 44	\$ 986	BPA	
CF	\$ 4	\$ 4,604	\$ 215	\$ 495	\$ 59	\$ 58	\$ 20	\$ 63	\$ 22	\$ 112	\$ -	\$ -	\$ -	\$ 61	\$ 26	\$ 81	\$ 1,128	\$ 6,948	CF	
CI	\$ 1	\$ 658	\$ 7	\$ 44	\$ 9	\$ 7	\$ 2	\$ 10	\$ 2	\$ 36	\$ -	\$ -	\$ -	\$ 16	\$ -	\$ 14	\$ 174	\$ 979	CI	
EA	\$ 7	\$ 1,894	\$ 60	\$ 162	\$ 32	\$ 88	\$ 31	\$ 24	\$ 25	\$ 80	\$ -	\$ -	\$ -	\$ 29	\$ 7	\$ 66	\$ 421	\$ 2,925	EA	
ED	\$ 1	\$ 735	\$ 67	\$ 70	\$ 10	\$ 12	\$ 4	\$ 8	\$ 3	\$ 39	\$ -	\$ -	\$ -	\$ 56	\$ 16	\$ 20	\$ 192	\$ 1,233	ED	
EE	\$ 201	\$ 11,066	\$ 621	\$ 3,550	\$ 181	\$ 2,699	\$ 945	\$ 138	\$ 498	\$ 244	\$ 651	\$ 13	\$ 24	\$ 1,970	\$ 966	\$ 321	\$ 3,810	\$ 27,899	EE	
EI	\$ 11	\$ 7,466	\$ 118	\$ 841	\$ 105	\$ 145	\$ 51	\$ 119	\$ 39	\$ 157	\$ -	\$ -	\$ -	\$ 116	\$ 58	\$ 74	\$ 750	\$ 10,051	EIA	
EM	\$ 531	\$ 7,058	\$ 344	\$ 8,614	\$ 243	\$ 7,138	\$ 2,500	\$ 137	\$ 1,662	\$ 205	\$ 326	\$ 99	\$ 776	\$ 171	\$ 5,111	\$ 212	\$ 2,398	\$ 37,523	EM	
EP5A	\$ 3	\$ 1,304	\$ 24	\$ 138	\$ 18	\$ 37	\$ 13	\$ 21	\$ 8	\$ 60	\$ -	\$ -	\$ -	\$ 43	\$ -	\$ 38	\$ 461	\$ 2,168	EP5A	
FE	\$ 74	\$ 3,252	\$ 92	\$ 2,521	\$ 158	\$ 996	\$ 349	\$ 68	\$ 245	\$ 119	\$ 326	\$ -	\$ 74	\$ 133	\$ 1,698	\$ 94	\$ 1,458	\$ 11,655	FE	
GC	\$ 3	\$ 4,609	\$ 72	\$ 350	\$ 65	\$ 37	\$ 13	\$ 66	\$ 13	\$ 92	\$ -	\$ -	\$ -	\$ 71	\$ 5	\$ 93	\$ 972	\$ 6,461	GC	
HC	\$ 2	\$ 2,288	\$ 84	\$ 291	\$ 47	\$ 29	\$ 10	\$ 48	\$ 11	\$ 111	\$ -	\$ -	\$ -	\$ 49	\$ 21	\$ 51	\$ 922	\$ 3,965	HC	
HG	\$ 0	\$ 787	\$ 9	\$ 92	\$ 6	\$ 7	\$ 2	\$ 7	\$ 2	\$ 22	\$ -	\$ -	\$ -	\$ 48	\$ -	\$ 4	\$ 88	\$ 1,075	HG	
IA	\$ 1	\$ 1,618	\$ 48	\$ 119	\$ 15	\$ 20	\$ 7	\$ 24	\$ 8	\$ 115	\$ 651	\$ -	\$ -	\$ 45	\$ 21	\$ 25	\$ 817	\$ 3,534	IA	
IE	\$ 2	\$ 100	\$ 8	\$ 23	\$ 1	\$ 22	\$ 8	\$ 2	\$ 4	\$ 6	\$ -	\$ -	\$ -	\$ 16	\$ 2	\$ 8	\$ 38	\$ 239	IE	
IG	\$ 4	\$ 2,029	\$ 24	\$ 341	\$ 62	\$ 52	\$ 18	\$ 38	\$ 20	\$ 58	\$ -	\$ -	\$ -	\$ 36	\$ 6	\$ 33	\$ 445	\$ 3,165	IG	
IM	\$ 7	\$ 5,926	\$ 113	\$ 259	\$ 48	\$ 93	\$ 33	\$ 39	\$ 43	\$ 251	\$ -	\$ -	\$ 2	\$ 92	\$ 37	\$ 158	\$ 3,189	\$ 10,291	IM	
SSA	\$ 20	\$ 4,878	\$ 86	\$ 532	\$ 47	\$ 263	\$ 92	\$ 63	\$ 56	\$ 274	\$ -	\$ -	\$ -	\$ 2	\$ 69	\$ 2	\$ 140	\$ 827	\$ 7,352	SSA
LM	\$ 14	\$ 412	\$ 23	\$ 256	\$ 19	\$ 193	\$ 68	\$ 8	\$ 41	\$ 24	\$ -	\$ 20	\$ 24	\$ 25	\$ 16	\$ 15	\$ 602	\$ 1,760	LM	
LP	\$ 2	\$ 3,684	\$ 71	\$ 186	\$ 57	\$ 23	\$ 8	\$ 33	\$ 11	\$ 76	\$ -	\$ -	\$ -	\$ 26	\$ -	\$ 44	\$ 709	\$ 4,929	LP	
MA	\$ 5	\$ 6,129	\$ 336	\$ 630	\$ 87	\$ 73	\$ 26	\$ 85	\$ 43	\$ 408	\$ -	\$ -	\$ -	\$ 267	\$ 221	\$ 145	\$ 2,038	\$ 10,493	MA	
NA	\$ 956	\$ 18,924	\$ 760	\$ 13,571	\$ 429	\$ 12,857	\$ 4,503	\$ 270	\$ 3,676	\$ 672	\$ 11,259	\$ 369	\$ 373	\$ 355	\$ 3,594	\$ 423	\$ 8,879	\$ 81,868	NA	
NE	\$ 82	\$ 2,264	\$ 69	\$ 1,474	\$ 85	\$ 1,103	\$ 386	\$ 66	\$ 327	\$ 112	\$ 2,418	\$ 8	\$ 103	\$ 110	\$ 47	\$ 60	\$ 1,129	\$ 9,844	NE	
NR	\$ 117	\$ -	\$ -	\$ 1,308	\$ 37	\$ 1,580	\$ 554	\$ 40	\$ 272	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5	\$ 12	\$ 3,930	NR	
OE	\$ 18	\$ 1,996	\$ 50	\$ 419	\$ 37	\$ 241	\$ 85	\$ 33	\$ 47	\$ 91	\$ 326	\$ -	\$ -	\$ 71	\$ 21	\$ 52	\$ 665	\$ 4,150	OE	
PA	\$ 0	\$ 365	\$ 39	\$ 55	\$ 5	\$ 4	\$ 1	\$ 8	\$ 2	\$ 18	\$ -	\$ -	\$ -	\$ 15	\$ 2	\$ 20	\$ 188	\$ 722	PA	
S	\$ 0	\$ 1,499	\$ 47	\$ 54	\$ 14	\$ 6	\$ 2	\$ 18	\$ 2	\$ 290	\$ -	\$ -	\$ -	\$ 90	\$ -	\$ 56	\$ 431	\$ 2,510	S	
SB	\$ 0	\$ 266	\$ 9	\$ 12	\$ 2	\$ 3	\$ 1	\$ 3	\$ 1	\$ 36	\$ -	\$ -	\$ -	\$ 12	\$ -	\$ 5	\$ 39	\$ 389	SB	
SC	\$ 469	\$ 6,283	\$ 165	\$ 7,625	\$ 209	\$ 6,309	\$ 2,210	\$ 185	\$ 1,325	\$ 180	\$ 326	\$ 49	\$ 244	\$ 186	\$ 4,262	\$ 181	\$ 1,615	\$ 31,821	SC	
WAPA	\$ 7	\$ 116	\$ 2	\$ 1,907	\$ 239	\$ 97	\$ -	\$ 51	\$ 90	\$ 11	\$ -	\$ -	\$ 4	\$ 128	\$ 43	\$ 2	\$ 573	\$ 3,270	WAPA	
TOTALS	\$ 2,589	\$ 112,231	\$ 4,038	\$ 47,159	\$ 2,888	\$ 34,831	\$ 12,166	\$ 1,875	\$ 8,807	\$ 4,172	\$ 16,282	\$ 557	\$ 1,627	\$ 4,515	\$ 16,264	\$ 2,604	\$ 37,059	\$ 309,663		
PM (2)	\$ 0	\$ 565	\$ 24	\$ 24	\$ 13	\$ 6	\$ 2	\$ 11	\$ 3	\$ 26	\$ -	\$ -	\$ -	\$ 20	\$ -	\$ 3	\$ 174	\$ 872	PM	
TT (2)	\$ 0	\$ 162	\$ 6	\$ 7	\$ 4	\$ 3	\$ 1	\$ 3	\$ 1	\$ 18	\$ -	\$ -	\$ -	\$ 9	\$ -	\$ 10	\$ 76	\$ 300	TT	

\* Type \$ -- P\$ = Program funding; PD\$ = Program Direction funding.  
 \* Maximum amount is reflected for P\$; Program Office customers can still opt to use PD\$ funding at their discretion, within the authorization of their appropriation.  
 \* A number of DOE Program Offices have no P\$ funding, therefore their WCF share is financed with PD\$.  
 1) Corporate Business Systems -- FSA & SEET segments = PD\$; all other segments = P\$.  
 2) Office of Project Management Oversight & Assessments (PM) and Office of Technology Transitions (TT) are being added as new WCF customers for FY19 formulation; they were not included in FY18 formulation and are being reflected separately.  
 Total FY18/FY19 WCF amount remains at \$309,663K. Billing for customer organizations may change as a result of the final FY19 appropriations enacted for each program office and/or any changes approved by the WCF Board.

The following section includes a description of each business line, along with pricing policy and selected performance measures.

**A-123/Internal Controls (formally Financial Reporting Control Assessment)**

**Description**

The OMB Circular A-123, *Management's Responsibility for Internal Control* and Federal Managers' Financial Integrity Act (FMFIA), define management's responsibility for internal control and include guidance for management to assess the effectiveness of internal control.

A-123/Internal Controls will ensure the Department meets the intent of the Congress and the Executive Branch for internal control of financial reporting and has appropriate support for the Secretary's annual assurance statement, included as part of the Agency Financial Report. Because the requirements of OMB Circular A-123 apply to the Agency as a whole, each benefiting program must share the cost. In addition, DOE pricing policy incorporates the full costing requirements laid out in OMB Circular A-94 to promote efficient resource allocation through well-informed decision-making by the Federal Government for evaluating societal costs and benefits.

In order to support these goals, the business line will develop, provide, and maintain the capabilities needed to implement a comprehensive Department-wide evaluation of internal controls over financial reporting. The technical support resources to maintain and support the evaluation data collection tools are currently not fully available in-house. Furthermore, the Department's internal controls over financial reporting are examined during our yearly external Financial Statement audit, requiring as-needed technical support to document some Financial Statement related internal control processes with DOE-wide impact.

### **Pricing Policy**

The A-123/Internal Controls (formerly Financial Reporting Control Assessment) charges customers a pro rata allocation of costs based on percentage share of three prior fiscal years' combined budget shares, using the Congressional request of the most recent year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect the three years (FYs 2015-2017) in the Department's FY 2017 Budget request to Congress. Departmental programs that use proprietary financial systems, for example, Federal Energy Regulatory Commission (FERC) and the Power Marketing Administrations (PMA's) will be excluded from billing for this business.

## **Building Occupancy**

### **Description**

The core services in the Building Occupancy Business Line include space management (rent), utilities such as heat and electricity, cleaning services, snow removal, facility operation and preventive and restorative maintenance, pest control, trash removal, and waste recycling. Engineering and facilities services include drafting of construction documents, developing scopes of work, construction management and inspection, value engineering, leasehold administration, lock repair and key management, safety and occupational health, moving and warehousing services, and conference support. This business also provides electronic services, which involve audio/visual meeting and conferencing support, as well as repair and maintenance of Headquarters radio communications and electronic equipment. Approved improvements to the Headquarters complex are also included.

### **Pricing Policy**

Policy is based on direct costs and allocations in the following manner:

- Each year, organizations sign occupancy agreements that define the space to be assigned to them.
- On a building-by-building basis, direct rental value of the space assigned to each organization is calculated, based on rent charged to the Department by the General Services Administration (GSA). Customer rent costs are based on areas assigned to each organization at the start of each fiscal year.
- Common use space costs in each building are divided among the tenants of that building based on their proportional shares of direct rental costs.
- Certain additional costs, such as common area improvements and health and life safety programs, are allocated as a pro rata addition to the building-by-building charges described above.
- Electronic Services charges are allocated according to direct building occupancy costs.
- In addition, tenants may arrange, at their own cost, alterations of office space.
- Charges related to property management are allocated based on program usage during the prior fiscal year.
- FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect historical costs for utilities as well as information provided by GSA as to the anticipated rent for future years (as of FY 2016), and projections of space usage in future years (as of FY 2016) based on input from customer organizations, historical information, space availability, and Departmental objectives.

## **Copy Services**

### **Description**

This business provides the following services:

- Staffed photocopy centers at Forrestal and Germantown capable of reproducing 25,000 impressions per document;
- Centralized (walk-up) photocopy rooms;
- Dedicated (customer-assigned) photocopiers, including needs assessment analysis to determine workload and most appropriate equipment;

- Digital document management, including optical scanning of paper copy documents and storage on electronic files; and
- Digital news clips to programs based on subscriptions. (Note: News clips were previously provided as hard-copy documents prepared in the copy business.)

In FY 1996, before creation of the Fund, DOE Headquarters made over 100 million copies. The number of copies declined rapidly after creation of the Fund and has continued to decline. Currently, DOE Headquarters photocopied at an annual rate of 19 million copies.

### **Pricing Policy**

Each office pays the full cost to maintain and supply its assigned dedicated photocopiers. For walk-up and staffed photocopiers, a cost per photocopy is calculated and programs are charged based on the number of photocopies made by program staff. The digitization pricing policy is to charge on a per-page basis to cover the costs of this business segment. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the year prior to formulation (FY 2015).

## **Corporate Business Systems**

### **Description**

Corporate Business Systems (CBS) is the Department's solution for managing enterprise-wide systems and data. CBS is consolidating and streamlining Department-wide systems and business processes to integrate financial, budgetary, procurement, personnel, program, and performance information. CBS is supported at the core by a central data warehouse/portal that links common data elements from each of the Department's business systems and supports both external and internal reporting. The line of business provides efficiencies in its administration that result in a single, senior business manager for DOE's corporate business systems. The business consists of STARS, STRIPES, Funds Distribution System (FDS) 2.0, iPortal, Payment Processing (formerly ORFSC), CHRIS and related sub-segments, Digital Media and Payroll

**Standard Accounting and Reporting System (STARS) Segment** provides the Department with a modern, comprehensive, and responsive financial management system that records and processes accounting transactions for general accounting, payments, receivables, purchasing including obligations and reservations, accruals, plant and capital equipment, nuclear materials accounting, and many other functions. STARS is also used for financial reporting including GTAS, Standard Form (SF) 220.9, SF 224, and the Department's financial statements. Costs include all operations and maintenance support, including the Chief Information Officer's Application Hosting and annual Oracle Software licensing.

**Strategic Integrated Procurement Enterprise System (STRIPES) Segment** replaced and consolidated federal corporate, regional and local procurement-related systems across the Department. STRIPES automates all procurement and contract activities required or directly associated with planning, awarding, and administering various unclassified acquisition and financial assistance instruments; thereby, increasing the internal efficiency of the Department. STRIPES is also fully integrated with STARS, creating efficiency between the two systems and improving the accuracy and timeliness of funding commitments and obligations. Costs include all operations and maintenance support, including the Chief Information Officer's Application Hosting and the annual Compusearch subscription fees.

**Funds Distribution System (FDS) 2.0 Segment** is a corporate solution that automates, standardizes, and streamlines the funds distribution processes and procedures across the Department. FDS 2.0 was deployed at the beginning of FY 2017; redundant field budget systems (BEARS/FCDS) have been decommissioned.

**iPortal/Information Data Warehouse (IDW) Segment** is the CBS face to its customers. It provides the gateway into all CBS applications and services. The IDW provides capability to integrate and store data from various corporate and/or program systems for reporting using Business Intelligence reporting tools. The CBS iPortal/IDW provides many services that connect our people, simplify our work, and liberate our data. Costs will include the operations and maintenance of the technical infrastructure, consisting mostly of Application Hosting and annual software licensing fees.

**Payment Processing Segment (formerly Oak Ridge Financial Service Center)** The Oak Ridge Financial Service Center processes all of the Department's payments. Completes over 140,000 payments annually. Costs include operations and

maintenance of Financial Accounting Support Tool (FAST), Vendor Inquiry Payment Electronic Reporting System (VIPERS), and the Department of Energy Payment and Collection (DOE-PAC) systems.

**Corporate Human Resource Information System (CHRIS) Segment** is a nation-wide operational portfolio of systems within the Department that serves as the official system of record for human resource management information for all employees. CHRIS supports the Administration's strategic human capital management initiative and expands e-government within DOE, combining electronic workflow and other best practices in work processes with a web-based IT architecture and suite of software applications based on off-the-shelf products (PeopleSoft and Monster Government Solutions), and the legacy Employee Self-Service. This budget also funds Jobs One-Portal (J1P), recruitment using social media, and specific recruiting efforts to reach veterans and disabled veterans. In addition, costs for inter-agency contributions for electronic benefits are financed in WCF.

**Digital Media Segment** rationalizes hundreds of websites and streamline web operations, reducing duplicative spending, and improving overall digital communications. Costs will include the operations and maintenance of the technical infrastructure of the Department's Home Page (Energy.gov), consisting mostly of application hosting, iterative development, and platform upgrades to meet ongoing scale and usage demands.

**Payroll Services Segment** encompasses three areas: Payroll, Flexible Spending Account (FSA) administrative fees, and Subsidy for Energy Transit (SEET). Civilian payrolls are prepared based on authenticated documentation. Through the Defense Finance and Accounting Service (DFAS) this segment: computes, deposits, and reports Federal, State, and local income taxes; maintains employee records related to Civil Service and Federal Employees Retirement Systems (CSRS and FERS); reports retirement information to the Office of Personnel Management (OPM); and performs reconciliation of account balances with DFAS, OPM and Treasury. Accounts for and reports employee's health benefit coverage, thrift savings plans, transit subsidies (SEET), and unemployment compensation, among other non-salary employee payments. Processes donated leave into the Defense Civilian Pay System. Maintains and operates the Department's system of allocating payroll costs to the proper appropriation.

#### **Pricing Policy**

CBS activities charge programs a pro-rata allocation of costs based on percentage share of three prior fiscal years' combined budget shares, using the Congressional request of the most recent year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect the three years (FYs 2015-2017) in the Department's FY 2017 Budget request to Congress. Exceptions to this pricing policy include:

- STRIPES charges based on the number of 1102 series system users recorded during the fiscal year prior to formulation (for FY 2018 this is FY 2015).
- ORFSC charges programs based on a pro-rata share of processed transactions during the fiscal year prior to formulation (for FY 2018 this is FY 2015).
- CHRIS and Payroll charges programs based on an allocation of Federal employment on-board by organization at the beginning of the formulation year (for FY 2018 this is FY 2016).
- SEET and FSA are charged to programs based on actual usage during the fiscal year. Estimates are derived from the twelve month period prior to formulation.

### **Corporate Training Services**

#### **Description**

The Corporate Training Services (CTS) Business Line combines Training Delivery and Services (TDS), Online Learning Center (OLC), OPM 360 Assessments and National Defense University (NDU) business segments to deliver courses which support the Department's mission at competitive pricing and fee for service pricing.

**Energy Online Learning Center (OLC) Segment** is a web-based commercial off-the-shelf training system that provides access to online learning and training. The goal of this business segment is to use technology to deliver learning activities to the desktop where such delivery can be demonstrated to improve learning outcomes and reduce costs independently or in combination with other training methods. The overall vision of the OLC program is to provide the capability for all DOE federal employees to have access to web-based training via the desktop. The OLC has been structured to meet DOE needs with a customized access process and DOE-specific information (including DOE-mandated training).

**Training Delivery and Services (TDS) Segment** includes the design, development, and delivery of competency-based courses to meet critical skills development needs in Project Management, Program Management, and Acquisition and Assistance Management.

A series of Continuing Education courses has been added to present new topics and refresher training. Program offerings include modular course design and customized training for on-site and centralized delivery. The TDS Program has over a 20-year track record of providing professional training and training services throughout the DOE complex. The training management services are offered to customers on a negotiated basis only.

**OPM 360 Degree Assessment Program Segment** provides services through an Interagency agreement with the Office of Personnel Management. DOE's program is part of a larger effort to change the leadership culture throughout the agency. By administering leadership behavior assessments and simple, but targeted, evaluations of leadership training efforts, the Department can track changes in the perception of leadership behaviors over time and assess the effectiveness of leadership training. Participants are rated by people of varying relationships to the participant (e.g., peer, subordinate/direct report, and supervisor). Assessments will focus on leadership competencies most relevant to DOE's current strategic plan, and include items related to personal training experiences and the effectiveness of those experiences.

**National Defense University (NDU) Segment** provides services through an Interagency Agreement with the National Defense University (NDU/DOD) for DOE participation at the National Defense University (National War College) for Energy Master/Certificate Programs and the Advanced Management Program.

#### **Pricing Policy**

Pricing policy for Corporate Training Services Business Line is as follows:

- OLC - Participating DOE organizations pay for OLC access through a fixed annual fee per student and allocation of administrative costs, based on number of employees per program.
- TDS - Participating DOE organizations in the TDS pay \$250/day for each employee enrolled in professional skills training course.
- OPM 360 - Participation in the OPM 360 Assessments is financed by the benefitting program; fees per person are based upon specific assessment options.
- NDU - Participation in the NDU is financed by the benefitting program; fees per person are based upon the specific training program.
- Federal staff support consists of program management, developing curriculum, contractor oversight of distance learning, and managing classroom delivery by contractor staff.
- FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the fiscal year prior to formulation (FY 2015), except OLC, which is based on an allocation of the number of employees on-board by organization at the beginning of the formulation year (FY 2016).

### **CyberOne**

#### **Background**

The CyberOne Business Line consists of two Enterprise-wide capabilities to include: (1) Identity Credentialing and Access Management, and (2) Incident Response (IR) and Recovery. IR and Recovery consists of multiple Enterprise Cybersecurity Capabilities implemented through the DOE integrated Joint Cybersecurity Coordination Center (iJC3).

#### **Description**

**Identity, Credential and Access Management (ICAM) Segment:** The DOE ICAM program transforms Identity, Credential, and Access Management (ICAM) from a system or facility effort to an enterprise strategic resource for leveraging the enhancement of cybersecurity and the improvement of efficiency of business processes in each DOE Element. The ICAM program develops a comprehensive, enterprise solution that is in compliance with legislative and policy requirements as well as positions the Department to face today's ever increasing and complex security threat environment. The strategic goals for ICAM include:

- Increase security, which correlates directly to increased Personally Identifiable Information (PII) protection and minimize the number and impact of data breaches and trust violations.
- Achieve high degree of interoperability within the Department and with other Federal Agencies, thereby reducing the cost of ownership for application owners and utilizing new Cloud capabilities.
- Establish an enterprise and interoperable access management approach linking DOE Physical Access Control Systems (PACS) and Logical Access Control Systems (LACS) into a federated access management infrastructure.
- Foster an enterprise view of digital identity that facilitates the sharing of digital identity data across DOE Organizations, as well as with external DOE entities.
- Implement identity credentials at Identity Assurance Level (IAL), Authenticator Assurance Level (AAL), and Federation Assurance Level (FAL) per NIST 800-63 guidance based upon a risk management approach and DOE Organization requirements.
- Foster a system-of-system approach where the DOE Organizations collaborate and cooperate in implementing ICAM, identifying mission needs and managing associated risks.

The Working Capital Fund (WCF) will support five CyberOne line of business services:

- **PKI-to-cloud** service to establish an enterprise Public Key Infrastructure (PKI) that is on the Federal Bridge and provides PKI certificates for interoperable and secure information exchange internal and external to DOE. Support for removing local certificates to comply with the Federal Bridge.
- **Personal Identity Verification (PIV)** enablement in support of Homeland Security Presidential Directive (HSPD)-12 directive for strong authentication.
- **Identity Management** service assigning DOE unique identifiers (DUID) to all staff and correlating digital identities across the department with federation to DOE entities and authoritative identity sources to include the GSA USAccess service providing identity verification services as part of the PIV card issuance process.
- **Unified Credentialing** service providing strong authentication solutions at IAL, AAL, and FAL.
- **Access Management** service based on a federated authentication architecture at the department level for seamless single sign on access to applications across the enterprise thus continually reducing the number of authentication credentials with an increased emphasis on the enablement of IAL, AAL, and FAL an increasing number of applications.

#### **Integrated Joint Cybersecurity Coordination Center (iJC3) Segment:**

The iJC3 integrates cybersecurity activities and delivery across the DOE enterprise into one collective program. The iJC3 provides a collaborative, intelligence-driven, distributed approach to cyber operations that defends the DOE full attack surface – spanning all labs, plants, PMAs, and offices. The iJC3 provides comprehensive defense of the DOE enterprise. Increased communication streamlines and automates cybersecurity reporting and information sharing across DOE to strengthen cyber defense, detection, and response. Jointly, DOE OCIO, NNSA OCIO, and DOE IN ensure the success of the iJC3 through targeted program direction and enterprise governance.

Under Secretaries and line managers remain accountable for the security of the information and information systems under their purview and ensure Federal and contractor network and security operations centers cooperate fully with the iJC3 while executing local organization or site cybersecurity activities. The cybersecurity program managers are responsible to their line management for coordinating enterprise-wide cybersecurity requirements with the OCIO.

To accomplish enterprise coordination, the iJC3 employs enterprise tools and services. Two of the most significant services in the iJC3 portfolio are the Cooperative Protection Program (CPP), which provide cyber situational awareness, and the Cyber Federated Model (CFM), which enables cyber information sharing.

The iJC3 provides Departmental, enterprise level, situational awareness in a rapidly increasing threat environment. At its core, iJC3 facilitates the aggregation, correlation, and deconfliction of enterprise-deployed sensor inputs like those provided by the CPP and other data sources; provides threat analysis; conducts attack trending and tracking of advanced persistent threats; and distributes threat information and indicators of compromise to DOE entities in an automated manner. The iJC3 provides cybersecurity enterprise services and tools to customers Department-wide and facilitates enterprise cybersecurity training for the Department.



The iJC3 integrates Departmental Incident Management capabilities and coordinates all enterprise activities including prevention, detection, containment, and recovery for all DOE Elements. This includes activities on both unclassified and classified networks through partnerships with DOE Programs with direct support to classified networks through the National Nuclear Security Administration (NNSA) and the DOE Office of Intelligence and Counterintelligence (IN). The iJC3 also coordinates communications on behalf of the DOE for cybersecurity events and cyber emergency response with United States Computer Emergency Readiness Team (US-CERT) and other agency partners.

The iJC3 employs enterprise services as key components on delivery enterprise coordination for the Departments IR. The CPP designs, operates, and enhances a system that collects high quality, information rich network data sets, enabling a more robust defense against adversaries targeting DOE assets. CPP maintains a cooperative partnership across DOE between DOE Headquarters Elements and the sites to provide the most effective use of the CPP collected data. Network sensors are capable of monitoring 10 Gigabit network links existing at over 90 DOE government and contractor facilities examining about 36 Terabytes/Day of raw network traffic, and generating over 1.4 Terabytes/Month processed data. This data is used by cybersecurity analysts to gain insights into the motives of our adversaries and enables a rapid response to emerging threats. CPP collaborates with other US Government agencies, commercial companies, and the open source community to continually enhance system sensing capabilities.

CFM is an iJC3 service that has driven machine-to-machine sharing of cyber threat intelligence, speeding up proactive defense, and distributed detection for the Department's National Laboratories and site offices. CFM began with a pilot in FY 2004 and entered production status in FY 2009 and has distributed over seven million bad actor addresses to date. In FY 2014, over 1.5 million bad actor addresses were distributed with an average of five thousand per day. In many cyber incidents, timely sharing of information is often a second thought and CFM allows for the cyber systems to share, act and provide a coordinated defense 24x7x365 with minimal human interaction. CFM supports the Deputy Secretary's direction to operate at machine speed in responding to cybersecurity threats and incidents. Flexible and customizable, CFM integrates the latest advancements and technologies developed by its project team members and partners. CFM can deliver signatures and indicators of compromise to automatically update cyber defenses, such as intrusion detection systems, intrusion prevention systems, and firewalls.

#### **Pricing Policy**

CyberOne charges programs a pro rata allocation of costs based on percentage share of three prior fiscal years' combined budget shares, using the Congressional request of the most recent year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect the three years (FYs 2015-2017) in the Department's FY 2017 Budget request to Congress.

### **Financial Statement Audits**

#### **Description**

Support services relating to the audit contract are required to attain contractor expertise, needed primarily for financial statement audits required by the Government Management Reform Act (GMRA) (e.g., actuaries, petroleum engineers, and information technology support personnel). Oversight of this process and contract activities is provided by the Office of the Inspector General

#### **Pricing Policy**

The business line charges customers a pro-rata allocation of costs based on percentage share of three prior fiscal years' combined budget shares, using the Congressional request of the most recent year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect the three years (FYs 2015-2017) in the Department's FY 2017 Budget request to Congress. Departmental programs that use proprietary financial systems (e.g., the FERC and the PMA's) will be excluded from billing for this business.

### **Health Services**

#### **Description**

The Health Services Business Line provides common administrative services to the DOE Headquarters community. These services include Headquarters health centers, a drug testing program (DOE-wide), an employee assistance program, and

disability services. The Department's analysis shows cost reductions will result from consolidating these activities under one enterprise with a focus on program demand for these services.

**Health Center Segment** consists of two HQ facilities: one at Forrestal and one at the Germantown. Services provided include: emergency response; travel immunizations; fitness-for-duty and pre-employment physical exams; annual influenza vaccinations; and general occupational health concerns. The health center is operated under an Interagency Agreement with the Department of Health & Human Services, Federal Occupational Health (HHS/FOH) to provide packaged services, which reduces costs and DOE resource needs.

**Drug Testing Program Segment**, a DOE-wide program, provides for collection, testing, and medical review of alcohol and drug testing. This activity supports testing of DOE positions for fitness-for-duty, pre-employment, and random drug testing and positions which require a clearance (e.g., security, technical, and/or executive positions) in line with Federal mandates (Executive Order 12564; Department of Transportation Regulations; and 49 Code of Federal Regulations Part 40). The Department has an existing Interagency Agreement with Department of the Interior to utilize their contracts, which reduces costs and saves DOE resources.

**Employee Assistance Program (EAP) Segment** at Headquarters finances professional EAP counselors to offer assistance to DOE federal employees for family, work, health, and other concerns (work-life) in line with Federal mandates (Executive Order 12564; Public Law 79-658; Public Law 99-570 (5 U.S.C. §§7361 and 7362); Public Law 98-24 (42 U.S.C. §290dd-1); Public Law 96-24 (42 U.S.C. §290ee-1); Sec. 7361 and Sec. 7362 of Public Law 99-570; and the Public Health Services Act).

**Disability Services Segment** coordinates contract vendors to provide sign language interpreting services for deaf and hard-of-hearing federal employees at Headquarters in line with Federal mandates (Rehabilitation Act of 1973, as amended).

#### **Pricing Policy**

FY 2019 estimates remain the same as FY 2018 Congressional Request estimates. Charges for Health Service segments are based on an allocation of Headquarters Federal employment on-board by organization at the beginning of the formulation year (for FY 2018 this is FY 2016). Charges for the Drug Testing segment are based on an allocation of DOE-wide Federal employment on-board by organization at the beginning of the formulation year (for FY 2018 this is FY 2016).

### **Interagency Transfers**

#### **Description**

Interagency transfers are necessary to finance National Archives and Records Administration (NARA) storage and management of critical DOE records and the Integrated Acquisition Environment. Other activities include E-Government initiatives, which consist of consolidation studies of lines of businesses, agency assessments and other intergovernmental procurement systems.

The DOE Records Management Program ensures compliance with the Federal Records Act of 1950, as amended, by promoting the management of records throughout their life cycle in an economical, efficient, and effective manner. DOE maintains an annual agreement with NARA on records storage costs and appropriate records management and disposition, consistent with approved records schedules.

Integrated Acquisition Environment (IAE) provides a secure business environment that facilitates and supports cost effective acquisition of goods and services in support of mission performance. To accomplish this mission, IAE focuses on the following goals:

- Create a simpler, common integrated business process for buyers and sellers that promotes competition, transparency and integrity. Increase data sharing to enable better business decisions in procurement, logistics, payment, and performance assessment.
- Take a unified approach to obtaining modern tools to leverage investment costs for business-related processes.

IAE is operated under an Interagency Agreement with General Services Administration (GSA) to provide packaged services, reduce costs, and save DOE resources by leveraging economy of services. GSA is charged with the fiduciary responsibility to work across government to provide acquisition services to support agency missions by delivering timely acquisition tools

and services, including but not limited to, the Central Contractor Registration, excluded parties list, electronic subcontracting reporting, federal business opportunities, federal procurement data, wage determinations, and others, as business requirements are identified by the acquisition community.

Per the Office of Personnel Management (OPM), agencies will need to contribute funding to cover credit monitoring and related services/benefits for the OPM cybersecurity incidents affecting Federal and contract employees. Coverage will include a suite of services (e.g., credit monitoring, call center/support services, and identity theft protection).

### **Pricing Policy**

E-Gov and NARA - these activities will be charged to programs on a pro rata allocation of costs based on percentage share of three prior fiscal years' combined budget shares, using the Congressional request of the most recent year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect the three years (FYs 2015-2017) in the Department's FY 2017 Budget request to Congress.

OPM Credit Monitoring - FY 2019 estimates remain the same as FY 2018 Congressional Request estimates. Program office cost shares are based on an allocation of HQ and Field credential numbers by organization from the formulation year (for FY 2018 this is FY 2015).

## **Mail and Transportation Services**

### **Description**

The Mail Center provides a variety of mail services for all official and other authorized mail for DOE and its employees. Services include the processing of all incoming postal mail, outgoing official mail, internal mail processing, accountable mail processing, pouch mail, a variety of overnight express mail services, messenger services, directory services, and pick-up and delivery services. In response to the risk of terrorism, the business line has implemented various processes for sanitizing and testing mail against bio-terrorist attacks.

The Transportation Service includes shuttle bus operations, Headquarters executive transportation, motor vehicle fleet administration, and courier service. The shuttle bus operates between DOE Headquarters facilities; utilizing two bio-diesel buses. Executive transportation is provided to Headquarters executive staff for official business required to further the mission of the Department of Energy. Motor vehicle fleet administration includes fleet maintenance, monitoring and tracking fleet activity, conducting fleet management activities, and the vehicle maintenance program. Courier service is for the delivery and pick-up of sensitive and non-sensitive material within the Washington Metropolitan area.

### **Pricing Policy**

Mail and transportation pricing has multiple components:

- Offices pay the actual dollar cost for outgoing United States Postal Service (USPS) mail and for Federal Express or other special mail services. Offices pay for internal mail distribution based on the number of mail stops.
- Offices pay for Mail Security based on their percentage of incoming USPS mail over the preceding six-month period.
- Offices pay for Express Mail labor based on their percentage of the total volume of incoming and outgoing special mail during the preceding six-month period.
- Offices pay for USPS Outgoing labor based on their percentage of actual outgoing mail for the preceding six months.
- Offices pay for specified special services on a negotiated basis.
- Programs pay for shuttle bus services based on their prior year usage.
- Programs pay for courier and messenger services based on their prior year usage.
- Programs pay for Headquarters executive transportation services based on their prior year usage.
- FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the fiscal year prior to formulation (FY 2015)

## Overseas Presence

### Description

The Department has a long-standing presence in several foreign capitals; this enables the Department to promote American trade and support critical treaties with our allies.

DOE funds 22 federal positions and 27 locally employed staff in ten countries that support the Secretary and, by extension, the entire Department. The business line provides administrative and operational support service to Departmental personnel traveling overseas for mission programs.

The budget finances federal salaries, overseas operating costs, and International Cooperative Administrative Support Services (ICASS) and Capital Security Cost Sharing (CSCS) programs. The Department utilizes State Department resources as shared services to ensure that costs are minimized.

### Pricing Policy

Charges for Overseas Presence are based on actual usage of these services by program offices. The annual bill for these charges will cover the fixed cost of the program and be allocated to programs based on the previous year's actual usage. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect allocations determined by the Overseas Presence Advisory Board based on negotiations with related programs.

## Pension Studies

### Description

Pension Studies provide program offices with an independent measure of contractor benefits and compare each contractor to both an internal and external benchmark. Program offices use the results of these studies in discussions with contractors regarding the need for reducing costs associated with contractor employee benefits. Results can be measured by the changes made to contractor employee benefit plans.

Pension Studies require access to actuarial expertise that is essential to understanding the implications on federal budgets of potential pension liabilities. Factors that impact pensions are dynamic and include: volatility of contributions, inflation, provisions in benefit plans, workforce restructuring, and pension legislation. These studies support the Department's budget projections, financial statements analysis, Office of General Counsel, and pension management plan.

Under the terms of the contracts that the Department has with each of its management and operations (M&O) contracts, the Department reimburses the contractors for reasonable costs associated with fulfilling their duties under the terms of the contract. These reasonable costs include costs associated with providing benefits to the contractors' employees. Beginning in 2009, the Department increased its oversight of these benefits and began annual reporting on the expected reimbursements for pension plans. DOE also reports on expected reimbursements for other postretirement benefits (primarily medical).

A key goal of this oversight is to improve transparency among the contractors with respect to the benefits being provided to the contractors' employees, as well as the associated annual cost per employee. The collection and analysis of this data requires a great deal of personnel, including the use of external actuarial services. However, publicizing the results of the survey has exerted pressure on the contractors to address the costs associated with their benefit plans. In addition, the Department has relied on external actuarial services to assist in the analysis of the information provided during the annual pension management review process, as well as in analyzing the impact of various proposals for cost reduction in the benefits provided by the different contractors. Given that there are approximately 50 pension plans and a similar number of postretirement benefit plans, analysis across the entire complex requires a significant amount of resources.

### Pricing Policy

Programs will be charged based on each program's sites' ratio of the total pension and post-retirement reimbursements reported in the April Report to Congress for the prior fiscal year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect allocations included in the 2016 Report to Congress. Program offices will only be billed on the biannual cycle of the studies, unless the Board approves funding for off-cycle years.

## Printing and Graphics

### Description

The Printing and Graphics Business Line provides procurement and liaison services with commercial printers through the Government Printing Office. It also provides design and development of pre-press graphics, electronic forms and exhibits, and court reporting services. Contractor staff distributes materials produced in-house as well as materials produced by other government agencies. This business line also provides professional photography, lab technicians, portrait studio operations, graphics, visual aids, and presentation materials. Centralized visual archives are provided through a repository of general interest photos.

### Pricing Policy

Organizations pay direct costs for printing, printed products, Federal Register publications, and some graphics services. Additionally, programs pay maintenance costs on graphics equipment and graphics supplies as a percentage allocation of costs incurred in the previous fiscal year. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the fiscal year prior to formulation (FY 2015).

## Procurement Management

### Description

Audit Services, Contract Closeout, and Purchase Card Surveillance business segments work together to help validate compliance with procedures and improve the internal controls of the Department. These segments also respond to specific issues raised by the Inspector General. Ultimately, savings to programs are realized by preventing fraud, waste, and abuse.

**Audit Services Segment** of the business actually represents funding to various federal audit agencies; however, the majority of the funding is provided to the Defense Contract Audit Agency (DCAA). DCAA and the Department of Health and Human Services (HHS) provide audit services to the Department's program offices and contracting officers in support of their acquisition activities. These services benefit the contracting officers in supporting their determination for reasonableness and realism of the contractor's proposed rates.

**Contract Closeout Segment** of the business is the final stage in contract administration support for DOE Headquarters elements. Services include ensuring that all contracted products and services have been delivered, final releases are obtained, final invoices and vouchers are processed for payment, and any remaining unexpended funds under the contract are released. Since FY 1996, the universe of contract instruments has steadily decreased. Over \$194 million has been de-obligated from expired contracts in the 21 years this activity has been operating as a Fund business. During FY 2017 the return on investment calculation shows that for every one dollar invested in the contract closeout activity, \$23 of uncosted funding was de-obligated from expired instruments. As a result of the Grants Oversight and New Efficiency (GONE) Act of 2016, the closeout of financial assistance instruments were prioritized. During FY 2017, the Contract Closeout Team successfully closed all GONE Act financial assistance awards (approximately 122) that were delivered to HQ Procurement Services for retirement.

**Purchase Card Data Mining** segment monitors purchase card usage within the Department. DOE purchase cards are issued under a task order through the SmartPay2 program administered by GSA. Funding for this effort is derived from rebates DOE elements receive, based upon the dollar volume of purchases. The vendor provides a version of the data mining system, entitled to DOE at no cost for the basic version. This business unit will detect patterns, trends, and/or anomalies for use in risk management, spend patterns, and other areas of analysis.

### Pricing Policy

Procurement Management pricing has multiple components:

- Closeout - each Headquarters element pays the actual contract closeout cost, determined by the unit price of each contract type and negotiated level of service.
- Purchase Card Data Mining costs are allocated based on the distribution of refunds resulting from the DOE purchase card program.
- DCAA audits are charged to programs based on actual usage from the previous fiscal year.
- FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the fiscal year prior to formulation (FY 2015).

## Project Management Career Development Program

### Description

The Project Management Career Development Program (PMCDP) provides a wide range of developmental, mentoring, training, and rotational activities which lead to project management certification. Project management certification under the program is based upon the requirements for training, developmental activities, and experience outlined in the certification standard contained in DOE Order 361.1B, Chapter IV, and meets the certification requirements of the Federal Acquisition Certification for Program and Project Managers defined in OMB OFPP Policy Memo dated December 16 2013. PMCDP defines necessary DOE project management knowledge, skills and abilities, as well as DOE training course requirements. Components of PMCDP also include a DOE career development tracking system and a DOE project management certification program.

### Pricing Policy

In FY 2019, the business line will continue to assess programs based on the number of projects, the amount of projects in the portfolio, and the number of incumbent project directors or potential project directors identified by the programs. Fixed costs related to the PMCDP will be charged to programs based on their pro-rata share of the number of projects and the value of those projects in the Project Assessment and Reporting System (PARS II). The variable costs of delivering courses will be charged to programs based on their pro-rata share of targeted participants. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on programmatic statistics reported in PARS II and PMCDP Program participant profile data at the time of formulation (FY 2016). This data includes estimates of present and forecasted needs that include number of projects, portfolio value of projects, and the number of incumbent and candidate project directors.

In addition, we expect some programs outside of the assessment pool to desire participation in the training offered. In those cases, the business will allocate a certain number of slots, on a space-available basis, at the rate of \$200 per day. These charges will offset other development costs and future charges to the programs.

## Supplies

### Description

This business line operates two self-service stores, which carry a wide variety of consumable office products. At customers' request, it acquires specialty items, not stocked in the stores. Products carried are based on review of equipment in the agency inventory and customer input and suggestions. This business operates the supply stores as a commercial operation, which is paid only for the supplies purchased by DOE employees. In support of federal green purchasing Executive Orders and statutory mandates, the Headquarters supply stores (located in Forrestal and Germantown) offer a wide range of environmentally-friendly supplies that are energy efficient or contain post-consumer waste (recycled) materials, bio-based materials (biological, agricultural or forestry-based), and biodegradable materials (decompose easily).

### Pricing Policy

Each organization pays for supplies purchased by its employees. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the 12-month period prior to formulation (FY 2015-16); extraordinary or unusual changes in usage patterns are not anticipated in the Fund's estimates.

## Telecommunications

### Description

The Telecommunications Business Line consists of three comprehensive enterprise activities: Voice Services, Wireless Services and Network Services.

**Voice Services Segment:** Comprises an infrastructure connecting two main Headquarters buildings and satellite buildings for internal dialing and basic line service. The infrastructure includes communication networks, installed telephone processing switching equipment, and trained technical personnel. Telephone service includes local, long distance, and international dialing; specialized services such as operator-assisted conference calls, voice mail, call forwarding, automatic ring-back, and custom calling cards; and trained technical personnel to install, repair and operate the system. There are

11,839 telephone connections at DOE Headquarters. This segment also includes wireless communications and there are 8,352 wireless devices supported by the business line. The wireless device costs are monitored regularly and carrier plans are centrally adjusted to attain maximum savings.

#### **Pricing Policy**

Telephone system costs are allocated to Headquarters offices based upon four categories:

- Headquarters telephone system infrastructure costs, which are composed of: (a) the cost of the leased telecommunications circuits connecting the Headquarters buildings to the internal telephone system; (b) the cost of leased telecommunications circuits that support local, long distance and international calling; and (c) the cost of the technical staff who operate the Headquarters telephone switches, and install and repair the telephone wiring plant. Since the Fund's inception, program customers have been validating and reducing the number of active phone lines.
- The costs of dedicated communication circuits are allocated to organizations requesting installation of such lines.
- All long distance, local, and international calls at Headquarters are allocated to the originating telephones and thus to programs based on the actual billing information.
- All recurring wireless communication devices (smart phones, pagers, tablets, etc.) service contract costs and equipment purchases are charged to programs based on actual usage.

FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the 12-month period prior to formulation (FY 2015-16); extraordinary or unusual changes in usage patterns as well as purchases of new equipment, outside of the approved and budgeted refresh program, are not anticipated in the Fund's estimates.

**Network Services Segment:** Provides connectivity for DOE Headquarters and Field operations through Local and Wide Area Networks. This connectivity provides interoperability for 86 organizational Local Area Network (LAN) segments in two main Headquarters and associated satellite buildings; and connectivity to the Headquarters application host systems. There are 11,835 DOE Headquarters and Field LAN connections. LAN connections provide access to and cybersecurity for the internet, electronic mail, and other applications for information processing and sharing through infrastructure. It also provides connectivity to the entire national complex through DOEnet, which is a centrally managed DOE-wide area network designed to support DOE corporate systems and carry business sensitive data to users at 45 DOE sites.

#### **Pricing Policy**

Networking charges represent infrastructure costs which are composed of: (1) the cost of leased telecommunications circuits; (2) the cost of maintaining common network infrastructure components (routers, switches, etc.) and upgrades where needed; and (3) the cost of providing technical staff to install and repair network connections and monitor/operate the various common network components. These charges will be allocated among program organizations based on the number of active LAN connections, as a monthly charge. Since the Fund's inception, program customers have been validating the number of these connections. DOEnet costs are allocated to participating sites based on the costs associated with providing the service – circuit costs, hardware and maintenance costs, and the cost of providing technical staff. FY 2019 estimates remain the same as FY 2018 Congressional Request estimates, which reflect amounts based on usage from the 12-month period prior to formulation (FY 2015-16); extraordinary or unusual changes in usage patterns as well as purchases of new equipment, outside of the approved and budgeted refresh program, are not anticipated in the Fund's estimates.





# **Crosscutting Activities**

# **Crosscutting Activities**

**Exascale Computing Initiative (ECI)**  
**(\$K)**

	FY 2017 Enacted	FY 2019 Request
DOE Office of Science	\$164,000	\$472,706
National Nuclear Security Administration	\$95,299	\$163,073
<b>Total, Exascale Computing Initiative</b>	<b>\$259,299</b>	<b>\$635,779</b>

**Overview**

The United States must retain its primacy in high-performance computing (HPC) to ensure its national security, economic prosperity, technological strength, and scientific and energy research leadership. Failure to address our national security, science, and increasing big data needs will open the door to other nations with a previously demonstrated commitment to HPC investment to take the lead not only in high-end computing but also eventually in science, national defense, and energy innovation, as well as in the commercial computing market. If the U.S. defers the lead in HPC technology to other nations, the risks could include being subject to potential export controls exerted by these nations, as well as cybersecurity and computer supply chain risks. To achieve its exascale goal, the U.S. government must actively engage industry in HPC technology development. Past partnerships between the U.S. government and industry have led to the development of highly innovative technologies that met both federal government and private sector objectives.

In 2015, the National Strategic Computing Initiative (NSCI) was established to maximize the benefits of HPC for U.S. economic competitiveness, scientific discovery, and national security. Within that initiative DOE, represented by a partnership between the Office of Science (SC) and the National Nuclear Security Administration (NNSA), has the responsibility for executing a joint program focused on advanced simulation through an exascale-capable computing program, which will emphasize sustained performance and analytic computing to advance DOE missions. The objectives and the associated scientific challenges define a mission need for a computing capability of 2 – 10 ExaFLOPS (2 – 10 E<sup>18</sup> floating-point operations per second) in the early to mid-2020s.

The FY 2018 DOE Stockpile Stewardship and Management Plan states that “a partnership between NNSA and the Office of Science has been executing a joint program focused on providing exascale-class computing to the Nation by the early 2020s. The planned exascale systems represent a fifty-fold improvement in performance over today’s computing capabilities and will enable NNSA to address increasingly complex national security questions and the Office of Science to address next generation science, engineering, and data problems.” As such, SC and NNSA are collaborating on the Exascale Computing Initiative (ECI), involving close coordination of future and relevant existing programs. Through a coordinated pursuit by the Federal government, industry, and academia, the key exascale challenges are: parallelism, system reliability, energy efficiency, and memory and storage. The ECI goal is to significantly accelerate the development and deployment of exascale-capable computing systems, applications and software infrastructure to meet national security needs and to provide next-generation tools for scientific discovery.

Future-generation systems will require significant changes in how high performance computers are designed and developed. The new designs proposed by industry to address the growing need for energy efficiency and data analytics will result in massive parallelism, down to the processor level, which the HPC user community has never experienced. We have reached a point where the continued improvement in processing performance requires breakthroughs to resolve the Von Neumann memory bottleneck, reducing power consumption, and solving unique problems of computing at unprecedented scales. As a consequence, DOE’s approach to overcoming HPC technology challenges is aimed not simply at realizing a single, albeit exceptional, computing performance objective, but rather at setting the U.S. on a new design trajectory to support a broad spectrum of capabilities over the succeeding years.

Concurrent research and development (R&D) in applications that will optimally exploit emerging new exascale computing architectures is a critical component of a federally funded effort in exascale computing. SC and NNSA have already initiated R&D efforts in extreme-scale application development. Starting in FY 2017, these two offices began to provide leadership and assist with the enabling of the next generation of important applications to solve applied energy and national security problems. Selected applications include those that support nuclear weapons stockpile stewardship, scientific discovery,

energy technology innovation, electrical generation and distribution, nuclear reactor design and longevity, and data assimilation and analysis..

In FY 2017, the SC R&D portion of the ECI was segregated into the Office of Science Exascale Computing Project (SC-ECP) as a new Exascale Computing subprogram in SC's Advanced Scientific Computing Research (ASCR) program. ECP provides the R&D necessary to design an exascale-capable system. For additional transparency, in the FY 2018 President's Budget Request, ASCR provided additional funds in ECI to support site preparations and non-recurring engineering investments at the Leadership Computing Facility (LCF) at Argonne (ALCF) and Oak Ridge (OLCF) National Laboratories for the deployment of two architecturally diverse exascale systems in 2021 and 2022. In addition, ECI also includes the portion of the FY 2019 Budget for Basic Energy Sciences (BES) investments that include computational materials and chemistry applications related to exascale computing.

In FY 2019, the NNSA portion of the ECI is categorized as the Office of Advanced Simulation and Computing (ASC)'s Advanced Technology Development and Mitigation (ATDM) subprogram, the ASC Computational Systems and Software Environment (CSSE) subprogram, the Lawrence Livermore National Laboratory infrastructure modernization project to prepare for the siting of the NNSA exascale system in FY 2023, and the Los Alamos National Laboratory infrastructure modernization project and the Exascale System procurement effort.

The DOE ECP is organized around three technical focus areas: 1) Application Development, targeting specific R&D activities and outcomes that address critical DOE missions applications and grand challenge problems; 2) Software Technology, with efforts that span low-level operational software to high-level applications software development environments, including the software infrastructure to support large data management and workflows; and 3) Hardware and Integration, which supports vendor-based R&D efforts and the integration of ECP with the facilities projects that are delivering the exascale systems.

### **Highlights and Major Changes in the FY 2019 Budget Request**

In FY 2019, DOE proposes to continue its efforts in three ECP technical focus areas outlined below. SC and NNSA will fund the relevant applications in their respective areas, equitably fund software technology projects to support each program's application requirements, and jointly invest in vendors' hardware technologies.

#### ECP Focus Area 1: Application Development

- Exascale Co-Design Centers, research to co-design, with industry, hardware and software architectures for a set of DOE mission-relevant applications.
- Readiness to Use Exascale-capable Systems, continuing the development of a suite of exascale applications software packages that address exascale challenges to ensure maximal scientific and engineering impact of the exascale systems.

#### ECP Focus Area 2: Software Technology

- Software Technology Research and Development, developing the necessary, complex exascale software technologies, including programming environments, scientific data management, software productivity and resilience, libraries and frameworks and will develop an high quality, sustainable software suite.
- The resulting software stack must cover the full spectrum of computing, including terascale and petascale, as well as the exascale systems.

#### ECP Focus Area 3: Hardware and Integration

- Hardware Research and Development, to be conducted by computer vendors, aimed at developing critical exascale technologies.
- Integrate deployment of specific outcomes and products on targeted systems at computing facilities, including the transitioning of completed PathForward projects to facility Non-Recurring Engineering (where appropriate), and the integration of software and applications on pre-exascale and exascale system resources at facilities.

**Exascale Computing  
Funding by Appropriation and Program  
(\$K)**

	FY 2017 Enacted	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
Office of Science (SC)			
Advanced Scientific Computing Research (ACSR)			
SC-Exascale Computing Project (SC-ECP, 17-SC-20)	\$164,000	\$232,706	+\$68,706
<i>ECP Focus Area 1: Applications</i>	\$97,000	\$120,706	+\$23,706
<i>ECP Focus Area 2: Software</i>	\$37,000	\$62,000	+\$25,000
<i>ECP Focus Area 3: Hardware</i>	\$30,000	\$50,000	+\$20,000
Argonne Leadership Computing Facility (ALCF)	\$0	\$140,000	+\$140,000
Oak Ridge Leadership Computing Facility (OLCF)	\$0	\$100,000	+\$100,000
<b>Total, SC Exascale<sup>1</sup></b>	<b>\$164,000</b>	<b>\$472,706</b>	<b>+\$308,706</b>
National Nuclear Security Agency (NNSA)			
Advanced Simulation and Computing (ASC)			
Advanced Technology Development & Mitigation (ATDM)	\$95,299	\$95,073	-\$226
<i>ECP Focus Area 1: Applications</i>	\$23,000	\$30,000	+\$7,000
<i>ECP Focus Area 2: Software</i>	\$37,299	\$35,073	-\$2,226
<i>ECP Focus Area 3: Hardware</i>	\$25,000	\$0	-\$25,000
<i>ECI Stockpile Applications</i>	\$10,000	\$11,000	+1,000
<i>ECI Advanced Architecture System &amp; Software</i>	\$0	\$19,000	+\$19,000
Exascale Class Facility Modernization (18-D-680)	\$0	\$23,000	+\$23,000
Exascale Class Computer Cooling Equipment (18-D-670)	\$0	\$24,000	+\$24,000
Exascale System	\$0	\$21,000	+\$21,000
<b>Total, NNSA Exascale<sup>2</sup></b>	<b>\$95,299</b>	<b>\$163,073</b>	<b>+\$67,774</b>
<b>Total, ECI</b>	<b>\$259,299</b>	<b>\$635,779</b>	<b>+\$376,480</b>

<sup>1</sup> The SC-ECP project was initiated in FY 2017 to prepare the LCFs for deployment of at least one exascale system included in ECI. Only a portion of the OLCF funds are shown because they are also operating Summit which is a 200 PF pre-exascale system; funding for the ALCF is primarily focused on the delivery of the exascale system. BES investments in computational materials and chemistry applications are also included in ECI but not shown on the table for FY 2017 and beyond.

<sup>2</sup> The FY 2019 request includes \$47M to construct cooling equipment and support infrastructure to prepare for deployment of pre-exascale and exascale systems at LANL and LLNL, respectively.

## Departmental Collaboration

ECP is being executed within a tailored project framework that follows the principles of DOE Order 413.3B, which defines critical decision points, overall project management, and requirements for control of a baselined schedule and cost. A single federal official from the Oak Ridge Site Office has overall responsibility for execution of the project, in partnership with a deputy federal project director from the Lawrence Livermore Field Office, and they report to the cognizant SC and NNSA Headquarters program offices and are accountable to a Project Management Executive, as defined in DOE Order 413.3B. Project execution is governed by a baselined schedule and cost envelope, using SC processes, and will follow defined processes for change control and management of contingency once the performance baseline for ECP is established.

Because of the breadth and complexity of the research and development of the applications, software environment and hardware technologies, an Integrated Project Team (IPT) has been established through an IPT charter with defined roles and responsibilities. The IPT supports the Federal official, who leads the IPT through the lifetime of the project.

### ECP Focus Area 1: Application Development (\$150.706M)

#### SC: ASCR (\$120.706M)

In this focus area, ASCR will continue to prepare applications critical to the scientific and energy missions of the Department and other Federal agencies for the delivery of the 2021 Exascale system. SC-ECP will build on ASCR's long history of the development of computational partnerships to ensure that scientists will make effective use of high performance computing.

#### NNSA: ASC (\$30M)

NNSA will be responsible for determining the scope and management of the stockpile simulation application development that is included in this focus area. Confidence in the safety and reliability of the nuclear weapons stockpile relies on high-fidelity simulations of all of the physical processes occurring within a nuclear weapon and the processes that support the design, production, maintenance, and evaluation of the nuclear arsenal, including life extension programs and weapons dismantlement. The ASC integrated design codes (IDCs) model various aspects of nuclear weapons and each have several million lines of code to accurately reflect the multi-scale, multi-physics phenomena occurring in a nuclear weapon. The accuracy of these IDCs underpins confidence in the U.S. nuclear deterrent and must be improved, with the ATDM application funding, to ensure continued future confidence in the nation's stockpile. Exploiting the multi-level parallelism demanded by emerging architectures leading to exascale requires significant investment for new stockpile simulation code development over the next 5 to 7 years.

### ECP Focus Area 2: Software Technology (\$97.073M)

#### SC: ASCR (\$62M)

In partnership with NNSA, investments in the Software Technology focus area will provide the required software that effectively bridges between the other focus areas of the ECP. In FY 2018 the SC-ECP software technology effort will continue to identify and support the research and development needed to either extend current technologies or conceive new approaches necessary to simplify application development and allow scientists to generate highly parallel applications that can fully utilize exascale architectures and that are resilient to hardware faults.

#### NNSA: ASC (\$35.073M)

Since the late 1990s, NNSA has a track record of successfully executing large, technically complex computational projects to support its mission. Where appropriate, ASC will make strategic investments in ECP ST to directly support its stockpile stewardship code development requirements. Funding will support further development of compilers and math libraries for the NNSA suite of integrated design codes that are aligned with the algorithms and approaches used in those codes. This focused research is needed to optimize the performance of the algorithms within the overall simulations that are the most time demanding or require the highest control of precision in numerical approximations. Also, investments will be made in various performance analysis tools and visualization techniques to aid code developers and users to navigate the new advanced architecture systems.

### ECP Focus Area 3: Hardware and Integration (\$50M)

#### SC: ASCR (\$50M)

ASCR investments will support the Hardware and Integration focus area, providing funds to support research and development to deliver critical exascale hardware technologies through the PathForward program. In addition, this focus area supports the close integration between ECP and the ASCR Leadership Computing Facilities, which will provide the testbeds and other computational resources to test and scale ECP applications and software.

### Other Non-Focus Area ECI Investments (\$310.2M)

#### SC: LCF Investments (\$240.0M)

ASCR will provide the ECP teams with access to current testbeds and upgraded systems in the ALCF and OLCF as well as systems at the National Energy Research Scientific Computing Center (NERSC). ASCR will also invest in site preparation and significant non-recurring engineering activities at the LCFs to deliver an exascale system in 2021 with another, using a different design, in 2022.

#### NNSA: Stockpile Applications (\$11M)

NNSA will fund the development of new hostile environment simulation capabilities. It will also investigate technologies of potential impact to the next-generation integrated design codes and the supporting weapon science codes. These activities will require support for additional co-design teams, as well as increased support for the existing teams that currently conduct annual assessment activities for the suite of nuclear weapons missions. Funding also supports projects at the NNSA Labs that will seek to increase the capacity and capability of an enduring national HPC ecosystem via inter-agency collaborations with other U.S. Federal agencies.

#### NNSA: Advanced Architecture System and Software (\$19M)

NNSA will deploy a multi-PetaFLOPS advanced architecture system for the initial testing and iteration of its next-generation integrated design codes.

#### NNSA: Infrastructure Modernization (\$47M)

NNSA will upgrade the structural, mechanical, and electrical capacities at Lawrence Livermore National Laboratory to prepare for the hosting of ASC's 2023 exascale system. NNSA will also upgrade the structural, mechanical, and electrical capacities at Los Alamos National Laboratory to prepare for the siting of ASC's 2020 pre-exascale system.

#### NNSA: Exascale System (\$21M)

NNSA will embark on a multi-year, non-recurring engineering collaboration with a selected vendor for the 2023 exascale system, focusing on key advanced system engineering efforts and software technologies to turn the 2023 exascale system into a capable and productive computing resource for the Stockpile Stewardship Program. This activity will be funded by the NNSA ASC Computational Systems and Software Environment (CSSE) subprogram.

### **Key Accomplishments and Objectives**

#### FY 2017 Key Accomplishments

- Achieved approval of the ECP Alternatives Selection (CD-1) and of Long Lead Procurement (CD-3A) to invest in hardware technology research and testbeds after the appropriate independent project reviews.
- Initiated additional ECP projects in the areas of software technologies and co-design centers.
- Initiated additional ECP SC application development projects.
- Finalized site preparations activities for CORAL upgrade at the OLCF.
- In July, began deployment of Summit, the CORAL system at the OLCF.
- Continued to renegotiate the CORAL ALCF contract with Intel/Cray to include non-recurring engineering investments for the delivery of an exascale capable system in 2021.
- Conducted a Design Review for the proposed exascale system at ALCF in September.
- Develop and approve CORAL II Mission Need Statement to begin planning for an exascale capable system at the OLCF in 2021-2022.

- Established six ECP Hardware Technology PathForward contracts.
- Held the first annual meeting of the ECP project teams with over 400 participants.
- Developed succession plan for ECP project management.

#### FY 2018 Planned Activities

- Conduct annual Independent Project Review to evaluate the ECP's progress in January.
- Complete deployment of the 200-PF Summit system and begin operations at the OLCF.
- Conduct an Independent Project Review (IPR) in to re-baseline the ALCF Coral project to reflect the change in scope to deploy an exascale system in 2021 and begin non-recurring engineering and site preparation activities.
- Finalize the contract between Argonne and Intel/Cray for the delivery and deployment of an exascale system in 2021.
- Conduct an IPR at OLCF to approve the siting and alternative analysis (Critical Decision 1) for the proposed exascale system to be deployed in 2021-2022.
- Release the CORAL II RFP.
- Accelerate development of NNSA's next-generation integrated design code and develop new hostile environment simulation capabilities.
- Improve NNSA proxy applications to enhance co-design interactions with computer vendors.
- Deploy advanced hardware test beds to assist in the performance analysis of NNSA's next-generation weapons codes.
- Establish cost range and achieve CD-1 approval for the Lawrence Livermore ECFM Project.
- Convene the second annual meeting of the ECP project teams in February to review progress and continue co-design discussions between activities.
- Meet with relevant DOE program offices to review progress on key applications.

#### FY 2019 Key Objectives

- Review and approve Critical Decision 2 for ECP to finalize the project's cost, schedule and scope.
- Review and approval Critical Decision 2 for the OLCF CORAL II system.
- Conduct the annual IPR for the ALCF CORAL exascale system to ensure that the project and vendor is on track to deliver an exascale system in 2021.
- Convene third annual meeting of the ECP teams to review progress and continue co-design discussions between activities.
- Continue testing new application codes and system software on pre-exascale hardware at DOE facilities.
- Evaluate the performance potential of the NNSA ATDM application codes and software on the LLNL Sierra system.
- Initiate the LLNL Exascale system's NRE contract and the Center of Excellence activities with the selected vendor.



## Cybersecurity (\$K)

FY 2017 Enacted	FY 2019 Request
361,347	466,317

### Overview

The Department is engaged in cybersecurity activities to protect the DOE Enterprise and mitigate risk from a range of cyber threats that can adversely impact mission capabilities. DOE also works to improve energy sector cybersecurity, in particular strengthening energy delivery systems. The FY 2019 request includes an increase of +\$105 million from FY 2017 and represents the Department's prioritization of cybersecurity both within the DOE Enterprise, and across the country's energy sector.

In an effort to improve consistency and quality in IT budget reporting, the Protecting the DOE Enterprise portion of the FY 2019 Cybersecurity Crosscut is derived from the IT Security and Compliance Standard Investments within DOE's IT Investment Portfolio. As directed in the FY 2019 IT – Budget Capital Planning Guidance, agencies are now required to report on their standard Investments for IT Security and Compliance at the level that they are managed and executed. In support of FISMA and FITARA, every organization managing a security program must now provide visibility of costs and outcomes of its cybersecurity activities. Further, the IT Security and Compliance Investment Report tables now present estimates along the National Institute of Standards and Technology (NIST) Framework that groups cybersecurity activities into five overarching categories: Identify, Protect, Detect, Respond and Recover. Therefore, the Crosscut also presents the Department's cybersecurity spending by NIST Framework Category.

### Highlights and Major Changes

#### *Protecting the DOE Enterprise*

- NNSA Weapons Activities requests an increase of +\$38 million in FY 2019 to address critical capability gaps at the NNSA Information Assurance Response Center (IARC) and modernize the Enterprise Secure Network (ESN).
- The Office of the Chief Information Officer (OCIO) requests an increase of +\$20 million in FY 2019 to provide additional capabilities and protections through the establishment or increased scope of program implementation for High-Value Assets (HVA), Continuous Diagnostics and Monitoring (CDM), and network security modernization.

#### *Energy Sector Cybersecurity*

- Cybersecurity for Energy Delivery Systems (CEDS) requests increase of +\$8 million to accelerate and expand efforts to strengthen energy delivery systems from cybersecurity incidents.
- Nuclear Energy's Nuclear Energy Enabling Technologies (NEET) Crosscutting Technology Development (CTD) subprogram requests \$5 million for nuclear reactor cybersecurity research in FY 2019.

**FY 2019 Cybersecurity Crosscut  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Protecting the DOE Enterprise<sup>1,2</sup></b>			
Chief Financial Officer	1,225	1,245	+20
Chief Information Officer, All Funding	69,045	88,882	+19,837
<i>Appropriated</i>	21,006	36,670	+15,664
<i>WCF/CyberOne<sup>3</sup></i>	37,381	37,831	+450
<i>Customer</i>	10,658	14,381	+3,723
Defense Environmental Cleanup	12,631	43,356	+30,725
Energy Efficiency and Renewable Energy	5,409	5,912	+504
Energy Information Administration	865	885	+20
Enterprise Assessments	4,710	5,741	+1,031
Environment, Health, Safety and Security	5,346	5,524	+178
Fossil Energy Research & Development	2,628	4,067	+1,439
Legacy Management	1,021	1,282	+261
NNSA - Weapons Activities	146,592	184,675	+38,083
Nuclear Energy	17,029	17,676	+647
Science	27,197	28,897	+1,700
Strategic Petroleum Reserve	2,649	3,175	+526
<i>Subtotal, Protecting the DOE Enterprise</i>	<i>296,347</i>	<i>391,317</i>	<i>+94,970</i>
<b>Energy Sector Cybersecurity</b>			
Cybersecurity, Energy Security, and Emergency Response <sup>4</sup>	62,000	70,000	+8,000
Nuclear Energy NEET-CTD	3,000	5,000	+2,000
<i>Subtotal, Energy Sector Cybersecurity</i>	<i>65,000</i>	<i>75,000</i>	<i>+10,000</i>
<b>Total, Cybersecurity</b>	<b>361,347</b>	<b>466,317</b>	<b>+104,970</b>

<sup>1</sup> Does not include PMA Cybersecurity expenditures offset by collections.

<sup>2</sup> Amounts in the table are consistent with the more inclusive entries in the IT Investment Portfolio, IT Security and Compliance Standard Investments.

<sup>3</sup> Corporate funded requirements managed by OCIO, e.g., WCF and EITS, are included within the OCIO line. FY 2019 estimate for FY 2019 includes CyberOne plus an additional \$3M from the WCF Inter-Agency Transfer line of business for OPM credit monitoring.

<sup>4</sup> Office of Electricity Delivery and Energy Reliability (OE) is requested as two programs in FY 2019; Electricity Delivery, and Cybersecurity, Energy Security, and Emergency Response (CESER). The latter includes the Cybersecurity for Energy Delivery Systems (CEDs) program.

## Protecting the DOE Enterprise

### *Office of the Chief Information Officer*

In FY 2019, OCIO's overall cybersecurity request totals \$92,062K, an increase of +\$23,017K from FY 2017 and includes Working Capital Fund (WCF) and customer funding. OCIO is responsible for Enterprise-wide cyber strategy, including establishing policies, managing investments and initiatives to support strategic direction, and establishing programs to promote outreach and effective risk implementation. OCIO seeks to expand its centralized High-Valued Assets (HVA) Program which oversees the HVA inventory, assesses HVA systems, tracks remediation of findings, and coordinates external auditing and reporting for DHS and OMB. OCIO will continue to modernize network security projects including the: expansion of core infrastructure services; deployment of additional infrastructure in support of Continuous Diagnostics and Mitigation (CDM); evaluation and consolidation of applications; and acquisition of a comprehensive digital business platform. The FY 2019 request also includes funding for the Safe Passages Program which will address multiple security and risk-related issues when DOE officials travel internationally. Customer funds will continue to be applied toward antivirus software, PKI encryption, website filtering, implementing identity credentials at Identity Assurance Level (IAL), Authenticator Assurance Level (AAL), and Federation Assurance Level (FAL) per NIST 800-63 guidance, and monitoring of Energy Information Technology Services (EITS) enclaves and subsystems in FY 2019.

CyberOne, funded by the WCF, includes two programs: the Integrated Joint Cybersecurity Coordination Center (iJC3), and the Identity Credential and Access Management (ICAM) program. In FY 2017, iJC3, in conjunction with NNSA's Information Assurance Response Center (IARC), transformed from a highly distributed matrix of capabilities to the East/West Unclassified Security Operations Centers (EWE U/SOC). In collaboration with NNSA, iJC3 is leveraging shared services through IARC as part of its long-term strategy. This provides for better visibility, better integration of cyber data from all DOE sites, and works towards a geographically separated full failover capability. In FY 2019, iJC3 plans to continue to develop new capabilities. The ICAM program in FY 2019 will expand the use of identity credentials (IAL/AAL/FAL) in support of the following efforts: assurance for application access on Federal Information Security Modernization Act (FISMA) systems; extending federated authentication services to external federal entities; and supporting CDM program implementation beyond DOE Headquarters to additional DOE laboratories, plants, and power marketing administration entities.

### *Other DOE Headquarters Cybersecurity*

In FY 2019, cybersecurity efforts will also be underway in other DOE Headquarters programs. The Office of the Chief Financial Officer (OCFO) will continue security assessments and accreditation activities for the Department's financial systems through interviews, document reviews, and system testing, and conducting web application vulnerability scanning on OCFO systems. Environment, Health, Safety and Security (EHSS) will continue to provide an operational capability for the protection of DOE Enterprise data including Personally Identifiable Information (PII), Private Health Information (PHI), and National Security Information and Restricted Data. EHSS's cybersecurity activities also are required for the issuance of identity credentials at DOE Headquarters, and administering the Insider Threat program. In FY 2019, the Energy Information Administration (EIA) plans to further enhance its program-specific Security Operations Center capabilities and to further expand cyber data sharing with OCIO in support of DOE-wide cyber initiatives. In addition, Enterprise Assessments (EA) will continue to protect the Department's information systems by conducting and reporting the results of comprehensive independent cybersecurity performance assessments and unannounced performance testing to improve systems against external and internal attacks.

### *NNSA Cybersecurity*

NNSA Weapons Activities requests an additional +\$38,083K from FY 2017 for a total of \$184,675K for Cybersecurity, including Enterprise Secure Computing. This increase addresses critical capability gaps at the NNSA Information Assurance Response Center (IARC) which monitors network activity within the Enterprise. IARC is responsible for providing 24/7/365 cybersecurity services to NNSA networking enclaves. As a participant with the iJC3 Program, the IARC also supports

Enterprise-level cyber threat management and situational awareness for the Department. IARC initiatives include modernizing the cybersecurity infrastructure, comprised of almost 100 sensors and over 70 data acquisition servers dispersed nationwide. NNSA also plans to implement an application modernization strategy which seeks to minimize the number of disparate NNSA federal business and mission support IT applications in favor of a platform-based approach. In addition, a Telecommunications Security Program to deliver more effective oversight, greatly reducing negative impacts to the mission programs while increasing visibility, oversight of risks, and governance of this critical function is planned for FY 2019.

#### *Energy Programs Cybersecurity*

DOE Energy Programs and Science aim to strengthen the Department's cybersecurity posture by meeting FISMA requirements, enhancing CDM, providing training, expanding credentials for identity assurance, and mitigating hardware and software vulnerabilities in FY 2019.

- In FY 2019, Energy Efficiency and Renewable Energy (EERE) is moving from a compliance-based cybersecurity model to a risk-based model in response to DOE's Risk Management Approach Implementation Plan (RMAIP). This includes implementation of encryption capabilities, improved tracking of role-based cybersecurity training, implementation of appropriate identity assurance for external (e.g., those outside of the enclave) users accessing EERE applications, and re-architecting the National Renewable Energy Laboratory's (NREL) IT Enterprise infrastructure to implement the appropriate levels of assurance around data and systems.
- Fossil Energy Research and Development (FERD) plans to expand vulnerability scanning capabilities, improve privileged account management and replace critical end-of-life equipment. The Strategic Petroleum Reserve (SPRO) will focus on cloud services protection and CDM by implementing additional CASB (cloud access security brokers), DLP (data loss prevention) in FY 2019.
- For FY 2019, Nuclear Energy Idaho National Laboratory's (INL) cybersecurity funding will be utilized to expand the monitoring and intrusion protection capabilities, integrate INL-specific penetration testing into the existing vulnerability management program, mature the insider threat program, and optimize the risk assessment processes for unclassified, classified, and cloud services.
- In FY 2019, Science will continue to engage in a range of activities protecting operations from cyber threats consistent with the Department's cybersecurity program. This includes CDM audits and assessments, vulnerability assessments, security training, intrusion detection and prevention, incident response, and improving the program's contingency response capability.
- Defense Environmental Cleanup (EM) increases support efforts to implement the Department's High Value Asset and Continuous Diagnostics and Mitigation programs. EM's cybersecurity activities will also strengthen capabilities at Field Sites and at Headquarters to modernize legacy information technology assets.
- Legacy Management (LM) will continue its Information Assurance Program in FY 2019 which involves all processes and activities pertaining to securing Federal data and information systems.

## Energy Sector Cybersecurity

DOE requests \$75 million in FY 2019 to improve energy sector cybersecurity, in particular energy delivery systems and nuclear reactor protection activities. In FY 2019, a +\$8 million increase from FY 2017 is requested for Cybersecurity for Energy Delivery Systems (CEDS). CEDS is proposed to move from Electricity Delivery and Energy Reliability (OE) to the new Cybersecurity, Energy Security, and Emergency Response (CESER) program. CEDS seeks to reduce the risk of energy disruptions due to cyber events. The request reflects the critical need to accelerate and expand efforts to strengthen the energy infrastructure against cyber threats and mitigate vulnerabilities, focusing on enhancing the speed and effectiveness of cyber threat and vulnerability sharing, establishing a national cyber supply chain assessment capability in partnership with industry, and accelerating game-changing R&D. The FY 2017 appropriation supported the initiation of the Cybersecurity for the Operational Technology Environment (CYOTE) Pilot, while the FY 2019 request advances the information sharing platform and partnership model to dramatically improve speed, reduce cost, and increase industry participation. The Cybersecurity Risk Information Sharing Program (CRISP) and CYOTE functionality complement the functionality of DHS's Automated Indicator Sharing (AIS). CRISP and CYOTE create the cyber intelligence and AIS distributes it to the various recipients. In FY 2019, CEDS will complete prototypes developed in FY 2017 and FY 2018 for next-generation energy delivery systems to recognize malicious compromise of data or algorithms. The FY 2019 request also establishes an Advanced Industrial Control System Analysis Center and associated capabilities related to energy sector cyber supply chain threats and vulnerabilities.

In FY 2019, NE requests \$5 million for NEET-CTD to expand its nuclear reactor cybersecurity research to support development of intrusion-resistant systems and practices. Research will be conducted in four areas: cyber risk management, secure architectures, modeling and simulation, and supply chain cyber security assurance. NEET-CTD will also perform simulated cyber-attacks against existing and next generation control system architectures to verify attack difficulty and control efficacy, methods, and metrics.

**FY 2019 Protecting the DOE Enterprise by the NIST Framework Categories**  
(\$K)

<b>Programs<sup>1</sup></b>	<b>Identify</b>	<b>Protect</b>	<b>Detect</b>	<b>Respond</b>	<b>Recover</b>	<b>TOTAL</b>
Chief Financial Officer	274	872	62	37	-	1,245
Chief Information Officer <sup>2</sup>	17,616	40,594	8,312	19,660	2,700	88,882
Defense Environmental Cleanup	9,614	17,025	9,994	5,172	1,550	43,356
Energy Efficiency and Renewable Energy	3,369	2,049	382	26	86	5,912
Energy Information Administration	215	393	115	107	55	885
Enterprise Assessments	1,249	2,081	1,891	208	312	5,741
Environment, Health, Safety and Security	828	4,063	432	72	129	5,524
Fossil Energy Research and Development	1,078	1,510	772	283	425	4,067
Legacy Management	258	494	254	232	44	1,282
NNSA - Weapons Activities	31,533	32,195	59,496	26,356	9,594	159,175
Nuclear Energy	6,547	7,815	2,400	553	360	17,676
Science	9,100	10,300	6,000	1,900	1,597	28,897
Strategic Petroleum Reserve	258	984	1,533	200	200	3,175
<b>SUBTOTAL</b>	<b>81,940</b>	<b>120,375</b>	<b>91,642</b>	<b>54,806</b>	<b>17,053</b>	<b>368,997</b>
NNSA – Weapons Activities – ESC <sup>3</sup>	-	-	-	-	-	25,500
<b>TOTAL, Protecting the DOE Enterprise</b>	<b>81,940</b>	<b>120,375</b>	<b>91,642</b>	<b>54,806</b>	<b>17,053</b>	<b>391,317</b>

<sup>1</sup>Excludes Energy Sector Cybersecurity and the Power Marketing Administrations.

<sup>2</sup>Chief Information Officer includes WCF and customer funding.

<sup>3</sup> NNSA Enterprise Security Computing (ESC) is not distributed along the NIST Framework.

The FY 2019 Cybersecurity Crosscut uses estimates from the IT Security and Compliance Standard Investment Cost and Capabilities tables within DOE’s IT Investment Portfolio. This enables better consistency and quality in IT budget reporting between the budget request and the IT Investment Portfolio. The IT Security and Compliance Investments are aligned along the National Institute of Standards and Technology (NIST) Framework, which groups cybersecurity activities into five overarching categories: Identify, Protect, Detect, Respond and Recover.

The majority of DOE’s cybersecurity spending is focused on the Identify, Protect and Detect capabilities. Under Identify, Continuous Diagnostics and Mitigation (CDM), Non-CDM ISCM - Asset Inventory (HW, SW), and Attainment and renewal of system Authority-to-Operate (ATOs) received the most resources. Under Protect, Security Configuration Compliance and Auditing, Vulnerability Testing and Analysis, and Vulnerability Management were the focus. Detect priorities include Intrusion Prevention and Malware Defense. Incident Management and Response provided by iJC3 and IARC comprises the majority of the cybersecurity spending under the Respond category. Within Recover, NNSA focuses on Incident and Disaster Recovery and Incident Notification for the Enterprise.

## **Research and Development Crosscut**

The FY 2019 Budget Request refocuses the Department's energy and science programs on early-stage research and development (R&D) across the Department of Energy (DOE) complex, program offices, and national laboratories to advance American primary scientific and energy research in an efficient and cost effective manner. The Budget Request continues a renewed focus on cutting-edge innovation, while fostering the transition of those breakthroughs to the private sector for commercialization.

The DOE supports R&D activities and facilities to ensure that the U.S. remains at the leading edge of discovery and to provide the science and technology to fuel innovation and long-term economic growth. The vast scope of the R&D activities encompasses high priority areas such as exascale computing, energy sector resilience and cybersecurity; and the operation of a vast array of scientific user facilities in support of R&D.

The Department's FY 2019 budget request ensures the Department's world-leading science and technology enterprise—including its 17 national laboratories—continue to expand the frontiers of energy R&D in support of the Nation's energy and national security. The Office of Electricity Delivery and Energy Reliability has been split into the Office of Electricity Delivery and the Office of Cybersecurity, Energy Security, and Emergency Response to better enable DOE objectives. Highlights of the R&D budget are as follows:

- The Office of Science balances resources on basic scientific research to explore the frontier of science at a fundamental level, provide the most advanced tools of modern science to the Nation's researchers, and spur discoveries and innovation to include accelerating the Nation's path to exascale computing (calculations at the rate of a billion billion operations per second).
  - As an area of intense international competition, supercomputing demands our sustained support as a technology that is essential to our continued leadership in science, our economic competitiveness, and our national security. Computer modeling and simulation can be the catalyst for progress, innovation, and breakthrough results in many areas vital to our national objectives.
  - The Exascale Computing Project (ECP) is jointly addressed by the Office of Science and the National Nuclear Security Administration (NNSA). In addition to providing needed capabilities to achieve NNSA's objectives, the ECP will support many of DOE's applied energy technology developments.
- Energy Efficiency and Renewable Energy will focus resources on early stage R&D across a variety of technologies that support American energy independence and promote domestic job-growth in the near to mid-term.
- Electricity Delivery funding will support key efforts to improve the resilience and reliability of the nation's electricity system, and includes investments in our transmission system to support resource adequacy and generation diversity; moving forward with new architecture approaches for the transmission and distribution system to enhance security and resilience; and advancing energy storage.
- To support the Administration's commitment to protecting energy infrastructure, the Department plans to establish the Office of Cybersecurity, Energy Security, and Emergency Response (CESER). The Budget Request for this new office includes funds for R&D to deliver game-changing tools and technologies that help utilities secure today's energy infrastructure from advanced cyber threats and design next-generation systems that are built from the start to automatically detect, reject, and withstand cyber incidents, regardless of the threat
- Nuclear Energy supports advanced reactor R&D through the Versatile Advanced Test Reactor (VATR). The Budget Request also supports R&D for enhanced accident tolerance on light water reactor fuel concepts; strategic infrastructure investments in nuclear energy technologies, including modeling and simulation; and investments into the reliability and availability of the Advanced Test Reactor.

- Fossil Energy Research and Development focuses on cutting edge, early stage R&D to advance transformative science and innovative technologies that enable the reliable, efficient, affordable, and environmentally sound use of fossil fuels.

Within the Nuclear Security dimension the Budget Request makes key R&D investments in science and technology innovation to support the stewardship of the nuclear weapons stockpile, to modernize the nuclear security enterprise; to protect the United States from nuclear threats; and to provide the Navy with nuclear reactors that meet ever more stringent and evolving requirements to power the fleet.

The Department's R&D crosscut data includes administrative activities necessary to the success of the R&D programs consistent with government-wide and international reporting practices. These activities include program direction, safeguards and security, and infrastructure funding that support the R&D programs. This funding was not included in the R&D reporting in the FY 2016 and prior year budget justifications. The following table details funding of R&D in the budget by categories; basic, applied, development, equipment, and related construction; and program office.



## Research and Development (\$K)<sup>1</sup>

	FY 2017 Enacted	FY 2019 Request	FY 2019 Request vs FY 2017 Enacted
<b>Basic Research</b>			
Bonneville Power Administration Fund	4,000	4,000	0
Science	4,429,054	4,301,848	-127,206
Electricity Delivery	4,278	5,000	+722
Cybersecurity, Energy Security, & Emergency Response	3,484	3,266	-218
Fossil Energy R&D	6,019	21,044	+15,025
Defense Nuclear Nonproliferation	106,000	111,000	+5,000
<b>Total, Basic Research</b>	<b>4,552,835</b>	<b>4,446,158</b>	<b>-106,677</b>
<b>Applied Research</b>			
Bonneville Power Administration Fund	3,000	3,000	0
Electricity Delivery	49,469	32,297	-17,172
Cybersecurity, Energy Security, & Emergency Response	37,668	26,127	-11,541
Energy Efficiency and Renewable Energy	878,360	533,180	-345,180
Fossil Energy R&D	222,700	399,827	177,127
Nuclear Energy	688,464	481,041	-207,423
Advanced Research Project Agency - Energy	152,623	0	-152,623
Environmental Management	9,248	9,240	-8
Defense Nuclear Nonproliferation	145,000	152,000	7,000
Weapons Activities	4,460,000	4,398,000	-62,000
<b>Total, Applied Research</b>	<b>6,646,532</b>	<b>6,034,712</b>	<b>-611,820</b>
<b>Development</b>			
Bonneville Power Administration Fund	8,000	8,000	0
Electricity Delivery	51,716	15,254	-36,462
Energy Efficiency and Renewable Energy	604,874	112,774	-492,100
Cybersecurity, Energy Security, & Emergency Response	3,484	3,266	-218
Fossil Energy R&D	373,173	0	-373,173
Nuclear Energy	202,787	273,308	70,521
Advanced Research Project Agency - Energy	152,623	0	-152,623
Naval Reactors	1,235,028	1,405,968	170,940
Environmental Management	18,777	18,760	-17
Defense Nuclear Nonproliferation	61,000	62,000	1,000
Weapons Activities	105,000	87,000	-18,000
<b>Total, Development</b>	<b>2,816,462</b>	<b>1,986,330</b>	<b>-830,132</b>

<sup>1</sup> Totals may vary slightly from President's Budget Appendix to reflect the most current estimates available. Electricity Delivery and Cybersecurity, Energy Security, and Emergency Response amounts shown 'comparable' to FY 2019 structure to reflect correct differences.

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>FY 2019 Request vs FY 2017 Enacted</b>
<b>Subtotal, R&amp;D</b>			
Bonneville Power Administration Fund	15,000	15,000	0
Science	4,429,054	4,301,848	-127,206
Electricity Delivery	105,463	52,551	-52,912
Cybersecurity, Energy Security, and Emergency Response	44,636	32,659	-11,977
Energy Efficiency and Renewable Energy	1,483,234	645,954	-837,280
Fossil Energy R&D	601,892	420,871	-181,021
Nuclear Energy	891,251	754,349	-136,902
Advanced Research Project Agency - Energy	305,245	0	-305,245
Naval Reactors	1,235,028	1,405,968	+170,940
Environmental Management	28,025	28,000	-25
Defense Nuclear Nonproliferation	312,000	325,000	+13,000
Weapons Activities	4,565,000	4,485,000	-80,000
<b>Subtotal, R&amp;D</b>	<b>14,015,828</b>	<b>12,467,200</b>	<b>-1,548,628</b>
<b>R&amp;D Related Equipment</b>			
Science	186,796	171,937	-14,859
Energy Efficiency and Renewable Energy	3,600	3,600	0
Fossil Energy R&D	21,156	15,000	-6,156
Naval Reactors	13,480	17,500	+4,020
Weapons Activities	123,000	134,000	11,000
<b>Total, Equipment</b>	<b>348,032</b>	<b>342,037</b>	<b>-5,995</b>
<b>R&amp;D Related Construction</b>			
Science	726,624	861,212	+134,588
Naval Reactors	171,612	365,150	+193,538
Weapons Activities	12,000	127,000	+115,000
<b>Total, Construction</b>	<b>910,236</b>	<b>1,353,362</b>	<b>+443,126</b>
<b>Total Department of Energy R&amp;D and R&amp;D Facilities</b>			
Bonneville Power Administration Fund	15,000	15,000	0
Science	5,342,474	5,334,997	-7,477
Electricity Delivery	105,463	52,551	-52,912
Cybersecurity, Energy Security, and Emergency Response	44,636	32,659	-11,977
Energy Efficiency and Renewable Energy	1,486,834	649,554	-837,280
Fossil Energy R&D	623,048	435,871	-187,177
Nuclear Energy	891,251	754,349	-136,902
Advanced Research Project Agency - Energy	305,245	0	-305,245
Naval Reactors	1,420,120	1,788,618	+368,498
Environmental Management	28,025	28,000	-25
Defense Nuclear Nonproliferation	312,000	325,000	+13,000
Weapons Activities	4,700,000	4,746,000	+46,000
<b>Total, R&amp;D and R&amp;D Facilities</b>	<b>15,274,096</b>	<b>14,162,599</b>	<b>-1,111,497</b>

## Small Business Innovation Research and Small Business Technology Transfer

The Department of Energy manages two separate Small Business Innovation Research (SBIR) & Small Business Technology Transfer (STTR) programs, one administered by the Office of Science and the other by the Advanced Research Projects Agency – Energy (ARPA-E). The Office of Science has managed the DOE SBIR and STTR programs for the Department since the SBIR program was created in 1982 and the STTR program was created in 1992. The ARPA-E SBIR/STTR programs were created in FY 2012 to manage ARPA-E’s SBIR & STTR allocations independently.

The SBIR/STTR Reauthorization Act of 2011 reauthorized the SBIR and STTR programs and provided for annual increases phased in over six years. The Act directs DOE to expend not less than the percentages of nonexempt extramural R&D as tabulated below. By statute, “amounts obligated for atomic energy defense programs solely for weapons activities or for naval reactor programs” are exempt [15 USC 638(e)(1)].

	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
<b>SBIR</b>	2.5%	2.6%	2.7%	2.8%	2.9%	3.0%	3.2%	3.2%	3.2%
<b>STTR</b>	0.30%	0.35%	0.35%	0.40%	0.40%	0.45%	0.45%	0.45%	0.45%
<b>Combined</b>	2.80%	2.95%	3.05%	3.20%	3.30%	3.45%	3.65%	3.65%	3.65%

### DOE SBIR/STTR Programs Office

The SBIR/STTR Programs Office works collaboratively with twelve participating offices to administer the programs: six R&D program offices within the Office of Science; the Offices of Electricity Delivery and Energy Reliability, Energy Efficiency and Renewable Energy, Fossil Energy, Nuclear Energy and Environmental Management; and the Office of Defense Nuclear Nonproliferation within the National Nuclear Security Administration. Each office makes awards commensurate with its allocation, and collaborates with other offices as necessary.

The participating programs are responsible for topic selection, reviewer assignment, award selection, and project oversight. Each program office considers its high priority research needs and program mission, as well as the Department’s goals for the program in developing research topics. The specific research topics selected for the SBIR and STTR programs are developed by the Department’s technical program managers.

The SBIR/STTR Programs Office is responsible for issuing topics and solicitations, managing the peer review and award selection process, working with the Science Office of Acquisition and Assistance to award SBIR/STTR Phase I and Phase II grants, issuing annual reports to the U. S. Small Business Administration, performing outreach, and setting overall policy for the Department regarding the two programs.

### ARPA-E SBIR & STTR Programs

In FY 2012 ARPA-E established an SBIR/STTR program separate from the DOE-wide SBIR/STTR program. The ARPA-E SBIR/STTR program employs the same rigorous merit review, accelerated contracting, funding, and active project management as all other ARPA-E programs. The ARPA-E SBIR/STTR Program focuses on targeted, mission-relevant areas where the agency believes that small business provides the best opportunity for innovative technology development.

**Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) (\$K)**

	FY 2017 Current Approp.	FY 2019 Request	FY 2019 vs FY 2017
Advanced Research Projects Agency - Energy			
SBIR	8,251	0	-8,251
STTR	963	0	-963
Electricity Delivery (Formerly Electricity Delivery and Energy Reliability)			
SBIR	5,120	1,152	-3,968
STTR	720	162	-558
Cybersecurity, Energy Security, and Emergency Preparedness			
SBIR	0	960	+960
STTR	0	135	+135
Energy Efficiency and Renewable Energy			
SBIR	38,920	14,278	-24,642
STTR	6,262	2,010	-4,252
Defense Environmental Cleanup			
SBIR	897	896	-1
STTR	127	127	+1
Fossil Energy Research and Development			
SBIR	12,964	8,773	-4,191
STTR	1,823	1,233	-590
Defense Nuclear Nonproliferation			
SBIR	7,958	8,186	+228
STTR	1,119	1,151	+32
Nuclear Energy			
SBIR	13,987	10,848	-3,011
STTR	1,967	1,526	-423
Science			
SBIR	134,016	128,083	-5,933
STTR	18,845	18,096	-749
Total, SBIR	222,113	173,176	-48,809
Total, STTR	31,826	24,440	-7,367

## Safeguards and Security Crosscut

### Program Mission

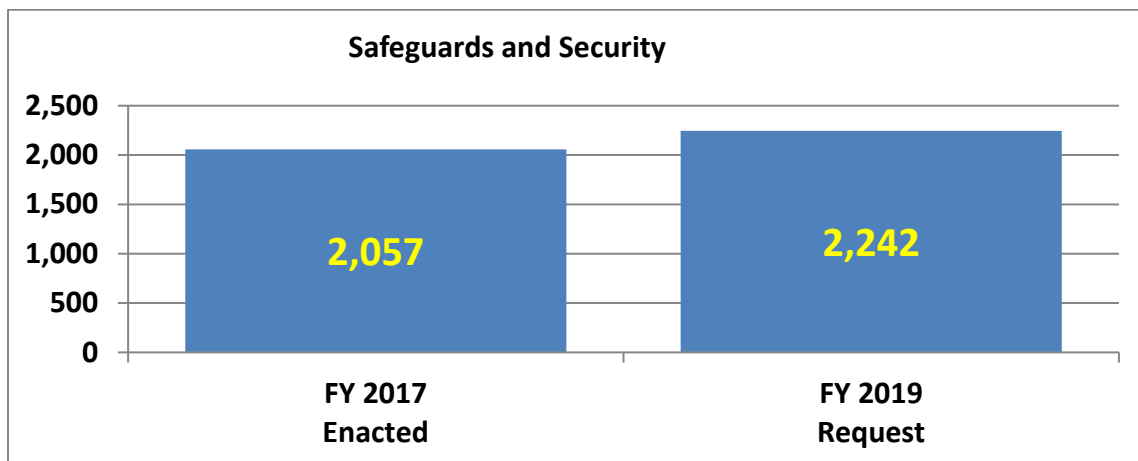
The Safeguards and Security (S&S) program at headquarters and each DOE field site protects against theft, diversion, sabotage, espionage, unauthorized access, compromise, and other hostile acts which may cause damage to national security, program continuity, the health and safety of employees, the public or the environment. The 'crosscut' summarizes the S&S programs that are distributed through the budget volumes. Each program's S&S components are described in the budget justifications for:

- Science
- Weapons Activities
- Defense Environmental Cleanup
- Nuclear Energy
- Energy Efficiency and Renewable Energy
- Fossil Energy R&D
- Strategic Petroleum Reserve
- Legacy Management
- Enterprise Assessments
- Environment, Health, Safety and Security
- Chief Financial Officer
- Chief Information Officer
- Specialized Security Activities

### Program Overview

The budget for the direct funded S&S programs is organized to ensure consistency in program and budget execution and ensure management, direction, tracking and monitoring of security costs throughout the Department. Each program budget provides visibility for S&S issues in order to help management ensure effective and efficient S&S program implementation. Figure 1 shows comparable overall funding for S&S in the FY 2017 Enacted, and the FY 2019 Request. It does not include funding for Energy Sector cybersecurity. The S&S crosscut budget is comprised of the functional components shown in the following table.

Figure 1: Overall DOE S&S Funding FY 2017 – FY 2019 (dollars in millions)



**Table 1: Functional Components of S&S**

<b>Protective Forces</b>	Provides for the protection of special nuclear materials, information, employees, and government property from theft, diversion, sabotage, and malicious destruction.
<b>Physical Security Systems</b>	Addresses access control and interior/exterior intrusion detection systems.
<b>Information Security</b>	Ensures that individuals protect classified matter and sensitive unclassified matter, and establishes protection systems that require degrees of protection for each classification level.
<b>Cybersecurity</b>	Assures protection of computer resources and networks.
<b>Personnel Security</b>	Supports activities associated with the access authorization program.
<b>Material Control and Accountability</b>	Provides assurance that the nuclear materials used and/or stored at DOE facilities are properly controlled and accounted for at all times.
<b>Program Management</b>	Assures a framework for efficient and effective security operations.
<b>Security Investigations</b>	Provides for background investigations for access authorizations.
<b>Transportation Security</b>	Provides secure transportation of nuclear materials.
<b>Security Infrastructure/Construction</b>	Provides for update and repair of security-related infrastructure and construction for that purpose.
<b>Specialized Security Activities</b>	Provides highly specialized analyses in support of national security objectives.

Table 2 shows S&S funding by program cost elements; and Table 3 by functional cost elements. Subsequent sections break out each functional element of field security by program.

**Table 2: S&S Funding by Program** (dollars in thousands)

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Safeguards and Security (S&S) by Program				
Field Security				
Science	96,961	99,675	2,714	2.8%
Weapons Activities	1,123,834	1,197,610	73,776	6.6%
Defense Environmental Cleanup	262,189	324,434	62,245	23.7%
Nuclear Energy	130,074	136,910	6,836	5.3%
Energy Efficiency and Renewable Energy	10,929	11,082	153	1.4%
Fossil Energy R&D	6,083	7,557	1,474	24.2%
Strategic Petroleum Reserve	28,930	24,890	-4,040	-14.0%
Legacy Management	2,258	2,420	162	7.2%
<b>Subtotal, Field S&amp;S</b>	<b>1,661,258</b>	<b>1,804,578</b>	<b>143,320</b>	<b>8.6%</b>
Headquarters Safeguards and Security				
Enterprise Assessments	21,014	21,253	239	1.1%
Environment, Health, Safety and Security	66,727	71,383	4,656	7.0%
Specialized Security Activities	237,908	254,378	16,470	6.9%
Chief Financial Officer	1,225	1,245	20	1.6%
Chief Information Officer	69,045	88,882	19,837	28.7%
<b>Subtotal, Headquarters S&amp;S</b>	<b>395,919</b>	<b>437,141</b>	<b>41,222</b>	<b>10.4%</b>
<b>Total, Safeguards and Security</b>	<b>2,057,177</b>	<b>2,241,719</b>	<b>184,542</b>	<b>9.0%</b>

**Table 3: S&S Funding by Functional Cost Element** (dollars in thousands)

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
S&S by Functional Cost Element				
Field Security				
Protective Forces	709,037	710,682	1,645	0.2%
Physical Security Systems	146,580	163,604	17,024	11.6%
Information Security	48,252	57,874	9,622	19.9%
Cybersecurity	215,156	289,040	73,884	34.3%
Personnel Security	58,294	66,658	8,364	14.3%
Material Control and Accountability	38,185	43,854	5,669	14.8%
Program Management	121,970	133,925	11,955	9.8%
Security Investigations	44,150	44,844	694	1.6%
Transportation Security	249,109	278,834	29,725	11.9%
Security Infrastructure/Construction	30,525	15,263	-15,262	-50.0%
<b>Subtotal, Field S&amp;S</b>	<b>1,661,258</b>	<b>1,804,578</b>	<b>143,320</b>	<b>8.6%</b>
Headquarters Safeguards and Security				
Enterprise Assessments	21,014	21,253	239	1.1%
Environment, Health, Safety and Security	66,727	71,383	4,656	7.0%
Specialized Security Activities	237,908	254,378	16,470	6.9%
Chief Financial Officer	1,225	1,245	20	1.6%
Chief Information Officer	69,045	88,882	19,837	28.7%
<b>Subtotal, Headquarters</b>	<b>395,919</b>	<b>437,141</b>	<b>41,222</b>	<b>10.4%</b>
<b>Total Safeguards and Security</b>	<b>2,057,177</b>	<b>2,241,719</b>	<b>184,542</b>	<b>9.0%</b>

**Protective Forces  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Protective Forces*				
Science	39,638	41,559	1,921	4.8%
Weapons Activities	393,764	376,279	-17,485	-4.4%
Defense Environmental Cleanup	180,165	191,461	11,296	6.3%
Nuclear Energy	65,865	76,881	11,016	16.7%
Energy Efficiency and Renewable Energy	3,100	2,750	-350	-11.3%
Fossil Energy R&D	2,775	2,840	65	2.3%
Strategic Petroleum Reserve	23,191	18,354	-4,837	-20.9%
Legacy Management	539	558	19	3.5%
<b>Total, Protective Forces</b>	<b>709,037</b>	<b>710,682</b>	<b>1,645</b>	<b>0.2%</b>

\* Does not include EHSS funding for HQ Protective Forces, FY 2017, \$31,391; and FY 2019, \$32,333.

**Mission**

The Protective Forces element of field S&S provides funding to protect the Department’s critical assets, which include nuclear weapons in DOE custody, nuclear weapons components, special nuclear materials, classified information and DOE facilities against a spectrum of threats, including terrorist activity, sabotage, espionage, theft, diversion, loss or unauthorized use.

Protective Force programs throughout the complex provide for personnel salaries, wages and benefits for personnel; management and supervision; and well-maintained and logically deployed equipment and facilities to ensure effective performance of assigned functions and tasks under normal and emergency conditions.

Protective Forces programs include the conduct of access control and security response operations; the physical protection of special nuclear material, classified matter and information, and government property; emergency response forces and tactical assistance during events as well as an on-scene security commander; random patrols; coordination with local law enforcement and protective force elements aimed at providing effective response to emergency situations; random prohibited article inspections; security alarm monitoring and dispatch services; the collection and destruction of classified matter; and testing of the protective force to respond to various event scenarios.

Protective Forces programs maintain a Special Response Team capability to provide resolution of incidents that require effective and timely response with force options that exceed the capability of front line protective force personnel. This includes, prevention, recapture and recovery operations involving the use of special weapons, systems and tactics to prevent access to special nuclear material or effect recovery from unauthorized control.



**Physical Security Systems  
Funding Schedule  
(\$K)**

	FY 2017 Enacted	FY 2019 Request	\$ Change FY19 vs FY17	% Change FY19 vs FY17
Physical Security Systems				
Science	10,357	10,370	13	0.1%
Weapons Activities	98,540	105,193	6,653	6.8%
Defense Environmental Cleanup	24,398	35,859	11,461	47.0%
Nuclear Energy	11,190	10,075	-1,115	-10.0%
Energy Efficiency and Renewable Energy	750	750	0	0.0%
Fossil Energy R&D	193	151	-42	-21.8%
Strategic Petroleum Reserve	1,016	1,067	51	5.0%
Legacy Management	136	139	3	2.2%
<b>Total, Physical Security Systems</b>	<b>146,580</b>	<b>163,604</b>	<b>17,024</b>	<b>11.6%</b>

\*Does not include EHSS funded HQ Physical Security Systems; FY 2017, \$5,588; FY 2019, \$7,493.

**Mission**

The Physical Security Systems element of field S&S provides for the physical protection of special nuclear material and equipment, sensitive information, Departmental property and unclassified facilities. Included are buildings, fences, barriers, lighting, sensors, surveillance devices, entry control devices, access control systems, explosive detection systems, power systems and other real property and hardware designed for, or affecting security. This hardware and equipment are operated and used to support the protection of DOE property and other interests of national security.

Security Systems programs support DOE-wide efforts required to conduct performance assurance testing. These programs also ensure that security alarm systems are operational and functioning in accordance with applicable DOE requirements. Physical Security System programs are also responsible for two subprograms: (1) a barriers, secure storage, and lock program to restrict, limit, delay or deny entry into a designated area; and (2) an entry control and access program that provides positive identification of personnel requiring access to facilities and initial access to facilities in general, ensuring that persons entering or leaving facilities are authorized, and do not introduce prohibited articles into or remove Government property from Departmental facilities.

The budget estimates include all access control administrative activity involving production, accountability and destruction of access authorization badges and firearms credentials. They also include systems components and tamper-safe oversight by monitoring and responding to alarms, determining access and securing all alarmed structures on site. In addition, this element provides for handling all radio communications for the protection of the facilities.

**Information Security  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Information Security				
Science	4,467	4,356	-111	-2.5%
Weapons Activities	32,766	43,011	10,245	31.3%
Defense Environmental Cleanup	4,847	5,004	157	3.2%
Nuclear Energy	5,285	4,674	-611	-11.6%
Energy Efficiency and Renewable Energy	500	500	0	0.0%
Fossil Energy R&D	89	91	2	2.2%
Strategic Petroleum Reserve	242	232	-10	-4.1%
Legacy Management	56	6	-50	-89.3%
<b>Total, Information Security</b>	<b>48,252</b>	<b>57,874</b>	<b>9,622</b>	<b>19.9%</b>

\*Does not include EHSS funded HQ Information Security; FY 2017, \$9,303; FY 2019, \$11,179.

**Mission**

The Information Security element of field S&S ensures that material and documents that may contain sensitive and classified information are accurately and consistently identified, properly reviewed for content, appropriately marked and protected from unauthorized disclosure, and ultimately destroyed in an approved manner.

Information Security programs provides for plans, policies, procedures and training to ensure that all employees are aware of the requirements for the identification, review, classification, declassification, marking, protection and proper disposal of sensitive information and classified material. In addition, operational security considerations are used to preclude inadvertent compromise of classified material.

**Cybersecurity  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Cybersecurity				
Science	27,197	28,897	1,700	6.3%
Weapons Activities	146,592	184,675	38,083	26.0%
Defense Environmental Cleanup	12,631	43,356	30,725	243.3%
Nuclear Energy	17,029	17,676	647	3.8%
Energy Efficiency and Renewable Energy	5,409	5,912	503	9.3%
Fossil Energy R&D	2,628	4,067	1,439	54.8%
Strategic Petroleum Reserve	2,649	3,175	526	19.9%
Legacy Management	1,021	1,282	261	25.6%
<b>Total, Cybersecurity</b>	<b>215,156</b>	<b>289,040</b>	<b>73,884</b>	<b>34.3%</b>

\* Amounts shown here do not include WCF or EITS contributions.

**Mission**

The Cybersecurity element of field S&S ensures that sensitive and classified information that is electronically processed, transmitted, or stored, is properly identified and protected. Cybersecurity programs also ensure that electronic systems are appropriately marked and protected. The programs plan, document, and test classified automated information systems (AIS), communications security (COMSEC), investigations and studies of compromising emanations (TEMPEST); and maintain an appropriate level of infrastructure reliability and integrity, as well as an unclassified AIS program. Included are appropriate plans, policies and procedures, assessments, tests, monitoring and self-assessments, certifications, and user and administrator training and awareness.

The amounts given here are program funds and do not include security elements that are within software applications developed for the Department's programmatic or administrative purposes; whether directly or indirectly funded. They do include IT Security and Compliance entries within the IT Investment portfolio.

**Headquarters Cybersecurity:** The Office of the Chief Information Officer also funds headquarters cybersecurity and program offices fund cybersecurity through the mechanism of the Working Capital Fund for the enterprise-wide CyberOne effort managed within the OCIO. The table below includes cybersecurity efforts in EA and EHSS that pertain to cybersecurity testing, oversight, and insider threat activities. The Energy Information Administration EIA provides cybersecurity mechanisms for the National Energy Information System. The OCFO funds cybersecurity activities in the areas of security assessment and accreditation activities; and web application vulnerability scanning for OCFO systems.

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Cybersecurity (Including Headquarters Offices)				
Field Cybersecurity	215,156	289,040	73,884	34.3%
Energy Information Administration	865	885	20	2.3%
Environment, Health, Safety and Security	5,346	5,524	178	3.3%
Enterprise Assessments	4,710	5,741	1,031	21.9%
Chief Information Officer	69,045	88,882	19,837	28.7%
Chief Financial Officer	1,225	1,245	20	1.6%
<b>Total, Cybersecurity</b>	<b>296,347</b>	<b>391,317</b>	<b>94,970</b>	<b>32.0%</b>

**Personnel Security  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Personnel Security				
Science	6,086	5,444	-642	-10.5%
Weapons Activities	33,516	40,376	6,860	20.5%
Defense Environmental Cleanup	10,184	12,137	1,953	19.2%
Nuclear Energy	7,522	7,714	192	2.6%
Energy Efficiency and Renewable Energy	200	200	0	0.0%
Fossil Energy R&D	151	154	3	2.0%
Strategic Petroleum Reserve	602	598	-4	-0.7%
Legacy Management	33	35	2	6.1%
<b>Total, Personnel Security</b>	<b>58,294</b>	<b>66,658</b>	<b>8,364</b>	<b>14.3%</b>

\*Does not include EHSS funded HQ Personnel Security; FY 2017, \$5,442; FY 2019, \$6,692.

**Mission**

The Personnel Security element of field S&S supports the access authorization program, and ensure security sensitivity through security briefings such as the initial refresher and termination briefings, re-orientations, computer-based training, special workshops and classes, publications, closed circuit television programs, signs, posters and special event days. Support for the access authorization program includes: (1) personnel security assurance program, adjudications, screening and analysis of personnel security cases for determining eligibility for access authorizations, administrative reviews, and handling of Freedom of Information and Privacy Act requests related to security access authorizations; (2) security awareness and education; and (3) activities associated with classified and unclassified visits and assignments by foreign nationals.

**Material Control and Accountability  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Material Control and Accountability				
Science	2,458	2,431	-27	-1.1%
Weapons Activities	26,965	31,125	4,160	15.4%
Defense Environmental Cleanup	4,108	5,422	1,314	32.0%
Nuclear Energy	4,654	4,876	222	4.8%
<b>Total, Material Control and Accountability</b>	<b>38,185</b>	<b>43,854</b>	<b>5,669</b>	<b>14.8%</b>

**Mission**

The Material Control and Accountability (MC&A) element of field S&S provides assurance that nuclear materials are properly controlled and accounted for at all times. MC&A provides evidence that all nuclear materials are accounted for appropriately and that theft, diversion, or operational loss has not occurred. MC&A also supports weapons production, nuclear nonproliferation, nuclear materials operations, facility closure, and nuclear critical safety by determining and documenting the amounts of nuclear materials in weapons and packaged items. MC&A administration includes the following: (1) assessing the levels of protection, control and accounting required for the types and quantities of materials at each facility; (2) documenting facility plans for nuclear materials control and accounting; (3) assigning authorities and responsibilities for MC&A functions; (4) ensuring that facility MC&A personnel are trained and qualified to perform their responsibilities; (5) establishing programs to report occurrences such as nuclear material theft, the loss of control or inability to account for nuclear materials, or evidence of malevolent acts; (6) conducting performance testing of required program elements; and (7) establishing facility programs to conduct and document internal assessments of their operations and MC&A programs.

**Program Management  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Program Management*				
Science	6,758	6,618	-140	-2.1%
Weapons Activities	84,449	94,654	10,205	12.1%
Defense Environmental Cleanup	20,112	21,560	1,448	7.2%
Nuclear Energy	8,051	8,175	124	1.5%
Energy Efficiency and Renewable Energy	800	800	0	0.0%
Fossil Energy R&D	247	254	7	2.8%
Strategic Petroleum Reserve	1,080	1,464	384	35.6%
Legacy Management	473	400	-73	-15.4%
<b>Total, Program Management</b>	<b>121,970</b>	<b>133,925</b>	<b>11,955</b>	<b>9.8%</b>

**Mission**

The Program Management element of field S&S develops the framework for efficient and effective security operations. This includes the development and updating of S&S plans, conducting vulnerability assessments to determine if assets are at risk, modeling to ensure the plans and operations meet mission objectives, identifying assets that need protection, developing local threat assessments and participating in the S&S quality panel process and security education. In addition, these programs ensure that plans are developed and revised in accordance with DOE requirements, professional and technical training is administered, and Departmental S&S goals and objectives are implemented complex wide.

The programs develop S&S plans or other applicable security plans and implement S&S requirements, conduct surveys to determine whether S&S requirements have been implemented, respond to national and local threats and perform a vulnerability analysis that measures the risk of S&S assets. Program Management includes participation in the quality panel process, which raises issues from the field to the headquarters managers and ensures that the staff is properly educated in security matters.

**Security Investigations  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Security Investigations				
Weapons Activities	42,853	43,658	805	1.9%
Defense Environmental Cleanup	1,127	1,016	-111	-9.8%
Energy Efficiency and Renewable Energy	170	170	0	0.0%
<b>Total, Security Investigations</b>	<b>44,150</b>	<b>44,844</b>	<b>694</b>	<b>1.6%</b>

\* NE and SC Security Investigations costs for Federal Employees are subsumed within Personnel Security.

**Mission**

The Security Investigations element of field S&S funds background investigations associated with providing access authorizations (security clearances) to DOE Federal and contract personnel who, in the performance of their official duties, require access to classified information or certain quantities of special nuclear material. Background investigations are required by Section 145 of the Atomic Energy Act of 1954, as amended, and Executive Order 12968, Access to Classified Information. The investigations are performed and access authorizations granted based on 10 C.F.R. 710, Criteria and Procedures for Determining Eligibility for Access to Classified Matter or Special Nuclear Material. Funding provides for initial single scope background investigations, periodic reinvestigations, and initial and reinvestigation national agency checks.

**Transportation Security  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Transportation Security				
Weapons Activities	248,889	278,639	29,750	12.0%
Defense Environmental Cleanup	220	195	-25	-11.4%
<b>Total, Transportation Security</b>	<b>249,109</b>	<b>278,834</b>	<b>29,725</b>	<b>11.9%</b>

**Mission**

Transportation security provides for the secure transport of weapons, weapons components, and nuclear materials to support Directed Stockpile Work and consolidation and disposition of nuclear material within the complex; to meet DOE, DOD, and other customer requirements. This functional component of S&S is funded primarily within NNSA's Secure Transportation Asset (STA) Program.

STA provides safe and secure shipments for Weapons Activities, Naval Reactors, Defense Nuclear Nonproliferation and Nuclear Counterterrorism Incident Response and other Department elements requiring this capability. The STA program supports Departmental initiatives to convert weapons-grade material to commercial reactor fuel. STA supports other DOE programs including Nuclear Energy and Environmental Management; and others, including the National Aeronautics and Space Administration, and international shipments in cooperation with Canada, The United Kingdom, and France.



**Security Infrastructure/Construction  
Funding Schedule  
(\$K)**

	<b>FY 2017 Enacted</b>	<b>FY 2019 Request</b>	<b>\$ Change FY19 vs FY17</b>	<b>% Change FY19 vs FY17</b>
Security Infrastructure/Construction				
Weapons Activities	15,500	0	-15,500	-100.0%
Defense Environmental Cleanup	4,397	8,424	4,027	91.6%
Nuclear Energy	10,478	6,839	-3,639	-34.7%
Strategic Petroleum Reserve	150	0	-150	-100.0%
<b>Total, Construction</b>	<b>30,525</b>	<b>15,263</b>	<b>-15,262</b>	<b>-50.0%</b>

**Mission**

Security Infrastructure provides critical security infrastructure investments and protection enhancements necessary to ensure adequate protection of DOE sites and personnel.

- In FY 2019 no Line Item funding is requested in Weapons Activities. In FY 2017, funds were provided to complete the DAF Argus project at NNSS (\$13,000,000) and for the West End Protected Area Reduction project at Y-12 (\$2,500,000).
- Defense Environmental Cleanup funding supports Savannah River non-alarm/monitoring equipment to include testing and training facilities, assessment and evaluation analytical systems, security structures (like ballistic resistant enclosures), and vehicles. Funding also supports Paducah On-site fire range completion.
- The Nuclear Energy decrease reflects funding to partially execute a multi-year effort to enhance physical security infrastructure across several Idaho National Laboratory (INL) complexes.



# **Pensions**

# **Pensions**

## Contractor Pensions and Other Postretirement Benefits

This section of the budget provides projected costs of contractor defined-benefit (DB) pension plan contributions and other postretirement benefit reimbursements. The DB pension plan contributions are provided in Section I below for FY 2017 through FY 2019 by plan and by the following Department of Energy (DOE) Departmental Elements:<sup>1</sup>

- National Nuclear Security Administration (NNSA)
- Office of Environmental Management (EM)
- Office of Science (SC)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Nuclear Energy (NE)
- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Fossil Energy (FE)
- Office of Legacy Management (LM)

Information regarding projected reimbursements for other postretirement benefits (primarily medical) is provided in Section II below.

Contractors that manage and operate DOE's laboratories, weapons plants, and execute environmental cleanup projects at various government-owned sites and facilities are required by DOE to assume sponsorship of the existing contractor DB pension plans and other postretirement benefit plans for incumbent employees who work at, and retire from, those sites and facilities. A portion of the DOE's funding is used to reimburse the costs of the DOE contractors' contributions to DB pension plans and the reimbursements for benefits paid from the other postretirement benefit plans, either as part of the indirect costs or as direct obligations for legacy plans.

### Section I - Contractor DB Pension Plan Contributions<sup>2</sup>

DOE reimburses contractors for pension contributions at levels that are at least equal to the minimum required by the Employee Retirement Income Security Act (ERISA). The minimum required contribution (MRC) is determined on a plan year basis. Only two of the contractor plans have a plan year that coincides with the federal fiscal year and, therefore, the majority of fiscal year pension allocations are spread across two plan years. At a minimum, plan sponsors of single or multiple employer plans<sup>3</sup> in which the plan assets were less than liabilities in the prior year must make quarterly contributions during the plan year with the first contribution due 3½ months after the beginning of the plan year and any outstanding amount due 8½ months after the plan year ends.

DOE's reimbursement of contractor costs in excess of the MRC will require approval by the Contracting Officer, as well as approval by the parties designated by NNSA and the Program Offices, and coordination with the Chief Financial Officer, the General Counsel, and other affected Headquarters Offices. Table 1 provides information related to plans where funding in excess of the MRC was requested during FY 2017, and it includes the MRC (assuming the legally required payments were made at the specified dates), the contribution approved, and the actual amount contributed during FY 2017. In March 2017, NNSA, SC, EERE, and NE granted requests by contractors for reimbursement of contributions in excess of the MRC for 15 plans primarily to minimize fluctuations in indirect rates and mitigate increases in future contribution requirements, including the anticipated FY 2023 increase resulting from expiration of the 2015 Bipartisan Budget Act (BBA) which extended funding relief provided by the Highway and Transportation Funding Act (HATFA).<sup>4</sup> Based on the contractors'

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<sup>1</sup> Tables include projected contributions from Reimbursable Work (previously referred to as "non-DOE Work") and "Other" entities (e.g., DOE departmental administration, classified programs, etc.).

<sup>2</sup> DOE has reimbursed contributions for 35 funded defined benefit (DB) pension plans and 13 non-qualified DB pension plans in FY 2017. Non-qualified plans have no assets and are funded on a pay-as-you-go basis.

<sup>3</sup> A single employer plan is a plan sponsored by only one employer; a multiple employer plan is a plan sponsored by 2 or more unrelated employers and not maintained pursuant to a collective bargaining agreement; a multiemployer plan is a plan maintained pursuant to a collective bargaining agreement between an employee organization and more than one employer.

<sup>4</sup> The Highway and Transportation Funding Act required the extended use of higher (non-market based) interest rates to discount future plan liabilities. Using a higher interest rate to discount plans' future liabilities reduces the liability and thus results in lower minimum required contributions.

assumptions in January 2017, MRCs are expected to increase in FY 2023 and later years after expiration of HAFTA's funding relief.

**Table 1 - FY 2017 Contributions in Excess of the MRC (\$K)**

Plan	FY 2017 Budget - President's Budget	FY 2017 Estimated Minimum Required Contribution	Additional Amount Requested	FY 2017 Total Amount Approved	Final FY 2017 Amount
Pension Plan for Eligible Bettis Employees and Retirees	23,700	0	23,700	23,700	23,700
Pension Plan of the Pacific Northwest Laboratories, (Battelle Memorial Institute)	23,000	0	35,000	35,000	27,150
Retirement Program for Employees of Consolidated Nuclear Security, LLC at the U. S. Department of Energy Facilities at Oak Ridge, Tennessee	46,000	0	46,000	46,000	46,000
Idaho National Laboratory Employee Retirement Plan (BEA)	50,000	12,500	37,500	50,000	57,976
Salaried Employee Pension Plan for KAPL Employees and Retirees	19,500	0	19,500	19,500	19,500
Pension Plan for KAPL Employees in Participating Bargaining Units	2,600	0	2,600	2,600	2,600
LANS Defined Benefit Pension Plan	101,196	0	101,200	101,200	101,200
National Renewable Energy Laboratory Retirement Plan (ASE)	19,500	9,293	11,707	21,000	11,597
National Security Technologies, LLC (NSTec) Employee Retirement Plan	16,700	0	16,700	16,700	16,700
Consolidated Nuclear Security, LLC Retirement Plan for Bargaining Unit Members of the Pantex Guards Union (PGU))	5,000	0	5,000	5,000	3,750
Retirement Plan for Bargaining Unit Employees of the Metal Trades Council of Consolidated Nuclear Security, LLC (MTC)	19,000	10,000	9,000	19,000	20,250
NTESS Retirement Income Plan	109,000	0	109,000	109,000	109,000
Pension Plan for Employees at ORNL (UT Battelle)	47,000	0	52,000	52,000	62,000
Centerra-Nevada Retirement Plan	1,293	387	988	1,375	1,386
Centerra-Nevada/IGAN Retirement Plan	730	210	540	750	879
<b>Total</b>	<b>484,219</b>	<b>32,390</b>	<b>470,435</b>	<b>502,825</b>	<b>503,688</b>

Battelle Memorial Institute (BMI) received permission to contribute up to \$35 million to the Pension Plan of the Pacific Northwest Laboratories, but actually contributed \$27.15 million; separately, UT Battelle received provisional approval in April 2017 to contribute up to an additional \$10 million to the Pension Plan for Employees at the Oak Ridge National Laboratory (ORNL) in the event UT Battelle was able to manage its operations at ORNL such that the contribution was feasible. Battelle Energy Alliance (BEA) received approval in September 2017 to contribute an additional \$8 million to the Idaho National Laboratory Employee Retirement Plan after determining that it also had managed its operations such that the contribution was feasible. While Alliance for Sustainable Energy Inc. (ASE) received approval to contribute an additional \$11.7 million to the National Renewable Energy Laboratory Retirement Plan, ASE revised its contribution plans and contributed an additional \$2.3 million instead. Consolidated Nuclear Security, LLC revised the allocation of the additional approved contributions between the PGU and MTC plans but did not exceed the total amount approved. The small increases for the two Centerra plans are related to the methodology used to determine their alternate funding schedule.

The contractors are making concerted efforts to reduce the costs and volatility associated with these plans as the costs have steadily increased. During 2017, contractors made the following changes to their DB pension plans, in an effort to reduce the costs associated with them, simplify administration, or increase the efficiency of the delivery of benefits:

- Effective with the June 30, 2017 plan year, eligible employees of The Hanford Atomic Metal Trades Council (HAMTC) began participation in the Pension Plan of the Pacific Northwest Laboratories subject to the provisions between BMI, the operator for PNNL, and HAMTC. These employees' accrual of credit for service under the Hanford Multi-employer Plan ceased with the inception of their participation in the PNNL plan.
- Two plans are currently in the termination process: Rocky Flats Retirement Plan and the Rocky Flats Retirement Plan for Hourly Protection Employees. Settlement of obligations for these two plans is expected to be completed in early-to-mid FY 2019. The final settlement of the Lockheed Martin Specialty Components, Inc. Pension Plan at Pinellas was completed in January 2017 while the Mound Employees Retirement Plan was completed in September 2017.

In addition, one new pension plan, Fluor Federal Services, Inc. Paducah Deactivation Project United Steel Workers Career Pension Plan for Appendix A- USW Represented Employees, was established January 1, 2017, to cover a small collective bargaining group of employees at the Paducah site. The only reimbursements for this plan during 2017 relate to expenses and benefit payments (\$28,000). In FY 2018, contributions for the 2017 plan year and 2018 plan year are due. The FY 2018 estimated total contribution for the new plan is \$4.34 million.

Due to the timing of the required annual valuation for the contractor DB pension plans, the actual amount of the contractors' annual contributions to these DB pension plans that DOE will reimburse each fiscal year will not generally be known until after budget development. The majority of contractor contributions are included in indirect costs.<sup>5</sup> Thus, budgetary line items that include DOE reimbursement of contractor contributions to DB pension plans assume an indirect rate anticipated to be sufficient to meet reimbursement requirements. In the case of plans covering employees working for various programs, the allocation of contributions among NNSA, the Program Offices, and reimbursable work is done based on each site's best estimate of the allocation of work based on current and anticipated work for the various parties that the site serves.<sup>6</sup>

Projections of future DB pension plan contributions are highly sensitive to underlying data, methods, and especially assumptions. Changes in the population data that are different from the data expected impact the future costs of these plans; participants retiring earlier and/or living longer than expected may increase costs and, compensation increases that are less than expected may decrease the costs. The most significant assumptions affecting the contribution amounts are those assumptions with respect to future market conditions. In particular, the difference between actual experience of the markets and the assumption of the expected return on investments earned by the plans each future year, as well as future corporate bond yields (because they drive the discount rate used to value plan liabilities), have the largest impact on the ultimate contributions that will be reimbursed by the DOE. For example, the actual contributions for fiscal year 2019 will not be known until January 2019 at the earliest because these contributions will be determined based on the asset value as of December 31, 2018, and the discount rate in effect at that time.

**Therefore, it is important to emphasize that the actual amounts reimbursed for the applicable fiscal years shown will almost certainly vary from the projections provided in this section.** The information provided for the funded plans (excluding the non-qualified plans) is based on plan contributions projected by the DOE's contractors in August 2017. The non-qualified plan amounts equal the expected benefit payments which were provided by the contractors for the prior year financial statements. This information has been reviewed by NNSA and relevant DOE Program Offices and by the Office of the Chief Financial Officer.

- Table 2 provides aggregate FY 2017 actual and FY 2018 and FY 2019 estimated pension plan contributions eligible for reimbursement for all plans. The expectation that a new mortality table reflecting updated experience will be

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<sup>5</sup> Legacy Management Plans, the NNSA legacy University of California (UC) plans, and the East Tennessee Technology Park Pension Plan for Grandfathered Employees rely on direct costs.

<sup>6</sup> These allocations were provided by the contractors to the DOE in July 2017. The allocation percentages for FY 2017 are based on work performed for the first nine months of the fiscal year and the final allocations may be different. The allocation percentages for FY 2018 and FY 2019 represents contractors' expectation of work for FY 2018 and FY 2019 as of July 2017.

required to be used to determine the minimum required contribution affected the FY 2019 contribution amounts. This contributed to the expected increase in contributions as well as the expectation of a lower required interest rate used to value the liabilities.

- Table 3 provides plan-by-plan FY 2017 actual contributions and FY 2018 and FY 2019 estimated pension contributions eligible for reimbursement by NNSA and the DOE.



**Table 2: NNSA and DOE Program Office Actual Contributions for FY 2017 and Projected Contributions for FY 2018 and FY 2019 (\$K)**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office

Program Office	FY 2017	FY 2018	FY 2019	FY 2017-FY 2019 Total Projected Contributions
NNSA	628,670	601,064	623,367	1,853,101
EM	238,901	255,202	309,054	803,157
SC	70,498	62,513	68,381	201,391
EERE	25,254	30,916	33,825	89,994
NE	18,058	14,861	14,889	47,807
OE	2,386	1,850	2,332	6,569
FE	1,256	982	1,193	3,430
LM	421	0	0	421
Reimbursable Work	110,320	115,234	128,569	354,123
Other	15,053	14,656	22,013	51,721
<b>Total</b>	<b>1,110,815</b>	<b>1,097,277</b>	<b>1,203,622</b>	<b>3,411,714</b>

There may be small variances in totals due to rounding

Table 3 provides the following information for each plan:

**Plan name and Plan type:** Single employer, multi-employer, multiple employer, state, or non-qualified.

**Status:** *Open* means that the plans are open to new employees who earn benefits under a traditional defined benefit formula. *Closed* means that the qualified plans are closed to new employees, but active employees who were employed prior to the plan being closed continue to earn benefits; this includes plans where new entrants only or new entrants and legacy employees receive benefits under reduced hybrid formulas which are much less volatile (indicated by the word hybrid after closed). For non-qualified plans, “closed” means that the universe of possible participants is limited to individuals who are currently accruing benefits in the closed qualified plan at the respective site and who may at some point qualify for the non-qualified plan under the terms of the non-qualified plan). *Partially Closed* means that the plan is closed to some subset of the employee population, but that other employees (*e.g.*, represented employees covered by collective bargaining agreements) are still becoming members of the plan at the time of hire. *Frozen* means that plan liabilities are frozen, *i.e.*, that there are no longer any employees accruing credit for current service under the plan.

**Reimbursements & Allocations:** Expected contributions are allocated by program office for fiscal year 2017-2019 with 2017 representing actual contributions and contributions for later years based on submissions as outlined in footnote 6.

<sup>7</sup>Final information for FY 2017 contributions reported in October 2017 while projected contributions for FY 2017 and FY 2018 reported in August 2017 for all departmental elements.

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
East Tennessee Technology Park Pension Plan for Grandfathered Employees		2017	13,551	-	13,551	-	-	-	-	-	-	-	-
	Partially Closed	2018	10,604	-	10,604	-	-	-	-	-	-	-	-
	Multi-employer	2019	11,758	-	11,758	-	-	-	-	-	-	-	-
University of California Retirement Plan - Lawrence Berkeley National Laboratory		2017	34,856	457	119	22,304	3,555	119	261	359	7,316	-	366
	Open	2018	34,422	451	117	22,026	3,511	117	258	355	7,225	-	361
	State	2019	37,481	491	127	23,984	3,823	127	281	386	7,867	-	394
Pension Plan for Eligible Bettis Employees and Retirees		2017	23,700	13,035	-	-	-	-	-	-	10,665	-	-
	Closed	2018	39,500	21,725	-	-	-	-	-	-	17,775	-	-
	Single Employer	2019	31,300	17,215	-	-	-	-	-	-	14,085	-	-
Pension Plan of the Pacific Northwest Laboratories, Battelle Memorial Institute		2017	27,150	5,973	272	4,887	2,987	272	815	272	8,417	-	3,258
	Open	2018	15,000	3,300	150	2,700	1,650	150	450	150	4,650	-	1,800
	Single Employer	2019	30,000	6,600	300	5,400	3,300	300	900	300	9,300	-	3,600
Retirement Program for Employees of Consolidated Nuclear Security, LLC at the U. S. Department of Energy Facilities at Oak Ridge, Tennessee		2017	46,000	44,160	-	-	-	-	-	-	920	-	920
	Closed	2018	47,000	45,120	-	-	-	-	-	-	940	-	940
	Single Employer	2019	87,500	84,000	-	-	-	-	-	-	1,750	-	1,750
HPMC Occupational Health Services Retirement Plan		2017	251	-	251	-	-	-	-	-	-	-	-
	Closed	2018	346	-	346	-	-	-	-	-	-	-	-
	Single Employer	2019	452	-	452	-	-	-	-	-	-	-	-
Hanford Multi-Employer Pension Plan		2017	88,871	-	88,871	-	-	-	-	-	-	-	-

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
	Closed	2018	101,180	-	101,180	-	-	-	-	-	-	-	-
	Multi-employer	2019	93,390	-	93,390	-	-	-	-	-	-	-	-
Idaho National Laboratory Employee Retirement Plan		2017	57,976	6,349	26,500	147	1,185	13,757	376	13	8,632	-	1,018
	Closed	2018	50,000	4,740	26,500	110	885	10,270	280	10	6,445	-	760
	Multiple Employer	2019	50,000	4,740	26,500	110	885	10,270	280	10	6,445	-	760
Salaried Employee Pension Plan for KAPL Employees and Retirees		2017	19,500	10,725	-	-	-	-	-	-	8,775	-	-
	Closed	2018	23,600	12,980	-	-	-	-	-	-	10,620	-	-
	Single Employer	2019	30,100	16,555	-	-	-	-	-	-	13,545	-	-
Pension Plan for KAPL Employees in Participating Bargaining Units		2017	2,600	1,430	-	-	-	-	-	-	1,170	-	-
	Closed	2018	3,400	1,870	-	-	-	-	-	-	1,530	-	-
	Single Employer	2019	3,900	2,145	-	-	-	-	-	-	1,755	-	-
Kansas City Division Hourly Employees' Pension Plan		2017	-	-	-	-	-	-	-	-	-	-	-
	Closed-Hybrid for New Entrants	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	2,837	2,678	-	-	-	-	-	-	159	-	-
Honeywell Retirement Earnings Plan for Aerospace Employees at the Kansas City Division		2017	-	-	-	-	-	-	-	-	-	-	-
	Closed	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	6,246	5,577	-	-	-	-	-	-	668	-	-
LANS Defined Benefit Pension Plan		2017	101,200	76,912	7,084	4,048	911	506	-	202	10,525	-	1,012
	Closed	2018	100,200	80,661	1,002	4,509	1,002	601	-	200	11,022	-	1,202
	Single Employer	2019	115,100	92,656	1,151	5,180	1,151	691	-	230	12,661	-	1,381

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
University of California Retirement Plan - Lawrence Livermore National Laboratory Retained Segment		2017	182,850	182,850	-	-	-	-	-	-	-	-	-
	Frozen	2018	145,049	145,049	-	-	-	-	-	-	-	-	-
	State	2019	103,432	103,432	-	-	-	-	-	-	-	-	-
LLNS Defined Benefit Pension Plan		2017	-	-	-	-	-	-	-	-	-	-	-
	Closed	2018	23,000	18,170	-	690	230	-	-	-	3,220	-	690
	Single Employer	2019	35,000	27,650	-	1,050	350	-	-	-	4,900	-	1,050
Lockheed Martin Specialty Components, Inc. Pension Plan		2017	421	-	-	-	-	-	-	-	-	421	-
	Terminated	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	-	-	-	-	-	-	-	-	-	-	-
University of California Retirement Plan - Los Alamos National Laboratory Retained Segment		2017	149,700	149,700	-	-	-	-	-	-	-	-	-
	Frozen	2018	128,042	128,042	-	-	-	-	-	-	-	-	-
	Single Employer	2019	87,477	87,477	-	-	-	-	-	-	-	-	-
National Renewable Energy Laboratory Retirement Plan		2017	11,597	-	-	464	9,162	-	116	-	1,624	-	232
	Closed - Hybrid for all	2018	22,000	-	-	880	17,380	-	220	-	3,080	-	440
	Single Employer	2019	23,000	-	-	920	18,170	-	230	-	3,220	-	460
National Strategic Protective Services Pension Plan		2017	1,908	-	534	1,374	-	-	-	-	-	-	-
	Closed	2018	1,852	-	1,111	741	-	-	-	-	-	-	-
	Single Employer	2019	2,438	-	1,463	975	-	-	-	-	-	-	-
National Security Technologies, LLC (NSTec) Employee Retirement Plan		2017	16,700	12,609	1,553	-	-	-	-	-	2,188	-	351
	Closed - Hybrid for all	2018	17,400	13,137	1,618	-	-	-	-	-	2,279	-	365
	Single Employer	2019	33,993	25,665	3,161	-	-	-	-	-	4,453	-	714

**Pensions**

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**FY 2019 Congressional Budget Justification**

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
Consolidated Nuclear Security, LLC Retirement Plan for Bargaining Unit Members of the Pantex Guards Union		2017	3,750	3,675	-	-	-	-	-	-	75	-	-
	Closed	2018	6,000	5,880	-	-	-	-	-	-	120	-	-
	Single Employer	2019	2,200	2,156	-	-	-	-	-	-	44	-	-
Retirement Plan for Bargaining Unit Employees of the Metal Trades Council of Consolidated Nuclear Security, LLC		2017	20,250	19,845	-	-	-	-	-	-	405	-	-
	Closed	2018	16,000	15,680	-	-	-	-	-	-	320	-	-
	Single Employer	2019	11,600	11,368	-	-	-	-	-	-	232	-	-
Consolidated Nuclear Security Retirement Plan for Non-Bargaining Pantex Location Employees		2017	-	-	-	-	-	-	-	-	-	-	-
	Closed	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	12,900	12,642	-	-	-	-	-	-	258	-	-
Rocky Flats Retirement Plan for Hourly Plant Protection Employees		2017	-	-	-	-	-	-	-	-	-	-	-
	Terminated	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	-	-	-	-	-	-	-	-	-	-	-
Rocky Flats Retirement Plan		2017	-	-	-	-	-	-	-	-	-	-	-
	Terminated	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	-	-	-	-	-	-	-	-	-	-	-
NTESS Retirement Income Plan		2017	109,000	64,855	763	2,071	2,180	654	436	218	36,842	-	981
	Closed	2018	107,000	65,698	749	1,284	1,819	1,391	321	107	34,882	-	749
	Single Employer	2019	106,607	64,604	746	1,173	1,706	1,173	320	107	36,033	-	746
Savannah River Nuclear Solutions LLC Multiple Employer Pension Plan		2017	112,194	24,683	81,902	-	-	-	-	-	-	-	5,610
	Closed	2018	124,710	27,436	91,038	-	-	-	-	-	-	-	6,236
	Multiple Employer	2019	200,800	44,176	146,584	-	-	-	-	-	-	-	10,040

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
DUF6 Pension Plan for Grandfathered Employees		2017	1,112	-	1,112	-	-	-	-	-	-	-	-
	Closed	2018	1,275	-	1,275	-	-	-	-	-	-	-	-
	Single Employer	2019	1,496	-	1,496	-	-	-	-	-	-	-	-
Fluor Federal Services, Inc. Paducah Deactivation Project United Steel Workers Career Pension Plan for Appendix A-USW Represented Employees		2017	28	-	28	-	-	-	-	-	-	-	-
	Closed	2018	4,338	-	4,338	-	-	-	-	-	-	-	-
	Single Employer	2019	1,278	-	1,278	-	-	-	-	-	-	-	-
Pension Plan for Employees at ORNL		2017	62,000	6,076	124	35,030	5,208	2,728	372	186	11,036	-	1,240
	Open	2018	52,000	5,096	104	29,380	4,368	2,288	312	156	9,256	-	1,040
	Single Employer	2019	52,000	5,096	104	29,380	4,368	2,288	312	156	9,256	-	1,040
Waste Isolation Pilot Plant Pension Plan		2017	12,116	-	12,116	-	-	-	-	-	-	-	-
	Open	2018	10,278	-	10,278	-	-	-	-	-	-	-	-
	Single Employer	2019	13,958	-	13,958	-	-	-	-	-	-	-	-
West Valley Pension Plan		2017	3,431	-	3,431	-	-	-	-	-	-	-	-
	Closed	2018	4,162	-	4,162	-	-	-	-	-	-	-	-
	Single Employer	2019	5,969	-	5,969	-	-	-	-	-	-	-	-
Mound Employees Pension Plan		2017	-	-	-	-	-	-	-	-	-	-	-
	Terminated	2018	-	-	-	-	-	-	-	-	-	-	-
	Single Employer	2019	-	-	-	-	-	-	-	-	-	-	-
Centerra-Nevada Retirement Plan		2017	1,386	1,386	-	-	-	-	-	-	-	-	-
	Closed	2018	1,213	1,213	-	-	-	-	-	-	-	-	-
	Single Employer	2019	1,230	1,230	-	-	-	-	-	-	-	-	-
Centerra-Nevada/IGAN Retirement Plan		2017	879	879	-	-	-	-	-	-	-	-	

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
(\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
	Closed	2018	1,270	1,270	-	-	-	-	-	-	-	-	-
	Single Employer	2019	1,510	1,510	-	-	-	-	-	-	-	-	-
Battelle Memorial Institute Excess Benefit and Supplemental Executive Pension Plans		2017	10	2	0	2	1	0	0	0	3	-	1
	Closed	2018	10	2	0	2	1	0	0	0	3	-	1
Executive and Supplemental Pension Plans for Designated Bettis Employees	Non-qualified	2019	9	2	0	2	1	0	0	0	3	-	1
		2017	1,629	896	-	-	-	-	-	-	733	-	-
	Closed	2018	1,706	939	-	-	-	-	-	-	768	-	-
Excess and Supplemental Pension Plan for Designated KAPL Employees	Non-qualified	2019	1,713	942	-	-	-	-	-	-	771	-	-
		2017	322	177	-	-	-	-	-	-	145	-	-
	Closed	2018	329	181	-	-	-	-	-	-	148	-	-
LANS 401(a)(17) Restoration Plan	Non-qualified	2019	332	182	-	-	-	-	-	-	149	-	-
		2017	143	109	10	6	1	1	-	0	15	-	1
	Closed	2018	173	139	2	8	2	1	-	0	19	-	2
LANS Restoration Plan	Non-qualified	2019	187	150	2	8	2	1	-	0	21	-	2
		2017	13	10	1	1	0	0	-	0	1	-	0
	Closed	2018	24	20	0	1	0	0	-	0	3	-	0
LLNS 401(a)(17) Restoration Plan	Non-qualified	2019	33	27	0	1	0	0	-	0	4	-	0
		2017	171	135	-	7	2	-	-	-	22	-	5
	Closed	2018	382	302	-	11	4	-	-	-	54	-	11
LLNS Restoration Plan	Non-qualified	2019	569	450	-	17	6	-	-	-	80	-	17
		2017	132	104	-	5	1	-	-	-	17	-	4
	Closed	2018	186	147	-	6	2	-	-	-	26	-	6

**Table 3: FY 2017 Actual and FY 2018 and FY 2019 Projected Contributions by Plan, NNSA, and Program Office**  
 Based on July and August 2017<sup>7</sup> data and pro-rated by Program Office  
 (\$K)

Plan Name	Plan status/ Plan Type	Fiscal Year	Total	NNSA	EM	SC	EERE	NE	OE	FE	Reimbursable Work	LM	Other
NTESS Nonqualified Pension Plan	Non-qualified	2019	203	160	-	6	2	-	-	-	28	-	6
		2017	2,237	1,331	16	43	45	13	9	4	756	-	20
	Closed	2018	2,464	1,513	17	30	42	32	7	2	803	-	17
	Non-qualified	2019	2,461	1,491	17	27	39	27	7	2	832	-	17
The Savannah River Nuclear Solutions, LLC Nonqualified Pension Plan		2017	529	116	386	-	-	-	-	-	-	-	26
	Frozen	2018	514	113	375	-	-	-	-	-	-	-	26
	Non-qualified	2019	498	110	364	-	-	-	-	-	-	-	25
Washington Government Services Executive Pension Plan (TRU Solutions Participants Only)		2017	69	-	69	-	-	-	-	-	-	-	-
	Frozen	2018	58	-	58	-	-	-	-	-	-	-	-
	Non-qualified	2019	59	-	59	-	-	-	-	-	-	-	-
Washington Government Services Executive Pension Plan (West Valley Participants Only)		2017	209	-	209	-	-	-	-	-	-	-	-
	Frozen	2018	176	-	176	-	-	-	-	-	-	-	-
	Non-qualified	2019	174	-	174	-	-	-	-	-	-	-	-
Consolidated Nuclear Security, LLC Equalization Retirement Income Plan and Supplemental Retirement Income Plan		2017	182	175	-	-	-	-	-	-	4	-	4
	Closed	2018	174	167	-	-	-	-	-	-	3	-	3
	Non-qualified	2019	171	164	-	-	-	-	-	-	3	-	3
UT-Battelle Equalization Retirement Income Plan and Supplemental Retirement Income Plan		2017	194	19	0	110	16	9	1	1	35	-	4
	Open	2018	239	23	0	135	20	11	1	1	42	-	5
	Non-qualified	2019	261	26	1	148	22	11	2	1	46	-	5
<b>Total</b>		2017	<b>1,110,815</b>	<b>628,670</b>	<b>238,901</b>	<b>70,498</b>	<b>25,254</b>	<b>18,058</b>	<b>2,386</b>	<b>1,256</b>	<b>110,320</b>	<b>421</b>	<b>15,053</b>
		2018	<b>1,097,277</b>	<b>601,064</b>	<b>255,202</b>	<b>62,513</b>	<b>30,916</b>	<b>14,861</b>	<b>1,850</b>	<b>982</b>	<b>115,234</b>	<b>-</b>	<b>14,656</b>
		2019	<b>1,203,622</b>	<b>623,367</b>	<b>309,054</b>	<b>68,381</b>	<b>33,825</b>	<b>14,889</b>	<b>2,332</b>	<b>1,193</b>	<b>128,569</b>	<b>-</b>	<b>22,013</b>



## Section II - Other Postretirement Benefit Plans

For the most part, contractors do not fund other postretirement benefit plans in advance, but instead pay the claims incurred by the retired members or the premiums required to cover the plan benefits. The other postretirement benefits covered by the contractors are primarily medical, including prescription drugs, but may also include dental, vision, and life insurance benefits that are provided upon retirement from the contractor. The costs associated with these plans are expected to grow as the retired population grows and as healthcare cost trends continue to increase.

Due to the fact that the claims are not paid until incurred and processed, the actual amounts of contractors' payment of claims that DOE will reimburse for FY 2018 and FY 2019 will not be known until after budget development. The contractor costs are included in indirect costs. The budget assumes an indirect rate sufficient to meet reimbursement requirements.<sup>8</sup> As mentioned in the pension section, the allocation of contributions among NNSA, the Program Offices, and reimbursable work, is done based on each site's best estimate of the allocation of work based on current and anticipated work for the various parties that the site serves.

The contractors are making concerted efforts to reduce the costs associated with these plans as the costs have steadily increased. In recent years, contractors have made changes to their other postretirement benefit plans in an effort to reduce the costs associated with them, simplify administration or increase the efficiency of the delivery of benefits. These changes include the following:

- One contractor amended the employer Health Reimbursement Account (HRA) subsidy for Medicare eligible retirees to recognize that the costs of the products on the Medicare Exchange increase as a participant ages. The HRA subsidy was increased to reflect increases in health care costs since 2013 when the Medicare Exchange was first used and now varies by participant age. A participant under age 70 will receive a subsidy of \$2,508 while a participant over age 80 will receive a subsidy of \$3,000 while participants between age 70 and 80 receive a subsidy that falls between the two amounts. In the past, a flat \$2,400 subsidy had been provided to all retirees.
- Two contractors made changes to their premiums or health plan offerings. One of these contractors' changes included adjustments to the co-pays and changes in the salary bands that determine the premium amounts so that some retirees' premiums increased. The impact of these changes was minor decreases in the cost of the program since the employer subsidy is capped for many of the retirees. The other contractor increased the premiums for the retirees.

Projections of future postretirement benefits to be paid are highly sensitive to underlying data, methods, and assumptions, particularly assumptions related to future increases in the expected claims paid each year as well as the underlying assumptions regarding usage and coverage. Thus, the actual amounts reimbursed in a future fiscal year may be different. All of the information for FY 2018 and FY 2019 is based on expected reimbursements as reported by the DOE's respective contractors in July 2017; this information has been reviewed by the appropriate NNSA and DOE program office and the Office of the Chief Financial Officer. The information reported for FY 2017 is primarily based on information of final employer contributions as reported by the contractors for the FY 2017 agency financial statements. Table 1 provides these aggregate FY 2017-2019 projected other postretirement benefit reimbursements.

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<sup>8</sup> The LM plans rely on direct costs.

**Table 1: FY 2017-2019 NNSA and DOE Program Office Projected Other Postretirement Benefits Payments (\$K)**  
 Based on July and August 2017 data<sup>9</sup> and pro-rated by Program Office

<b>Program Office</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>Total FY 2017-FY 2019 Projected Contributions</b>
NNSA	136,475	170,745	178,927	486,147
EM	71,431	84,883	87,140	243,453
SC	43,400	54,578	57,242	155,221
EERE	5,583	6,352	6,653	18,587
NE	4,607	8,684	9,284	22,574
OE	575	737	781	2,093
FE	701	674	677	2,053
Reimbursable Work	39,041	50,039	52,913	141,994
LM	55,716	56,360	55,581	167,656
Other	6,179	8,016	8,275	22,470
<b>Total</b>	<b>363,708</b>	<b>441,068</b>	<b>457,472</b>	<b>1,262,248</b>

There may be small variances in totals due to rounding.

<sup>9</sup> Includes actual FY 2017 reimbursement payments as reported by the contractors for the FY 2017 agency financial statements. LM FY 2017 reimbursement payments reflect actual costs.

**GENERAL PROVISIONS—DEPARTMENT OF ENERGY**  
**(INCLUDING TRANSFER OF FUNDS)**

SEC. 301. (a) No appropriation, funds, or authority made available by this title for the Department of Energy shall be used to initiate or resume any program, project, or activity or to prepare or initiate Requests For Proposals or similar arrangements (including Requests for Quotations, Requests for Information, and Funding Opportunity Announcements) for a program, project, or activity if the program, project, or activity has not been funded by Congress.

(b) (1) Unless the Secretary of Energy notifies the Committees on Appropriations of both Houses of Congress at least 3 full business days in advance, none of the funds made available in this title may be used to—

(A) make a grant allocation or discretionary grant award totaling \$1,000,000 or more;

(B) make a discretionary contract award or Other Transaction Agreement totaling \$1,000,000 or more, including contract covered by the Federal Acquisition Regulation;

(C) issue a letter of intent to make an allocation, award, or Agreement in excess

(D) of the limits in subparagraph (A) or (B); or announce publicly the intention to make an allocation, award, or Agreement in excess of the limits in subparagraph (A) or (B).

(2) The Secretary of Energy shall submit to the Committees on Appropriations of both Houses of Congress within 15 days of the conclusion of each quarter a report detailing each grant allocation or discretionary grant award totaling less than \$1,000,000 provided during the previous quarter.

(3) The notification required by paragraph (1) and the report required by paragraph (2) shall include the recipient of the award, the amount of the award, the fiscal year for which the funds for the award were appropriated, the account and program, project, or activity from which the funds are being drawn, the title of the award, and a brief description of the activity for which the award is made.

(c) The Department of Energy may not, with respect to any program, project, or activity that uses budget authority made available in this title under the heading "Department of Energy—Energy Programs", enter into a multiyear contract, award a multiyear grant, or enter into a multiyear cooperative agreement unless—

(1) the contract, grant, or cooperative agreement is funded for the full period of performance as anticipated at the time of award; or

(2) the contract, grant, or cooperative agreement includes a clause conditioning the Federal Government's obligation on the availability of future year budget authority and the Secretary notifies the Committees on Appropriations of both Houses of Congress at least 3 days in advance.

(d) Except as provided in subsections (e), (f), and (g), the amounts made available by this title shall be expended as authorized by law for the programs, projects, and activities specified in the "Final Bill" column in the "Department of Energy" table included under the heading "Title III—Department of Energy" in the explanatory statement accompanying this Act.

(e) The amounts made available by this title may be reprogrammed for any program, project, or activity, and the Department shall notify the Committees on Appropriations of both Houses of Congress at least 30 days prior to the use of any proposed reprogramming that would cause any program, project, or activity funding level to increase or decrease by more than \$5,000,000 or 10 percent, whichever is less, during the time period covered by this Act.

(f) None of the funds provided in this title shall be available for obligation or expenditure through a reprogramming of funds that—

(1) creates, initiates, or eliminates a program, project, or activity;

(2) increases funds or personnel for any program, project, or activity for which funds are denied or restricted by this Act; or

(3) reduces funds that are directed to be used for a specific program, project, or activity by this Act.

(g) (1) The Secretary of Energy may waive any requirement or restriction in this section that applies to the use of funds made available for the Department of Energy if compliance with such requirement or restriction would pose a substantial risk to human health, the environment, welfare, or national security.

(2) The Secretary of Energy shall notify the Committees on Appropriations of both Houses of Congress of any waiver under paragraph (1) as soon as practicable, but not later than 3 days after the date of the activity to which a requirement or restriction would otherwise have applied. Such notice shall include an explanation of the substantial risk under paragraph (1) that permitted such waiver.

SEC. 302. The unexpended balances of prior appropriations provided for activities in this Act may be available to the same appropriation accounts for such activities established pursuant to this title. Available balances may be merged with funds in the applicable established accounts and thereafter may be accounted for as one fund for the same time period as originally enacted.

SEC. 303. Funds appropriated by this or any other Act, or made available by the transfer of funds in this Act, for intelligence activities are deemed to be specifically authorized by the Congress for purposes of section 504 of the National Security Act of 1947 (50 U.S.C. 3094) during fiscal year 2019 until the enactment of the Intelligence Authorization Act for fiscal year 2019.

SEC. 304. None of the funds made available in this title shall be used for the construction of facilities classified as high-hazard nuclear facilities under 10 CFR Part 830 unless independent oversight is conducted by the Office of Enterprise Assessments to ensure the project is in compliance with nuclear safety requirements.

SEC. 305. None of the funds made available in this title may be used to approve critical decision–2 or critical decision–3 under Department of Energy Order 413.3B, or any successive departmental guidance, for construction projects where the total project cost exceeds \$100,000,000, until a separate independent cost estimate has been developed for the project for that critical decision.

SEC. 306. Notwithstanding section 301(c) of this Act, none of the funds made available under the heading "Department of Energy—Energy Programs—Science" in this or any subsequent Energy and Water Development and Related Agencies appropriations Act for any fiscal year may be used for a multiyear contract, grant, cooperative agreement, or Other Transaction Agreement of \$1,000,000 or less unless the contract, grant, cooperative agreement, or Other Transaction Agreement is funded for the full period of performance as anticipated at the time of award.

SEC. 307. (a) NEW REGIONAL RESERVES.—The Secretary of Energy may not establish any new regional petroleum product reserve unless funding for the proposed regional petroleum product reserve is explicitly requested in advance in an annual budget submission and approved by the Congress in an appropriations Act.

(b) The budget request or notification shall include—

- (1) the justification for the new reserve;
- (2) a cost estimate for the establishment, operation, and maintenance of the reserve, including funding sources;
- (3) a detailed plan for operation of the reserve, including the conditions upon which the products may be released;
- (4) the location of the reserve; and
- (5) the estimate of the total inventory of the reserve.

SEC. 308. Treatment of Lobbying and Political Activity Costs as Allowable Costs under Department of Energy Contracts.

(a) Allowable Costs.—

(1) Section 4801(b) of the Atomic Energy Defense Act (50 U.S.C. 2781(b)) is amended—

(A) by striking "(1)" and all that follows through "the Secretary" and inserting "The Secretary"; and

(B) by striking paragraph (2).

(2) Section 305 of the Energy and Water Development Appropriation Act, 1988, as contained in section 101(d) of Public Law 100–202 (101 Stat. 1329–125), is repealed.

(b) Regulations Revised.—The Secretary of Energy shall revise existing regulations consistent with the repeal of 50 U.S.C. 2781(b)(2) and section 305 of Public Law 100–202 and shall issue regulations to implement 50 U.S.C. 2781(b), as amended by subsection (a), no later than 150 days after the date of the enactment of this Act. Such regulations shall be consistent with the Federal Acquisition Regulation 48 C.F.R. 31.205–22.

SEC. 309. Not to exceed 5 percent of any appropriation made available for Department of Energy activities funded in this Act may be transferred between such appropriations, but no such appropriation, except as otherwise provided, shall be increased or decreased by more than 5 percent by any such transfers, and notification of any such transfers shall be submitted promptly to the Committees on Appropriations of the House of Representatives and the Senate.

SEC. 310. Notwithstanding section 161 of the Energy Policy and Conservation Act (42 U.S.C. 6241), the Secretary of Energy shall draw down and sell one million barrels of refined petroleum product from the Strategic Petroleum Reserve during

fiscal year 2019. Proceeds from sales under this section shall be deposited into the general fund of the Treasury during fiscal year 2019.

SEC. 311. The Secretary of Energy may draw down and sell up to 1 million barrels of crude oil from the Strategic Petroleum Reserves during fiscal year 2019. The proceeds of such sale shall be deposited into the SPR Petroleum Account and shall remain available until expended.

## **TITLE V—GENERAL PROVISIONS**

SEC. 501. None of the funds appropriated by this Act may be used in any way, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913.

SEC. 502. None of the funds made available by this Act may be used in contravention of Executive Order No. 12898 of February 11, 1994 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations).