

UNITED STATES DEPARTMENT OF ENERGY

# TRANSITION 2008

BUDGET DETAILS  
*BOOK FOUR*



U.S. DEPARTMENT OF  
**ENERGY**

## **Contents**

U.S. Department of Energy  
Transition Team Budget Book  
Office of the Chief Financial Officer  
Office of Budget

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## Acronyms

Acronyms commonly used in budget documents.

ACI	American Competitiveness Initiative
AEI	Advanced Energy Initiative
AFP	Approved Funding Program (monthly financial plan that dictates how funding is to be executed)
AIP	Accelerator Improvement Project
Ames	Ames National Laboratory
ANL	Argonne National Laboratory
B&R	Budget and Reference Code
BA	Budget Authority
BAPL	Bettis Atomic Power Laboratory
BNL	Brookhaven National Laboratory
BO	Budget Outlay
BPA	Bonneville Power Administration
BY	Budget Year
CBO	Congressional Budget Office
CCSP	Climate Change Science Program
CCTP	Climate Change Technology Program
CD-0	Critical Decision for Approving Mission Need for a Project
CD-1	Critical Decision for Approving Alternative Selection and Cost Range
CD-2	Critical Decision for Approving Performance Baseline
CD-3	Critical Decision for Approving Start of Construction
CD-4	Critical Decision for Approving Start of Operations or Project Completion
CDR	Conceptual Design Report
CE	Capital Equipment
CF	DOE Office Designation for the Office of the Chief Financial Officer
CFO	Chief Financial Officer
CFR	Code of Federal Regulations
CI	Office of Congressional and Intergovernmental Affairs
CIO	Chief Information Officer
COO	Chief Operating Officer

CR	Continuing Resolution (a short term funding bill)
CRADA	Cooperative Research and Development Agreement
CRB	Corporate Review Board
CY	Current Fiscal Year
DA	Departmental Administration Appropriation
D&D	Deactivation and Decommission
ED	Office of Economic Impact and Diversity
EERE (or EE)	Office of Energy Efficiency and Renewable Energy
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EM	Office of Environmental Management
EO	Executive Order
EPAct	Energy Policy Act
ESAAB	Energy Systems Acquisition Advisory Board
EWD	Energy and Water Development Appropriation
FDS	Funds Distribution System
FE	Office of Fossil Energy
FERC	Federal Energy Regulatory Commission
FNAL	Fermi National Accelerator Laboratory
FTE	Full Time Equivalent
FWP	Field Work Proposal
FY	Fiscal Year
GAO	Government Accountability Office
GC	General Counsel
GOCO	Government-Owned, Contractor-Operated
GOGO	Government-Owned, Government-Operated
GPE	General Purpose Equipment
GPP	General Plant Project
GPRA	Government Performance and Results Act
GSA	General Services Administration
HBCU	Historically Black Colleges and Universities
HC	Office of Human Capital Management
HEU	Highly Enriched Uranium
HG	Office of Hearings and Appeals
HLW	High Level Radioactive Waste

HQ	Headquarters
HSS	Office of Health, Safety, and Security
IG	Inspector General
IN	Office of Intelligence and Counterintelligence
INL	Idaho National Laboratory
JLab	Thomas Jefferson National Accelerator Facility
KAPL	Knolls Atomic Power Laboratory
LANL	Los Alamos National Laboratory
LBNL (or LBL)	Lawrence Berkley National Laboratory
LDRD	Laboratory Directed Research and Development
LLNL	Lawrence Livermore National Laboratory
LM	Office of Legacy Management
MA	Office of Management
M&O	Management and Operating Contractor
MIE	Major Item of Equipment
MOU	Memorandum of Understanding
NBL	New Brunswick Laboratory
NE	Office of Nuclear Energy
NEPA	National Environmental Policy Act
NETL	National Energy Technology Laboratory
NIF	National Ignition Facility
NN	Defense Nuclear Nonproliferation
NNSA or NA	National Nuclear Security Administration
No Year	Appropriations that do not expire for obligation
NPR	Naval Petroleum Reserves
NR	Office of Naval Reactors
NRC	Nuclear Regulatory Commission
NREL	National Renewable Energy Laboratory
OA	Office of the Administrator for the National Nuclear Security Administration
OC	Object Class
OCRWM	Office of Civilian Radioactive Waste Management
OE	Office of Electricity Delivery and Energy Reliability
OE	Operating Expense
OMB	Office of Management and Budget
Orders	DOE's formal published policies, operating procedures, and instructions

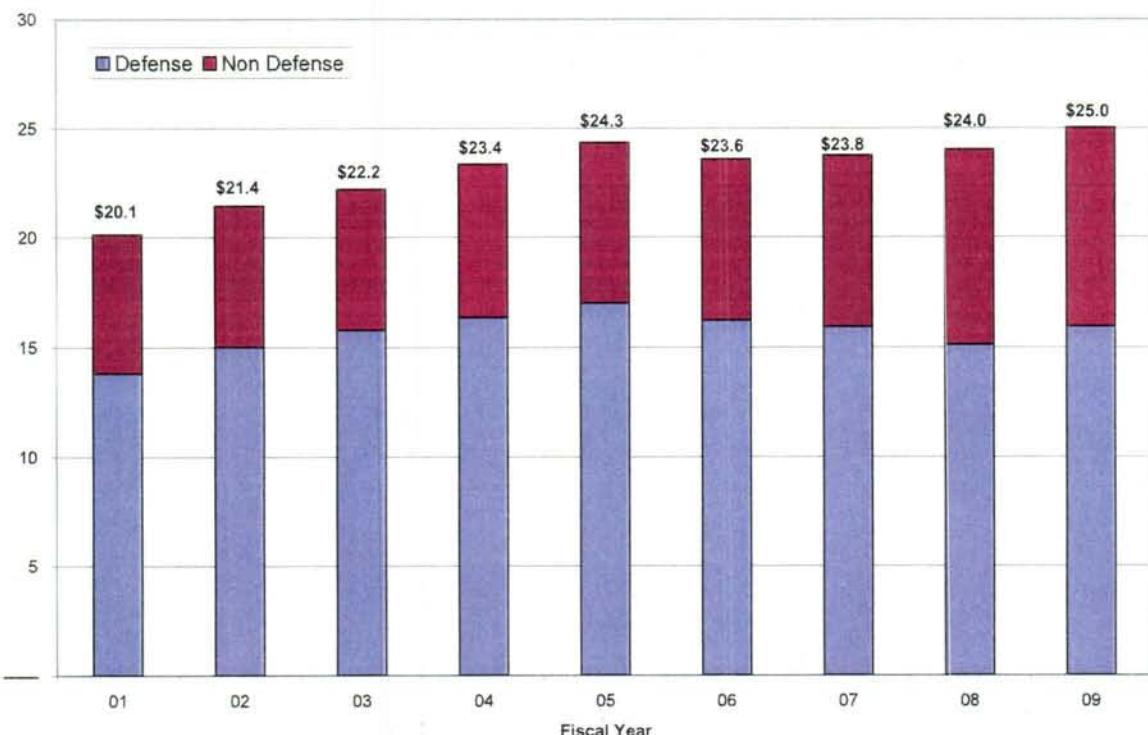
ORNL	Oak Ridge National Laboratory
PA	Office of Public Affairs
PALS	Program Activity by Location System
PAYGO	Pay-as-you-go
PDS	Project Data Sheet
PED	Project Engineering and Design
PI	Office of Policy and International Affairs
PL	Public Law
PMA	Power Marketing Administration
PNNL	Pacific Northwest National Laboratory
POC	Point of Contact
PPPL	Princeton Plasma Physics Laboratory
PSO	Program Secretarial Officer
PY	Prior Fiscal Year
Q&A	Congressional Questions and Department Answers from Hearings
R&D	Research and Development
RW	Office of Civilian and Radioactive Waste Management
S&S	Safeguards and Security
S&T	Science and Technology
S-1	Secretary of Energy
S-2	Deputy Secretary of Energy
S-3	Under Secretary (sometimes referred to as Under Secretary of Energy)
S-4	Under Secretary for Science
SBIR	Small Business Innovation Research
SC	Office of Science
SEPA	Southeastern Power Administration
SFMC	Site/Facility Management Contractor
SLAC	SLAC National Accelerator Laboratory
SNF	Spent Nuclear Fuel
SNL	Sandia National Laboratory
SNM	Special Nuclear Material
SPR	Strategic Petroleum Reserve
SRNL	Savannah River National Laboratory
STTR	Small Business Technology Transfer
SWPA	Southwestern Power Administration

TEC	Total Estimated Cost (total capital cost portion of a construction project)
TJNAF	Thomas Jefferson National Accelerator Facility
TPC	Total Project Cost (includes all costs of construction, operating and capital)
TRW	Transuranic Radioactive Waste
WAPA	Western Area Power Administration
WFO	Work For Others
WCF	Working Capital Fund
WIPP	Waste Isolation Pilot Plant
WMD	Weapons of Mass Destruction
413	DOE Order 413.3A Program and Project Management for the Acquisition of Capital Assets

# 1. Budget Overview

## Budget Overview

### Department of Energy Funding Summary (2001-2009)<sup>1</sup> (dollars in billions)



Under the Continuing Resolution signed into law on September 30, 2008, the Department is operating at 43% of the fiscal year (FY) 2008 funding level through March 6, 2009. The FY 2008 appropriated budget was \$24.0 billion.

The DOE FY 2009 budget request is \$25.0 billion. Over the past eight years, the total funding appropriated to DOE (topline) has increased by nearly \$5 billion (24%). However, most of this growth took place between FY 2001 and FY 2005 in the National Nuclear Security Administration and Environmental Management budgets. DOE's topline decreased by \$772 million (3.2%) between FY 2005 and 2006 and has been essentially flat since then.

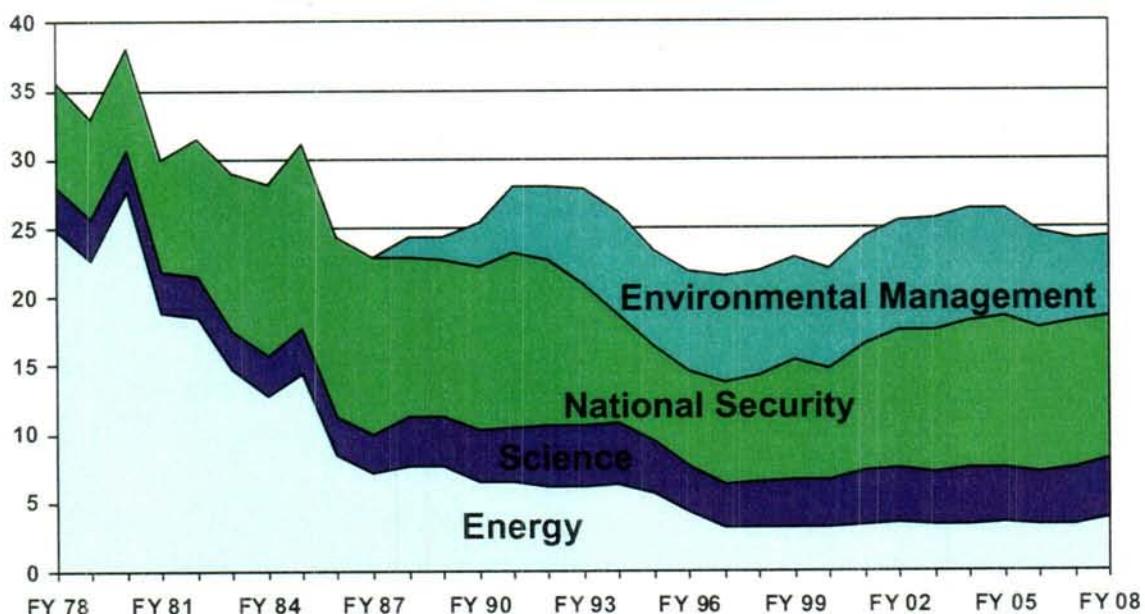
#### Fiscal Year 2009

The FY 2009 budget request addresses five broad areas:

- National security - \$9.1 billion (36% of DOE's budget)
- Cleanup of legacy environmental contamination - \$6.2 billion (25%)
- Scientific discovery - \$4.7 billion (19%)
- Energy technologies - \$3.9 billion (16%)
- Corporate management - \$1.1 billion (4%)

<sup>1</sup> Defense includes the National Nuclear Security Administration, Defense Environmental Cleanup, Defense Nuclear Waste Disposal, and Other Defense Activities.

**Thirty Years of DOE Funding**  
(Constant FY 2008 dollars, in billions)



#### National Security

The National Nuclear Security Administration (NNSA) is responsible for the management and security of the Nation's nuclear weapons, defense nuclear nonproliferation, and naval reactor programs. The request includes:

- \$1.7 billion to ensure the operational readiness of the nuclear weapons in the stockpile
- \$1.7 billion for operation, maintenance, and construction of the nuclear weapons complex facilities
- \$1.2 billion for programs to prevent the spread of weapons of mass destruction
- \$828 million for development, operation, and disposal of all naval nuclear reactors
- Additional items totaling \$3.6 billion

#### Cleanup of Legacy Environmental Contamination

DOE is responsible for cleaning up contaminated sites and disposing of radioactive waste left behind as a byproduct of nuclear weapons production, nuclear powered naval vessels, and commercial nuclear energy production. The request includes:

- \$5.5 billion to clean up radioactive waste and contamination resulting from defense activities during the Cold War and civilian nuclear activities conducted by the Atomic Energy Commission
- \$186 million to support DOE's long-term stewardship responsibilities of remediated sites and payment of pensions and benefits for former contractor workers after site closure
- \$495 million for the geologic repository of spent nuclear fuel and high-level radioactive waste at Yucca Mountain, Nevada

#### Scientific Discovery

DOE supports basic research and technological capabilities that underpin the Department's mission areas. The request includes:

- \$2.2 billion for basic research activities at universities and DOE national laboratories
- \$1.8 billion for operation and construction of scientific user facilities, such as light sources, neutron sources, and nanoscience centers
- \$209 million for the international ITER project, an experiment to study and demonstrate the scientific and technical feasibility of fusion power

- Additional items totaling \$448 million

### **Energy Technologies**

DOE develops advanced energy technologies to increase energy efficiency, increase energy supplies, and modernize our energy infrastructure. The request includes:

- \$1.3 billion for developing renewable energy sources and conversion technologies in areas such as hydrogen technology, solar energy, biomass and biorefinery systems, and energy efficient vehicle and building technologies
- \$134 million to modernize the electric grid, enhance the reliability of the energy infrastructure, and facilitate recovery from disruptions to the energy supply
- \$624 million for the development of advanced coal technologies, including cost-effective carbon capture and storage
- \$344 million for expansion of the strategic petroleum reserve from 727 million barrels to 1.5 billion barrels
- \$1.4 billion for nuclear energy activities, including licensing of new nuclear power plants and developing advanced, proliferation-resistant nuclear fuel technologies
- Additional items totaling \$159 million

### **Corporate Management**

Corporate Management includes programs that address DOE's overall management practices and systems. The request includes:

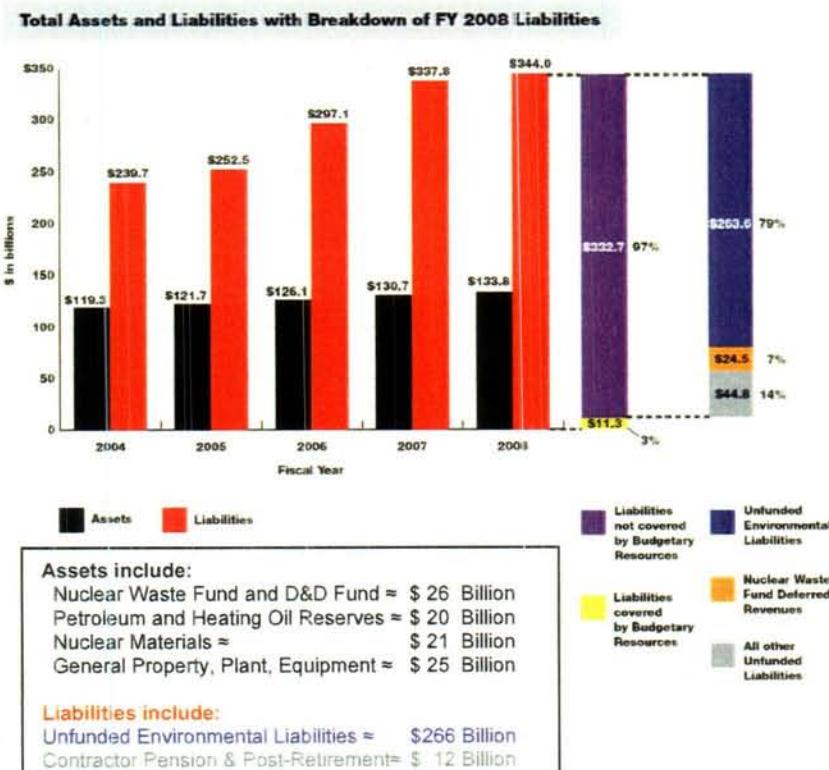
- \$155 million for management organizations of the Department
- \$209 million for the Power Marketing Administrations to promote a diverse supply and delivery of reliable, affordable, and environmentally sound energy
- \$447 million for health, safety, and security of DOE work environments and the surrounding communities
- \$111 million for the Energy Information Administration which provides unbiased energy information, analysis, and forecasting
- Additional items totaling \$167 million

## DOE's Assets and Liabilities

In addition to the Department's appropriated budgetary resources of approximately \$24 billion annually, DOE carries assets and liabilities on its financial statements. Both assets and liabilities continue to grow year after year, to approximately \$134 billion in assets and approximately \$344 billion in liabilities in fiscal year (FY) 2008. Below is an explanation of DOE's primary assets and liabilities.

DOE's assets, indicated in black on the chart, include Intragovernmental Assets, Inventory, General Property, Plant, and Equipment and other categories.

Intragovernmental Assets include primarily DOE's investments into the **Nuclear Waste Fund** (NWF) and the **Uranium Enrichment Decontamination and Decommissioning (D&D) Fund**. Fees paid by owners and generators of spent nuclear fuel and high-level radioactive waste and fees collected from domestic utilities are deposited into the respective funds. Funds in excess of those needed to pay current program costs are invested in Treasury securities. In FY 2008, investments in these two funds have a net value of approximately \$26 billion.



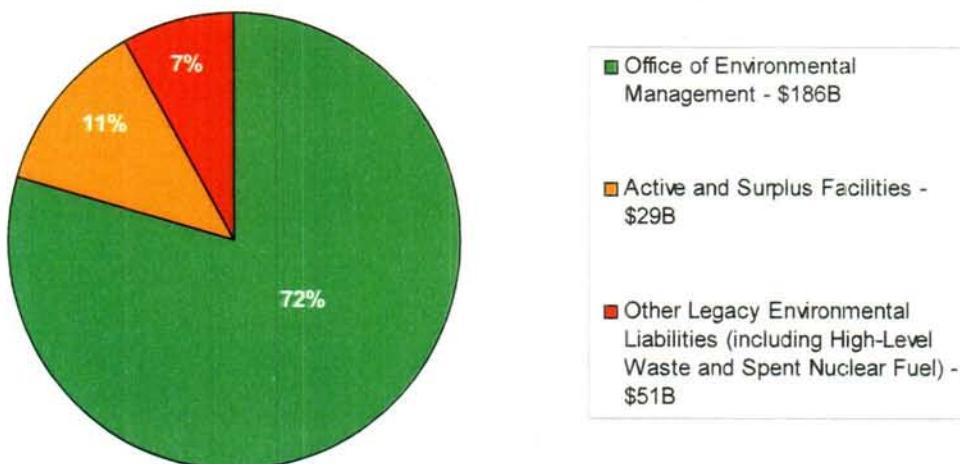
Inventory assets includes stockpile materials consisting of crude oil held in the **Strategic Petroleum Reserve** (SPR) and the **Northeast Home Heating Oil Reserve**, nuclear materials, highly enriched uranium, and other inventory consisting primarily of operating materials and supplies. SPR consists of crude oil stored in salt domes, terminals, and pipelines. As of September 2008, SPR contained crude oil with a historical cost of approximately \$20 billion. The Northeast Home Heating Oil Reserve contains petroleum distillate in the New England, New York, and New Jersey geographic areas valued at historical costs of \$79 million as of September 2008. **Nuclear materials** include weapons and related components, including those in the custody of Department of Defense, and materials used for research and development purposes. DOE has inventories amounting to a total of 17,596 metric tons of uranium as hexafluoride as of the end of FY 2008. Decisions for most nuclear materials will be made through analysis of the economic benefits and costs, and the environmental impacts of the various use and disposition alternatives. All of the Department's nuclear materials total approximately \$21 billion in FY 2008.

General Property, Plant, and Equipment assets include the Department's land and land rights, structures and facilities, internal use software, equipment, natural resources, and construction work in process. Assets in this category total to approximately \$25 billion in FY 2008.

DOE's liabilities, indicated by the red bars in the chart, totaled approximately \$344 billion in FY 2008, and only 3 percent (indicated in yellow on the chart) of this total was covered by budgetary resources

through authorized appropriations. The remaining 97 percent (indicated in purple) are liabilities for which appropriations have not been enacted; they are **unfunded liabilities** and are indicated in blue, orange and gray on the chart. DOE has significant unfunded liabilities that will require future appropriations to fund. The most significant of these represent ongoing efforts to clean up environmental contamination resulting from past operations of the nuclear weapons complex. The FY 2008 **environmental liability** estimate totaled approximately \$266 billion and represents one of the most technically challenging and complex cleanup efforts in the world. Estimating this liability requires making assumptions about future activities and is inherently uncertain. The constituents of the environmental liability are shown in the pie chart below.

DOE Environmental Liability, FY 2008 - \$266 billion



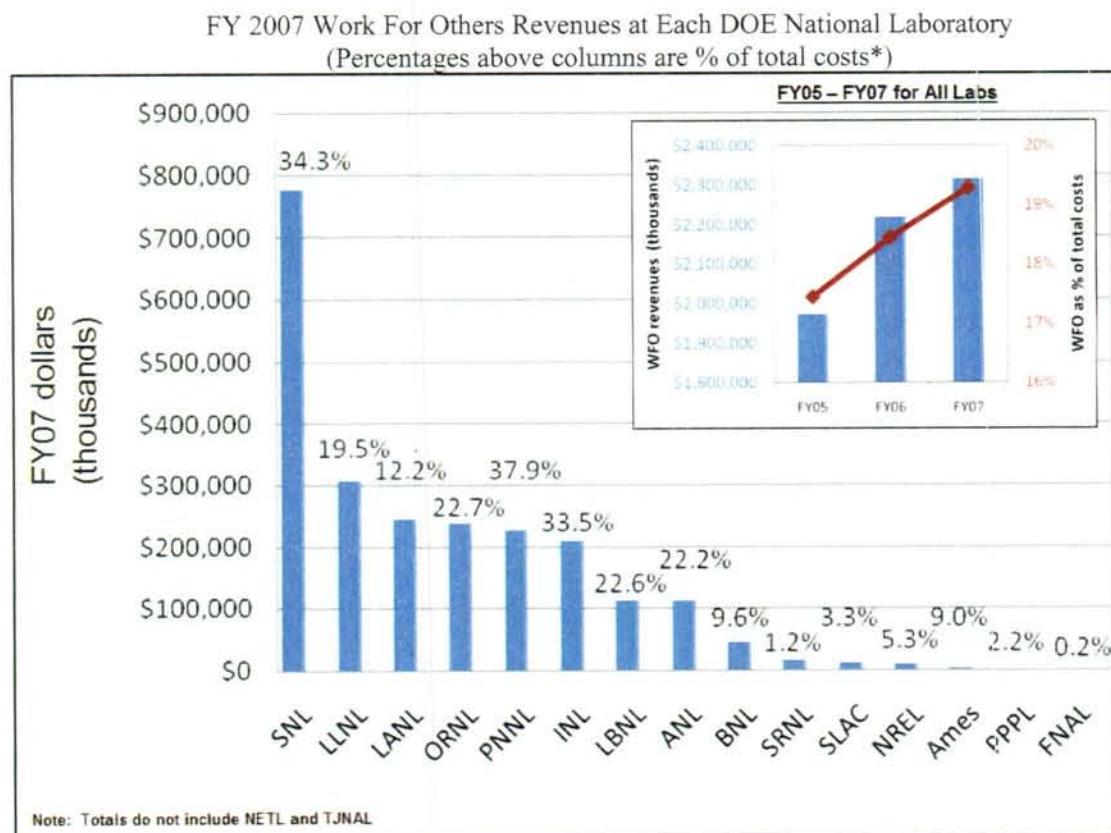
Approximately \$12 billion of the \$45 billion gray bar represents the Department's unfunded liabilities for **contractor pension and post-retirement benefits plans**. Most of the Department's management contractors have defined benefit pension plans. DOE's cost under the contracts includes reimbursement of annual contractor contributions to these pension plans. The Department's contractors also sponsor postretirement benefits other than pensions (PRB) consisting of predominantly postretirement health care benefits. The Department approves these contractors' pension and postretirement benefit plans and is ultimately responsible for the allowable costs of funding the plans. The Department also reimburses its major contractors for employee disability insurance plans, and estimates are recorded as unfunded liabilities for these plans. This liability estimate's for FY 2008 was approximately \$12 billion.

## Work For Others at DOE National Laboratories

Over the past decades, the 17 DOE National Laboratories have developed substantial capabilities in areas not directly tied with the DOE mission, such as homeland security, intelligence, space, and health. Many laboratories accept significant revenues from customers outside of DOE, including DOD, DHS, intelligence agencies, other federal agencies, and to a smaller extent, state and local governments as well as foreign sources and the private and non-profit sectors. Examples include NASA, NIH, Commissariat à l'Energie Atomique (French government atomic energy commission), Boeing, General Motors, and the University of California.

Across the national laboratory complex, this reimbursable work has grown to over \$2 billion per year, or about 19% of total costs,\* although the amount and percentage of Work for Others (WFO) varies widely between individual laboratories. The majority of the WFO revenue is generated by the three primary “defense” national laboratories (Sandia, Lawrence Livermore, and Los Alamos) that are overseen by NNSA.

The Figure below shows the dollar amount of FY 2007 WFO revenues at each DOE laboratory, as well as WFO as a percentage of total laboratory costs. The inset graph gives a composite picture of the laboratory complex from FY 2005 to FY 2007.

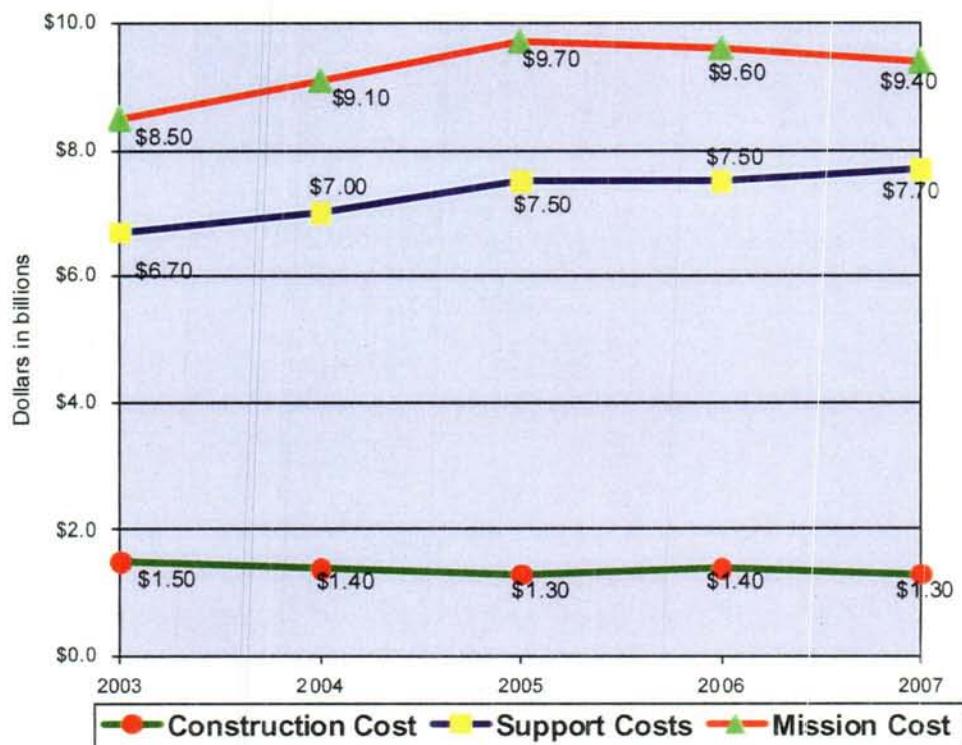


\* Total costs are defined as all direct and allocable costs to projects, based on cost accounting standards, as implemented at each laboratory, and as reported to DOE.

## Support Costs

Standard DOE budget and accounting systems provide limited transparency of costs incurred to support mission activities. Thus, 29 of the Department's largest contractors provide comparable data to headquarters on their support costs. This data provides consistent reporting of costs across 22 standard categories. The Department is interested in this data because reduced support costs could increase the amount or percentage of funding expended on direct mission activities.

**Mission versus Support Costs: Percentage of cost incurred for mission activities decreased by 1.4% since 2005, while costs for support activities increased by 0.6%**



In FY 2007, the top support cost drivers in dollars and as a percent of cost were:

- Maintenance = \$908M / 4.9%
- Safety & Health = \$839M / 4.6%
- Safeguards & Security = \$812M / 4.4%
- Information Services = \$739M / 4.0%
- Management/Incentive Fee = \$632M / 3.4%

From FY 2003 to FY 2007, the top support costs increases were:

- Management/Incentive Fee = +\$214M / +51.1%
- Safeguards & Security = +\$178M / +28.1%
- Safety & Health = +\$116M / +16.1%
- Taxes = +\$104M / +115.6%
- Maintenance = +\$86M / +10.5%

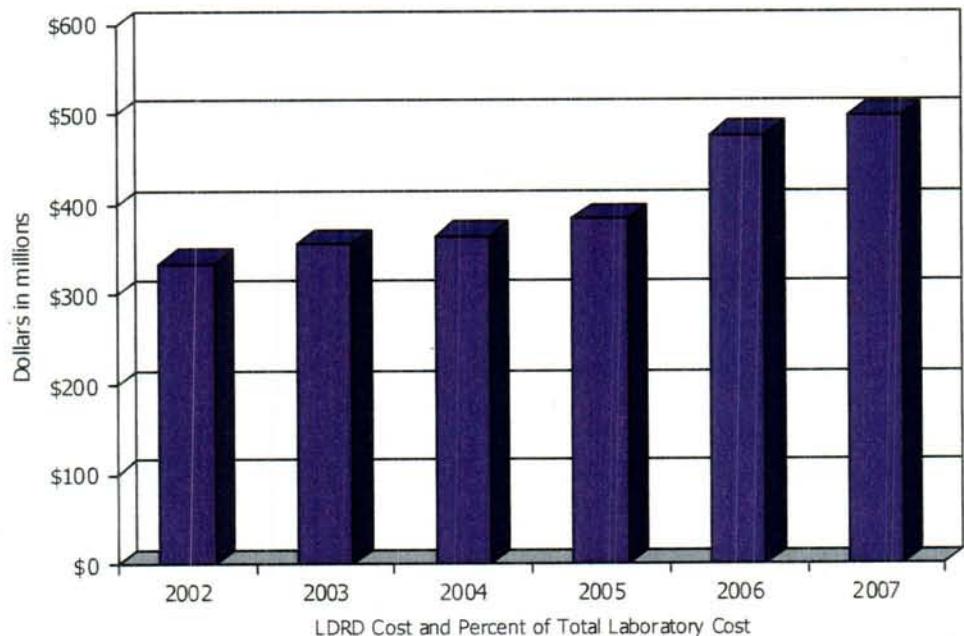
## Laboratory Directed Research and Development

Separate and apart from mission activities, the Department funds research and development work at the national laboratories through the Laboratory Directed Research and Development (LDRD) program. The LDRD program provides laboratory management with funding for scientific projects unrelated to mission but deemed worthy of support. LDRD is congressionally authorized at up to 8 percent of a laboratory's total operating and capital equipment budget.

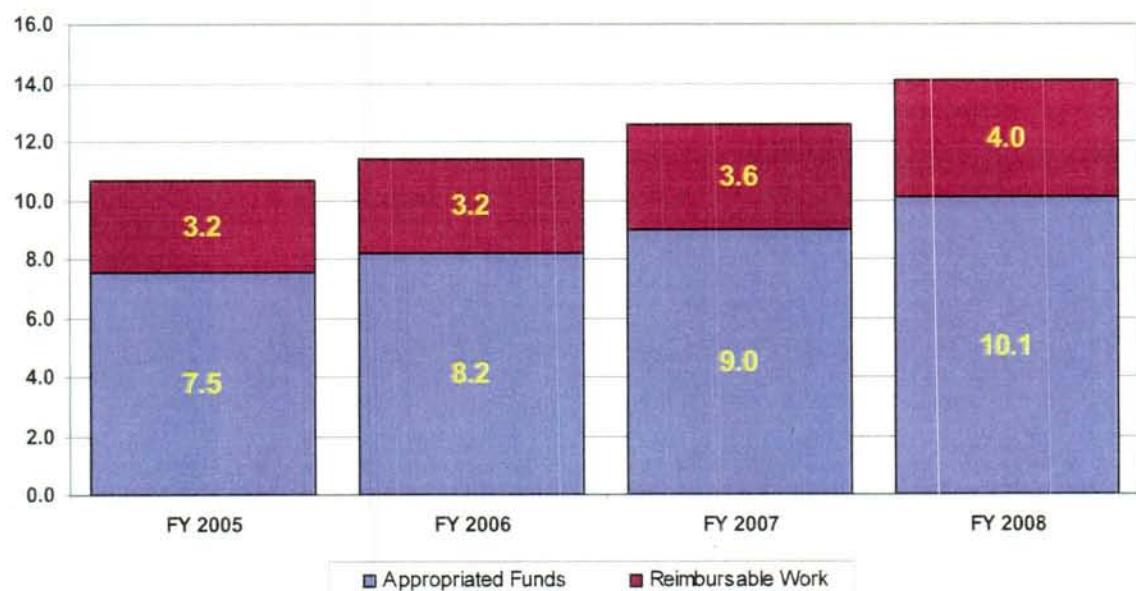
In FY 2007, the multi-program national laboratories devoted approximately \$499 million to LDRD, funding projects ranging in size from less than \$5,000 per year to over \$3 million, addressing topics that span the entire range of DOE's broad scientific mandate. In addition, the production plants invested approximately \$21 million through the Plant Directed Research and Development (PDRD) program to fund science and technology projects with the potential to enhance the plants' mission-related manufacturing capabilities, operations, and core technical competencies. Also, the Nevada Test Site invested approximately \$6 million through its Site Directed Research and Development (SDRD) Program.

The rationale for LDRD is that it supports the laboratory's ability to attract promising young scientists and engineers. LDRD-funded post-doctoral appointments, for example, supported about 39 percent of all post-doctoral scientists and engineers at the reporting multi-program national laboratories in FY 2007. In addition, graduate students participate in some LDRD projects, and the LDRD program provides a mechanism for scientists and engineers at the laboratories to keep themselves current in their fields.

### Laboratory Directed Research and Development Costs



**Uncosted Obligations**  
(dollars in billions)



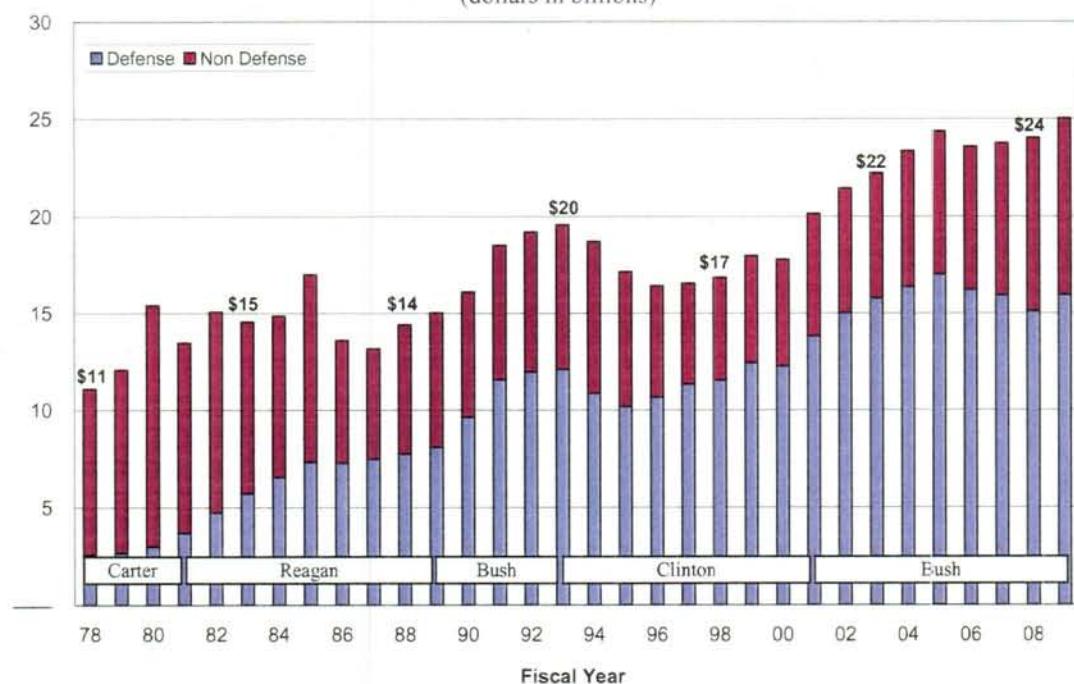
## 2. Funding Tables and Charts

### Charts

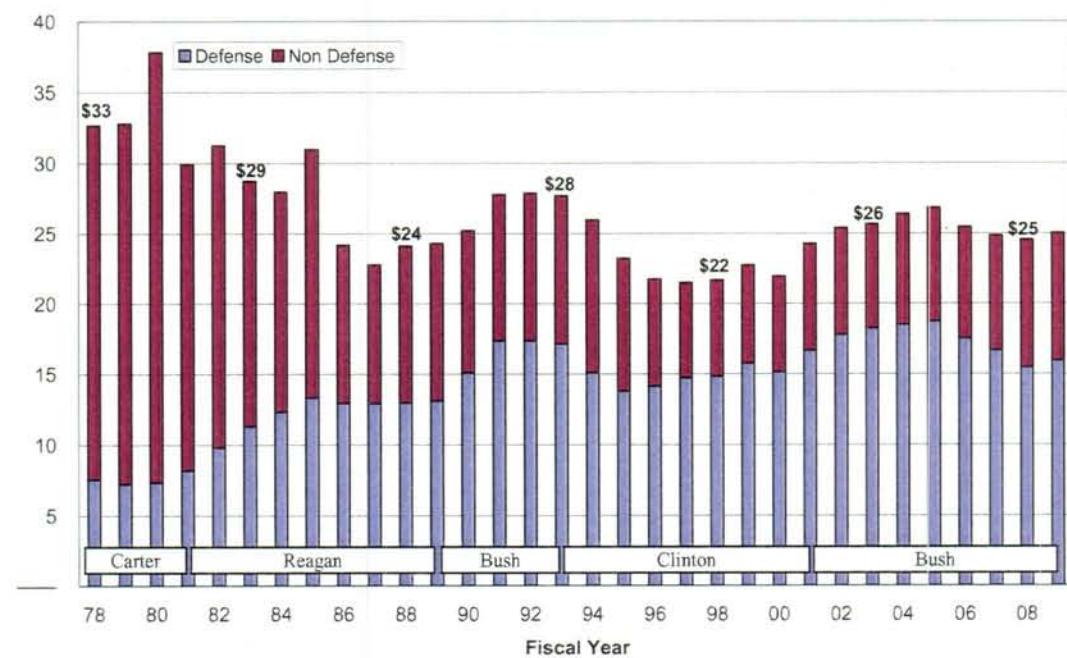
## Funding Tables and Charts

### Department of Energy Historical Funding Summary<sup>1</sup>

Nominal (as appropriated) Discretionary Dollars  
(dollars in billions)

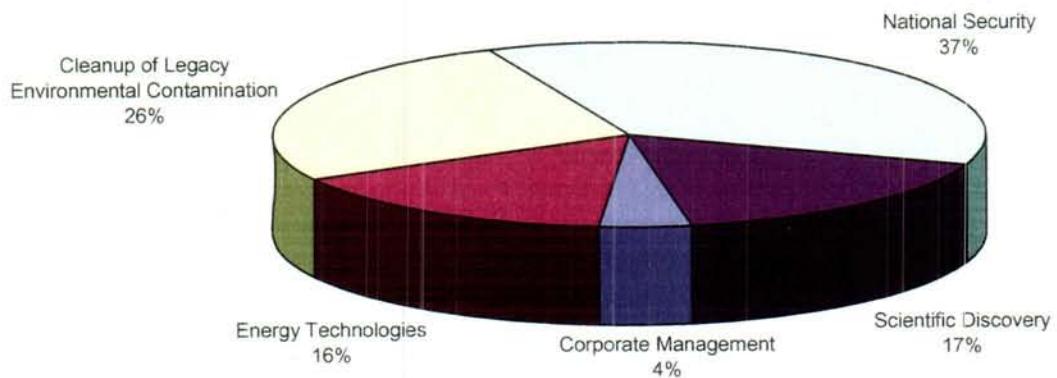


FY 2009 Constant Discretionary Dollars  
(dollars in billions)

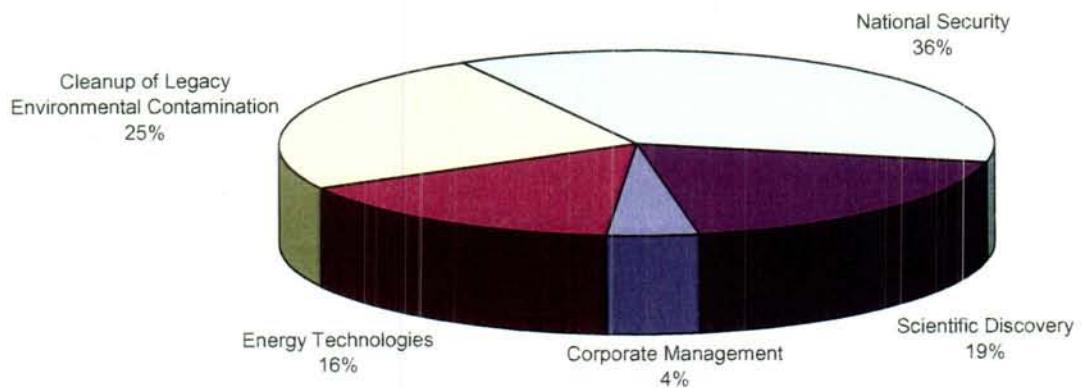


<sup>1</sup> Defense includes the National Nuclear Security Administration, Defense Environmental Cleanup, Defense Nuclear Waste Disposal, and Other Defense Activities.

**Department of Energy**  
FY 2008 Current Appropriation: \$24 billion



**Department of Energy**  
FY 2009 Request: \$25 billion



Note: National Security includes NNSA only

## **DOE Appropriations Overview**

The Department of Energy manages 54 active appropriation accounts. An appropriation is an act of Congress, signed into law by the President, and usually follows enactment of authorizing legislation. An appropriation act provides the legal authority, known as budget authority, for federal agencies to incur obligations and make payments out of the Treasury for specified purpose. DOE manages the following types of appropriations:

- General Funds: 34
- Revolving Funds: 3
- Special Funds: 13
- Loan Guarantee Financing Funds: 2
- Auto Loan Financing Funds: 1
- Trust Funds: 1
- NOTE: DOE has reimbursable work authority (Work for Others) in 12 of these appropriation accounts

All but two of the Department's appropriation accounts are "no-year" accounts which means the budget authority is available for an indefinite period of time and does not expire. Funds are available until completely expended. Two of the appropriation accounts are "multi-year" accounts; both are available for obligation for a period of two years.

Once funds have been appropriated by Congress, the Office of Management and Budget (OMB) approves apportionments, or distributions of the amount available for obligation in an appropriation or fund account in the year of execution. The amount apportioned limits the allotment and obligations that may be incurred and OMB can attach other restrictions to the apportionment at this stage (e.g., OMB might limit the amounts which can be obligated in each fiscal quarter). All DOE appropriations are subject to apportionment except the Nuclear Waste Fund. There were 116 apportionments in FY 2008.

The appropriation and authorization acts along with apportionment restrictions constitute legal controls on the distribution of funds by the Department. There are also congressional and administrative controls on the distribution of funding as described in the House or Senate conference reports, OMB guidance, or DOE internal constraints. Tables tracking the congressional control levels are published as reports accompanying appropriations legislation. There are approximately 550 congressional controls and an additional 50 internal controls on the funding currently managed by the Department.

Currently, the Department has 5 percent appropriation transfer authority for the National Nuclear Security Administration (NNSA) appropriation accounts only. In addition, the Department has limited internal reprogramming authority within several other appropriation accounts, but lacks general transfer authority, which would allow the Department to request a transfer of budget authority between accounts.

**Department of Energy**  
**Budget Authority Table by Organization**  
(Dollars in Millions)

	FY 2001 Current Approp (Orgcont) 1-30-02	FY 2002 Current Approp (Orgcont) 2-11-03	FY 2003 Current Approp (Orgcont) 2-2-04	FY 2004 Current Approp (Orgcont) 1-31-05	FY 2005 Current Approp (Orgcont) 2-1-06	FY 2006 Current Approp (Orgcont) 2-8-07	FY 2007 Current Op. Plan (Orgcont) 1-30-08	FY 2008 Current Approp (Orgcont) 1-30-08	FY 2009 Request (Orgcont) 1-30-08	FY 2009 Continuing Resolution <sup>1</sup> 9-30-08
<b>Discretionary Summary by Organization</b>										
<b>National Security, National Nuclear Security Administration</b>										
Weapons	5,135	5,562	5,983	6,210	6,626	6,355	6,259	6,302	6,618	6,297
Defense Nuclear Nonproliferation	914	1,160	1,221	1,362	1,508	1,619	1,824	1,335	1,247	1,336
Naval Reactors	689	688	702	762	801	782	782	775	828	775
Office of the Administrator	10	312	335	350	363	354	358	402	404	402
Other Defense Activities	32	03	04	04						
Total, National Security, NNSA	6,745	7,721	8,241	8,684	9,298	9,110	9,223	8,814	9,097	8,810
<b>Energy</b>										
Energy Efficiency and Renewable Energy	1,177	1,279	1,290	1,220	1,234	1,163	1,457	1,704	1,265	1,972
Electricity Delivery & Energy Reliability				79	116	158	134	136	134	139
Fossil Energy	728	850	798	791	629	930	775	889	1,127	904
Nuclear Energy	275	292	257	401	504	550	612	1,031	1,419	1,034
Total, Energy	2,180	2,421	2,345	2,491	2,483	2,701	2,979	3,760	3,936	4,049
<b>Environment</b>										
Environmental Management	6,437	6,700	7,015	7,049	7,276	6,590	6,186	5,757	5,528	5,695
Civilian Radioactive Waste Management	315	375	457	577	572	495	446	386	495	386
Environment, Safety, and Health	161	129	124	167						
Office of Legacy Management				27	77	78	64	189	186	189
Office of Legacy Management Worker Transition	42	20	4	32						
Total, Environment	6,955	7,223	7,600	7,852	7,926	7,162	6,695	6,332	6,209	6,270
Total, Energy, and Environment	9,135	9,644	9,945	10,343	10,409	9,863	9,674	10,092	10,145	10,319
<b>Science</b>										
Office of Science	3,219	3,275	3,307	3,523	3,636	3,632	3,837	4,083	4,722	3,973
Corporate Management	830	795	746	822	1,020	1,016	1,064	1,062	1,068	8,576
Excess FERC Receipts	0.8		22.7	19.0	18.5	50.0	43.6	34.4	36.9	34.4
Undistributed Reductions			0.7	1.3						
Cerro Grande Fire Activities	203					1				
Total, DOE Discretionary Funding	20,131	21,435	22,215	23,351	24,345	23,573	23,754	24,016	25,015	31,645

<sup>1</sup> Reflects annualized amount available under the CR and includes additional funding of \$250 million for weatherization grants in EE, and \$7.5 billion for a new auto loan program.

**Department of Energy**  
**Budget Authority Table by Organization**  
(Dollars in Millions)

	FY 2001 Current Approp. (Orgcont) 1-30-02	FY 2002 Current Approp. (Orgcont) 2-8-03	FY 2003 Current Approp. (Orgcont) 2-2-04	FY 2004 Current Approp. (Orgcont) 1-31-05	FY 2005 Current Approp. (Orgcont) 2-1-06	FY 2006 Current Approp. (Orgcont) 2-8-07	FY 2007 Current Op. Plan (Orgcont) 1-30-08	FY 2008 Current Approp. (Orgcont) 1-30-08	FY 2009 Request (Orgcont) 1-30-08	FY 2009 Continuing Resolution <sup>1</sup> 9-30-08
<b>Mandatory Funding</b>										
Bonneville Power Marketing Administration										
Bonneville Power Administration (New BA)	260	642	470	—	315	113	315	434	288	434
Transfer to the corps			138.0				74.0			
Contract authority			203				871	692		
Spending authority from offsetting collections	3,888	3,287	3,352	4,355	2,560	1,832	2,367	2,885	3,273	2,885
Offsetting collections	4,027.0	3,739.0	3,566.0	2,952.0	3,254.0	3,327.0	3,321.0	3,293.0	3,549.0	3,293.0
Change in uncollected customer payments			38.0				63			
Total Bonneville Power Admin - New BA	121	190	283	1,403	379.0	511.0	62	26	12	26
Southwestern power continuing fund	1									
Southeastern power continuing fund	9	10								
WAPA Emergency fund	43			1	—	1	1	1	1	1
Payments to States	3	3	3	3	3	3	3	3	3	3
Elk Hills schools lands fund					1					
Spectrum relocation activities							177			
Ultra deepwater unconv natural gas & other petro										
Deductions for offsetting receipts										
Interest transaction earning on investments	1,366.6	1,751.5	868.0	1,383.0	1,274.0	736.1	991.2	1,292.0	1,400.2	1,292.0
Proprietary receipts from the public										
Departmental Administration	0.2									
Proceeds from sale of excess DOE assets	0.5									
Proceeds from uranium sales	-0.3									
Sale of Strategic Petroleum Reserve Oil						615.3				
Oil and gas sales proceeds at the NPR's	11.8	6.8	7.2	9.3	11.1	8.6	6.1	9.5	6.0	9.5
Nuclear waste fund	589.4	712.2	736.0	776.0	736.0	752.0	754.2	766.0	764.0	766.0
Power marketing administration										
Bonneville power administration	11.3	93.4	96.7	63.0	59.0	56.0	56.0	52.0	69.0	52.0
Southeastern power administration	86.8	93.9	198.2	164.2	179.0	136.4	161.4	178.6	165.6	178.6
Southeastern power continuing fund	9.1	9.5				10	36	64	0	0
Southwestern power administration	81.2	89.3	89.8	85.5	91.9	75.2	98.6	83.9	95.7	81.9
Southwestern power continuing fund	1.2	0.2		0	2	63		0	0	0
Western area power administration	262.0	306.5	266.5	219.1	448.0	218.8	163.3	234.8	158.8	234.8
Total Power marketing administration	451.5	592.9	651.2	531.5	775.8	413.8	443.3	485.0	488.8	549.0
Total Proprietary receipts from the public	1,153.7	1,312.0	1,394.4	1,316.8	1,523.0	1,789.7	1,203.6	1,260.4	1,258.8	1,324.5
Total Deductions for offsetting receipts	2,520.3	3,063.4	2,262.4	2,699.8	2,797.0	2,525.8	2,194.7	2,552.4	2,659.0	2,616.5
<b>Total, Mandatory Funding</b>	<b>-2,343.1</b>	<b>-2,861.1</b>	<b>-1,976.7</b>	<b>-1,293.3</b>	<b>3,172.5</b>	<b>3,033.3</b>	<b>1,952.4</b>	<b>2,522.5</b>	<b>2,643.5</b>	<b>2,587.0</b>
<b>Total, Department of Energy</b>	<b>17,788</b>	<b>18,574</b>	<b>20,239</b>	<b>22,058</b>	<b>21,172</b>	<b>20,539</b>	<b>21,802</b>	<b>21,494</b>	<b>22,371</b>	<b>29,058</b>

<sup>1</sup>Reflects annualized amount available under the CR and includes additional funding of \$250 million for weatherization grants in EE and \$7.5 billion for a new auto loan program.

### 3. Appropriations Subcommittees

## **Appropriations Subcommittees**

### 110th Congress, 2nd Session

<b>Senate Committee on Appropriations Subcommittee on Energy and Water Development</b>	
<i>Democratic Subcommittee Members</i>	<i>Republican Subcommittee Members</i>
Byron Dorgan, <i>Chair</i> (ND)	Pete Domenici, <i>Ranking Member</i> (NM)
Robert C. Byrd (WV)	Thad Cochran (MS)
Patty Murray (WA)	Mitch McConnell (KY)
Dianne Feinstein (CA)	Robert Bennett (UT)
Tim Johnson (SD)	Larry Craig (ID)
Mary Landrieu (LA)	Christopher Bond (MO)
Daniel Inouye (HI)	Kay Bailey Hutchison (TX)
Jack Reed (RI)	Wayne Allard (CO)
Frank Lautenberg (NJ)	
<i>Democratic Staff</i>	<i>Republican Staff</i>
Doug Clapp, <i>Clerk</i>	Scott O'Malia, <i>Clerk</i>
Franz Wuerfmannsdobler	Brad Fuller
Barry Gaffney	Kory Sylvester ( <i>detailer</i> )

<b>House Committee on Appropriations Subcommittee on Energy and Water Development</b>	
<i>Democratic Subcommittee Members</i>	<i>Republican Subcommittee Members</i>
Peter J. Visclosky, <i>Chair</i> (IN)	David L. Hobson, <i>Ranking Member</i> (OH)
Chet Edwards (TX)	Zach Wamp (TN)
Ed Pastor (AZ)	Jo Ann Emerson (MO)
Marion Berry (AR)	Michael K. Simpson (ID)
Chaka Fattah (PA)	Dennis R. Rehberg (MT)
Steve Israel (NY)	Ken Calvert (CA)
Tim Ryan (OH)	Jerry Lewis (CA), <i>Ex Officio</i>
José E. Serrano (NY)	
John W. Olver (MA)	
Dave Obey (WI), <i>Ex Officio</i>	
<i>Democratic Staff</i>	<i>Republican Staff</i>
Taunja Berquam, <i>Clerk</i>	Kevin Cook
Dixon Butler	Rob Blair
Robert Sherman	
Terry Tyborowski	
Shari Davenport	
Lori Maes	

## 4. Programs Overview

## National Nuclear Security Administration

(discretionary dollars in thousands)

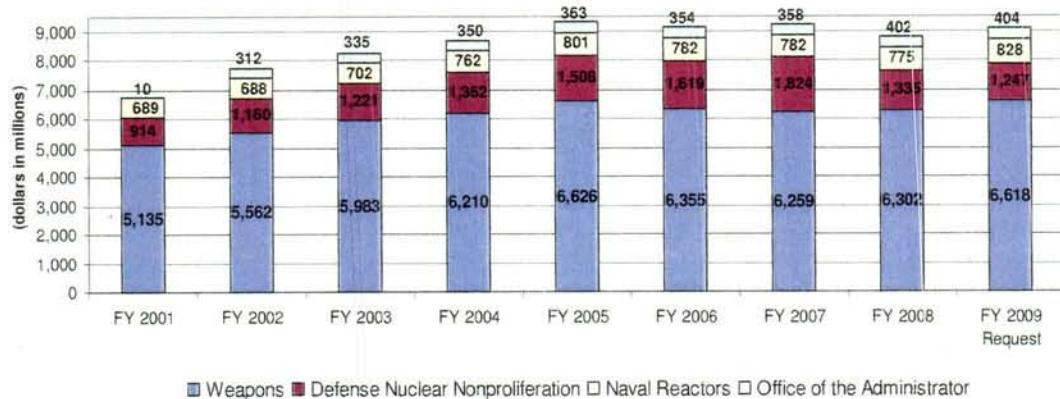
	FY 2007	FY 2008	FY 2009	FY 2010
<b>National Security</b>				
Weapons.....	6,258,583	6,302,366	6,618,079	TBD
Defense Nuclear Nonproliferation.....	1,824,202	1,334,922	1,247,048	TBD
Naval Reactors.....	781,800	774,686	828,054	TBD
Office of the Administrator.....	358,291	402,137	404,081	TBD
<b>Total, National Nuclear Security Administration</b>	<b>9,222,876</b>	<b>8,814,111</b>	<b>9,097,262</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The National Nuclear Security Administration (NNSA) was created by the Congress in 2000 to focus the management of the nation's nuclear defense through a single, separately organized and managed agency within the Department of Energy. NNSA brings together three existing major program components that maintain all of the weapons in the U.S. nuclear weapons stockpile and the nuclear weapons complex infrastructure; lead the Administration's efforts to reduce and prevent the proliferation of nuclear weapons, materials, and expertise; and provide cradle-to-grave support for the U.S. Navy fleet's nuclear propulsion. The mission of the NNSA is to strengthen national security through the military application of nuclear energy and by reducing the global threat from terrorism and weapons of mass destruction.

### BUDGET OVERVIEW:

Historic Funding Profile – FY 2001-2009



## Weapons Activities

(discretionary dollars in thousands)

	FY 2007	FY 2008	FY 2009	FY 2010
<b>Weapons Activities</b>				
Directed stockpile work.....	1,430,192	1,405,602	1,675,715	TBD
Science campaign.....	267,758	286,274	323,070	TBD
Engineering campaign.....	161,736	168,548	142,742	TBD
Inertial confinement fusion and high yield campaign.	489,706	470,206	421,242	TBD
Advanced simulation and computing campaign.....	611,253	574,537	561,742	TBD
Pit manufacturing and certification campaign.....	242,392	213,831	—	TBD
Readiness campaign.....	201,713	158,088	183,037	TBD
Readiness in technical base & facilities.....	1,613,241	1,635,381	1,720,523	TBD
Secure transportation asset.....	209,537	211,523	221,072	TBD
Nuclear weapons incident response.....	133,514	158,655	221,936	TBD
Facilities and infrastructure recapitalization program	169,383	177,861	169,549	TBD
Environmental projects and operations.....	—	17,272	40,587	TBD
Transformation disposition.....	—	—	77,391	TBD
Safeguards and security.....	761,158	904,420	859,839	TBD
Congressionally directed projects.....	—	47,232	—	TBD
<b>Subtotal, Weapons Activities.....</b>	<b>6,291,583</b>	<b>6,429,430</b>	<b>6,618,445</b>	<b>TBD</b>
Use of prior year balances and other adjustments....	-33,000	-127,064	-366	TBD
<b>Total, Weapons Activities.....</b>	<b>6,258,583</b>	<b>6,302,366</b>	<b>6,618,079</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The goal of the Department of Energy's (DOE) Weapons Activities programs is to maintain a safe, secure and reliable nuclear weapons stockpile without nuclear testing, thereby providing the nation with a credible nuclear deterrent. To achieve this end, the National Nuclear Security Administration (NNSA) uses a science-based approach that relies on understanding and expert judgment to predict, identify and correct potential problems. The mission is carried out in partnership with the Department of Defense (DOD), with NNSA providing research, development, and production activities supporting the U.S. nuclear weapons stockpile.

The main components of Weapons Activities are described as follows:

***Directed Stockpile Work (DSW)*** ensures the operational readiness of the nuclear weapons in the nation's stockpile through maintenance, evaluation, refurbishment, reliability assessment, weapon dismantlement and disposal, research, development, and certification activities.

**Campaigns** are focused scientific and technical efforts essential to the certification, maintenance and life extension of the stockpile. The program has allowed NNSA to maintain the moratorium on underground nuclear testing by moving to "science-based" certification and stewardship assessments.

## Weapons Activities

- **Science and Engineering** are two separate campaigns that seek to develop improved capabilities to assess the safety, reliability, and performance of the various components of nuclear weapons without further underground testing through the development of basic scientific understanding, technologies required for stockpile work, and the completion of new experimental facilities.
- **Inertial Confinement Fusion (ICF) Ignition and High Yield** campaign develops laboratory capabilities to create and measure extreme conditions approaching those in a nuclear explosion and to conduct weapons-related research in these environments. Construction of the National Ignition Facility (NIF) is on track to be completed in mid-2009, with the goal of achieving ignition in 2010.
- **Advanced Simulation and Computing** develops the computing capability for high-end simulation in order to meet weapons assessment and certification requirements, including weapon codes, weapons science, computing platforms, and infrastructure.
- **Readiness** is a technology-based effort to reestablish and enhance manufacturing and other capabilities needed to meet stockpile requirements for weapons component production. Key strategies seek to eliminate problematic materials, to reduce waste stream costs, to improve safety, and to improve assembly, disassembly, and development processes.
- **Pit Manufacturing and Certification** is concluded with the successful production of the first replacement plutonium pit for a nuclear weapon in 18 years and related requirements have been realigned to the DSW and Science Campaigns.

**Readiness in Technical Base and Facilities (RTBF)** supports the underlying physical infrastructure and operational readiness required to conduct weapons activities at the eight NNSA sites, which include three national weapons laboratories, four production sites, and the Nevada Test Site.

**Secure Transportation Asset (STA)** is a government owned and operated organization responsible for the secure transport of nuclear weapons, weapons components, and special nuclear materials between military locations and nuclear complex facilities within the US.

**Nuclear Counterterrorism and Incident Response (NCTIR)** provides for emergency management and response activities that ensure a central point of contact and integrated response to emergencies requiring DOE assistance, as well as program funding for Render Safe RX, National Technical Nuclear Forensics Stabilization and Implementation, International Emergency Management, and Cooperation and Nuclear Counterterrorism.

## Weapons Activities

**Facilities and Infrastructure Recapitalization Program (FIRP)** is a capital renewal and sustainability program established to reduce the estimated \$2.4 billion backlog of deferred maintenance which developed during the 1990s by addressing a prioritized list of maintenance and infrastructure efforts under RTBF. This program is scheduled to conclude in FY 2013.

**Safeguards and Security** provides funding for all **Defense Nuclear Security (DNS)** physical and personnel security activities, and **Cyber Security** activities at the NNSA landlord sites.

**Environmental Projects and Operations (EPO)** operates and maintains environmental cleanup systems installed by the Office of Environmental Management, and also performs long-term environmental analyses that assure compliance with federal, state, and local requirements.

**Transformation Disposition** is a new program for FY 2009 to eliminate 5 million gross square feet of excess facilities across the weapons complex through demolition, transfer, or sale.

### BUDGET OVERVIEW:

The FY 2009 budget request for Weapons Activities is \$6.6 billion, an increase of \$320.6 million or 5.1 percent above the FY 2008 funding level. The FY 2009 request allows for continued support to meet the needs of the stockpile, stockpile surveillance, annual assessment, and Life Extension Programs.

Weapons Activities appropriation funds five NNSA program organizations:

- **Defense Programs (\$5.2B)** - The FY 2009 budget request for Defense Programs is \$5.2 billion, an increase of 2.4 percent over the FY 2008 appropriation, to support stockpile stewardship activities. This level supports requirements to meet the immediate needs of the stockpile, stockpile surveillance, annual assessment, and life extension programs for the B61 and W76, as well as provides for ongoing complex transformation initiatives and an increase in the rate of warhead dismantlement. RTBF increases about 5 percent over the FY 2008 appropriation, primarily in the Operations and Maintenance accounts. STA increases 4.5 percent for additional personnel costs as staffing increases from 585 to 647 FTEs, and for procurement of escort vehicles in order to meet projected workload requirements.
- **Nuclear Weapons Incident Response/Emergency Operations (\$222M)** - The FY 2009 Request for these activities is \$222 million, which includes \$19 million to support continuation of the Stabilization Implementation activities, \$13 million for the National Technical Nuclear Forensics program, and two functional

## Weapons Activities

transfers, International Emergency Management and Cooperation and Nuclear Counterterrorism.

- **Infrastructure and Environment (\$288M)** - The request includes funding for FIRP of \$170 million, a decrease of \$8 million or 4.6 percent from the adjusted FY 2008 level. The funding level reflects the planned ramp-down of FIRP and the initiation of the new Transformation Disposition Program. The Environmental Projects and Operations/Long-Term Stewardship program request is \$41 million, an increase of \$23 million, reflecting the initiation of Long-Term Stewardship at Lawrence Livermore National Laboratory's Site 300 and the Pantex Plant and continuing support requirements at the Sandia National Laboratories.
- **Defense Nuclear Security (\$737M)** - The FY 2009 Request for Defense Nuclear Security is \$737 million, a 7.7 percent decrease below the FY 2008 level. The decrease is a result of completion of one-time upgrades to existing physical security systems, reduced program management costs associated with the implementation of the 2005 Design Basis Threat (DBT) requirements, and the end of funding the Material Security and Consolidation Project at the Idaho National Laboratory (INL).
- **Cyber Security (\$123M)** - The FY 2009 Request for Cyber Security is \$123 million, an increase of 22 percent over the FY 2008 level. The Cyber Security increases are the next step in a major five-year effort focused on revitalization, certification, accreditation and training across the NNSA complex.

### KEY ISSUES AND CONCERNS:

- **Weapons Complex Transformation:** A combination of ongoing and new activities will lead to the elimination of expensive and redundant facilities and the consolidation of missions, capabilities, and special nuclear materials in order to reduce the total footprint for the Weapons Complex from 35 million to less than 26 million square feet. Achieving a modernized, cost-effective, integrated, and truly responsive nuclear weapons infrastructure while meeting DoD requirements remains a key focus area for NNSA.
- **Stockpile Strategy:** Several major NNSA initiatives have not been funded, or have received funding significantly below the request, due to Congressional criticism of proceeding without a comprehensive nuclear weapons strategy for the 21st century.
- **Reliable Replacement Warhead (RRW):** Activities for the completion of the Phase 2A study for RRW were not funded in FY 2008 or FY 2009. The request would have allowed further maturation of the design concept in order to address questions raised by the JASON Advisory Group's review regarding establishing an accredited warhead certification plan without nuclear testing.

## Weapons Activities

- **Chemistry and Metallurgy Research Replacement Nuclear Facility:** Cost estimates for construction of the facility are now significantly higher than previous estimates, based on continued project examination and recent industry-wide experience in constructing comparable facilities.
- **Transformation Disposition:** Under the Continuing Resolution, the commencement of TD is delayed, deferring by up to one year commitments to OMB and Congress to eliminate 5 million gross square feet of excess space through transfer, sale, or demolition.
- **Secure Transportation Asset:** Workload requirements for the dismantlement and maintenance schedules, the consolidation of the storage of nuclear material, and the accelerated cleanup of Hanford are expected to exceed current program capacity.

## Defense Nuclear Nonproliferation

(discretionary dollars in thousands)

	FY 2007	FY 2008	FY 2009 Request	FY 2010
<b>Defense Nuclear Nonproliferation</b>				
Nonproliferation and verification R&D.....	265,197	379,649	275,091	TBD
Nonproliferation and international security.....	128,911	149,993	140,467	TBD
International nuclear materials protection and cooperation	597,646	624,482	429,694	TBD
Elimination of weapons-grade plutonium production program.....	231,152	180,190	141,299	TBD
Fissile materials disposition.....	470,062	66,235	41,774	TBD
Global threat reduction initiative.....	131,234	199,448	219,641	TBD
International nuclear fuel bank.....	—	49,545	—	TBD
Congressionally directed projects.....	—	7,380	—	TBD
<b>Subtotal, Defense Nuclear Nonproliferation.....</b>	<b>1,824,202</b>	<b>1,656,922</b>	<b>1,247,966</b>	<b>TBD</b>
Use of prior year balances and other adjustments.....	—	-322,000	-918	TBD
<b>Total, Defense Nuclear Nonproliferation.....</b>	<b>1,824,202</b>	<b>1,334,922</b>	<b>1,247,048</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The **Defense Nuclear Nonproliferation** (NN) appropriation provides funding for six programs which together provide policy and technical leadership to limit or prevent the spread of materials, technology, and expertise relating to weapons of mass destruction; advance technologies that detect the proliferation of weapons of mass destruction worldwide; and eliminate or secure inventories of surplus materials and infrastructure usable for nuclear weapons. It addresses the danger that hostile nations or terrorist groups may acquire weapons of mass destruction or weapons-usable material, dual-use production technology, or weapons of mass destruction expertise. The total request for the program in FY 2009 is \$1.25 billion, and work will be done in the following major areas.

**Nonproliferation and Verification R&D** performs research, development, testing, and evaluation leading to prototype demonstrations and detection systems that strengthen the U.S. response to threats to national security and world peace posed by the proliferation of nuclear weapons and the diversion of special nuclear material. The program works with operational agencies to provide innovative systems and technologies to meet nonproliferation, counter-proliferation, and counter-terrorism mission responsibilities government-wide.

**Nonproliferation and International Security (NIS)** strengthens the global nonproliferation regime by limiting sensitive exports, supporting international safeguards, partnering with foreign governments to implement proliferation control measures, monitoring nuclear reductions, and providing policy and technical analysis that advance U.S. nonproliferation initiatives and interests.

**International Nuclear Materials Protection and Cooperation (INMP&C)** works to prevent nuclear terrorism by working in Russia and other regions of concern to secure and eliminate vulnerable nuclear weapons and weapons-usable material under the Material Protection, Control and Accounting (MPC&A) Program; and installing detection equipment at border crossings, major international seaports, and Megaports to prevent and detect the illicit transfer of nuclear material.

## Defense Nuclear Nonproliferation

**Elimination of Weapons-Grade Plutonium Production (EWGPP)** works with the Russian Federation to shut down the last three weapons-grade plutonium production reactors, thus ending weapons-grade plutonium production in Russia by replacing the reactors with fossil-fueled power plants to provide of heat and electricity to the cities of Seversk and Eleznogorsk in Siberia.

**Fissile Materials Disposition (FMD)** conducts activities in the United States to dispose of surplus weapons-grade fissile materials and supports disposal of Russian surplus weapon-grade plutonium.

**Global Threat Reduction Initiative (GTRI)** reduces and protects vulnerable nuclear and radiological materials located at civilian sites worldwide. It works to minimize the use of HEU in civilian nuclear applications worldwide by converting research reactors and targets used in the production of medical isotopes to suitable LEU fuels and targets; eliminates stockpiles of Russian-origin fresh and spent nuclear fuel and U.S.-origin spent nuclear fuel in foreign research reactors through repatriation of such material to Russia and the United States, respectively; addresses the removal of vulnerable material worldwide, including material not covered by previously existing programs; prevents proliferation of nuclear weapons by securing the weapons-grade plutonium in the spent fuel from the BN-350 fast-breeder reactor in Aktau, Kazakhstan; identifies, recovers, and stores, on an interim-basis, certain domestic radioactive sealed sources, and other radiological materials that pose a security risk to the United State and/or world community; and reduces the international threat by securing radiological materials that could be used in a radiological dispersal device (RDD) or dirty bomb.”

### BUDGET OVERVIEW:

The FY 2009 budget for Defense Nuclear Nonproliferation is \$1.2 billion, \$411 million or 25 percent below the FY 2008 funding. This decrease results from large Congressional increases for some programs in this account in the FY 2008 appropriation, rather than a decrease in planned program activities. The budget includes:

- For **Nonproliferation and Verification R&D** (\$275M) the request advances research programs in Proliferation Detection (\$145M) and Nuclear Detonation Detection (\$117M), and funds the programs portion of the Physical Sciences Facility at Pacific Northwest National Laboratory (\$13M) jointly funded with the Office of Science and the Department of Homeland Security.
- For **NIS** (\$141M) the request includes efforts in Dismantlement and Transparency (\$42M) Global Security Engagement and Cooperation (\$47M), International Regimes and Agreements (\$35M), and Treaties and Agreements (\$16M). The request supports a new Next Generation Safeguards Initiative (NGSI) to strengthen international safeguards, revitalize the U.S. technical base and provide support for the denuclearization of North Korea.
- For **INMP&C** (\$430M) the request supports selective new security upgrades to buildings and areas added to the agreement after the Bratislava Summit. Efforts are directed towards implementing a comprehensive sustainability effort so that U.S.-funded upgrades can be maintained by Russia. The request provides for the installation of radiation detection equipment at an additional 49 foreign sites in 14 countries and at 9 additional Megaports.

## Defense Nuclear Nonproliferation

- For **EWGPP** (\$141M) funding supports the construction of a fossil-fueled power plant located in Eleznogorsk, Russia so that heat and electricity from plutonium-producing reactors can be replaced and plutonium production eliminated in CY 2010.
- For **FMD** (\$42M) funding supports the elimination of surplus fissile materials. In FY 2008, Congress transferred the funding for the U.S. MOX Fuel Fabrication Facility and supporting activities to the Nuclear Energy account. In FY 2009 \$487M was requested within the Other Defense Activities account under the Nuclear Energy Program for the U.S. MOX Fuel Fabrication Facility and supporting activities and \$119M for Pit Disassembly and Conversion is funded in Weapons Activities.
- For **GTRI** (\$220M) the funding is to accelerate high value near term threat reduction components of this work in HEU Reactor Conversion (\$49M), Nuclear and Radiological Material Removal (\$117M), and Nuclear and Radiological Material Protection (\$54M)

### KEY ISSUES AND CONCERNS:

- Appropriations for the **MOX Fuel Fabrication Facility** in FY 2008, including rescission of prior year balances, was less than the funding baseline, and was moved to the Office of Nuclear Energy. Unless this funding is restored, the project will be delayed and costs will increase. This may impact the schedule for MOX production, and if legislative relief is not forthcoming, penalties may be levied, payable to the State of South Carolina. There are also significant legal and management issues to be resolved that will affect this nonproliferation project's execution in the future.

## Naval Reactors

(discretionary dollars in thousands)

	FY 2007	FY 2008	FY 2009	FY 2010
			Request	
<b>Naval Reactors</b>				
Naval reactors development.....	750,420	742,283	793,600	TBD
Program direction.....	31,380	32,403	34,454	TBD
<b>Total, Naval Reactors.....</b>	<b>781,800</b>	<b>774,686</b>	<b>828,054</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The Naval Reactors (NR) program has responsibility for all naval nuclear propulsion work, beginning with reactor technology development, continuing through design, construction, testing, operation, maintenance, and ultimately, reactor plant disposal.

The program's efforts ensure the safe and reliable operation of reactor plants in nuclear-powered submarines and aircraft carriers, which comprise 40 percent of the Navy's combatants. The program's long-term development work ensures that nuclear propulsion technology can meet requirements to maintain and upgrade current capabilities, as well as meet future threats to U.S. security.

The NR program also fulfills the Navy's needs for new reactors to meet evolving national defense requirements. Recent and ongoing work includes the development and delivery of the next-generation reactor for the Navy's new VIRGINIA-class submarine and the design and development of a new reactor for the CVN 21-class aircraft carrier. These new plants will be more affordable and have improved power capabilities, increased endurance, and added dependability compared to current plants.

*Operations and Maintenance* includes the following activities:

- Plant Technology focuses on the components and systems of the ship's nuclear power plant.
- Reactor Technology and Analysis supports the work required to ensure the operational safety and reliability of operating naval reactor plants in U.S. warships, extend the operational life of Navy nuclear propulsion plants, support Navy acoustic requirements, and preserve the Program's level of excellence in radiological and environmental control.
- Materials Development and Verification to extend the lifetime of reactors, reduce costs, and achieve greater power capabilities, new materials must be developed and qualified for use in the harsh reactor environment.
- Evaluation and Servicing is to enhance the fleet performance though testing and examination of materials, components, and new designs under actual operating conditions.
- Advance Test Reactor (ATR) Operations and Test Support performs irradiation testing in the ATR in support of advanced reactor design.
- Facility Operations supports general plant projects (GPP) and capital equipment procurements.

## Naval Reactors

**Construction** provides capital operating expenses and construction of facilities needed for NR performance including the Material Development Facility, Shipping and Receiving and Warehouse Complex, Materials Research and Technology Complex, Naval Reactor Facility (NRF) Production Support Complex, and Knolls Atomic Power Laboratory (KAPL) Infrastructure Upgrades.

**Program Direction** supports salaries and benefits, travel, support services and other related expenses associated with the management of the NR program.

### BUDGET OVERVIEW:

The FY 2009 request provides \$828 million for NR; an increase of \$53 million above the FY 2008 funding level. Funding supports continuing efforts to ensure the safety and reliability of the 103 operating naval reactor plants, develop new reactor plants for the VIRGINIA-class submarine and CVN 21-class aircraft carrier programs, and continue environmental stewardship and oversight of facilities. The budget includes:

- **Operations and Maintenance** (\$772M) as follows:
  - Plant Technology (\$104M)
  - Reactor Technology and Analysis (\$204M)
  - Materials Development and Verification (\$106M)
  - Evaluation and Servicing (\$264M)
  - Advance Test Reactor (ATR) Operations and Test Support (\$60M)
  - Facility Operations (\$33M)
- **Construction** (\$22M) includes beginning construction of Materials Research and Technology Complex design at the Bettis Atomic Power Laboratory; design and construction of a Production Support Complex at the Naval Reactors Facility (NRF), Idaho; and project engineering and design for future projects.
- **Program Direction** (\$35M) provides salary increases for inflation and achievement of the FY 2009 target of 209 FTEs, and increased travel requirements for the management and oversight of the NR program.

### KEY ISSUES AND CONCERNS:

- CR level funding at the 2008 level would be about \$53M below the request and cause a delay in Naval Reactors' analytical preparation for potential new mission work on the Nuclear Surface Combatant and the Next Generation Sea Based Deterrent.
- Significant over target funding may be proposed starting FY 2010 to meet the needs of the future Navy in the following dimensions:

## Naval Reactors

- *Next Generation Sea Based Strategic Deterrent:* Design and development of propulsion plant for Navy's sea-based strategic deterrent (i.e., OHIO-class replacement). DoD's long-range plan for construction of naval vessels sets SBSD platform development to begin in 2010 and construction in 2019. (FY 2010, \$59M; Five years, \$591M)
- *Nuclear Powered Surface Combatant:* Design and development of propulsion plant for a nuclear powered surface combatant, maximizing reuse of A1B components and systems. Well suited to nuclear propulsion plants, the Navy's mission and required capabilities may drive major increases in power and energy requirements. (FY 2010, \$57M; Five Years, \$417M)
- *S8G Prototype Refueling:* Refueling of the S8G Prototype and insertion of test cell necessary to support continued development, testing, and prototyping of new technologies for potential fleet application. This technology insertion opportunity will shape the next 50 years of NR Program design efforts and the capabilities of naval nuclear combatants. (FY 2010, \$57M; Five Years, \$479M)
- *Expended Core Facility Recapitalization:* Recapitalization of aging (50+ years) spent nuclear fuel management infrastructure at the Naval Reactors Facility in Idaho necessary to support refueling of nuclear-powered aircraft carriers and submarines (~40% of all naval combatants). (FY 2010, \$16M; Five Years, \$114M)
- *Supercritical Carbon Dioxide Test:* Megawatt-scale testing to demonstrate S-CO<sub>2</sub> technology that offers some of the most compelling benefits as a future alternative to the conventional naval steam plant in terms of simplification, automation, and cost reduction. (FY 2010, \$7M; Five Years, \$57M)
- *Expended Core Facility Recapitalization:* Project engineering and design work for recapitalization of aging (50+ years) spent nuclear fuel management infrastructure at the Naval Reactors Facility in Idaho. (FY 2010, \$0; Five Years, \$105M).

## Office of the Administrator

(discretionary dollars in thousands)				
	FY 2007	FY 2008	FY 2009	FY 2010
<b>Office of the Administrator</b>				
Office of the administrator.....	358,291	379,997	404,081	TBD
Congressionally directed projects.....	—	22,140	—	TBD
<b>Total, Office of the Administrator.....</b>	<b>358,291</b>	<b>402,137</b>	<b>404,081</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The National Nuclear Security Administrator (NNSA) Office of the Administrator account provides the corporate management and administration, federal personnel, and resources necessary to plan, manage, and oversee the operation of the NNSA under the direction of DOE's Under Secretary for Nuclear Security. The workforce is comprised of a highly educated and skilled cadre of federal managers overseeing the operations of the defense mission activities and performing many specialized duties including leading emergency response teams and safeguards and security oversight.

The organizational structure implemented in FY 2008 includes eight site offices reporting directly to the Assistant Deputy Administrator for Nuclear Safety and Operations. These federal site offices that oversee NNSA contractor operations are located at the Lawrence Livermore and Los Alamos National Laboratories, Sandia National Laboratories; the Pantex and Kansas City plants; the Y-12 National Security Complex; the Savannah River Site; and the Nevada Test Site. The NNSA Service Center in Albuquerque provides procurement, human resources, and other support to Headquarters and the site offices.

*Note: The Naval Reactors and Secure Transportation Asset programs are not funded in this account but retain separately funded program direction accounts.*

### BUDGET OVERVIEW:

The FY 2009 request for this program is \$404 million. The budget includes:

- Salaries and benefits and cost of living adjustments (\$289M) for 1,942 FTEs, which reflects an increase of 95 FTEs from the FY 2008 level of 1,847 FTEs, to meet increased requirements in Defense Nuclear Nonproliferation and Emergency Operations program goals, as well as to address NNSA workforce planning skill mix issues.
- Travel (\$13M) includes domestic and foreign travel to conduct NNSA business.
- Support Services (\$24M) includes highly specialized analytical expertise required to address critical technical program issues in nonproliferation and national security.

Other Related Expenses (\$78M) includes information technology support for the NNSA Federal staff, space and occupancy costs, operational costs associated with international

## **Office of the Administrator**

offices, training for NNSA federal staff, support for Historically Black Colleges and Universities (HBCU) and the Massie Chairs of Excellence program, and nonpayroll funding for Permanent Change of Station moves for Federal personnel.

The FY 2009 Request shifts the Historically Black Colleges and Universities (HBCU) program from the Congressionally Directed line item to the various appropriation accounts within the NNSA, reflecting the goal of enabling real R&D contributions from some HBCUs. The Office of the Administrator appropriation will continue to provide funding of \$3.6 million to support HBCU activities (\$2.5 million Massie Chairs of Excellence and \$1.1 million HBCU). The NNSA programs will provide an additional \$10 million for HBCU efforts in multiple research areas directly supporting program activities.

### **KEY ISSUES AND CONCERNS:**

- The need to maintain the appropriate skill mix within an aging and retiring workforce is a continuing challenge going forward.

## Office of Energy Efficiency and Renewable Energy

(discretionary dollars in thousands)

FY 2007	FY 2008	FY 2009	FY 2010
		Request	

### Assistant Secretary For Energy Efficiency And Renewable Energy

#### Energy Efficiency and Renewable Energy

Hydrogen technology.....	206,241	146,213	TBD
Biomass and biorefinery systems R&D.....	195,633	225,000	TBD
Solar energy.....	166,320	156,120	TBD
Wind energy.....	49,034	52,500	TBD
Geothermal technology.....	19,307	30,000	TBD
Water power.....	9,654	3,000	TBD
Vehicle technologies.....	208,359	221,086	TBD
Building technologies.....	107,382	123,765	TBD
Industrial technologies.....	63,192	62,119	TBD
Federal energy management program.....	19,818	22,000	TBD
Facilities and infrastructure.....	76,176	13,982	TBD
Weatherization and intergovernmental activities....	282,217	58,500	TBD
Program direction.....	104,057	121,846	TBD
Program support.....	10,801	20,000	TBD
Congressionally directed projects.....	186,664	—	TBD
Use of prior year balances and other adjustments...	-743	-738	TBD
<b>Total, Energy Efficiency and Renewable Energy.....</b>	<b>1,704,112</b>	<b>1,255,393</b>	<b>TBD</b>

#### Energy Supply and Conservation

##### Energy Efficiency and Renewable Energy

Hydrogen technology.....	189,511	—	—	TBD
Biomass and biorefinery systems R&D.....	196,277	—	—	TBD
Solar energy.....	157,028	—	—	TBD
Wind energy.....	48,659	—	—	TBD
Geothermal technology.....	5,000	—	—	TBD
Water Power.....	0	—	—	TBD
Vehicle technologies.....	183,580	—	—	TBD
Building technologies.....	102,983	—	—	TBD
Industrial technologies.....	55,763	—	—	TBD
Federal energy management program.....	19,480	—	—	TBD
Facilities and infrastructure.....	107,035	—	—	TBD
Weatherization and intergovernmental activities...	281,731	—	—	TBD
Program direction.....	99,264	—	—	TBD
Program support.....	10,930	—	—	TBD
Congressionally directed projects.....	0	—	—	TBD
<b>Total, Energy Efficiency And Renewable Energy....</b>	<b>1,457,241</b>	<b>1,704,112</b>	<b>1,255,393</b>	<b>TBD</b>

#### PROGRAM OVERVIEW:

The Office of Energy Efficiency and Renewable Energy (EERE) leads the Federal government's research, development, and deployment (RD&D) efforts to strengthen America's energy security, environmental quality, and economic vitality through public-private partnerships that:

- Enhance energy efficiency and productivity;

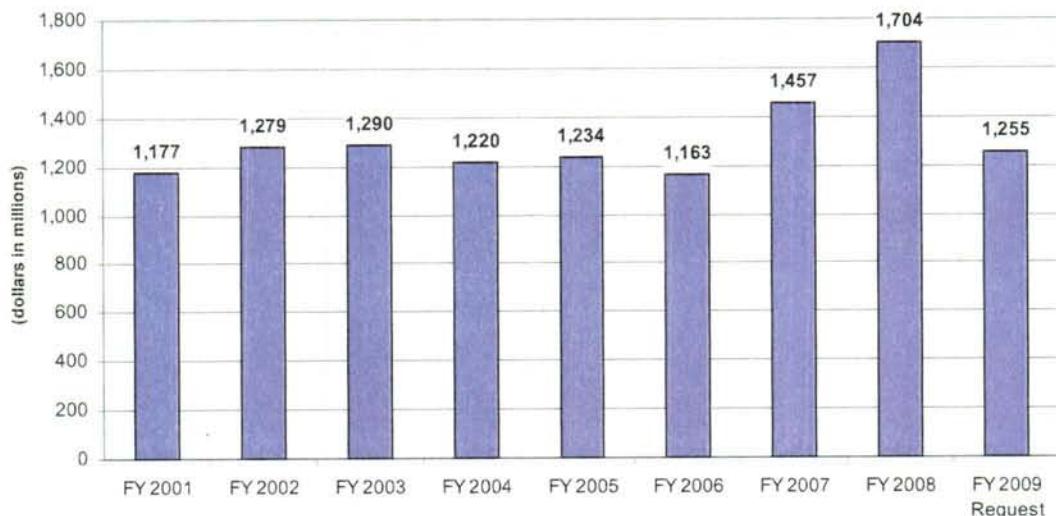
## Office of Energy Efficiency and Renewable Energy

- Bring clean, reliable and affordable energy technologies to the marketplace; and
- Provide consumers with energy choices while reducing energy imports and greenhouse-gas emissions.

EERE pursues its mission by investing in high-risk, high-value research and development that is critical to the nation's energy future and which would not be sufficiently conducted by the private sector. EERE works with public and private sector decision makers, partners and other stakeholders to develop programs and policies to facilitate the commercialization and deployment of advanced clean energy fuel, use and generation technologies and practices through efficiency mechanisms such as appliance efficiency standards, buildings codes, Federal fleet initiatives, energy education activities, and financial assistance grants. EERE develops technology and provides technical assistance needed for the rapid scale up use of renewable energy through best practices, regulations and technologies that will strengthen the U.S. economy, protect the environment, and increase national energy security by reducing dependence on traditional energy sources.

### BUDGET OVERVIEW:

Historic Funding Profile -FY 2001-2009



The FY 2009 budget request for EERE is \$1.26 billion, approximately \$467 million less than the FY 2008 enacted appropriation.

- **Hydrogen Technology (\$146M)** - Focuses on hydrogen and fuel cell technologies to reduce dependence on oil in the transportation sector, as well as to enable clean, reliable energy for stationary and portable power generation. Other organizations contributing to this funding crosscut include DOE Offices of Science, Fossil Energy and Nuclear Energy, and hydrogen safety-related activities at the U.S. Department of Transportation.
- **Biomass and Biorefinery Systems R&D (\$225M)** - Conducts research and development (R&D) to transform domestic, renewable and abundant biomass

## Office of Energy Efficiency and Renewable Energy

resources into cost-competitive, high performance biofuels, bioproducts and biopower through targeted R&D leveraged by public and private partnerships.

- **Solar Energy (\$156M)** - Focuses on the research and deployment of solar power to diversify the Nation's electricity supply options, while increasing national energy security and promoting clean, reliable energy. Activities include the acceleration of the market competitiveness of solar electricity to deliver photovoltaic (PV) systems that are less expensive, more efficient, and highly reliable.
- **Wind Energy (\$53M)** - Leads the effort to accelerate the market penetration of wind energy by improving the performance and reliability of wind technology, reducing risks to project development, enhancing critical energy infrastructure, and advancing policies in support of wind energy.
- **Geothermal Technology (\$30M)** - Conducts R&D on Enhanced Geothermal Systems (EGS) to advance the technology as an economically competitive contributor to the U.S. energy supply. EGS are engineered reservoirs created to produce energy from geothermal resources deficient in natural water levels and/or permeability.
- **Water Power (\$3M)** - Supports the development and deployment of water power technologies to increase water-based electric generation in the U.S. through resource assessments, technology characterizations, and Cooperative Research and Development Agreements that advance water power technology development.
- **Vehicle Technologies (\$221M)** - Conducts R&D to make cars, trucks, and buses more efficient and capable of operating on non-petroleum fuels through programs such as the FreedomCAR and Fuel Partnership and the 21st Century Truck Partnership.
- **Building Technologies (\$124M)** - Develops and promotes deployment of technologies to make new and existing homes and buildings less energy intensive. Activities include energy efficiency component research to reduce building electrical loads, such as solid state lighting, more affordable efficient windows, and more efficient heating, ventilation, air conditioning, refrigeration. Additional activities include issuing appliance standards and building codes, as well as technology validation and market introduction efforts such as ENERGY STAR.
- **Industrial Technologies (\$62M)** - Works to reduce the energy usage of the U.S. industrial sector through R&D, validation, and dissemination of energy-efficiency technologies and operating practices.
- **Federal Energy Management Program (\$22M)** - Enhances energy security, environmental stewardship and cost reduction within the federal government through water and energy conservation efforts in Federal facilities and increased use of renewable energy.

## Office of Energy Efficiency and Renewable Energy

- **Facilities and Infrastructure (\$14M)** - Enables the acquisition and maintenance of scientific capabilities and support infrastructure at the National Renewable Energy Laboratory (NREL), EERE's primary national laboratory in Golden, Colorado.
- **Weatherization and Intergovernmental Activities (\$59M)** - Accelerates the adoption of energy efficiency and renewable energy technologies and practices by state and local governments, Native American tribal governments, and international partners through technical and financial assistance.
- **Program Direction (\$122M)** - Provides personnel and operational resources for executive and technical direction and oversight of EERE programs, including operations at headquarters and the field Project Management Center (PMC).
- **Program Support (\$20M)** - Provides corporate and integrated information such as strategic and individual benefits to inform decisions for both portfolio investment and market adoption by industries and individuals of EERE based processes, individual technologies and energy systems. Also enables regular, consistent outreach mechanisms and products that keep EERE stakeholders advised of corporate management issues affecting EERE operations.

### KEY ISSUES AND CONCERNS:

- **Appropriations Increases and Program Direction:** EERE continues to receive large appropriations increases and direction for new programs that require management, implementation and potentially additional staff. Program direction funding levels and related human resources may not be keeping pace with appropriation increases.
- **Weatherization Assistance Program Planning:** No Federal agency is currently planning for this program which provides weatherization assistance grants to states. Congress consistently provides appropriations for this program:\$227 million in FY 2008, \$250 million in the FY 2009 House Mark and \$201 million in the FY 2009 Senate Mark.

## Office of Electricity Delivery and Energy Reliability

(discretionary dollars in thousands)

FY 2007	FY 2008	FY 2009	FY 2010
			Request

### Office Of Electricity Delivery & Energy Reliability

#### Electricity Delivery & Energy Reliability

Research and development.....	—	107,116	100,200	TBD
Operations and analysis.....	—	11,451	14,122	TBD
Program direction.....	—	17,603	19,678	TBD
Total, Electricity Delivery & Energy Reliability.....	—	136,170	134,000	TBD

#### Energy Supply and Conservation

Research and development.....	96,506	—	—	TBD
Operations and analysis.....	20,500	—	—	TBD
Program direction.....	17,357	—	—	TBD
Total, Energy Supply and Conservation.....	134,363	—	—	TBD
<b>Total, Electricity Delivery &amp; Energy Reliability.....</b>	<b>134,363</b>	<b>136,170</b>	<b>134,000</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The Office of Electricity Delivery and Energy Reliability (OE) leads a national effort to modernize the electric grid, enhance security and reliability of the energy infrastructure, and facilitate recovery from disruptions to energy supply. OE works to create a future electricity system that is less vulnerable to disruption, more efficient and operate to serve new markets and energy demands. The OE program consists of:

#### *Research and Development*

OE supports a portfolio of research projects on advanced electricity technologies to address the future of the electric transmission and distribution system.

#### *Operations and Analysis*

OE assists all levels of government and the private sector to develop and implement electricity policy as well as facilitate recovery from disruptions to the energy supply.

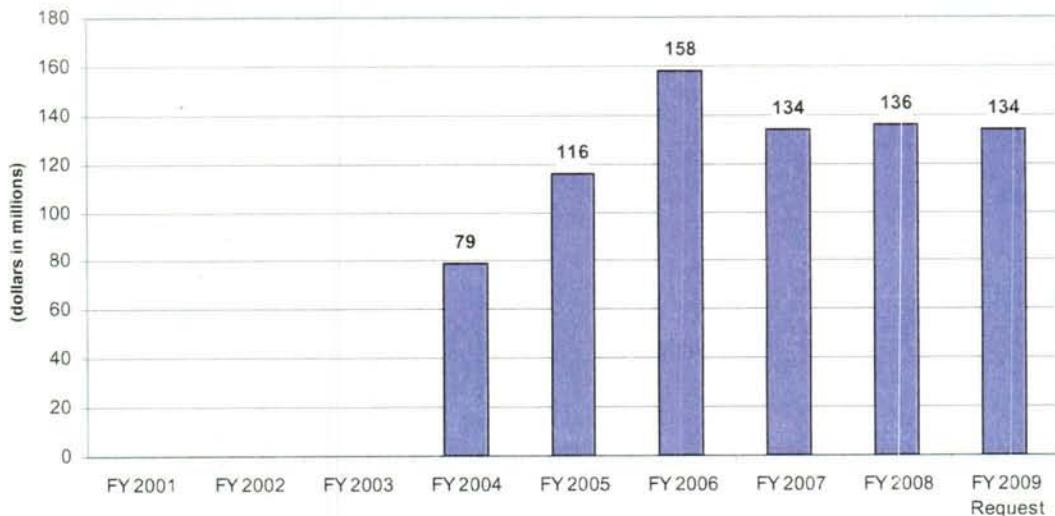
#### *Program Direction*

Program Direction provides the Federal staff resources for overall direction, management and support for OE.

### BUDGET OVERVIEW:

## Office of Electricity Delivery and Energy Reliability

### Historic Funding Profile -FY 2001-2009



The FY 2009 budget for the Office of Electricity Delivery and Energy Reliability is \$134 million. The budget includes:

#### Research and Development (\$100M):

- **High Temperature Superconductivity R&D (\$28M)** focuses on operational wire and power prototypes that are half the size and deliver half the energy losses of conventional equipment of the same power rating by 2016.
- **Visualization and Controls (\$25M)** develops real-time visualization, monitoring, and control systems that support adaptive, intelligent grid operations, and integrate distributed energy devices. These advances will improve the reliability and efficiency of the electric delivery system and increase the utilization of transmission and distribution assets.
- **Energy Storage and Power Electronics (\$13M)** develops energy storage technologies and power switches that reduce power disturbances and peak electricity demand, and improve system flexibility to reduce adverse effects to users.
- **Renewable and Distributed Systems Integration (\$33M)** focuses on a diverse array of cost-competitive, integrated distributed-generation and thermal energy technologies. It also supports the use of these technologies in residential, business, and industrial applications to improve electricity reliability and reduce conventional environmental effects.

#### Operations and Analysis (\$14M):

- **Permitting, Siting, and Analysis (\$7M)** uses education, outreach, and analysis to help states, regional electric grid operators, and Federal agencies to develop and improve policies, market mechanisms, regulations, state laws, and programs that assist modernization of the electric grid.

## Office of Electricity Delivery and Energy Reliability

- **Infrastructure Security and Energy Restoration (\$8M)** coordinates the Department's response to energy emergencies, prevents unauthorized use of the energy infrastructure, and helps all levels of government and the private sector recover from energy supply disruptions.

### KEY ISSUES AND CONCERNS:

- FY 2009 is \$19 million above the FY 2008 budget and OE is concerned that the marginal increase sustains OE's base programs at an elementary level and it is not enough to support an effective strategy to modernize and secure our nation's energy infrastructure. Meeting requirements from EPAct 2005 and EISA continue to be a large burden to OE which does not allow enough growth in other areas of the program.
- OE is concerned that FY 2009 funding will be insufficient to meet new legislative requirements, initiatives and/or challenges the new Congress and Administration may have.
- Restoration efforts and responsibilities during energy emergencies, such as hurricanes, continue to grow. Concerns about the little growth in funding to this area is scarcely enough to sustain a minimal level of analytical efforts and assistance provided to all levels of government and international interest to prepare for energy emergencies.

## Office of Fossil Energy

	(discretionary dollars in thousands)			
	FY 2007	FY 2008	FY 2009 Request	FY 2010
<b>Fossil Energy Programs</b>				TBD
Fossil Energy Research and Development...	580,946	727,181	754,030	TBD
Clean coal technology.....	—	-58,000	—	TBD
Naval petroleum and oil shale reserves.....	21,316	20,272	19,099	TBD
Strategic petroleum reserve.....	164,441	186,757	344,000	TBD
Northeast home heating oil reserve.....	7,966	12,335	9,800	TBD
<b>Total, Fossil Energy Programs.....</b>	<b>774,669</b>	<b>888,545</b>	<b>1,126,929</b>	<b>TBD</b>

### **PROGRAM OVERVIEW:**

U.S. Department of Energy, (DOE) Office of Fossil Energy (FE) activities help ensure that as the nation strives to reduce its reliance on imported energy sources and reduce greenhouse gas emissions. FE fosters the use of new energy technologies and practices to promote the efficient, environmentally sound and cost-effective use of America's abundant fossil fuels, which currently supply 85% of the nation's energy. Toward this purpose, FE is working on such priority projects as pollution-free coal plants, more productive oil and gas fields, and the continuing readiness of federal emergency oil stockpiles.

#### ***Fossil Energy Research and Development (FER&D)***

The FER&D program carries out three types of activities:(1) managing and performing energy-related research that reduces market barriers to reliable, efficient and environmentally sound production and use of fossil fuels for domestic consumption and conversion to electricity; (2) partnering with industry and others to advance clean and efficient fossil energy technologies toward commercialization in the U.S. and international markets; and (3) supporting the development of information and policy options that benefit the public by ensuring access to adequate supplies of affordable and clean energy.

#### ***Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund***

The Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund was created by the Energy Policy Act of 2005 (P.L. 109-58) as a mandatory program beginning in FY 2007. The program is funded from mandatory federal revenues from oil and gas leases. This program was implemented to conduct research, development, demonstration, and commercialization to maximize the value of natural gas and other petroleum resources of the United States by increasing resource supplies, reducing the cost, and enhancing the efficiency of exploration and production, improving safety, and minimizing environmental impacts.

#### ***Strategic Petroleum Reserve (SPR)***

The mission of the SPR is to provide an emergency stockpile of petroleum products to protect the United States from potential disruptions in petroleum supplies and to carry out obligations of the United States under the international energy program. *Energy Policy and Conservation Act* (P.L. 94-163). With a current capacity of 727 million barrels of

## Office of Fossil Energy

secure storage in deep, underground salt caverns along the Texas and Louisiana Gulf coasts, it represents a \$22 billion-plus investment in national security.

### **Northeast Home Heating Oil Reserve**

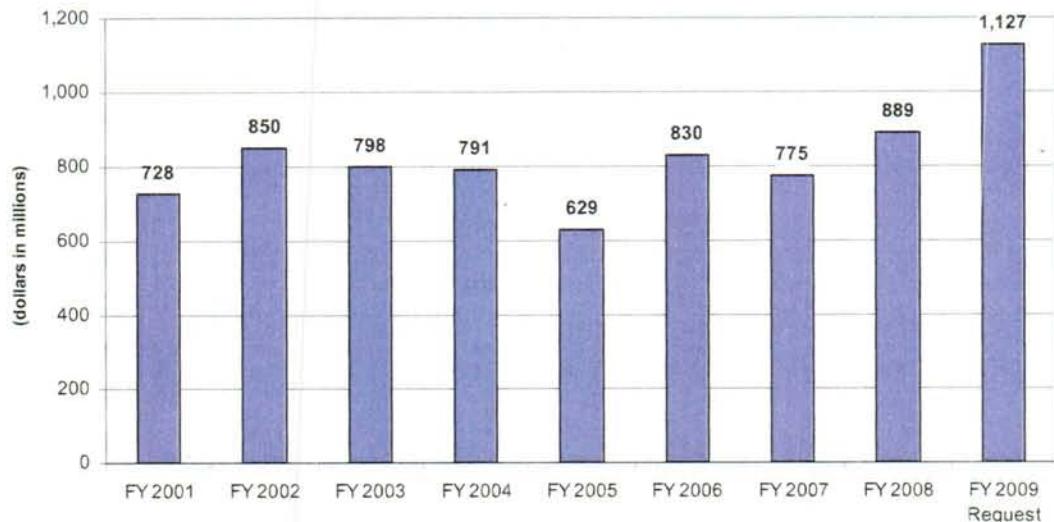
The Northeast Home Heating Oil Reserve is a 2 million barrel supply of emergency fuel oil in the northeastern United States, where about 69 percent of American households using heating oil are located. Established in 2000, the Reserve is an "emergency buffer" that can supplement commercial fuel supplies should the heavily oil-dependent region be hit by a severe disruption in supplies. Two million barrels would give Northeast consumers a supplemental supply for about 10 days, the time required for ships to carry heating oil from the Gulf of Mexico to New York Harbor.

### **Naval Petroleum and Oil Shale Reserves (NPOSR)**

Since 1998, the NPR has divested the three Naval Oil Shale Reserves and the NPR No. 1 and has transferred the NPR No. 2 properties to the Bureau of Lands Management. The remaining property, NPR No. 3, located in Casper, Wyoming, operates the Teapot Dome Oilfield and provides the Rocky Mountain Oilfield Testing Center for industry, academia, and Government agencies to perform applied oilfield research. The NPOSR mission has evolved to completing environmental remediation activities and equity finalization at NPR No. 1, while simultaneously operating NPR No. 3; providing RMOTC as a field demonstration facility; and advocating/supporting industry efforts for the commercial development of U.S. oil shale resources.

### **BUDGET OVERVIEW:**

#### **Historic Funding Profile -FY 2001-2009**



The FY 2009 budget request for the Office of Fossil Energy was \$1.1 billion. The budget includes:

## Office of Fossil Energy

- The **FERD** program (\$754M) significantly increases activities in Coal with Carbon Capture and Storage (CCS). At the centerpiece are multiple demonstration projects integrating power production and CCS that are funded under FutureGen and the Clean Coal Power Initiative (CCPI). These projects will provide early commercial-scale experience with near-zero atmospheric emission coal technologies and address issues that could impede commercial deployment. CCPI projects will also focus on demonstrating innovative technology needed to reduce the high current cost of CCS. The program also continues large-scale demonstration of injection and storage of CO<sub>2</sub> in geologic formations.
- The FY 2009 budget request for **SPR** (\$344M) continues expansion efforts which were initiated in FY 2008. In FY 2009, the request supports expansion of the existing sites in Bayou Choctaw, LA (20 million barrels), and Big Hill, TX (80 million barrels) and the new facility in Richton, MS (160 million barrels). To further ensure against supply disruptions, the FY 2009 budget proposes to start the National Energy Policy Act (NEPA) environmental process for the final 500 million barrels doubling the current capacity of 727 million barrels to 1.5 billion barrels.
- The FY 2009 budget request continues operation of the **Northeast Home Heating Oil Reserve** (\$10M), including lease of commercial storage space.
- In FY 2009, the **NPOSR** program (\$19M) will continue the environmental closeout efforts at Elk Hills, plus activities related to the settlement of ownership equity shares with the former unit partner in the NPR-1 field, Chevron U.S.A., Inc. The FY 2009 budget request also continues operation and maintenance of roughly half of the oil wells in NPR-3 and initiates remediation of facilities that are no longer of value to either production operations or RMOTC testing operations. Funding for RMOTC continues support of testing partners who use the facility for development and demonstration of new technologies.
- Consistent with prior-year budget requests, the FY 2009 budget proposed to repeal the mandatory **Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research Fund** through a legislative proposal. This policy is consistent with the decision to terminate the discretionary Oil and Natural Gas programs.

### KEY ISSUES AND CONCERNS:

- **FutureGen:** FutureGen and CCPI are complementary demonstration programs. FutureGen is intended to help answer uncertainties associated with the technical integration of CCS and advanced coal power plants, address siting and permitting issues, and help shape and drive the regulatory framework for carbon storage. FutureGen proposals were due October 8, 2008 and selection of FutureGen projects is targeted for the end of CY 2008. Contracts will be negotiated and awarded in 2009. The Department anticipates \$290 million will be available for

## Office of Fossil Energy

funding of selected projects through FY 2009 and an additional \$1 billion is expected to be available in subsequent years, subject to appropriations by Congress. FutureGen proposals are rigorously evaluated and should be ready for award by late 2009. Pending the completion of this evaluation, full funding requirements and the extent to which the proposals support FutureGen objectives will not be known.

- **Clean Coal Power Initiative:** CCPI is designed as a series of demonstrations to advance the CCS state-of-the-art, including improved versions of initial FutureGen plants. It will be open to a variety of capture processes and CO<sub>2</sub> storage options. CCPI Round 3 proposals are due January 15, 2009, with selections anticipated by July 2009. DOE could make multiple Round 3 awards and, depending on FY 2009 appropriations. The Department may be able to provide up to \$340 million to be distributed among selected recipients. If CCPI solicitations follow the traditional pattern of occurring every other year, there is concern that the amount available for Round 3 would not be consistent with an objective of driving down CCS cost so that this technology is widely and cost-effectively deployable for plants beginning construction in 2025.
- **Natural Gas/Petroleum-Oil Technologies:** The last Administration proposed terminating these programs but Congress has continued to fund them. The new Administration must evaluate whether to propose to fund or terminate these activities.
- **Strategic Petroleum Reserves (SPR) - Fill:** The new Administration will have to determine if it wishes to continue filling the existing SPR to its capacity of 727 million barrels or if it will remain at the current level of 707 million barrels. Decisions must be made to seek agreement with the Department of Interior (DOI) to limit their next RIK sales period to Jan-Jun 2009. To coordinate with the following DOI contracting cycle, decisions need to be made by Mar 1, 2009 whether to convert from DOI royalty sales to royalty transfers to DOE for the Jul-Dec 2009 period which would provide SPR fill from Aug 2009-Jan 2010. Decisions also need to be made whether to execute the postponed oil purchase using the \$584 million in the SPR Petroleum Account from the Katrina Oil Sale. However, these funds do remain available for obligation without fiscal year limitation.
- **SPR - Expansion:** The Administration will face another important policy decision regarding whether or not to support the expansion of SPR capacity to one billion barrels and beyond. The SPR expansion has been delayed two years due to inadequate funding. The Department requested \$168 million dollars for FY2008 for expansion activities. However, Congress appropriated \$25 million for land acquisition associated with the new site and nothing for the two existing site expansions. The Department has requested \$171 million dollars for FY2009 for expansion activities. However, current House and Senate markups provide a maximum of \$31.5 million.

# Office of Nuclear Energy

(discretionary dollars in thousands)

## **Office Of Nuclear Energy**

	FY 2007	FY 2008	FY 2009 Request	FY 2010
<b>Nuclear Energy</b>				TBD
Research and development.....	—	257,171	629,700	TBD
Fuel cycle research and facilities.....	—	456,806	—	TBD
Infrastructure.....	—	239,315	143,400	TBD
Program direction.....	—	80,872	80,544	TBD
Subtotal, Nuclear Energy.....	—	1,034,164	853,644	TBD
Funding from other defense activities.....	—	-75,261	—	TBD
<b>Total, Nuclear Energy.....</b>	<b>—</b>	<b>958,903</b>	<b>853,644</b>	<b>TBD</b>
 <b>Energy Supply and Conservation</b>				 TBD
University reactor infrastructure and education assistance.....	16,547	—	—	TBD
Research and development.....	300,452	—	—	TBD
Infrastructure.....	236,417	—	—	TBD
Program direction.....	62,600	—	—	TBD
Transfer from state department.....	12,500	—	—	TBD
Subtotal, Energy Supply and Conservation.....	628,516	—	—	TBD
Funding from other defense activities.....	-122,634	—	—	TBD
Funding from Naval Reactors.....	-13,365	—	—	TBD
<b>Total, Energy Supply and Conservation.....</b>	<b>492,517</b>	<b>—</b>	<b>—</b>	<b>TBD</b>
 <b>Other Defense Activities</b>				 TBD
Infrastructure.....	91,872	75,261	78,811	TBD
Mixed oxide fuel fabrication facility.....	—	—	487,008	TBD
Program direction.....	30,844	—	—	TBD
Subtotal, Other Defense Activities.....	122,716	75,261	565,819	TBD
Use of prior year balances and other adjustments.....	-3,003	-3,003	—	TBD
<b>Total, Other Defense Activities.....</b>	<b>119,713</b>	<b>72,258</b>	<b>565,819</b>	<b>TBD</b>
<b>Total, Nuclear Energy.....</b>	<b>612,230</b>	<b>1,031,161</b>	<b>1,419,463</b>	<b>TBD</b>

## **PROGRAM OVERVIEW:**

The Office of Nuclear Energy (NE) promotes nuclear power as a resource capable of meeting the Nation's energy, environmental, and national security needs by resolving technical and regulatory barriers through research development and demonstration. NE supports the Department's Strategic Goals of: improvement of the quality of the environment by reducing greenhouse gas emissions and environmental impacts to land, water, and air from energy production and use and prevention of the spread and acquisition of nuclear and radiological materials for use in weapons of mass destruction and terrorism. As well as managing the emerging world-class Idaho National Laboratory (INL), NE partners with industry, academia, state and local governments, and other countries to promote nuclear facilities that rely upon advanced fuel technologies that will help to address nuclear waste disposal issues. NE serves the present and future energy needs of the Nation by managing the safe operation and maintenance of the DOE critical nuclear infrastructure that provides nuclear technology goods and services.

## Office of Nuclear Energy

Under the Assistant Secretary for Nuclear Energy, the organization manages the programs of Nuclear Power 2010 (NP 2010), Generation IV (Gen IV), Advanced Fuel Cycle Initiative (AFCI), Nuclear Hydrogen Initiative (NHI), and Laboratory Facilities Management within the NE functional areas of Nuclear Power Deployment, Corporate Business Operations, Fuel Cycle Management, Corporate and Global Partnership Development, along with the Idaho Operations Office.

### ***Nuclear Power 2010***

The NP 2010 program supports near-term technology development and regulatory demonstration activities that advance the goal of long-term energy independence through the expanded contribution of nuclear power to the Nation's energy portfolio. The NP 2010 program achieves this mission through cost-shared activities with industry partners to reduce the technical, regulatory, and institutional barriers to near-term deployment of new nuclear power plants, and by providing technical support to implement loan guarantee and risk delay insurance financial incentives authorized by EPAct of 2005.

### ***Generation IV***

The Gen IV Nuclear Energy Systems Initiative develops and demonstrates advanced nuclear energy systems that are capable of serving the broad energy markets for electricity and process heat while improving performance in safety, economics, sustainability, proliferation resistance, and security. The Gen IV program supports R&D that helps achieve the desired goals of sustainability, economics, and proliferation resistance for new nuclear energy technologies, including the development of innovative, next-generation reactor and fuel cycle technologies and R&D to extend the operating life of existing light water reactors (LWR).

### ***Advanced Fuel Cycle Initiative***

The AFCI enables the safe, secure, economic, and sustainable expansion of nuclear energy by conducting research, development, and demonstration focused on nuclear fuel recycling and waste management to meet U.S. needs. These activities include developing the enabling technologies needed to reduce high level waste volume and separate and transmute long-lived, highly radiotoxic elements. AFCI is designed to develop these new technologies so that they may be deployed to support the operation of current nuclear power plants, Generation III+ advanced light water reactors, and Generation IV advanced reactors.

### ***Nuclear Hydrogen Initiative***

The NHI is developing a secondary system for nuclear reactors that utilizes heat from the core to split water into hydrogen and oxygen. These activities will demonstrate the economic, commercial-scale production of hydrogen and oxygen using nuclear energy, leading to a large-scale, emission-free, domestic hydrogen production capability in support of production of chemical feedstocks and liquid petroleum products and a future transition to a hydrogen production economy.

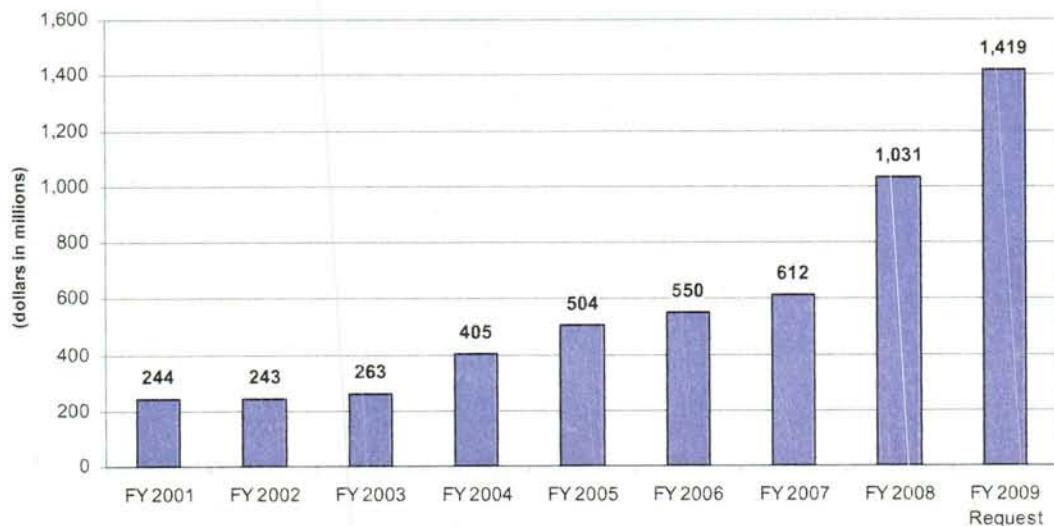
## Office of Nuclear Energy

### Laboratory Facilities Management

Programs such as Idaho Facilities Management, Idaho Site-Wide Safeguards and Security, and Radiological Facilities Management help ensure the safety, operability, availability, security, and environmental compliance of nuclear and radiological facilities required for advanced nuclear energy technology R&D. These facilities are located at INL, Oak Ridge National Laboratory (ORNL), and Los Alamos National Laboratory (LANL).

### BUDGET OVERVIEW:

Historic Funding Profile -FY 2001-2009



The FY 2009 budget request for the Office of Nuclear Energy is \$1.4 billion. The budget includes:

- NP 2010 - \$242M
- Gen IV - \$70M
  - Next Generation Nuclear Plant - \$60M:NGNP is configured for applications to process heat production for the generation of hydrogen, electricity, and other industrial commodities.
- Nuclear Hydrogen Initiative - \$17M
- AFCI - \$302M
- Idaho Facilities Management - \$105M
- Radiological Facilities Management - \$39M
- Idaho Site-Wide Safeguards and Security - \$79M
- Program Direction - \$81M
- MOX Fuel Fabrication Facility - \$487M

## Office of Nuclear Energy

### KEY ISSUES AND CONCERNS:

- **Reestablishing Pu-238 Production:** Without the reestablishment of plutonium-238 (Pu-238) production, DOE will be unable to supply radioisotope power sources for National Aeronautics and Space Administration (NASA) and national security applications after 2015. Worldwide, there is no known capability to produce more Pu-238. Funding of \$30 million for production is needed in FY 2010 in order to avoid significant disruptions to Federal users for future missions.
- **Environmental Liabilities at Idaho National Laboratory:** Currently, NE is responsible for legacy environmental liabilities at the Idaho Site which pre-date the 2005 establishment of the Idaho National Laboratory (INL). If NE retains responsibility for these liabilities an additional \$33 million would be required in FY 2010 and, on average from FY 2010 to FY 2035, an additional \$50 million per year would be required above the current targets required to execute the INL core mission.
- **Next Generation Nuclear Plant:** The Department will issue a request for proposals before January 2009 on the design, licensing, and demonstration of the NGNP. Industry responses will likely necessitate an executive management decision to proceed to the Critical Decision 1 (CD1) phase of the project spring 2009. Approval of CD1 will permit the Department to move forward with selection of one or more proposals for advancing the project. A decision to make the award(s) is anticipated March 2009.
- **International Participation in GNEP:** Although DOE has been intimately involved in the growth and development of the Global Nuclear Energy Partnership (GNEP) through bilateral and multilateral agreements, the future of the Department's role in the partnership has been threatened by the recent Congressional action on the Department's FY 2009 budget request which directs the Department to halt participation in all GNEP activities. A prohibition on U.S. participation in GNEP will negatively affect our ability to influence the global nuclear energy enterprise and advance U.S. nuclear nonproliferation objectives.

## Office of Environmental Management

(discretionary dollars in thousands)

	FY 2007	FY 2008	FY 2009	FY2010 Request
<b>Environmental Management</b>				
Defense environmental cleanup.....	5,731,240	5,411,231	5,297,256	TBD
Non-Defense environmental cleanup.....	349,687	182,263	213,411	TBD
Uranium enrichment D&D fund.....	556,606	622,162	480,333	TBD
Subtotal, Environmental Management.....	6,637,533	6,215,656	5,991,000	TBD
Uranium enrichment D&D fund				
discretionary payments.....	-452,000	-458,787	-463,000	TBD
<b>Total, Environmental Management.....</b>	<b>6,185,533</b>	<b>5,756,869</b>	<b>5,528,000</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The Environmental Management (EM) program was created in 1989 to manage the cleanup of the environmental legacy from 50 years of nuclear weapons production and government-sponsored nuclear energy research at sites around the country. The cleanup is the largest nuclear program in the world, originally encompassing some two million acres of land in 35 states. EM's mission is to safely reduce risks to workers, the public, and the environment by treatment and disposition of radioactive tank waste; storage and disposition of spent nuclear fuel and special nuclear materials; remediation of groundwater and soil contamination; treatment, storage and disposal of waste (transuranic, low-level, and mixed low-level wastes); and decontamination and decommissioning of aging, contaminated nuclear weapons research and production facilities. At the end of FY 2007, EM has completed cleanup at 86 of 108 geographic sites.

The program has established baselines that define cost, scope and schedule for completing cleanup. The baselines reflect funding levels of approximately \$6 billion per year, and result in a cleanup currently projected to extend past 2050 at a lifecycle cost of \$271 to \$324 billion (in current dollars).

#### *Defense Environmental Cleanup*

This program supports legacy cleanup from defense weapons research and production and includes cleanup at the Idaho National Laboratory, Oak Ridge Reservation, the Hanford Reservation, the Savannah River Site, the Waste Isolation Pilot Plant, and National Nuclear Security Administration (NNSA) sites. It also includes Safeguards and Security, Technology Development and Deployment, and Program Direction to support the federal workforce.

#### *Uranium Enrichment Decontamination and Decommissioning Fund (UED&D Fund)*

The UED&D Fund was established by the Energy Policy Act of 1992 to fund cleanup and decontamination and decommissioning of the nation's three gaseous diffusion plants, which were used to enrich uranium for defense and civilian purposes. The plants are located in three states:Oak Ridge, Tennessee, which ceased operations in 1964; Portsmouth, Ohio, which was leased to U.S. Enrichment Corporation (USEC) in 1993 and ceased operations in 2001; and Paducah, Kentucky, which is leased and operated by

## Office of Environmental Management

USEC. DOE also administers a reimbursement program for remediation activities at uranium and thorium processing sites that sold material to the U.S. government.

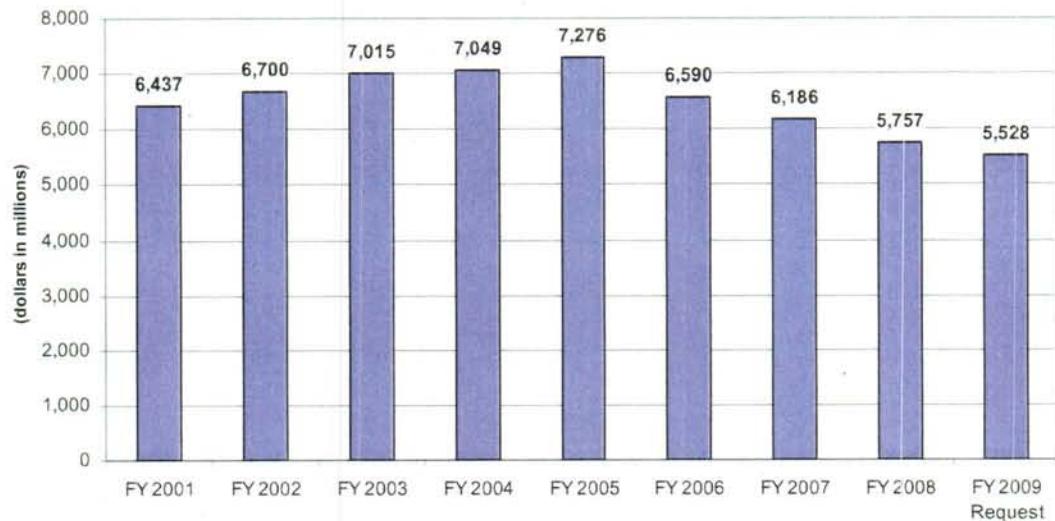
The UED& Fund received funds from commercial utilities for fifteen years through 2007 based on their historic purchases of uranium enrichment services. The remainder of the annual contribution to the Fund is made by DOE from annual defense appropriations. The Federal contributions are needed through 2011 to satisfy Federal government obligations required by the 1992 Act.

### ***Non-Defense Environmental Cleanup***

This program supports cleanup of the environmental legacy resulting from civilian nuclear energy research. Non-defense sites include the West Valley Demonstration Project in New York; the Moab site, a former uranium mill tailings site in Utah; and legacy cleanup at sites such as Argonne National Laboratory in Illinois, Brookhaven National Laboratory in New York, and the Energy Technology Engineering Center and the Stanford Linear Accelerator Center in California. It also supports disposition of depleted uranium at Portsmouth and Paducah gaseous diffusion plants.

### **BUDGET OVERVIEW:**

#### Historic Funding Profile -FY 2001-2009



The FY 2009 budget request for the Environmental Management program is \$5.5 billion, \$230 million, or four percent less than FY 2008. The request supports safe management of the sites as well as significant cleanup progress.

- **Defense Environmental Cleanup** (\$5.3B) comprises the largest part of the EM program. Principal defense sites include:
  - Hanford Site in Washington (\$1.8B), including soil and groundwater remediation along the Columbia River, nuclear materials disposition, and

## Office of Environmental Management

waste disposal managed by Richland Office. It also supports the management and disposition of highly radioactive waste in underground tanks managed by the Office of River Protection. It includes the Department's largest construction project, the Hanford Waste Treatment and Immobilization Plant (\$690M), a \$12B project which will treat and vitrify radioactive tank waste.

- Savannah River Site in South Carolina (\$1.2B), which is responsible for storage and disposition of plutonium and other nuclear materials for the Department; management and disposition of tanks containing highly radioactive waste; and remediation and other cleanup activities. It includes operation of the Defense Waste Processing Facility, a vitrification facility for high-level tank waste; and construction of the Salt Waste Processing Facility to prepare tank waste for disposition.
- Idaho National Laboratory (\$432M), including retrieval and treatment of buried transuranic waste, management of highly radioactive tank waste, and construction of the Sodium-Bearing Waste Treatment Facility.
- NNSA sites (\$245M), which includes legacy cleanup at Los Alamos National Laboratory, Nevada Test Site, and the Separations Processing Research Unit in New York. EM completed cleanup at Pantex and Lawrence Livermore National Lab-Site 300 in FY 2008; NNSA will take responsibility for long-term stewardship at these sites in FY 2009.
- Oak Ridge Reservation, Tennessee (\$238M), which includes downblending of U-233 located in Building 3019; processing and shipment of contact- and remote-handled transuranic waste; and decontamination and decommissioning of aging facilities at Oak Ridge National Lab and Y-12.
- Operation of the Waste Isolation Pilot Project in New Mexico (\$212M), the national repository for contact and remote-handled transuranic waste across the DOE complex.
- **UED&D Fund** (\$480M) supports decontamination and decommissioning, remedial actions, and waste management associated with conditions at the gaseous diffusion plants prior to the presence of USEC. Sites funded By UED&D are:
  - East Tennessee Technology Park at Oak Ridge (\$184M) primarily involving decontamination and decommissioning of the old plant structures.
  - Paducah Gaseous Diffusion Plant (\$96M), which include soil and groundwater remediation and waste management.

## Office of Environmental Management

- Portsmouth Gaseous Diffusion Plant (\$200M), which ceased operations in 2001 and was subsequently maintained in a cold-standby condition, and is now transitioning to full decontamination and decommissioning.
- **Non-Defense Environmental Cleanup (\$214M)** supports legacy cleanup at non-defense sites, including:
  - West Valley Demonstration Project (\$58M), including low-level and transuranic waste disposition and facility decontamination and decommissioning.
  - Moab Site in Utah (\$31M), which involves relocation of mill tailings piles away from the current location on the Colorado River.
  - Construction and operation of two depleted uranium hexafluoride (DUF6) conversion facilities to disposition approximately 7,500 cylinders at the former gaseous diffusion plant in Portsmouth, and 10,000 cylinders at the plant in Paducah, as well as maintenance of the cylinders pending disposition (\$81M). In FY 2009, EM will complete the removal of technetium-99 contamination from DOE enriched uranium assets using proceeds from previous sales of uranium inventory.

EM Budget by Site  
(dollars in millions)

Site	State	FY 2007 Approp	FY 2008 Approp	FY 2009 Request
Waste Isolation Pilot Plant/Carlsbad	NM	229	235	212
Idaho	ID	528	522	437
Oak Ridge	TN	503	475	422
Paducah	KY	145	143	135
Portsmouth	OH	225	215	243
Hanford Site	WA			
Richland		870	915	863
River Protection		967	977	978
Total, Hanford		1,837	1,892	1,841
Savannah River	SC	1,142	1,131	1,206
NNSA Sites				
Los Alamos National Lab	NM	141	171	164
Nevada	NV	88	85	66
Separations Process Research Unit	NY	4	27	16
Other		68	35	1
Total, NNSA sites		300	319	247
Closure Sites				
Miamisburg	OH	40	30	31
Other		428	12	15
Total, Closure Sites		468	42	46
West Valley Demonstration Project	NY	88	65	58

## Office of Environmental Management

Brookhaven National Lab	NY	31	17	8
Energy Technology Eng. Center	CA	16	13	13
Moab Site	UT	28	24	31
Program Direction		282	307	309
Safeguards and Security		273	259	251
Technology D&D		21	21	32
Uranium/Thorium Contribution		20	20	0
D&D Fund Deposit		452	459	463
Other		50	58	41
Subtotal, Environmental Management		6,638	6,216	5,993
D&D Fund and Other Offsets		-452	-459	-465
Total, Environmental Management		6,186	5,757	5,528

### KEY ISSUES AND CONCERNS:

- **Compliance Requirements:** A significant portion of the EM program is subject to legally-enforceable requirements, many of which are embodied in agreements and orders that contain milestones subject to fines and penalties if missed. EM is required by Executive Order to submit a fully compliant budget to OMB, but its current budget targets fall far short of what is needed to be in full compliance with regulatory agreements. In the FY 2009 Budget justification, the Administration acknowledged that the Department would not meet some of its legal compliance milestones and obligations at the requested funding level of \$5.5 billion, resulting in Congressional criticisms.
- **Baselines:** EM has developed independently reviewed baselines that define scope, cost, and schedules for its projects. The baselines assume annual funding levels of about \$6 billion, consistent with OMB targets established in conjunction with the FY 2008 budget process. EM has used these baselines as a basis to re-negotiate compliance milestones and establish more realistic regulator expectations. However, OMB outyear targets provided in the FY 2009 process were significantly lower, potentially undermining the credibility of the baselines and impacting cleanup progress.
- **Construction Projects Increases:** EM has several construction projects that are experiencing cost increases and schedule delays due to commodity increases, engineering resource shortages and other project issues related to the unique high-tech challenges associated with nuclear facility construction. These factors will increase the total cost of the project and are likely to require near term funding increases to complete construction and maintain progress toward critical milestones. Projects experiencing increases include the DUF6 conversion facilities at Portsmouth and Paducah, Salt Waste Processing Facility at Savannah River Site, and Sodium-bearing Waste Treatment Facility at Idaho.

## Office of Environmental Management

- **H Canyon and Nuclear Materials Disposition:** EM funds operation of H Canyon at Savannah River Site, a nuclear processing facility that is critical to dispositioning the Department's surplus plutonium and other surplus special nuclear materials. The H canyon mission currently includes the processing of surplus plutonium, highly enriched uranium and aluminum-clad SNF. Canyon operations are expected to continue through 2019. With the cost to operate the canyon facility exceeding \$200 million annually, there have been questions raised both about the need for these operations and whether it is inconsistent with EM's cleanup mission.
- **DOE Unfunded Liabilities:** In addition to scope already in EM's program, other DOE programs have hundreds of excess contaminated buildings, nuclear materials, and radioactive wastes that require disposition. EM will ultimately be responsible for addressing these liabilities, but neither EM nor the programs currently responsible for maintaining them have funding to disposition them within their current budget targets or program plans. Consequently, some of the activities may be deferred for many years, raising potential safety and contamination concerns. Based on EM's current baselines, the earliest EM estimates it could accommodate new scope without re-prioritizing its existing scope is 2017.
- **UED&D Fund Sufficiency:** In a Congressional report in November 2007, the Department evaluated the sufficiency of the UED&D Fund to complete cleanup of the gaseous diffusion plants and other requirements that it is intended to fund. The report concluded the Fund was insufficient, facing a funding shortfall of between \$8 billion to \$21 billion, and would be depleted in 2021 to 2028 time frame.

## Office of Civilian Radioactive Waste Management

(discretionary dollars in thousands)				
	FY 2007	FY 2008	FY 2009	FY 2010
<b>Office Of Civilian Radioactive Waste Management</b>				
Defense Nuclear Waste Disposal				
Defense nuclear waste disposal.....	346,500	199,171	247,371	TBD
Nuclear Waste Disposal				
Repository program.....	33,566	112,595	172,388	TBD
Program direction.....	65,640	74,674	74,983	TBD
Total, Nuclear Waste Disposal.....	<b>99,206</b>	<b>187,269</b>	<b>247,371</b>	<b>TBD</b>
<b>Total, Civilian Radioactive Waste Management.....</b>	<b>445,706</b>	<b>386,440</b>	<b>494,742</b>	<b>TBD</b>

### **PROGRAM OVERVIEW:**

The Office of Civilian Radioactive Waste Management (OCRWM) was created by the Nuclear Waste Policy Act of 1982 (NWPA) to site, develop, operate, and close a geologic repository for the permanent disposal of spent nuclear fuel and high-level radioactive waste resulting from the Nation's civilian and defense atomic energy activities. In 2002, President Bush signed a joint resolution passed by Congress approving the Yucca Mountain site in Nevada for the development of the Nation's first geologic repository for spent nuclear fuel and high-level radioactive waste.

Congress makes two separate appropriations for the program, one from the Nuclear Waste Fund (NWF) and the other through a Defense Nuclear Waste Disposal appropriation. The NWF was established by the NWPA and is funded by fees paid by nuclear utilities. Currently, receipts from the utility fee that go into the NWF are scored as mandatory since the payment of the fee is required by the NWPA and treated like a tax, while program expenditures are scored as discretionary because they require appropriations. Since mandatory and discretionary accounts are treated separately in the Federal budget, mandatory receipts cannot be used to offset discretionary expenditures; and the program must compete for funding with all other discretionary programs for a limited Federal budget.

On September 8, 2008, the Nuclear Regulatory Commission (NRC) docketed DOE's application for construction authorization for a geologic repository to be located at the Yucca Mountain site which commences the NRC licensing proceeding regarding that application. NRC is required by law to make a final decision on DOE's application for construction authorization not later than 2012.

### ***Nuclear Waste Disposal***

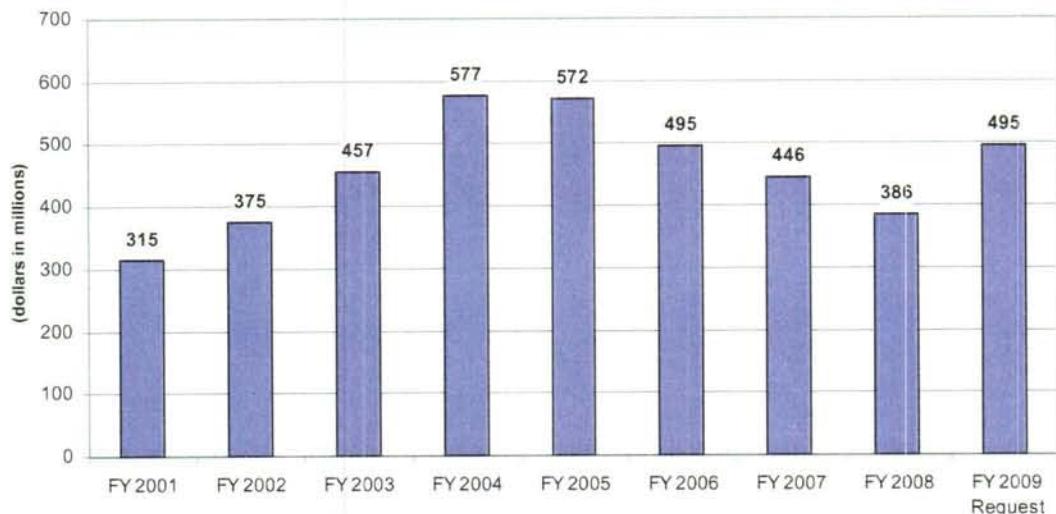
The mission of the OCRWM program is to manage and dispose of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety, and the environment; enhances national and energy security; and merits public confidence. OCRWM is working to design, license, and construct a geologic repository for spent nuclear fuel and high-level radioactive waste to resolve the challenge of safe disposal of these materials and make construction of new nuclear power plants more feasible, helping to expand our energy options and secure our economic future. In addition, a

## Office of Civilian Radioactive Waste Management

secure permanent repository is necessary to support nuclear non-proliferation goals, contributing to national security objectives.

### BUDGET OVERVIEW:

Historic Funding Profile - FY 2001-2009



The FY 2009 budget request for OCRWM is \$495 million. The budget includes:

- Nuclear Waste Disposal - \$495M
  - Yucca Mountain Project
  - Transportation

### KEY PROGRAM ACTIVITIES:

**Prepare for Repository Construction** – OCRWM will focus on the following key activities in FY 2009 and FY 2010, the successful completion of which are critical to enable the program to start construction of repository facilities and infrastructure upon receipt of a construction authorization from the NRC by 2012.

- Supporting the license application during the licensing proceeding.
  - Provide timely and complete responses to NRC requests for additional information during the license application review
  - Provide legal support for the NRC licensing proceeding, other regulatory and permitting activities, and related litigation
- Continue the design and engineering of critical site infrastructure for repository facilities and other non-nuclear infrastructure at the site.
- Continue the design of critical transportation infrastructure and components.
  - Continue characterization and preliminary design for Nevada Rail Project

## Office of Civilian Radioactive Waste Management

- Conduct sabotage consequence testing studies at Sandia National Laboratories
- Develop rail escort car design and prototype in collaboration with the Department of the Navy

### KEY POLICY ISSUE:

#### **Funding Reform**

- Without funding reform, continued funding shortfalls for the repository program will adversely impact the repository schedule and increase taxpayer liabilities.
- Delays in beginning acceptance of spent fuel at the Yucca Mountain repository have resulted in estimated taxpayer liabilities to utilities by 2020 of up to \$11 billion.
- The current process for appropriating funds from the NWF is restrictive and does not allow the NWF to be used as originally intended by Congress.
- If these restrictions remain unresolved causing further delays in repository development, DOE estimates that taxpayer liabilities will further increase by an average of \$500 million annually beginning in 2020.

## Office of Legacy Management

(discretionary dollars in thousands)

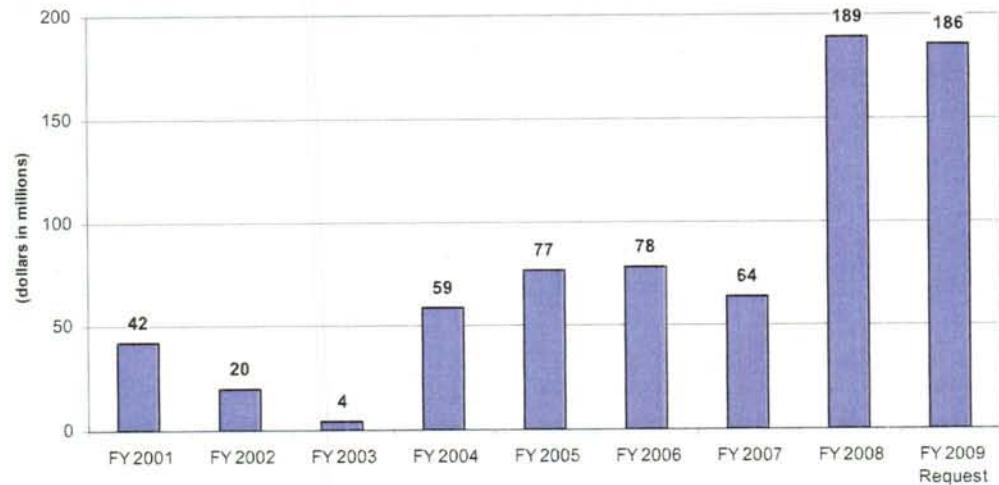
	FY 2007	FY 2008	FY 2009	FY 2010
	Request			
<b>Office Of Legacy Management</b>				
Legacy Management				
Legacy management.....	—	33,872	—	TBD
Energy Supply and Conservation				
Legacy management.....	33,187	—	—	TBD
Total, Energy Supply and Conservation...	33,187	—	—	TBD
Other Defense Activities				
Legacy management.....	19,733	144,060	174,397	TBD
Program direction.....	11,202	10,901	11,584	TBD
Total, Other Defense Activities.....	30,935	154,961	185,981	TBD
<b>Total, Office Of Legacy Management.....</b>	<b>64,122</b>	<b>188,833</b>	<b>185,981</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The Office of Legacy Management (LM) manages the Department's post-closure responsibility and ensures the sustainable protection of human health and the environment after DOE cleanup is completed. It ensures that the management of pensions and benefits for former contractor personnel is met and is responsible for maintaining legacy lands, structures and facilities at levels that are consistent with Departmental long-term plans. Funding for all LM activities is requested within the Other Defense Activities appropriation.

### BUDGET OVERVIEW:

Historic Funding Profile -FY 2001-2009 <sup>1</sup>



<sup>1</sup> From FY 2001 to FY 2004, there were two separate programs:the Office of Legacy Management (a subprogram of Environmental Management) and the Office of Worker and Community Transition. In FY 2005, these programs were combined into the Office of Legacy Management, a stand alone program.

## Office of Legacy Management

The FY 2009 budget for the Office of Legacy Management is \$186 million. The budget includes:

- **Long-term Surveillance and Maintenance (\$48M)** - Conducts groundwater monitoring, disposal cell maintenance and management of natural resources at sites where active remediation has been completed.
- **Pension and Benefit Continuity (\$112M)** - Mitigates community impacts and contractor workforce restructuring by managing and administering pensions and benefits to former DOE contractor employees.
- **Archives and Information Management (\$9M)** - Provides records management by preserving, protecting and making legacy archives and information accessible.
- **Environmental Justice (\$1M)** - A program that allows the Department to manage and provide a fair treatment and meaningful involvement of all people, regardless of race, ethnicity, and income, in DOE host communities on environmental decision making.
- **Reuse and Property Management (\$4M)** - Focuses on reuse and transfer of real and personal property to other agencies or private interests.
- **Program Direction (\$12M)** - Provides the Federal staffing resources and associated costs required to provide overall direction and execution of LM functions.

### KEY ISSUES AND CONCERNS:

- Unpredictable upward fluctuations in pension payments and the higher than average inflationary increases in the cost of retiree health care create risks in developing accurate budget requests for the retirement benefits of former contractor employees. This risk is exacerbated in light of the large baseline costs of pension and health benefits (\$730 million over the period FY 2008 - FY 2012).
- The potential always exist for workforce restructuring to quickly become a “hot issue” due to the political aspect of layoffs. The Department’s policy is to give advanced notification to members of Congress of any potential layoffs in their respective districts or states.
- Uncertainty surrounding the results of an audit by the Inspector General’s office on the management of EM closure site records, including the construction of the LM Records Storage Facility.

## Office of Science

	(discretionary dollars in thousands)			
	FY 2007	FY 2008	FY 2009	FY 2010
<b>Office Of Science</b>				
Science				
Advanced scientific computing research.....	275,734	341,774	368,820	TBD
Basic energy sciences.....	1,221,380	1,252,756	1,568,160	TBD
Biological and environmental research.....	480,104	531,063	568,540	TBD
Fusion energy sciences program.....	311,664	294,933	493,050	TBD
High energy physics.....	732,434	702,845	804,960	TBD
Nuclear physics.....	412,330	423,671	510,080	TBD
Science laboratories infrastructure.....	41,986	66,861	110,260	TBD
Science program direction.....	166,469	177,779	203,913	TBD
Workforce development for teachers and scientists..	7,952	8,044	13,583	TBD
Safeguards and security.....	75,830	75,946	80,603	TBD
Congressionally directed projects.....	—	120,161	—	TBD
Small business innovation research (SBIR).....	126,255	140,238	—	TBD
Subtotal, Science.....	<b>3,852,138</b>	<b>4,136,071</b>	<b>4,721,969</b>	TBD
Use of prior year balances and other adjustments....	-15,525	-53,188	—	TBD
<b>Total, Office Of Science.....</b>	<b><u>3,836,613</u></b>	<b><u>4,082,883</u></b>	<b><u>4,721,969</u></b>	TBD

### PROGRAM OVERVIEW:

The Office of Science (SC) program delivers discoveries and scientific tools that transform our understanding of energy and matter and advance our national, economic, and energy security. SC is a primary sponsor of basic research in the U.S., leading the nation in support of the physical sciences to improve our energy security and address issues ancillary to energy, such as climate change, genomics, and life sciences. Research is conducted by both DOE national laboratories and university researchers and includes operations, maintenance, and construction of scientific facilities. The SC budget also funds federal staff to manage these programs, including the Chicago and Oak Ridge field offices, and site offices for each SC laboratory.

#### ***Advanced Scientific Computing Research (ASCR)***

ASCR delivers cutting-edge computational and networking capabilities to scientists nationwide to extend the frontiers of science. Leadership in scientific computation is a cornerstone of the Department's strategy to ensure the security of the Nation, and to succeed in its science, energy, environmental quality, and national security missions.

#### ***Basic Energy Sciences (BES)***

BES fosters and supports fundamental research to expand the scientific foundations for new and improved energy technologies and for understanding and mitigating the environmental impacts of energy use. BES-supported research has enabled remarkable progress in our ability to observe and understand the behavior of matter at the atomic scale. The invention of new scientific tools has allowed us to measure these properties with unprecedented precision.

## Office of Science

### ***Biological and Environmental Research (BER)***

The BER program provides the environmental and biological knowledge that promotes national security through improved energy production and use, supports climate change research, and conducts research to protect our environment. The BER program focuses on transformational science for alternative biofuels, predictive climate modeling, terrestrial carbon sequestration, and next generation environmental remediation strategies. In addition, the BER program provides essential capabilities in radiochemistry and radiobiology, including science underpinning low dose radiation exposure standards.

### ***Fusion Energy Sciences (FES)***

Fusion is the energy source of stars, including our sun. The FES program is the national research effort to advance plasma science, fusion science, and fusion technology—the knowledge base required for economically and environmentally friendly, carbon-free energy. The FES program also supports leading research in the fundamental areas of plasma physics and high energy density physics.

### ***High Energy Physics (HEP)***

The HEP program conducts basic research on the nature of matter and energy at its most fundamental level, seeking to understand how the universe works by investigating the most elementary constituents of matter and energy, exploring the nature of space and time, and probing the interactions between them. To enable these discoveries, the HEP program supports theoretical and experimental research in both elementary particle physics and fundamental accelerator science and technology.

### ***Nuclear Physics (NP)***

The NP program supports scientific research to discover states of exotic matter and to understand the evolution of matter in the universe from its origin to present day. To do this, the NP program conducts research to understand the structure, interactions, and fundamental forces related to atomic nuclei. The NP program builds and supports world-leading scientific facilities and state-of-the-art instruments for this basic research agenda.

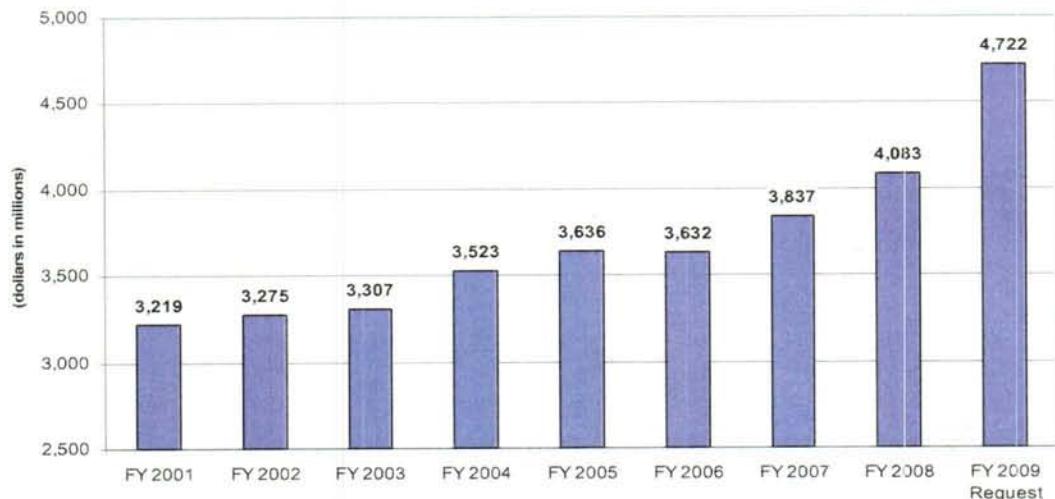
### ***Other Science Programs***

The Science Laboratories Infrastructure (SLI) program's funding includes line item construction and cleanup and removal of excess facilities at SC laboratories. Science Program Direction (SCPD) provides for the federal salaries, travel, benefits, and related costs for federal staff. The Workforce Development for Teachers and Scientists (WDTS) program helps ensure that DOE and the Nation have a sustained pipeline of highly trained science, technology, engineering, and mathematics (STEM) workers. The Safeguards and Security (S&S) program ensures appropriate levels of protection of DOE assets.

## Office of Science

### BUDGET OVERVIEW:

Historic Funding Profile -FY 2001-2009



The SC FY 2009 budget request provides for world-leading research programs, facilities, and tools that will drive transformational discoveries for scientific breakthroughs needed to create advanced energy technologies for the 21<sup>st</sup> century and to maintain U.S. leadership in science and innovation. The FY 2009 budget request for the Office of Science is \$4.7 billion, an increase of 15.7 percent over the FY 2008 appropriation. The budget includes:

- The **ASCR** program (\$369M) funds the National Energy Research Scientific Computing Center at Lawrence Berkeley National Laboratory, the Energy Sciences Network, and the Leadership Computing Facilities at Oak Ridge and Argonne National Laboratories. In FY 2009, the Oak Ridge facility will begin to operate the most capable machine in the U.S. for open science at one petaflop.
- The **BES** research program (\$1,568M) supports fundamental research in materials sciences, chemistry, geosciences, and physical biosciences. A major part of the BES mission is to build and operate world-class user facilities. Current construction projects include the National Synchrotron Light Source II and the Linac Coherent Light Source.
- The **BER** program (\$569M) supports the Genomics:GTL program, three innovative Bioenergy Research Centers, and climate change research that includes the study of the scientifically-based predictions and assessments of the potential effects of greenhouse gas on climate and the environment.
- The **FES** program (\$493M) supports general plasma science and inertial fusion energy research and the operation of domestic research facilities, the DIII-D

## Office of Science

Tokamak, the Alcator C-Mod Tokamak, and the National Spherical Torus Experiment. The FES program also supports participation in the ITER project, an international burning plasma fusion experiment being built in Cadarache, France.

- The **HEP** program (\$805M) supports the operation of the Tevatron Collider and the Neutrinos at the Main Injector beam line which are both located at Fermi National Accelerator Laboratory. The HEP program also supports the research of U.S. scientists at the Large Hadron Collider in Switzerland and U.S. involvement in the global research and development effort for a potential International Linear Collider.
- The **NP** program (\$510M) supports operations at the Continuous Electron Beam Accelerator Facility, the Relativistic Heavy Ion Collider, the Holifield Radioactive Ion Beam Facility, and the Argonne Tandem Linac Accelerator System. Starting in FY 2009, the NP program will support the Isotope Production and Applications program that will be transferred from the Office of Nuclear Energy.
- The **SLI** program (\$110M) includes three new construction projects under the proposed SC Infrastructure Modernization Initiative, which would modernize general purpose infrastructure at SC laboratories over the next 10 years.
- **SCPD** (\$204M) supports total staffing of 1,100 FTEs at headquarters and field sites.
- The **WDTs** program (\$14M) focuses on providing hands-on science and technology learning experiences to the Nation's STEM students and educators.

### KEY ISSUES AND CONCERNS:

- **America COMPETES Act/American Competitiveness Initiative:** Supports a doubling of investments over 10 years in key federal agencies that support basic research programs in the physical sciences and engineering. The SC budget request has been consistent with this doubling path but congressional appropriations fell short in FY 2007 (-\$265M) and FY 2008 (-\$425M). FY 2009 appropriations are uncertain the House and Senate both generally supported the request in their markups, but also did so in FY 2007 and FY 2008, and in those two years, final appropriations were significantly below the markup levels.
- **ITER:** A substantial FY 2009 appropriation (approaching \$214.5M, the FY 2009 request) is needed by April 2009 to keep pace with the schedule of the overall ITER project. A repeat of the FY 2008 appropriation (\$10.6M appropriated for ITER) would result in abrupt termination of the project.

## Corporate Management

(discretionary dollars in thousands)

	FY 2007	FY 2008	FY 2009	FY 2010
<b>Corporate Management</b>				
Departmental administration.....	147,943	148,415	154,827	TBD
Inspector general.....	41,819	46,057	51,927	TBD
Security and Safety Performance Assurance...	313,895	—	—	TBD
Environment, Safety and Health.....	108,221	—	—	TBD
Health, Safety and Security.....	—	419,571	446,868	TBD
Hearings and Appeals.....	4,349	4,565	6,603	TBD
<b>Total, Corporate Management.....</b>	<b>616,227</b>	<b>618,608</b>	<b>660,225</b>	<b>TBD</b>
<b>Energy Information Administration</b>				
National energy information system.....	<b>90,653</b>	<b>95,460</b>	<b>110,595</b>	<b>TBD</b>

### PROGRAM OVERVIEW:

The Corporate Management program includes Departmental Administration (DA), the Office of the Inspector General (OIG), and the Office of Hearings and Appeals (OHA), among others. The Energy Information Administration (EIA) is also included in this section.

The DA appropriation funds DOE-wide management organizations. These organizations support headquarters operations in human resources, administration, accounting, budgeting, program analysis, project management, information management, legal services, life-cycle asset management, workforce diversity, minority economic impact, policy, international affairs, congressional and intergovernmental liaison, and public affairs. Funding for the Office of the Secretary is provided separately from the other administrative functions within the DA appropriation. The DA appropriation also budgets for Cost of Work for Others and receives miscellaneous revenues from other sources.

The OIG promotes the effective operation of the Department, including the National Nuclear Security Administration (NNSA) and the Federal Energy Regulatory Commission (FERC). This is accomplished through audits, investigations, and inspections designed to detect and prevent fraud, waste, abuse, and violations of law.

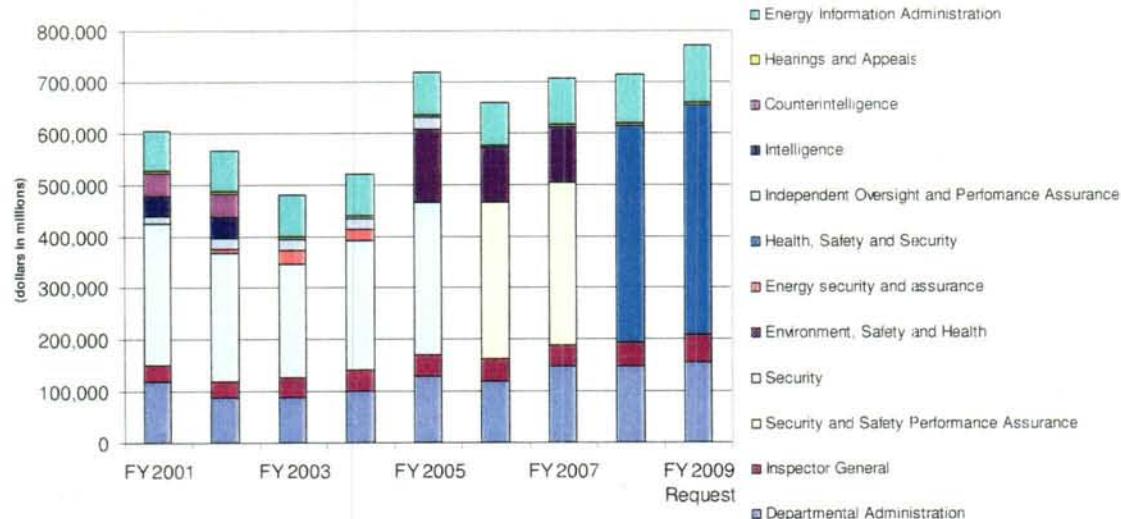
The OHA provides legal adjudicatory services for DOE's programs so that disputes may be decided at the agency level in a fair, impartial, and efficient manner. Beginning in FY 2009, OHA will also be responsible for the civil rights function, previously included in the Office of Economic Impact and Diversity within the DA Appropriation.

The EIA is an independent statistical agency that provides accurate, reliable, and timely policy-neutral energy data and information to meet the needs of Government, industry, and the public for the purpose of promoting sound policy decision-making, efficient markets, and public understanding. Many of EIA's activities are required by statute.

### BUDGET OVERVIEW:

## Corporate Management

Historic Funding Profile – FY 2001-2009



The FY 2009 budget request for Corporate Management is \$660M and for EIA is \$111M. The budgets include:

- The FY 2009 request provides \$6M for 34 full time equivalent employees (FTEs) within the Office of the Secretary. It also includes \$326M for salaries and benefits, travel, contractual services, and program support expenses for 1,173 FTEs for the other organizations within the DA account.
- The Office of the Secretary provides leadership and policy direction to the Department in fulfilling its mission to advance the national economic and energy security of the United States, to promote scientific and technological innovation in support of that mission, and to ensure the environmental cleanup of the national nuclear weapons complex.
- The Office of the Chief Financial Officer (CFO) assures the effective management and financial integrity of DOE programs, activities, and resources. The CFO develops, implements, and monitors Department-wide policies and systems in the areas of budget administration, program analysis and evaluation, finance and accounting, internal controls, corporate financial systems, cost analysis, and strategic planning.
- The Office of the Chief Information Officer (CIO) provides advice and assistance to the Secretary and other senior managers to ensure that information technology is acquired and information resources are managed in a manner that complies with statutory policies and procedures. The CIO establishes, implements, and maintains a comprehensive and effective cyber/computer security program to protect the Department's classified and unclassified information and information technology assets. In the FY 2009 request, the Office of the Chief Information Officer (OCIO) requested an increase of \$7M to fund new activities associated

## Corporate Management

with Operational Cyber security. The increasingly sophisticated attacks against DOE from these identified cyber threats occur daily, in very large numbers.

- The Office of Congressional and Intergovernmental Affairs (CI) leads the Department's relations with Members of Congress and with Governors of the 50 States and the U.S. Territories and with sovereign Tribal Nations. CI works with the Secretary and senior Department officials to develop policy and outreach strategies to explain and encourage support within the Congress and among Governors for the Department's goals and missions. CI monitors legislation, articulates the Department's views to Members and key committee staff, and supports the Secretarial Officers in their congressional hearings and meetings.
- The Office of Economic Impact and Diversity (ED) advises the Secretary on the effects of energy policies, regulations, and other actions of the Department on all individuals, small-disadvantaged minority business enterprises, and minority educational institutions desiring to participate fully in the programs of the Department.
- The Office of the General Counsel (GC) is responsible for providing comprehensive legal services and support to the Secretary and to all Departmental programs, except those relating to the Federal Energy Regulatory Commission.
- The Office of Human Capital Management (HCM) provides the DOE with direction and oversight for the full range of human capital management and administrative services. Beginning in FY 2009, HCM will implement a diversity program that strengthens the diversity goals affecting the workplace, ensures appropriate diversity training for staff, and provides special emphasis and commemorative programs.
- The Office of Management (MA) provides DOE with centralized direction and oversight for the full range of management, procurement and administrative services.
- The Office of Policy and International Affairs (PI) serves as the primary advisor to the Department on energy and technology policy development, analysis, and implementation and leads DOE's international energy initiatives.
- The Office of Public Affairs (PA) functions include communicating the Departmental message, its policies, initiatives, and information to the news media and the general public.
- The Cost of Work for Others (CWO) program provides funding to DOE 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 costs of the CWO program are offset by revenues received from the sale of products and services to customers.

## Corporate Management

### KEY ISSUES AND CONCERNS:

- The FY 2008 level of funding will prevent the CFO from hiring to requested staffing level of 241, creating risks for the CFO's ability to sustain its financial management achievements into FY 2009 and fully staff the Office of Cost Analysis.
- At FY 2008 levels of funding the Office of Human Capital Management (HCM) will not be able to support the expansion of the current DOE Drug Testing Program to include all DOE employees (existing and new hires) that have a security clearance into the testing pool.
- At FY 2008 funding levels, the Office of Management (MA) would not be able to support the following DOE initiatives to improve project and contract management practices in accordance with the results from the Department's Contract and Project Management Root Cause Analysis:
  - Accelerate the completion of the Earned Value Management Systems (EVMS) certifications for all contractors executing construction projects greater than \$50M and IT projects greater than \$5M. (\$1.2M)
  - Replacement of the current Performance Assessment and Reporting System (PARS) with a single, Department-wide system. (\$1.0M)
- Planned expansion of the Office of Policy and International Affairs' (PI) modeling capabilities on energy systems, energy supply and demands; and, analyses of domestic and foreign fuel capacities and manufacturers, and energy market disruptions will not occur under the continuation of FY 2008 funding levels.
- EIA has deferred or canceled many petroleum data quality activities over the past decade. Recent changes in the industry have exposed major gaps in EIA's most important petroleum data, such as the inability to fully track gasoline blending activity, missing gasoline and missing imports, significant discrepancies between marketing and supply survey volumes, outdated frames, and antiquated survey systems.
- In FY 2009, EIA will resume development and testing of the next-generation National Energy Model to replace the existing National Energy Modeling System (NEMS). The new Model will improve our ability to assess and forecast supply, demand, and technology trends impacting U.S. and world energy markets.

## Loan Guarantee Program

(discretionary dollars in thousands)

FY 2007	FY 2008	FY 2009	FY 2010
			Request

### Innovative Technology Loan Guarantee Program

Innovative Technology Loan Guarantee Program			
Administrative operations.....	—	5,459	19,880
Loan guarantee, offsetting collections.....	—	-1,000	-19,880
<b>Total, Innovative Technology Loan Guarantee...</b>	<b>—</b>	<b>4,459</b>	<b>TBD</b>

### Loan Guarantee

Departmental Administration			
Loan guarantee.....	7,000	—	—
<b>Total, Loan Guarantee.....</b>	<b>7,000</b>	<b>—</b>	<b>TBD</b>

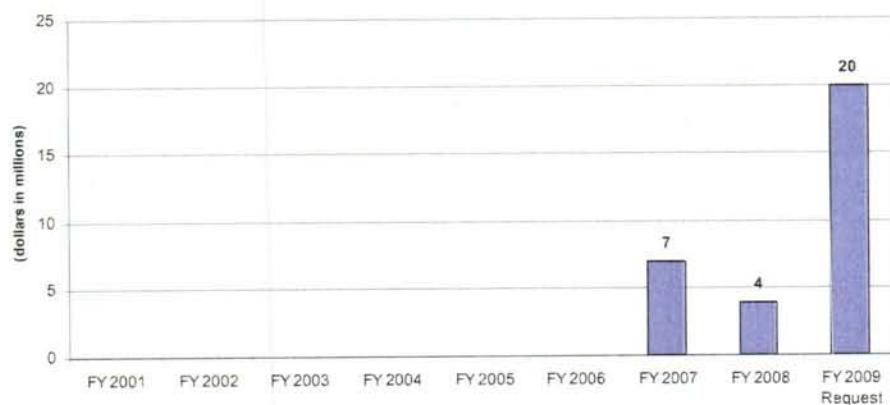
### PROGRAM OVERVIEW:

The mission of the Loan Guarantee Program is to administer a federal loan guarantee program for advanced technology projects that avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases, and have a reasonable prospect of repaying the principal and interest on their debt obligations.

Title XVII authorizes the Secretary of Energy to make loan guarantees for projects that avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases; and employ new or significantly improved technologies as compared to commercial technologies in service in the United States at the time the guarantee is issued."DOE is authorized to provide loan guarantees for renewable energy systems, advanced nuclear facilities, coal gasification, carbon sequestration, energy efficiency, and many other types of projects.

### BUDGET OVERVIEW:

Historic Funding Profile -FY 2001-2009 <sup>2</sup>



<sup>2</sup> In FY 2008, the Loan Guarantee Program received \$1M in offsetting collections. In FY 2009, the Loan Guarantee Program expects to fully offset its appropriation through collections.

## Loan Guarantee Program

The FY 2009 Budget Request for the Loan Guarantee Program (LGP) is \$19.9 million. The budget includes, for example:

- Salaries and Benefits, Travel (\$5.3M)
- Support Services (\$13.4M) will finance outside expertise in finance, legal, commercial engineering, technology, credit analysis, and commercial market assessments.

### **KEY ISSUES AND CONCERNS:**

- In the Energy and Water Development (EWD) Appropriations Act, 2008, Congress authorized the Department to issue \$38.5 billion in loan guarantees until September 30, 2009. The FY 2009 Budget request proposed to extend that authority to 2010 for all projects other than nuclear and 2011 for nuclear projects. An extension of the loan guarantee authority is required to properly execute all origination and due diligence activities. Without such an extension, given the timelines associated with loan origination, due diligence, and NEPA compliance activities, it will not be possible to commit the majority of the \$38.5 billion before the end of FY 2009. Furthermore, the program would not be able to accept application fees and begin loan origination activities on selected projects in good faith without an extension.
- The EWD FY 2009 House Mark proposes an additional \$8.5 billion in authority and extends the period of availability to 2011 for all technologies.
- The EWD FY 2009 Senate Marks proposes a no-year limitation on the authorization for the entire \$38.5 billion.
- If the program were forced to operate under a long term continuing resolution, activities would be limited to the prosecution of projects selected from the FY 2006 solicitation as well as management of the FY 2008 solicitations, which would be limited to the review of applications. However, it would not be sufficient to undertake underwriting and due diligence activities for projects selected from the FY 2008 solicitations.

## 5. Major Construction Project and Initiatives

**Department of Energy**  
**FY 2009 Major Construction Projects**  
(dollars in millions)

This table includes projects over \$750M and projects of congressional interest.

Program / Project		Description	Prior to FY 2008	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Project Cost (TPC)*	Total Estimated Cost (TEC)**	Critical Decision Status
EM	Waste Treatment and Immobilization Project (WTP) 01-D-16A: 01-D-16B: 01-D-16C: 01-D-16D: 01-D-16E: Total	This project will vitrify radioactive waste stored in 177 underground tanks. It consists of 5 subprojects: Low-activity Waste Facility Analytical Laboratory Balance of Facilities High-Level Waste Pretreatment Facility	1,016 230 452 1,102 <u>1,533</u> 4,333	142 45 71 175 <u>251</u> 684	160 65 75 125 <u>265</u> 690	100 60 110 120 <u>300</u> 690	55 30 65 140 <u>400</u> 690	85 45 60 180 <u>320</u> 690	45 20 50 210 <u>365</u> 690	1,748 676 1,137 3,308 <u>5,394</u> 12,263	1,748 676 1,137 3,308 <u>5,394</u> 12,263	3 (all projects)
EM	Depleted Uranium Hexafluoride 6 Conversion (DUF6) Project (02-U-101)	This project will construct conversion facilities at Paducah, KY and Portsmouth, OH to convert the DOE depleted uranium hexafluoride inventory to a more stable chemical form.	446	28	56	62	0	0	0	592	463	3
EM	Sodium Bearing Waste Treatment (SBWT) Project (04-D-414/06-D-401)	This project will construct a treatment process using the steam reforming process to treat the sodium bearing waste (including solids) currently stored underground tanks, along with any liquid waste produced through 2012. The process will convert the waste to a final waste form suitable for transport and disposal.	214	129	96	23	0	0	0	462	356	3
EM	Salt Waste Processing Facility (SWPF) Project (03-D-414/05-D-405)	This project will construct the SWPF at the Savannah River Site to safely separate the high-activity fraction from the low-activity fraction of the high-level salt waste stored in underground tanks at the site. The Department has selected caustic-side solvent extraction as the preferred technology for separation of high-level cesium from the salt wastes. SWPF processing also includes a separation step to remove strontium, uranium, plutonium, and neptunium from the waste by sorption onto granular monosodium titanate followed by filtration.	257	107	141	154	132	85	21	899	726	2

\* TPC is the total cost (operating and capital) of a project.

\*\* TEC is the capital portion (the design and construction) of a project.

U.S. Department of Energy, Transition 2008

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Program / Project		Description	Prior to FY 2008	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Project Cost (TPC)*	Total Estimated Cost (TEC)**	Critical Decision Status
EM	Uranium-233 Down Blending and Disposition Project (OR-0011Z)	This expense-funded project will remove and down blend U-233 stored in Building 3019 at ORNL and place in storage for future disposal. This will eliminate criticality and worker safety concerns and reduce safeguard and security costs.	76	30	58	39	28	10	0	241	227	n/a
NE NNSA	Mixed Oxide (MOX) Fuel Fabrication Facility Project (99-D-143)	This project will provide the capability to convert plutonium oxide derived from surplus weapons grade plutonium stocks to a mixed oxide (MOX) fuel suitable for use as a fuel source in U.S. commercial reactors.	1,507	164	468	451	396	482	519	4,814	3,939	3
NNSA	Pit Disassembly and Conversion Facility (PDCF) Project and Waste Solidification Building (WSB) Project  PDCF (99-D-141-1) WSB (99-D-141-2) Total	This project consists of two subprojects: the PDCF will provide a capability to transform classified plutonium weapons pits to an unclassified oxide suitable for disposition and international inspection. The WSB will process the true waste from the conversion processes into solid form for ultimate disposal.	484 37 521	30 39 69	59 45 104	151 59 210	245 53 298	261 35 296	265 10 275	2,400 - 3,200 245 - 330 2,645 - 3,530	TBD	1
NNSA	Chemistry and Metallurgy Research Facility Replacement (CMRR) Project (04-D-125)	This project will relocate and consolidate mission critical analytical chemistry, material characterization, actinide research and development, and special nuclear material storage at the Los Alamos National Laboratory.	257	81	108	172	225	250	250	1,344 to 2,000	1,294 to 2,000	3
NNSA	Uranium Processing Facility (UPF) Project (06-D-140)	This project will consolidate all category 1 and 2 enriched uranium operations into a single, modern facility at a site to be determined by the Complex Transformation environmental decision process.	10	39	96	117	52	TBD	TBD	1,400 to 3,500	TBD	1
NNSA	National Ignition Facility (NIF) Project (96-D-111)	This project will provide an experimental inertial confinement fusion facility to achieve controlled thermonuclear fusion. Estimated completion is 2nd quarter FY 2009.	3,488	12	2	0	0	0	0	3,502	2,095	3

\* TPC is the total cost (operating and capital) of a project.

\*\* TEC is the capital portion (the design and construction) of a project.

U.S. Department of Energy, Transition 2008

Program / Project		Description	Prior to FY 2008	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Project Cost (TPC)*	Total Estimated Cost (TEC)**	Critical Decision Status
NNSA	Highly Enriched Uranium Materials Facility (HEUMF) Project (01-D-124)	This project will consolidate the long-term storage of highly enriched uranium materials into a new state-of-the-art facility that will reduce storage costs and increase security. Estimated completion is 2nd quarter FY 2010.	432	100	17	0	0	0	0	549	467	3
NNSA	Nuclear Materials Safeguards and Security Upgrades Project (NMSSUP) (08-D-701)	This project will upgrade the physical security systems of TA-55 at the Los Alamos National Laboratory to address 2005 Design Basis Threats.	60	51	48	51	28	2	0	224-300	TBD	1
SC	National Synchrotron Light Source-II (NSLS-II) Project (07-SC-06)	This project will enable the study of material properties and functions with a spatial resolution of one nanometer, an energy resolution of 0.1 millielectron volt, and the ultra-high sensitivity required to perform spectroscopy on a single atom.	31	50	103	165	254	174	82	912	791	2
SC	LINAC Coherent Light Source (LCLS) Project (05-R-320)	This project will provide laser-like radiation in the x-ray region of the spectrum that is 10 billion times greater in peak power and peak brightness than any existing coherent x-ray light source and will be the world's first demonstration of an x-ray free-electron-laser in the 1.5–15 Angstrom size range. Estimated completion in 4th quarter FY 2010.	273	66	54	27	0	0	0	420	352	3
SC	12 GeV Continuous Electron Beam Accelerator Facility (CEBAF) Upgrade Project (06-SC-01)	This project will upgrade the electron energy capability of the main accelerator of CEBAF at the Thomas Jefferson National Accelerator Facility from 6 GeV to 12 GeV, build a new experimental hall and associated beam-line, and enhance the capabilities of the existing experimental halls to address one of the mysteries of modern physics - the mechanism of "quark confinement."	17	14	29	59	62	66	43	310	288	3

\* TPC is the total cost (operating and capital) of a project.

\*\* TEC is the capital portion (the design and construction) of a project.

U.S. Department of Energy, Transition 2008

Program / Project		Description	Prior to FY 2008	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Total Project Cost (TPC)*	Total Estimated Cost (TEC)**	Critical Decision Status
SC NN	Physical Sciences Facility (PSF) Project (07-SC-05)	This project will construct new laboratory and office space at the Pacific Northwest National Laboratory and complete life extension upgrades to existing buildings to replace capabilities displaced by the closure of the Hanford 300 Area.	21 (SC) 26 (NN)	25 (SC) 25 (NN)	41 (SC) 13 (NN)	8 (SC) 4 (NN)	4 (SC) 2(NN)			98 (SC) 70 (NN) 56 (HS) 224 (Tot)	98 (SC) 64 (NN) 48 (HS) 210 (Tot)	3

\* TPC is the total cost (operating and capital) of a project.

\*\* TEC is the capital portion (the design and construction) of a project.

U.S. Department of Energy, Transition 2008

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**Department of Energy**  
**FY 2009 Major Activities and Initiatives**  
**(dollars in millions)**

<b>Program / Project</b>		<b>FY 2008</b>	<b>FY 2009</b>	<b>Comments</b>
EE	Solar America Initiative	220	229	This initiative funds efforts designed to achieve market competitiveness for solar electricity by 2015. It's research and development effort focuses on technology pathways that have the greatest potential to lower cost and improve performance.
EE	Commercial and Demonstration Scale Projects (EPAct 932D)	103	138	Commercial scale and demonstration scale project designed to produce one or more products (starch based ethanol, cellulosic ethanol, advanced protein products, bio products) from one plant, enhances the existing industry but also develops advanced technologies necessary for future biorefinery development.
EE	FreedomCAR & Fuels	208	237	The partnership is focused on cross-cutting hybrid-electric vehicles technologies, supporting research and development on combustion-engine and plug-in electric hybrids for the near term and fuel-cell hybrids for the long term.
EE	Twenty in Ten Initiative	415	446	DOE is pursuing a long-term strategy to support increased availability and cost-effective use of renewable and alternative fuels. Twenty in Ten seeks to displace 20 percent of U.S. gasoline usage by 2017 through cross cutting diversification of clean energy sources and increased vehicle efficiency. The Biomass and Biorefinery R&D Program and the Vehicles Technologies Program support this initiative.
FE	FutureGen	72	156	The FutureGen program will build first-of-a-kind commercial demonstration prototype plants that will produce electricity while achieving near-zero emissions.
NE	Nuclear Power 2010	134	242	The NP 2010 program supports near-term technology development and regulatory demonstration activities that advance the goal of long-term energy independence through the expanded contribution of nuclear power to the Nation's energy portfolio.
NE	Advanced Fuel Cycle Initiative (AFCI, includes funding for Global Nuclear Energy Partnership)	179	302	The AFCI program enables the safe, secure, economic, and sustainable expansion of nuclear energy by conducting research, development, and demonstration focused on nuclear fuel recycling and waste management to meet U.S. needs.
NE	Generation IV Nuclear Energy Systems (includes Next Generation Nuclear Plant)	115	70	The Gen IV program develops innovative, next-generation reactor and fuel cycle technologies to help achieve the desired goals of sustainability, economics, and proliferation resistance for new nuclear energy technologies.

NE	Nuclear Hydrogen Initiative (NHI)	10	17	The NHI program demonstrates the economic, commercial-scale production of hydrogen and oxygen using nuclear energy, leading to a large-scale, emission-free, domestic hydrogen production capability.
NN SA	Weapons Dismantlement and Disposition	136	184	Reduction in quantity of retired weapons and weapons components in the inventories at Pantex and canned sub-assemblies at Y-12.
NN SA	Pit Manufacturing and Certification	214	199	Successfully established the capability to manufacture replacement pits (W88) in limited quantities at Los Alamos National Laboratory.
RW	Yucca Mountain Repository Project, National Transportation System, and Nevada Transportation System	386	495	This project will provide for a deep geologic repository to manage and dispose of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety, and the environment; enhances national and energy security; and merits public confidence.
SC	American Competitiveness Initiative	4,083	4,722	This initiative is a strategy to double investments over the FY 2006 level by FY 2016 in key Federal agencies that support basic research programs in the physical sciences and engineering.
SC	National Nanotechnology Initiative	200	300	This program was established in FY 2001 to coordinate Federal nanotechnology research and development.
SC	U.S. Contributions to ITER	26	215	This international project is an experiment to study and demonstrate the scientific and technical feasibility of fusion power.
SC	Climate Change Science Program	128	146	This program integrates federal research on climate and global change sponsored by thirteen federal agencies.
EE OE NE SC FE LG PI	Climate Change Technology Program	1722 (EE) 85 (OE) 1 (NE) 499 (SC) 604 (FE) 4 (LG) 1 (PI)	1248 (EE) 100 (OE) 1 (NE) 833 (SC) 719 (FE) 0 (LG) 2 (PI)	This multi-agency planning and coordination entity was formed to accelerate the development and deployment of technologies that can reduce, avoid, or capture and store greenhouse gas emissions. The funding shown for EE represents their entire portfolio since all EE programs either reduce energy consumption and/or enable the utilization of clean energy alternatives.
EE FE NE SC	Advanced Energy Initiative	922 (EE) 618 (FE) 497 (NE) 508 (SC)	936 (EE) 747 (FE) 697 (NE) 788 (SC)	This initiative is cross-cutting and designed to take advantage of clean energy technology research by investing more in zero-emission coal-fired plants; revolutionary solar and wind technologies; and clean, safe nuclear energy.

## 6. Laboratory and State Data

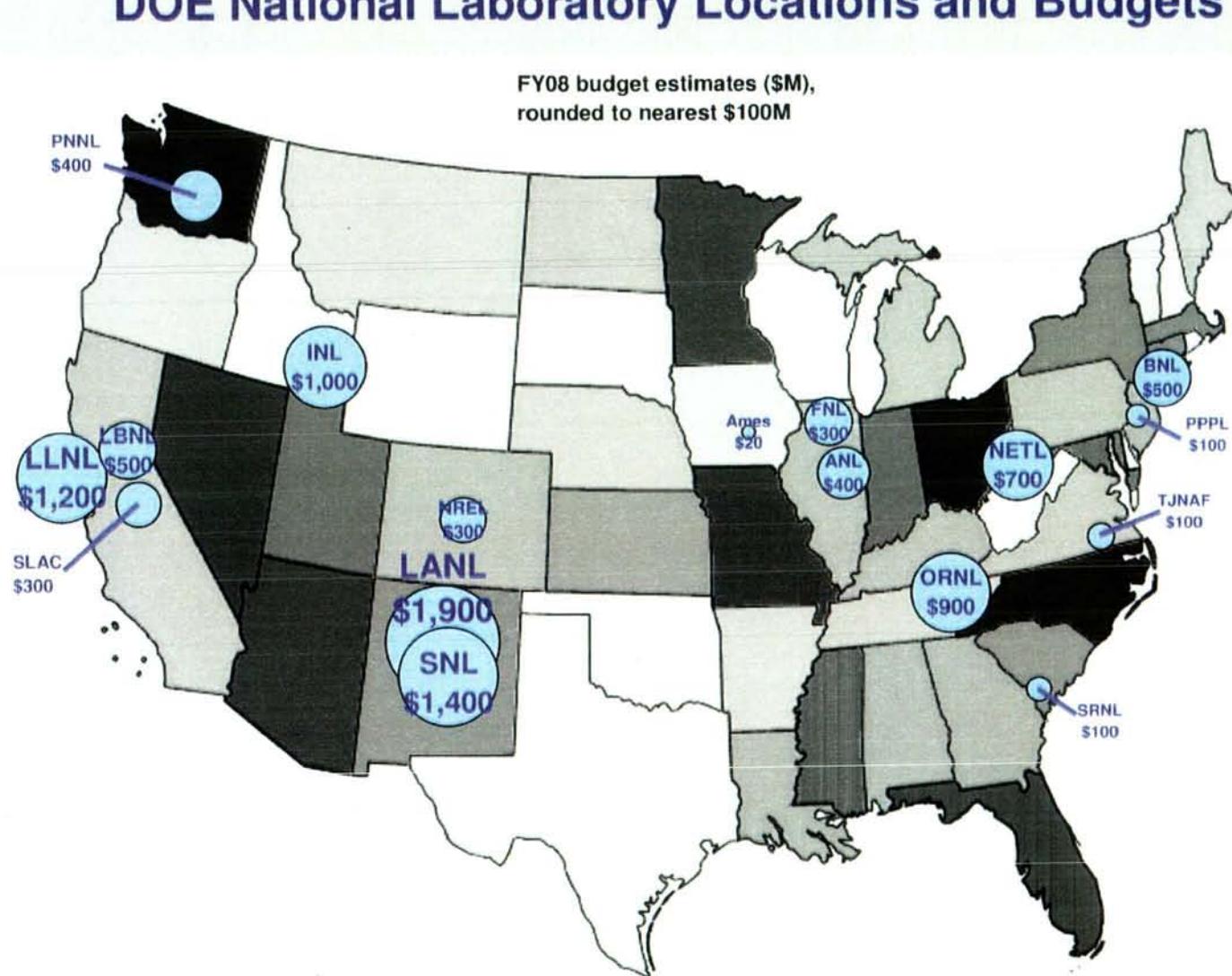
## Laboratory and State Data

At the heart of DOE's mission is its network of 17 national laboratories. With nearly \$10 billion of DOE Fiscal Year (FY) 2008 appropriations going to the 17 laboratories, much of the DOE action takes place here. The laboratories focus on cutting-edge basic and applied science, research and development, national defense, and environmental management. They also provide large scientific facilities in support of research and development to other federal agencies and non-federal entities, including major collaborations with industry. Out of the 17 national laboratories, ten are overseen by the Office of Science (SC), and the remaining are overseen by other DOE offices. The chart below lists DOE's 17 national laboratories with their locations and programmatic offices.

DOE Programmatic Offices and National Laboratories	
Office of Science (SC)	<ul style="list-style-type: none"><li>• Ames National Laboratory (Ames, IA)</li><li>• Argonne National Laboratory (Argonne, IL)</li><li>• Brookhaven National Laboratory (Upton, NY)</li><li>• Fermi National Accelerator Laboratory (Batavia, IL)</li><li>• Lawrence Berkeley National Laboratory (Berkeley, CA)</li><li>• Oak Ridge National Laboratory (Oak Ridge, TN)</li><li>• Pacific Northwest National Laboratory (Richland, WA)</li><li>• Princeton Plasma Physics Laboratory (Princeton, NJ)</li><li>• SLAC National Accelerator Laboratory (Stanford, CA)</li><li>• Thomas Jefferson National Accelerator Facility (Newport News, VA)</li></ul>
Office of Nuclear Energy (NE)	<ul style="list-style-type: none"><li>• Idaho National Laboratory (Idaho Falls, ID)</li></ul>
Office of Fossil Energy (FE)	<ul style="list-style-type: none"><li>• National Energy Technology Laboratory (Morgantown, WV; Pittsburgh, PA; Albany, OR; Tulsa, OK; Fairbanks, AK)</li></ul>
Office of Environmental Management (EM)	<ul style="list-style-type: none"><li>• Savannah River National Laboratory (Aiken, SC)</li></ul>
Office of Energy Efficiency and Renewable Energy (EERE)	<ul style="list-style-type: none"><li>• National Renewable Energy Laboratory (Golden, CO)</li></ul>
National Nuclear Security Administration (NNSA)	<ul style="list-style-type: none"><li>• Lawrence Livermore National Laboratory (Livermore, CA)</li><li>• Los Alamos National Laboratory (Los Alamos, NM)</li><li>• Sandia National Laboratories (Albuquerque, NM)</li></ul>

Managing the national laboratories and ensuring that they achieve critical DOE and national objectives is a complex undertaking. The national laboratories are networked back to DOE headquarters through one of the Department's program offices (SC, NE, FE, EM, EERE, and NNSA). These program offices are responsible for the planning, execution, and evaluation of the scientific and technological programs performed by the national laboratories. The laboratories are managed on a day-to-day basis by federal field offices which report directly to their respective program offices.

The locations of the laboratories and their assignment to programmatic offices are shown in the figure on the next page. The geographic diversity of the national laboratories facilitates collaborations and interactions across the nation's academic community and with a broad spectrum of industrial partners.



<b>National Laboratory</b>	<b>Acronym</b>	<b>FY 2001 (\$M)</b>	<b>FY 2008 (\$M)</b>	<b>Contractor</b>	<b>FY 2008 Projected Head Count</b>
Ames National Laboratory	Ames	23	24	Iowa State University	384
Argonne National Laboratory	ANL	414	381	UChicago Argonne, LLC	2,946
Brookhaven National Laboratory	BNL	383	463	Brookhaven Science Associates, LLC	2,795
Fermi National Accelerator Laboratory	FNAL/ Fermilab	309	321	Fermi Research Alliance, LLC	1,952
Idaho National Laboratory	INL	650	963	Battelle Energy Alliance, LLC	6,557
Lawrence Berkeley National Laboratory	LBNL/ LBL	330	453	University of California	2,491
Lawrence Livermore National Laboratory	LLNL	1,133	1,163	Lawrence Livermore National Security, LLC	6,503
Los Alamos National Laboratory	LANL	1,761	1,853	Los Alamos National Security, LLC	7,607
National Energy Technology Laboratory	NETL	508	703	DOE	591
National Renewable Energy Laboratory	NREL	175	293	Alliance for Sustainable Energy, LLC	1,240
Oak Ridge National Laboratory	ORNL	801	888	UT-Battelle, LLC	4,342
Pacific Northwest National Laboratory	PNNL/ PNL	303	406	Battelle	4,065
Princeton Plasma Physics Laboratory	PPPL	73	75	Princeton University	428
Sandia National Laboratories	SNL	1,181	1,404	Sandia Corporation	8,400
Savannah River National Laboratory	SRNL	n/a	85	Savannah River Nuclear Solutions, LLC	900
SLAC National Accelerator Laboratory	SLAC	202	291	Stanford University	1,467
Thomas Jefferson National Accelerator Facility	TJNAF/ JLab	75	98	Jefferson Science Associates, LLC	705

The Department's organizational philosophy is based on the concept of centralized policy development, program planning, and administrative management and support at headquarters, with decentralized program implementation and project management at the various field organizational elements. Accomplishment of DOE's work is generally through contractors at various field locations.

<b>DOE Field and Site Offices</b>	<b>Acronym</b>	<b>FY 2001 (\$M)</b>	<b>FY 2008 (\$M)</b>	<b>FY 2008 Actual FTE Usage</b>
Ames Site Office	AMSO	n/a	0.6	4
Argonne Site Office	ASO	n/a	4.1	26
Berkeley Site Office	BSO	n/a	4.4	21
Brookhaven Site Office	BHSO	n/a	4.4	23
Carlsbad Area Office	CAO	10.2	33.6	41
Chicago Operations Office	CH	523.5	734.7	217
Consolidated Business Center	EMCBC	n/a	42.3	164
Fermi Site Office	FSO	n/a	2.5	15
Golden Field Office	GFO	49.2	215.9	121
Idaho Operations Office	ID	182.4	196.4	273
Kansas City Site Office	KCSO	n/a	6.3	43
Livermore Site Office	LSO	n/a	17.6	96
Los Alamos Site Office	LASO	n/a	17.7	103
Nevada Site Office	NSO	n/a	163.5	95
NNSA Service Center	SC	564.3	992.4	440
Oak Ridge Operations Office	OR	238.2	106.1	385
Ohio Field Office	OFO	26.3	0.02	7
Pacific Northwest Site Office	PNSO	n/a	5.1	34
Pantex Site Office	PXSO	n/a	12.6	77
Princeton Site Office	PSO	n/a	1.8	12
Richland Operations Office	RL	67.1	517.7	265
Sandia Site Office	SSO	n/a	13.7	82
Savannah River Operations Office	SR	136.2	399.6	307
Savannah River Site Office	SRSO	n/a	61.5	33
Stanford Site Office	SSO	n/a	2.6	14
Thomas Jefferson Site Office	TJSO	n/a	1.9	12
Y-12 Site Office	YSO	n/a	220.7	82

**DOE Appropriations by Laboratory by Program**  
(dollars in thousands)

Appropriation	(All)
State	(All)

Laboratory	Org Cluster	Organization	FY 2007	FY 2008	FY 2009
<b>Advanced Photon Source</b>			<b>1,441</b>	<b>1,140</b>	<b>1,200</b>
	<b>Energy and Environment</b>		<b>1,441</b>	<b>1,140</b>	<b>1,200</b>
		Fossil Energy	1,441	1,140	1,200
<b>Ames Laboratory</b>			<b>25,073</b>	<b>23,879</b>	<b>27,410</b>
	<b>Energy and Environment</b>		<b>1,962</b>	<b>2,115</b>	<b>3,630</b>
		Energy Efficiency and Renewable Energy	840	840	2,325
		Fossil Energy	1,122	1,275	1,305
	<b>Science</b>		<b>22,754</b>	<b>21,276</b>	<b>23,427</b>
		Science	22,754	21,276	23,427
<b>National Nuclear Security Administration</b>			<b>357</b>	<b>488</b>	<b>353</b>
		National Nuclear Security Administration	357	488	353
<b>Ames Site Office</b>			<b>442</b>	<b>555</b>	<b>576</b>
	<b>Science</b>		<b>442</b>	<b>555</b>	<b>576</b>
		Science	442	555	576
<b>Argonne National Lab(East)</b>			<b>389,927</b>	<b>380,996</b>	<b>418,095</b>
	<b>Corporate Management</b>		<b>1,131</b>	<b>1,225</b>	<b>1,230</b>
		Environment, Safety and Health	537	—	—
		Security	594	—	—
		Health Safety and Security	—	1,225	1,230
	<b>Energy and Environment</b>		<b>69,212</b>	<b>68,423</b>	<b>86,300</b>
		Civilian Radioactive Waste Management	1,650	1,700	1,800
		Electricity Delivery and Energy Reliability	3,524	2,225	2,457
		Energy Efficiency and Renewable Energy	30,637	38,243	28,534
		Environmental Management	10,726	433	459
		Fossil Energy	3,090	2,967	2,630
		Nuclear Energy	19,585	22,855	50,420
	<b>Science</b>		<b>294,946</b>	<b>281,381</b>	<b>299,778</b>
		Science	294,946	281,381	299,778
	<b>National Nuclear Security Administration</b>		<b>24,638</b>	<b>29,967</b>	<b>30,787</b>
		National Nuclear Security Administration	24,638	29,967	30,787
<b>Argonne National Lab(West)</b>			<b>250</b>	—	—
	<b>National Nuclear Security Administration</b>		<b>250</b>	—	—
		National Nuclear Security Administration	250	—	—
<b>Argonne Site Office</b>			<b>3,166</b>	<b>4,125</b>	<b>4,289</b>
	<b>Science</b>		<b>3,166</b>	<b>4,125</b>	<b>4,289</b>
		Science	3,166	4,125	4,289
<b>Ashtabula Site</b>			<b>1,295</b>	<b>292</b>	—
	<b>Energy and Environment</b>		<b>1,295</b>	<b>292</b>	—
		Environmental Management	1,295	292	—
<b>Berkeley Site Office</b>			<b>3,545</b>	<b>4,394</b>	<b>4,680</b>
	<b>Science</b>		<b>3,545</b>	<b>4,394</b>	<b>4,680</b>
		Science	3,545	4,394	4,680
<b>Bettis Atomic Power Laboratory</b>			<b>382,585</b>	<b>394,490</b>	<b>427,300</b>
	<b>National Nuclear Security Administration</b>		<b>382,585</b>	<b>394,490</b>	<b>427,300</b>
		National Nuclear Security Administration	382,585	394,490	427,300

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Brookhaven National Laboratory</b>	<b>445,845</b>	<b>462,955</b>	<b>520,861</b>
<b>Corporate Management</b>	<b>126</b>	<b>160</b>	<b>160</b>
Environment, Safety and Health	126	—	—
Health Safety and Security	—	160	160
<b>Energy and Environment</b>	<b>39,569</b>	<b>36,408</b>	<b>15,995</b>
Electricity Delivery and Energy Reliability	300	400	300
Energy Efficiency and Renewable Energy	3,935	2,667	4,150
Environmental Management	30,860	28,438	8,433
Fossil Energy	200	—	—
Nuclear Energy	4,274	4,903	3,112
<b>Science</b>	<b>361,828</b>	<b>379,416</b>	<b>464,005</b>
Science	361,828	379,416	464,005
<b>National Nuclear Security Administration</b>	<b>44,322</b>	<b>46,971</b>	<b>40,701</b>
National Nuclear Security Administration	44,322	46,971	40,701
<b>Brookhaven Site Office</b>	<b>3,744</b>	<b>4,234</b>	<b>4,529</b>
<b>Science</b>	<b>3,744</b>	<b>4,234</b>	<b>4,529</b>
Science	3,744	4,234	4,529
<b>Carlsbad Area Office</b>	<b>33,813</b>	<b>33,578</b>	<b>36,064</b>
<b>Energy and Environment</b>	<b>33,813</b>	<b>33,578</b>	<b>36,064</b>
Environmental Management	33,813	33,578	36,064
<b>Chicago Operations Office</b>	<b>906,847</b>	<b>734,692</b>	<b>721,984</b>
<b>Corporate Management</b>	<b>8,197</b>	<b>14,686</b>	<b>8,954</b>
Cost of Work	5,060	12,063	6,762
Environment, Safety and Health	100	—	—
Inspector General	1,112	1,243	1,065
Security	1,925	—	—
Health Safety and Security	—	1,380	1,127
<b>Energy and Environment</b>	<b>9,862</b>	<b>11,684</b>	<b>2,342</b>
Electricity Delivery and Energy Reliability	7,470	11,644	2,302
Environmental Management	2,352	—	—
Nuclear Energy	40	40	40
<b>Science</b>	<b>854,327</b>	<b>673,854</b>	<b>674,566</b>
Science	854,327	673,854	674,566
<b>National Nuclear Security Administration</b>	<b>34,461</b>	<b>34,468</b>	<b>36,122</b>
National Nuclear Security Administration	34,461	34,468	36,122
<b>Consolidated Business Center</b>	<b>36,756</b>	<b>42,279</b>	<b>40,202</b>
<b>Energy and Environment</b>	<b>36,756</b>	<b>42,279</b>	<b>40,202</b>
Environmental Management	36,756	42,279	40,202
<b>East Tennessee Technology Park (K25)</b>	<b>288,931</b>	<b>285,550</b>	<b>184,365</b>
<b>Corporate Management</b>	<b>20</b>	<b>45</b>	<b>30</b>
Environment, Safety and Health	20	—	—
Health Safety and Security	—	45	30
<b>Energy and Environment</b>	<b>288,911</b>	<b>285,505</b>	<b>184,335</b>
Environmental Management	288,911	285,505	184,335
<b>Energy Technology Engineering Center</b>	<b>16,000</b>	<b>12,882</b>	<b>12,533</b>
<b>Energy and Environment</b>	<b>16,000</b>	<b>12,882</b>	<b>12,533</b>
Environmental Management	16,000	12,882	12,533
<b>Fermi National Accelerator Laboratory</b>	<b>347,734</b>	<b>321,397</b>	<b>379,097</b>
<b>Science</b>	<b>347,734</b>	<b>321,397</b>	<b>379,097</b>
Science	347,734	321,397	379,097

**DOE Appropriations by Laboratory by Program**  
(dollars in thousands)

<b>Fermi Site Office</b>		<b>2,098</b>	<b>2,496</b>	<b>2,570</b>
Science		<b>2,098</b>	<b>2,496</b>	<b>2,570</b>
Science		2,098	2,496	2,570
<b>Fernald Environmental Management Project</b>		<b>308,579</b>	<b>2,585</b>	<b>4,119</b>
Energy and Environment		<b>308,579</b>	<b>2,585</b>	<b>4,119</b>
Environmental Management		308,579	2,585	4,119
<b>General Atomics Site</b>		<b>20,463</b>	<b>23,231</b>	<b>17,658</b>
National Nuclear Security Administration		<b>20,463</b>	<b>23,231</b>	<b>17,658</b>
National Nuclear Security Administration		20,463	23,231	17,658
<b>Gnome Coach Site</b>		<b>5,132</b>	—	—
Energy and Environment		<b>5,132</b>	—	—
Environmental Management		5,132	—	—
<b>Golden Field Office</b>		<b>38,719</b>	<b>215,867</b>	<b>27,442</b>
Energy and Environment		<b>37,945</b>	<b>215,617</b>	<b>26,569</b>
Electricity Delivery and Energy Reliability		11,605	—	25
Energy Efficiency and Renewable Energy		26,340	215,617	26,544
Science		<b>774</b>	<b>250</b>	<b>873</b>
Science		774	250	873
<b>Hanford Site</b>		<b>483,029</b>	<b>518,401</b>	<b>450,519</b>
Corporate Management		—	<b>215</b>	<b>115</b>
Health Safety and Security		—	215	115
Energy and Environment		<b>483,029</b>	<b>518,186</b>	<b>450,404</b>
Environmental Management		483,029	518,186	450,404
<b>Idaho Operations Office</b>		<b>185,438</b>	<b>196,409</b>	<b>308,274</b>
Corporate Management		<b>7,591</b>	<b>2,957</b>	<b>2,283</b>
Environment, Safety and Health		5,858	—	—
Inspector General		556	1,118	932
Security		1,177	—	—
Health Safety and Security		—	1,839	1,351
Energy and Environment		<b>175,346</b>	<b>190,574</b>	<b>303,524</b>
Civilian Radioactive Waste Management		200	200	200
Electricity Delivery and Energy Reliability		2,900	2,025	—
Environmental Management		9,001	9,776	10,876
Nuclear Energy		163,245	178,573	292,448
National Nuclear Security Administration		<b>2,501</b>	<b>2,878</b>	<b>2,467</b>
National Nuclear Security Administration		2,501	2,878	2,467
<b>Inhalation Toxicology Research Institute</b>		<b>3,358</b>	<b>423</b>	—
Energy and Environment		<b>3,358</b>	<b>423</b>	—
Environmental Management		3,358	423	—
<b>Kansas City Plant</b>		<b>429,522</b>	<b>401,987</b>	<b>481,260</b>
Corporate Management		<b>136</b>	<b>1,250</b>	<b>1,250</b>
Environment, Safety and Health		136	—	—
Health Safety and Security		—	1,250	1,250
Energy and Environment		<b>1,697</b>	—	—
Environmental Management		1,697	—	—
National Nuclear Security Administration		<b>427,689</b>	<b>400,737</b>	<b>480,010</b>
National Nuclear Security Administration		427,689	400,737	480,010
<b>Kansas City Site Office</b>		<b>6,055</b>	<b>6,267</b>	<b>6,951</b>

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Corporate Management</b>	<b>15</b>	—	—
Security	15	—	—
<b>National Nuclear Security Administration</b>	<b>6,040</b>	<b>6,267</b>	<b>6,951</b>
National Nuclear Security Administration	6,040	6,267	6,951
<b>Knolls Atomic Power Laboratory</b>	<b>301,587</b>	<b>288,214</b>	<b>302,800</b>
National Nuclear Security Administration	301,587	288,214	302,800
National Nuclear Security Administration	301,587	288,214	302,800
<b>Lawrence Berkeley National Laboratory</b>	<b>431,697</b>	<b>453,070</b>	<b>483,829</b>
Corporate Management	346	297	297
Environment, Safety and Health	346	—	—
Health Safety and Security	—	297	297
Energy and Environment	41,904	37,931	42,679
Civilian Radioactive Waste Management	4,388	5,723	4,800
Electricity Delivery and Energy Reliability	7,165	3,609	6,230
Energy Efficiency and Renewable Energy	25,609	24,684	24,752
Environmental Management	1,770	59	72
Fossil Energy	2,972	3,315	600
Nuclear Energy	—	540	6,225
Science	384,334	408,669	436,315
Science	384,334	408,669	436,315
National Nuclear Security Administration	5,113	6,173	4,538
National Nuclear Security Administration	5,113	6,173	4,538
<b>Lawrence Livermore National Laboratory</b>	<b>1,288,982</b>	<b>1,163,027</b>	<b>1,100,799</b>
Corporate Management	4,224	3,739	3,214
Environment, Safety and Health	3,079	—	—
Security	1,145	—	—
Health Safety and Security	—	3,739	3,214
Energy and Environment	33,318	17,867	7,867
Civilian Radioactive Waste Management	1,662	1,624	1,650
Energy Efficiency and Renewable Energy	4,590	4,132	5,829
Environmental Management	24,136	8,601	—
Fossil Energy	455	185	—
Nuclear Energy	2,475	3,325	388
Science	56,120	50,275	53,638
Science	56,120	50,275	53,638
National Nuclear Security Administration	1,195,320	1,091,146	1,036,080
National Nuclear Security Administration	1,195,320	1,091,146	1,036,080
<b>Lexington Office</b>	<b>1,987</b>	<b>4,010</b>	—
National Nuclear Security Administration	1,987	4,010	—
National Nuclear Security Administration	1,987	4,010	—
<b>Livermore Site Office</b>	<b>21,214</b>	<b>17,591</b>	<b>19,605</b>
National Nuclear Security Administration	21,214	17,591	19,605
National Nuclear Security Administration	21,214	17,591	19,605
<b>Los Alamos National Laboratory</b>	<b>1,800,324</b>	<b>1,852,802</b>	<b>1,838,300</b>
Corporate Management	655	890	290
Environment, Safety and Health	30	—	—
Security	625	—	—
Health Safety and Security	—	890	290
Energy and Environment	190,214	216,775	232,129
Civilian Radioactive Waste Management	300	149	200

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

	Electricity Delivery and Energy Reliability	5,711	5,730	5,700
	Energy Efficiency and Renewable Energy	9,423	12,003	14,936
	Environmental Management	140,925	153,958	164,372
	Fossil Energy	1,006	3,522	386
	Nuclear Energy	32,849	41,413	46,535
<b>Science</b>		<b>64,910</b>	<b>56,395</b>	<b>60,635</b>
	Science	64,910	56,395	60,635
<b>National Nuclear Security Administration</b>		<b>1,544,545</b>	<b>1,578,742</b>	<b>1,545,246</b>
	National Nuclear Security Administration	1,544,545	1,578,742	1,545,246
<b>Los Alamos Site Office</b>		<b>17,615</b>	<b>17,674</b>	<b>20,601</b>
	National Nuclear Security Administration	17,615	17,674	20,601
	National Nuclear Security Administration	17,615	17,674	20,601
<b>Miamisburg Site</b>		<b>40,827</b>	<b>34,268</b>	<b>33,562</b>
	Energy and Environment	40,827	34,268	33,562
	Environmental Management	40,827	34,268	33,562
<b>Moab Site</b>		<b>28,056</b>	<b>23,734</b>	<b>30,513</b>
	Energy and Environment	28,056	23,734	30,513
	Environmental Management	28,056	23,734	30,513
<b>National Energy Technology Lab</b>		<b>582,158</b>	<b>703,157</b>	<b>770,989</b>
	Corporate Management	1,308	1,591	1,899
	Cost of Work	85	99	300
	Inspector General	1,223	1,492	1,599
	Energy and Environment	<b>575,822</b>	<b>698,846</b>	<b>766,565</b>
	Electricity Delivery and Energy Reliability	37,730	63,154	42,302
	Energy Efficiency and Renewable Energy	26,623	24,522	30,721
	Fossil Energy	511,469	611,170	693,542
<b>Science</b>		<b>590</b>	<b>870</b>	<b>633</b>
	Science	590	870	633
<b>National Nuclear Security Administration</b>		<b>4,438</b>	<b>1,850</b>	<b>1,892</b>
	National Nuclear Security Administration	4,438	1,850	1,892
<b>National Renewable Energy Laboratory</b>		<b>327,390</b>	<b>293,074</b>	<b>227,809</b>
	Corporate Management	—	—	200
	Cost of Work	—	—	200
	Energy and Environment	<b>316,100</b>	<b>283,520</b>	<b>217,353</b>
	Electricity Delivery and Energy Reliability	1,525	5,415	6,700
	Energy Efficiency and Renewable Energy	314,025	277,884	210,353
	Nuclear Energy	550	221	300
<b>Science</b>		<b>10,585</b>	<b>8,734</b>	<b>9,488</b>
	Science	10,585	8,734	9,488
<b>National Nuclear Security Administration</b>		<b>705</b>	<b>820</b>	<b>768</b>
	National Nuclear Security Administration	705	820	768
<b>Naval Petroleum Reserve No 1</b>		<b>6,893</b>	<b>5,281</b>	<b>6,000</b>
	Energy and Environment	6,893	5,281	6,000
	Fossil Energy	6,893	5,281	6,000
<b>Naval Petroleum Reserve No 3</b>		<b>7,774</b>	<b>7,482</b>	<b>8,312</b>
	Energy and Environment	7,774	7,482	8,312
	Fossil Energy	7,774	7,482	8,312
<b>Naval Research Laboratory</b>		<b>21,000</b>	<b>23,105</b>	<b>1,500</b>

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

	<b>National Nuclear Security Administration</b>	<b>21,000</b>	<b>23,105</b>	<b>1,500</b>
	National Nuclear Security Administration	21,000	23,105	1,500
<b>Nevada Site Office</b>		<b>165,574</b>	<b>163,513</b>	<b>190,553</b>
	<b>Corporate Management</b>	<b>6,737</b>	<b>7,198</b>	<b>7,878</b>
	Environment, Safety and Health	3,150	—	—
	Inspector General	1,001	1,118	1,198
	Security	2,586	—	—
	Health Safety and Security	—	6,080	6,680
	<b>Energy and Environment</b>	<b>32,656</b>	<b>48,438</b>	<b>62,185</b>
	Civilian Radioactive Waste Management	21,305	20,307	42,988
	Environmental Management	11,351	28,131	19,197
	<b>National Nuclear Security Administration</b>	<b>126,181</b>	<b>107,877</b>	<b>120,490</b>
	National Nuclear Security Administration	126,181	107,877	120,490
<b>Nevada Test Site</b>		<b>360,790</b>	<b>359,807</b>	<b>332,866</b>
	<b>Energy and Environment</b>	<b>92,764</b>	<b>67,492</b>	<b>51,757</b>
	Civilian Radioactive Waste Management	12,422	11,215	1,600
	Environmental Management	80,342	56,277	50,157
	<b>National Nuclear Security Administration</b>	<b>268,026</b>	<b>292,315</b>	<b>281,109</b>
	National Nuclear Security Administration	268,026	292,315	281,109
<b>New Brunswick Laboratory</b>		<b>7,416</b>	<b>7,699</b>	<b>7,792</b>
	<b>Corporate Management</b>	<b>6,673</b>	—	—
	Security	6,673	—	—
	<b>Science</b>	—	<b>6,644</b>	<b>6,782</b>
	Science	—	6,644	6,782
	<b>National Nuclear Security Administration</b>	<b>743</b>	<b>1,055</b>	<b>1,010</b>
	National Nuclear Security Administration	743	1,055	1,010
<b>NNSA Service Center</b>		<b>779,005</b>	<b>992,422</b>	<b>701,164</b>
	<b>Corporate Management</b>	<b>74,495</b>	<b>76,656</b>	<b>42,373</b>
	Chief Information Officer	6,465	7,200	7,200
	Cost of Work	38,823	39,253	7,150
	Environment, Safety and Health	938	—	—
	Inspector General	6,561	7,332	8,079
	Security	21,708	—	—
	Health Safety and Security	—	22,871	19,944
	<b>Energy and Environment</b>	<b>9,986</b>	<b>10,049</b>	<b>8,438</b>
	Civilian Radioactive Waste Management	917	917	917
	Environmental Management	9,069	8,432	7,521
	Nuclear Energy	—	700	—
	<b>National Nuclear Security Administration</b>	<b>694,524</b>	<b>905,717</b>	<b>650,353</b>
	National Nuclear Security Administration	694,524	905,717	650,353
<b>Oak Ridge Institute for Science &amp; Education</b>		<b>37,829</b>	<b>27,396</b>	<b>31,436</b>
	<b>Corporate Management</b>	<b>5,630</b>	<b>2,858</b>	<b>3,575</b>
	Environment, Safety and Health	4,828	—	—
	Security	802	—	—
	Health Safety and Security	—	2,858	3,575
	<b>Science</b>	<b>17,749</b>	<b>11,642</b>	<b>13,575</b>
	Science	17,749	11,642	13,575
	<b>National Nuclear Security Administration</b>	<b>14,450</b>	<b>12,896</b>	<b>14,286</b>
	National Nuclear Security Administration	14,450	12,896	14,286

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Oak Ridge National Laboratory</b>	<b>932,505</b>	<b>888,159</b>	<b>1,066,091</b>
<b>Corporate Management</b>	<b>2,489</b>	<b>4,419</b>	<b>3,808</b>
Environment, Safety and Health	488	—	—
Security	2,001	—	—
Health Safety and Security	—	4,419	3,808
<b>Energy and Environment</b>	<b>187,341</b>	<b>186,897</b>	<b>195,424</b>
Civilian Radioactive Waste Management	1,593	243	300
Electricity Delivery and Energy Reliability	22,809	14,925	17,910
Energy Efficiency and Renewable Energy	78,335	77,061	76,841
Environmental Management	50,100	50,978	58,160
Fossil Energy	5,079	3,725	3,511
Nuclear Energy	29,425	39,965	38,702
<b>Science</b>	<b>560,561</b>	<b>524,838</b>	<b>762,861</b>
Science	560,561	524,838	762,861
<b>National Nuclear Security Administration</b>	<b>182,114</b>	<b>172,005</b>	<b>103,998</b>
National Nuclear Security Administration	182,114	172,005	103,998
<b>Oak Ridge Operations Office</b>	<b>104,952</b>	<b>106,123</b>	<b>106,434</b>
<b>Corporate Management</b>	<b>20,407</b>	<b>23,304</b>	<b>19,803</b>
Chief Information Officer	354	375	—
Cost of Work	9,798	13,408	10,005
Environment, Safety and Health	2,929	—	—
Inspector General	3,892	4,725	5,060
Security	3,434	—	—
Health Safety and Security	—	4,796	4,738
<b>Energy and Environment</b>	<b>17,902</b>	<b>16,337</b>	<b>17,242</b>
Environmental Management	15,354	14,148	15,952
Nuclear Energy	2,548	2,189	1,290
<b>Science</b>	<b>66,613</b>	<b>66,482</b>	<b>69,389</b>
Science	66,613	66,482	69,389
<b>National Nuclear Security Administration</b>	<b>30</b>	<b>—</b>	<b>—</b>
National Nuclear Security Administration	30	—	—
<b>Oak Ridge Reservation</b>	<b>159,389</b>	<b>134,882</b>	<b>174,033</b>
<b>Energy and Environment</b>	<b>159,389</b>	<b>134,882</b>	<b>174,033</b>
Environmental Management	159,389	134,882	174,033
<b>Office of River Protection</b>	<b>988,152</b>	<b>991,203</b>	<b>1,001,008</b>
<b>Energy and Environment</b>	<b>988,152</b>	<b>991,203</b>	<b>1,001,008</b>
Environmental Management	988,152	991,203	1,001,008
<b>Office of Scientific &amp; Technical Information</b>	<b>11,108</b>	<b>10,448</b>	<b>10,425</b>
<b>Corporate Management</b>	<b>380</b>	<b>330</b>	<b>130</b>
Security	380	—	—
Health Safety and Security	—	330	130
<b>Energy and Environment</b>	<b>84</b>	<b>16</b>	<b>—</b>
Electricity Delivery and Energy Reliability	—	16	—
Energy Efficiency and Renewable Energy	84	—	—
<b>Science</b>	<b>10,482</b>	<b>10,021</b>	<b>10,159</b>
Science	10,482	10,021	10,159
<b>National Nuclear Security Administration</b>	<b>162</b>	<b>81</b>	<b>136</b>
National Nuclear Security Administration	162	81	136
<b>Ohio Field Office</b>	<b>4,380</b>	<b>20</b>	<b>70</b>
<b>Corporate Management</b>	<b>60</b>	<b>20</b>	<b>70</b>

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

	Environment, Safety and Health	60	—	—
	Health Safety and Security	—	20	70
<b>Pacific Northwest National Laboratory</b>		<b>4,320</b>	—	—
<b>Corporate Management</b>		<b>3,571</b>	<b>4,292</b>	<b>3,809</b>
	Environment, Safety and Health	675	—	—
	Security	2,896	—	—
	Health Safety and Security	—	4,292	3,809
<b>Energy and Environment</b>		<b>50,808</b>	<b>45,768</b>	<b>63,876</b>
	Civilian Radioactive Waste Management	1,053	1,043	1,100
	Electricity Delivery and Energy Reliability	5,875	2,055	8,200
	Energy Efficiency and Renewable Energy	36,774	34,505	43,214
	Fossil Energy	5,532	5,300	8,250
	Nuclear Energy	1,574	2,865	3,112
<b>Science</b>		<b>137,790</b>	<b>148,928</b>	<b>168,981</b>
	Science	137,790	148,928	168,981
<b>National Nuclear Security Administration</b>		<b>168,982</b>	<b>206,522</b>	<b>172,778</b>
	National Nuclear Security Administration	168,982	206,522	172,778
<b>Pacific Northwest Site Office</b>		<b>5,316</b>	<b>5,053</b>	<b>5,618</b>
<b>Science</b>		<b>5,316</b>	<b>5,053</b>	<b>5,618</b>
	Science	5,316	5,053	5,618
<b>Paducah Gaseous Diffusion Plant</b>		<b>160,374</b>	<b>136,225</b>	<b>145,470</b>
<b>Energy and Environment</b>		<b>160,374</b>	<b>136,225</b>	<b>145,470</b>
	Environmental Management	156,295	132,822	143,034
	Legacy Management	4,079	3,403	2,436
<b>Pantex Plant</b>		<b>499,709</b>	<b>530,956</b>	<b>511,754</b>
<b>Corporate Management</b>		<b>210</b>	<b>10</b>	<b>10</b>
	Security	210	—	—
	Health Safety and Security	—	10	10
<b>Energy and Environment</b>		<b>23,726</b>	<b>20,027</b>	—
	Environmental Management	23,726	20,027	—
<b>National Nuclear Security Administration</b>		<b>475,773</b>	<b>510,919</b>	<b>511,744</b>
	National Nuclear Security Administration	475,773	510,919	511,744
<b>Pantex Site Office</b>		<b>14,204</b>	<b>12,645</b>	<b>13,330</b>
<b>National Nuclear Security Administration</b>		<b>14,204</b>	<b>12,645</b>	<b>13,330</b>
	National Nuclear Security Administration	14,204	12,645	13,330
<b>Pinellas Plant</b>		<b>14,336</b>	<b>7,757</b>	<b>8,174</b>
<b>Energy and Environment</b>		<b>14,336</b>	<b>7,757</b>	<b>8,174</b>
	Legacy Management	14,336	7,757	8,174
<b>Pittsburgh Naval Reactors</b>		<b>10,126</b>	<b>10,735</b>	<b>11,299</b>
<b>Corporate Management</b>		<b>395</b>	<b>378</b>	<b>394</b>
	Security	395	—	—
	Health Safety and Security	—	378	394
<b>National Nuclear Security Administration</b>		<b>9,731</b>	<b>10,357</b>	<b>10,905</b>
	National Nuclear Security Administration	9,731	10,357	10,905
<b>Portsmouth Gaseous Diffusion Plant</b>		<b>261,859</b>	<b>244,632</b>	<b>260,267</b>
<b>Energy and Environment</b>		<b>261,859</b>	<b>244,632</b>	<b>260,267</b>
	Environmental Management	249,620	234,422	252,960

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

	Legacy Management	12,239	10,210	7,307
<b>Princeton Plasma Physics Laboratory</b>		<b>72,830</b>	<b>75,464</b>	<b>77,523</b>
Science		<b>72,830</b>	<b>75,464</b>	<b>77,523</b>
Science		72,830	75,464	77,523
<b>Princeton Site Office</b>		<b>1,653</b>	<b>1,759</b>	<b>1,813</b>
Science		<b>1,653</b>	<b>1,759</b>	<b>1,813</b>
Science		1,653	1,759	1,813
<b>Richland Operations Office</b>		<b>510,731</b>	<b>517,660</b>	<b>537,467</b>
Corporate Management		<b>7,024</b>	<b>5,918</b>	<b>6,197</b>
Chief Information Officer		2,013	2,100	2,100
Cost of Work		254	298	550
Environment, Safety and Health		2,088	—	—
Inspector General		1,668	1,989	1,998
Security		1,001	—	—
Health Safety and Security		—	1,531	1,549
Energy and Environment		<b>502,194</b>	<b>510,414</b>	<b>529,984</b>
Electricity Delivery and Energy Reliability		600	—	300
Environmental Management		501,594	510,414	529,684
National Nuclear Security Administration		<b>1,513</b>	<b>1,328</b>	<b>1,286</b>
National Nuclear Security Administration		1,513	1,328	1,286
<b>Rocky Flats Field Office</b>		<b>118,328</b>	<b>107,209</b>	<b>99,573</b>
Corporate Management		—	<b>50</b>	—
Health Safety and Security		—	50	—
Energy and Environment		<b>118,328</b>	<b>107,159</b>	<b>99,573</b>
Environmental Management		118,328	6,094	9,302
Legacy Management		—	101,065	90,271
<b>Rocky Mountain Oilfield Testing Center</b>		<b>4,128</b>	<b>3,964</b>	<b>3,300</b>
Energy and Environment		<b>4,128</b>	<b>3,964</b>	<b>3,300</b>
Fossil Energy		4,128	3,964	3,300
<b>Sandia National Laboratories</b>		<b>1,496,659</b>	<b>1,403,546</b>	<b>1,428,868</b>
Corporate Management		<b>8,184</b>	<b>4,725</b>	<b>4,174</b>
Environment, Safety and Health		136	—	—
Security		8,048	—	—
Health Safety and Security		—	4,725	4,174
Energy and Environment		<b>198,055</b>	<b>136,871</b>	<b>205,096</b>
Civilian Radioactive Waste Management		121,324	67,728	130,300
Electricity Delivery and Energy Reliability		11,721	11,995	18,442
Energy Efficiency and Renewable Energy		41,810	46,460	43,610
Environmental Management		10,394	—	—
Fossil Energy		3,524	3,362	2,909
Nuclear Energy		9,282	7,326	9,835
Science		<b>47,709</b>	<b>50,880</b>	<b>55,407</b>
Science		47,709	50,880	55,407
National Nuclear Security Administration		<b>1,242,711</b>	<b>1,211,070</b>	<b>1,164,191</b>
National Nuclear Security Administration		1,242,711	1,211,070	1,164,191
<b>Sandia Site Office</b>		<b>13,632</b>	<b>13,681</b>	<b>15,005</b>
National Nuclear Security Administration		<b>13,632</b>	<b>13,681</b>	<b>15,005</b>
National Nuclear Security Administration		13,632	13,681	15,005
<b>Savannah River National Laboratory</b>		<b>92,725</b>	<b>85,314</b>	<b>95,122</b>
Corporate Management		<b>1,098</b>	—	—

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

	Security	1,098	—	—
	<b>Energy and Environment</b>	<b>81,737</b>	<b>74,316</b>	<b>86,875</b>
	Energy Efficiency and Renewable Energy	1,344	873	2,200
	Environmental Management	71,192	71,500	66,000
	Nuclear Energy	9,201	1,943	18,675
	<b>Science</b>	<b>1,291</b>	<b>720</b>	<b>1,097</b>
	Science	1,291	720	1,097
	<b>National Nuclear Security Administration</b>	<b>8,599</b>	<b>10,278</b>	<b>7,150</b>
	National Nuclear Security Administration	8,599	10,278	7,150
<b>Savannah River Operations Office</b>		<b>364,007</b>	<b>399,600</b>	<b>615,008</b>
	<b>Corporate Management</b>	<b>8,321</b>	<b>5,718</b>	<b>5,396</b>
	Environment, Safety and Health	370	—	—
	Inspector General	1,556	1,740	1,732
	Security	6,395	—	—
	Health Safety and Security	—	3,978	3,664
	<b>Energy and Environment</b>	<b>60,088</b>	<b>344,142</b>	<b>551,640</b>
	Environmental Management	60,088	60,807	62,432
	Nuclear Energy	—	283,335	489,208
	<b>National Nuclear Security Administration</b>	<b>295,598</b>	<b>49,740</b>	<b>57,972</b>
	National Nuclear Security Administration	295,598	49,740	57,972
<b>Savannah River Site Office</b>		<b>34,894</b>	<b>61,502</b>	<b>65,931</b>
	<b>Corporate Management</b>		<b>3,494</b>	<b>1,705</b>
	Health Safety and Security	—	3,494	1,705
	<b>National Nuclear Security Administration</b>	<b>34,894</b>	<b>58,008</b>	<b>64,226</b>
	National Nuclear Security Administration	34,894	58,008	64,226
<b>Schenectady Naval Reactors</b>		<b>7,261</b>	<b>7,951</b>	<b>8,269</b>
	<b>Corporate Management</b>	<b>44</b>	<b>27</b>	<b>24</b>
	Security	44	—	—
	Health Safety and Security	—	27	24
	<b>National Nuclear Security Administration</b>	<b>7,217</b>	<b>7,924</b>	<b>8,245</b>
	National Nuclear Security Administration	7,217	7,924	8,245
<b>Separations Process Research Unit</b>		<b>3,500</b>	<b>27,334</b>	<b>15,500</b>
	<b>Energy and Environment</b>	<b>3,500</b>	<b>27,334</b>	<b>15,500</b>
	Environmental Management	3,500	27,334	15,500
<b>Southeastern Power Administration</b>		<b>38,315</b>	<b>54,817</b>	<b>56,940</b>
	<b>Corporate Management</b>	<b>38,315</b>	<b>54,817</b>	<b>56,940</b>
	Southeastern Power Administration	38,315	54,817	56,940
<b>Southwestern Power Administration</b>		<b>42,398</b>	<b>83,215</b>	<b>89,186</b>
	<b>Corporate Management</b>	<b>42,398</b>	<b>83,215</b>	<b>89,186</b>
	Southwestern Power Administration	42,398	83,215	89,186
<b>SLAC National Accelerator Center</b>		<b>359,574</b>	<b>291,121</b>	<b>318,897</b>
	<b>Energy and Environment</b>	<b>5,720</b>	<b>5,846</b>	<b>4,883</b>
	Environmental Management	5,720	5,846	4,883
	<b>Science</b>	<b>353,854</b>	<b>285,275</b>	<b>314,014</b>
	Science	353,854	285,275	314,014
<b>Stanford Site Office</b>		<b>1,959</b>	<b>2,551</b>	<b>2,625</b>
	<b>Science</b>	<b>1,959</b>	<b>2,551</b>	<b>2,625</b>
	Science	1,959	2,551	2,625

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Strategic Petroleum Reserve - Bayou Choctaw</b>	<b>9,233</b>	<b>10,853</b>	<b>85,539</b>
<b>Energy and Environment</b>	<b>9,233</b>	<b>10,853</b>	<b>85,539</b>
Fossil Energy	9,233	10,853	85,539
<b>Strategic Petroleum Reserve - Big Hill</b>	<b>24,064</b>	<b>17,262</b>	<b>75,505</b>
<b>Energy and Environment</b>	<b>24,064</b>	<b>17,262</b>	<b>75,505</b>
Fossil Energy	24,064	17,262	75,505
<b>Strategic Petroleum Reserve - Bryan Mound</b>	<b>19,404</b>	<b>20,884</b>	<b>21,641</b>
<b>Energy and Environment</b>	<b>19,404</b>	<b>20,884</b>	<b>21,641</b>
Fossil Energy	19,404	20,884	21,641
<b>Strategic Petroleum Reserve - West Hackberry</b>	<b>17,382</b>	<b>16,897</b>	<b>16,901</b>
<b>Energy and Environment</b>	<b>17,382</b>	<b>16,897</b>	<b>16,901</b>
Fossil Energy	17,382	16,897	16,901
<b>Strategic Petroleum Reserve Project Office</b>	<b>85,592</b>	<b>87,221</b>	<b>93,139</b>
<b>Energy and Environment</b>	<b>85,592</b>	<b>87,221</b>	<b>93,139</b>
Fossil Energy	85,592	87,221	93,139
<b>Thomas Jefferson National Accelerator Facility</b>	<b>94,113</b>	<b>97,656</b>	<b>125,802</b>
<b>Science</b>	<b>94,113</b>	<b>97,656</b>	<b>125,802</b>
Science	94,113	97,656	125,802
<b>Thomas Jefferson Site Office</b>	<b>1,550</b>	<b>1,872</b>	<b>1,965</b>
<b>Science</b>	<b>1,550</b>	<b>1,872</b>	<b>1,965</b>
Science	1,550	1,872	1,965
<b>University of Rochester</b>	<b>46,399</b>	<b>60,480</b>	<b>58,302</b>
<b>National Nuclear Security Administration</b>	<b>46,399</b>	<b>60,480</b>	<b>58,302</b>
National Nuclear Security Administration	46,399	60,480	58,302
<b>Washington Headquarters</b>	<b>3,086,445</b>	<b>3,936,196</b>	<b>4,176,942</b>
<b>Corporate Management</b>	<b>727,524</b>	<b>787,551</b>	<b>865,820</b>
Board of Contract Appeals	147	—	—
Chief Financial Officer	38,044	41,998	45,048
Chief Information Officer	96,240	100,460	106,200
Congressional and Intergovernmental Affairs	4,813	4,733	4,700
Competitive Sourcing	2,464	—	—
Economic Impact and Diversity	6,154	6,443	4,400
Environment, Safety and Health	82,114	—	—
Energy Information Administration	90,496	95,290	110,395
General Counsel	23,202	29,889	31,233
Hearing and Appeals	4,349	4,565	6,603
Human Resources	22,107	27,986	31,436
Inspector General	23,138	24,306	29,199
Management	54,161	65,033	67,000
Office of the Secretary	5,429	5,751	5,700
Public Affairs	4,493	3,339	3,780
Policy and International Affairs	16,502	21,039	23,000
Security	246,671	—	—
Innovative Technology Loan Guarantee Program	—	5,459	19,880
Health Safety and Security	—	351,260	377,246
Loan Guarantee	7,000	—	—
<b>Energy and Environment</b>	<b>1,696,761</b>	<b>1,960,187</b>	<b>1,687,261</b>
Civilian Radioactive Waste Management	92,661	82,720	85,856
Electricity Delivery and Energy Reliability	15,428	12,458	21,132
Energy Efficiency and Renewable Energy	844,878	952,848	730,295
Environmental Management	598,112	648,191	628,030
Fossil Energy	64,959	131,058	84,445
Legacy Management	11,860	13,927	16,475
Nuclear Energy	68,863	118,985	121,028

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Science</b>	<b>62,589</b>	<b>513,867</b>	<b>681,661</b>
Science	62,589	513,867	681,661
<b>National Nuclear Security Administration</b>	<b>377,669</b>	<b>414,166</b>	<b>668,800</b>
National Nuclear Security Administration	377,669	414,166	668,800
<b>Federal Energy Regulatory Commission</b>	<b>221,902</b>	<b>260,425</b>	<b>273,400</b>
Federal Energy Regulatory Commission	221,902	260,425	273,400
<b>Waste Isolation Pilot Plant</b>	<b>207,935</b>	<b>213,021</b>	<b>188,788</b>
Energy and Environment	207,935	213,021	188,788
Environmental Management	207,935	213,021	188,788
<b>West Valley Demonstration Project</b>	<b>89,191</b>	<b>55,485</b>	<b>59,000</b>
Energy and Environment	89,191	55,485	59,000
Environmental Management	89,191	55,485	59,000
<b>Western Area Power Administration</b>	<b>705,229</b>	<b>777,337</b>	<b>769,338</b>
Corporate Management	705,029	777,162	769,138
Inspector General	1,112	994	1,065
Western Area Power Administration	703,917	776,168	768,073
Energy and Environment	200	175	200
Energy Efficiency and Renewable Energy	200	175	200
<b>Y-12 National Security Complex</b>	<b>750,297</b>	<b>756,062</b>	<b>735,619</b>
Corporate Management	109	850	2,490
Environment, Safety and Health	34	—	—
Security	75	—	—
Health Safety and Security	—	850	2,490
Energy and Environment	23,573	19,674	32,392
Environmental Management	23,573	19,674	32,392
<b>National Nuclear Security Administration</b>	<b>726,615</b>	<b>735,538</b>	<b>700,737</b>
National Nuclear Security Administration	726,615	735,538	700,737
<b>Y-12 Site Office</b>	<b>174,052</b>	<b>220,670</b>	<b>202,065</b>
Corporate Management	—	65	65
Health Safety and Security	—	65	65
National Nuclear Security Administration	174,052	220,605	202,000
National Nuclear Security Administration	174,052	220,605	202,000
<b>Yucca Mountain Site Office</b>	<b>47,536</b>	<b>30,982</b>	<b>30,000</b>
Energy and Environment	47,536	30,982	30,000
Civilian Radioactive Waste Management	47,536	30,982	30,000
<b>Idaho National Laboratory</b>	<b>918,188</b>	<b>963,061</b>	<b>887,545</b>
Corporate Management	7,423	7,546	4,929
Cost of Work	3,169	4,989	1,000
Environment, Safety and Health	100	—	—
Energy Information Administration	157	170	200
Security	3,997	—	—
Health Safety and Security	—	2,387	3,729
Energy and Environment	810,233	844,939	778,382
Civilian Radioactive Waste Management	150	—	—
Electricity Delivery and Energy Reliability	—	2,905	2,000
Energy Efficiency and Renewable Energy	11,794	10,636	11,627
Environmental Management	527,883	513,709	436,524
Fossil Energy	1,084	565	540
Nuclear Energy	269,322	317,124	327,691

## DOE Appropriations by Laboratory by Program

(dollars in thousands)

<b>Science</b>	<b>4,182</b>	<b>4,357</b>	<b>3,598</b>
Science	4,182	4,357	3,598
<b>National Nuclear Security Administration</b>	<b>96,350</b>	<b>106,219</b>	<b>100,636</b>
National Nuclear Security Administration	96,350	106,219	100,636
<b>Grand Junction Office</b>	<b>17,452</b>	<b>23,974</b>	<b>33,408</b>
Energy and Environment	17,452	23,974	33,408
Legacy Management	17,452	23,974	33,408
<b>Morgantown Office</b>	<b>4,156</b>	<b>6,711</b>	<b>9,170</b>
Energy and Environment	4,156	6,711	9,170
Legacy Management	4,156	6,711	9,170
<b>Savannah River Site</b>	<b>1,441,092</b>	<b>1,379,217</b>	<b>1,479,309</b>
Corporate Management	17,133	21,310	22,570
Cost of Work	17,054	21,310	22,570
Environment, Safety and Health	79	—	—
Energy and Environment	1,205,082	1,195,356	1,262,261
Environmental Management	1,205,082	1,195,356	1,262,261
National Nuclear Security Administration	218,877	162,551	194,478
National Nuclear Security Administration	218,877	162,551	194,478
<b>University of Nevada, Las Vegas</b>	<b>2,000</b>	<b>5,400</b>	<b>5,105</b>
Energy and Environment	2,000	5,400	5,105
Nuclear Energy	2,000	5,400	5,105
<b>Fernald Site</b>	—	<b>21,786</b>	<b>18,740</b>
Energy and Environment	—	21,786	18,740
Legacy Management	—	21,786	18,740
<b>Strategic Petroleum Reserve-RICHTON</b>	—	<b>24,773</b>	<b>31,507</b>
Energy and Environment	—	24,773	31,507
Fossil Energy	—	24,773	31,507
<b>Radiological &amp; Envir. Sciences Lab</b>	—	<b>5,224</b>	<b>5,349</b>
Energy and Environment	—	5,224	5,349
Nuclear Energy	—	5,224	5,349
<b>Yucca Mountain Project Office</b>	<b>138,545</b>	<b>161,889</b>	<b>193,031</b>
Energy and Environment	138,545	161,889	193,031
Civilian Radioactive Waste Management	138,545	161,889	193,031
<b>Grand Total</b>	<b>25,167,915</b>	<b>26,028,379</b>	<b>26,648,562</b>

## DOE Appropriations by State by Laboratory

(dollars in thousands)

Organization	(All)
Appropriation	(All)

State	Laboratory	FY 2007	FY 2008	FY 2009
<b>Alaska</b>		<b>4,392</b>	<b>9,477</b>	<b>449</b>
	Chicago Operations Office	161	161	161
	National Energy Technology Lab	2,334	688	—
	Washington Headquarters	1,897	8,628	288
<b>Alabama</b>		<b>34,381</b>	<b>31,155</b>	<b>27,588</b>
	Chicago Operations Office	3,604	2,765	2,234
	National Energy Technology Lab	25,099	25,463	25,000
	National Renewable Energy Laboratory	2,590	—	—
	Washington Headquarters	3,088	2,927	354
<b>American Samoa</b>		<b>254</b>	—	—
	Washington Headquarters	254	—	—
<b>Arkansas</b>		<b>7,957</b>	<b>10,347</b>	<b>9,724</b>
	Chicago Operations Office	776	564	591
	National Energy Technology Lab	108	—	—
	Southwestern Power Administration	4,617	7,306	8,845
	Washington Headquarters	2,456	2,477	288
<b>Arizona</b>		<b>112,772</b>	<b>128,229</b>	<b>110,548</b>
	Chicago Operations Office	6,737	5,226	3,689
	National Energy Technology Lab	2,347	1,204	—
	Washington Headquarters	1,953	1,842	319
	Western Area Power Administration	101,735	119,957	106,540
<b>California</b>		<b>2,411,588</b>	<b>2,231,310</b>	<b>2,201,153</b>
	Berkeley Site Office	3,545	4,394	4,680
	Chicago Operations Office	146,928	143,605	142,356
	Energy Technology Engineering Center	16,000	12,882	12,533
	General Atomics Site	20,463	23,231	17,658
	Lawrence Berkeley National Laboratory	431,697	452,530	477,604
	Lawrence Livermore National Laboratory	1,288,957	1,163,027	1,100,724
	Livermore Site Office	21,214	17,591	19,605
	Los Alamos National Laboratory	376	367	1,876
	National Energy Technology Lab	12,187	17,524	10,797
	Naval Petroleum Reserve No 1	6,240	4,786	3,500
	NNSA Service Center	8,825	10,152	9,757
	Sandia National Laboratories	29,037	27,256	34,257
	SLAC National Accelerator Center	359,574	291,121	318,897
	Stanford Site Office	1,959	2,551	2,625
	Washington Headquarters	9,134	9,207	1,492
	Western Area Power Administration	55,452	51,086	42,792
<b>Colorado</b>		<b>687,197</b>	<b>652,165</b>	<b>575,976</b>
	Chicago Operations Office	17,202	18,876	18,360
	Golden Field Office	38,719	29,203	27,442
	National Energy Technology Lab	4,402	3,259	3,484
	National Renewable Energy Laboratory	324,800	293,074	227,809
	Rocky Flats Field Office	118,328	107,209	99,573
	Washington Headquarters	5,651	6,941	376
	Western Area Power Administration	160,643	169,629	165,524
	Grand Junction Office	17,452	23,974	33,408
<b>Connecticut</b>		<b>23,682</b>	<b>19,493</b>	<b>26,127</b>
	Advanced Photon Source	1,441	1,140	1,200
	Chicago Operations Office	11,674	10,421	10,238
	National Energy Technology Lab	4,123	1,504	10,815

## DOE Appropriations by State by Laboratory

(dollars in thousands)

State	Laboratory	FY 2007	FY 2008	FY 2009
	Washington Headquarters	6,444	6,428	3,874
<b>District of Columbia</b>		<b>2,641,067</b>	<b>3,475,178</b>	<b>3,890,867</b>
	Chicago Operations Office	8,733	5,924	5,161
	Golden Field Office	—	186,664	—
	National Energy Technology Lab	964	1,403	—
	Naval Petroleum Reserve No 1	653	200	500
	Naval Research Laboratory	21,000	23,105	1,500
	Washington Headquarters	2,609,252	3,257,404	3,883,226
	Western Area Power Administration	465	478	480
<b>Delaware</b>		<b>5,404</b>	<b>5,206</b>	<b>3,647</b>
	Chicago Operations Office	4,194	4,199	3,495
	National Energy Technology Lab	149	—	—
	Washington Headquarters	1,061	1,007	152
<b>Florida</b>		<b>35,786</b>	<b>25,949</b>	<b>28,611</b>
	Chicago Operations Office	12,775	9,126	10,193
	National Energy Technology Lab	4,481	5,250	8,772
	Pinellas Plant	14,336	7,757	8,174
	Southeastern Power Administration	700	700	700
	Washington Headquarters	3,494	3,116	772
<b>Georgia</b>		<b>54,664</b>	<b>71,694</b>	<b>75,827</b>
	Chicago Operations Office	11,404	9,004	7,364
	National Energy Technology Lab	6,840	10,138	17,221
	Southeastern Power Administration	32,626	48,884	50,747
	Washington Headquarters	3,794	3,668	495
<b>Guam</b>		<b>263</b>	<b>173</b>	<b>111</b>
	Washington Headquarters	263	173	111
<b>Hawaii</b>		<b>2,998</b>	<b>2,941</b>	<b>2,610</b>
	Chicago Operations Office	2,449	2,496	2,452
	Washington Headquarters	549	445	158
<b>Iowa</b>		<b>55,916</b>	<b>57,481</b>	<b>56,629</b>
	Ames Laboratory	24,233	23,039	25,085
	Ames Site Office	442	555	576
	Chicago Operations Office	8,697	9,125	10,035
	National Energy Technology Lab	454	981	—
	Washington Headquarters	5,674	5,749	353
	Western Area Power Administration	16,416	18,032	20,580
<b>Idaho</b>		<b>1,107,135</b>	<b>1,167,797</b>	<b>1,202,194</b>
	Chicago Operations Office	1,491	870	850
	Idaho Operations Office	185,438	196,409	308,274
	Washington Headquarters	2,168	2,233	176
	Idaho National Laboratory	918,038	963,061	887,545
	Radiological & Envir. Sciences Lab	—	5,224	5,349
<b>Illinois</b>		<b>1,017,846</b>	<b>888,824</b>	<b>955,335</b>
	Argonne National Lab(East)	389,927	380,996	418,095
	Argonne National Lab(West)	250	—	—
	Argonne Site Office	3,166	4,125	4,289
	Chicago Operations Office	242,974	140,751	128,065
	Fermi National Accelerator Laboratory	347,734	321,397	379,097
	Fermi Site Office	2,098	2,496	2,570
	National Energy Technology Lab	7,609	12,019	11,227
	New Brunswick Laboratory	7,416	7,699	7,792
	Washington Headquarters	16,672	19,341	4,200
<b>Indiana</b>		<b>22,993</b>	<b>24,508</b>	<b>17,047</b>

## DOE Appropriations by State by Laboratory

(dollars in thousands)

<b>State</b>	<b>Laboratory</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
	Chicago Operations Office	15,434	16,387	15,572
	National Energy Technology Lab	557	777	878
	Washington Headquarters	7,002	7,344	597
<b>Kansas</b>		<b>7,971</b>	<b>7,926</b>	<b>5,259</b>
	Chicago Operations Office	4,709	4,553	4,569
	National Energy Technology Lab	382	420	382
	Washington Headquarters	2,880	2,953	308
<b>Kentucky</b>		<b>177,684</b>	<b>158,059</b>	<b>157,946</b>
	Chicago Operations Office	1,224	1,322	1,192
	Lexington Office	1,987	4,010	—
	National Energy Technology Lab	625	750	500
	Paducah Gaseous Diffusion Plant	160,374	136,225	145,470
	Portsmouth Gaseous Diffusion Plant	8,632	9,309	10,399
	Washington Headquarters	4,842	6,443	385
<b>Louisiana</b>		<b>120,241</b>	<b>122,211</b>	<b>198,613</b>
	Chicago Operations Office	4,309	3,606	2,622
	National Energy Technology Lab	1,199	551	—
	Strategic Petroleum Reserve - Bayou Choctaw	9,233	10,853	85,539
	Strategic Petroleum Reserve - West Hackberry	17,382	16,897	16,901
	Strategic Petroleum Reserve Project Office	85,592	87,221	93,139
	Washington Headquarters	2,526	3,083	412
<b>Massachusetts</b>		<b>86,775</b>	<b>82,510</b>	<b>65,889</b>
	Chicago Operations Office	78,992	74,315	64,907
	National Energy Technology Lab	646	566	393
	Washington Headquarters	7,137	7,629	589
<b>Maryland</b>		<b>160,672</b>	<b>89,762</b>	<b>95,708</b>
	Chicago Operations Office	19,662	18,287	17,674
	National Energy Technology Lab	—	500	—
	Washington Headquarters	141,010	70,975	78,034
<b>Maine</b>		<b>3,654</b>	<b>4,168</b>	<b>997</b>
	Chicago Operations Office	470	806	780
	Washington Headquarters	3,184	3,362	217
<b>Michigan</b>		<b>38,516</b>	<b>45,500</b>	<b>16,995</b>
	Chicago Operations Office	22,448	18,397	16,064
	National Energy Technology Lab	888	964	—
	Washington Headquarters	15,180	26,139	931
<b>Minnesota</b>		<b>34,199</b>	<b>27,759</b>	<b>47,552</b>
	Chicago Operations Office	7,838	8,178	25,596
	National Energy Technology Lab	30	—	—
	Washington Headquarters	9,791	734	558
	Western Area Power Administration	16,540	18,847	21,398
<b>Missouri</b>		<b>464,987</b>	<b>473,793</b>	<b>546,931</b>
	Chicago Operations Office	4,662	3,281	3,156
	Kansas City Plant	429,522	401,987	481,260
	Kansas City Site Office	6,055	6,267	6,951
	Southwestern Power Administration	18,438	53,215	55,074
	Washington Headquarters	6,310	9,043	490
<b>Mississippi</b>		<b>3,647</b>	<b>28,849</b>	<b>32,808</b>
	Chicago Operations Office	1,587	1,087	1,042
	Washington Headquarters	2,060	2,989	259
	Strategic Petroleum Reserve-RICHTON	—	24,773	31,507
<b>Montana</b>		<b>48,334</b>	<b>55,586</b>	<b>59,744</b>

## DOE Appropriations by State by Laboratory

(dollars in thousands)

<b>State</b>	<b>Laboratory</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
	Chicago Operations Office	1,241	1,162	1,125
	National Energy Technology Lab	3,762	10,075	20,214
	Washington Headquarters	2,625	8,500	170
	Western Area Power Administration	40,706	35,849	38,235
<b>North Carolina</b>		<b>26,380</b>	<b>23,692</b>	<b>23,599</b>
	Chicago Operations Office	16,477	12,477	12,069
	National Energy Technology Lab	3,824	5,009	9,645
	Southeastern Power Administration	1,238	1,295	1,358
	Washington Headquarters	4,841	4,911	527
<b>North Dakota</b>		<b>102,332</b>	<b>117,790</b>	<b>113,926</b>
	Chicago Operations Office	507	438	188
	National Energy Technology Lab	13,013	10,338	7,313
	Washington Headquarters	2,591	9,423	160
	Western Area Power Administration	86,221	97,591	106,265
<b>Nebraska</b>		<b>36,892</b>	<b>41,137</b>	<b>42,238</b>
	Chicago Operations Office	1,687	1,093	896
	Washington Headquarters	2,708	2,815	231
	Western Area Power Administration	32,497	37,229	41,111
<b>New Hampshire</b>		<b>3,566</b>	<b>4,046</b>	<b>2,005</b>
	Chicago Operations Office	1,803	1,598	1,649
	National Energy Technology Lab	—	658	153
	Washington Headquarters	1,763	1,790	203
<b>New Jersey</b>		<b>99,574</b>	<b>102,508</b>	<b>97,655</b>
	Chicago Operations Office	13,483	9,774	10,165
	National Energy Technology Lab	1,387	4,883	2,607
	Princeton Plasma Physics Laboratory	72,830	75,464	77,523
	Princeton Site Office	1,653	1,759	1,813
	Washington Headquarters	10,221	10,628	5,547
<b>New Mexico</b>		<b>4,375,097</b>	<b>4,536,467</b>	<b>4,227,103</b>
	Carlsbad Area Office	33,813	33,578	36,064
	Chicago Operations Office	11,559	4,004	4,730
	Gnome Coach Site	5,132	—	—
	Inhalation Toxicology Research Institute	3,358	423	—
	Los Alamos National Laboratory	1,799,948	1,852,435	1,836,424
	Los Alamos Site Office	17,615	17,674	20,601
	National Energy Technology Lab	2,840	9,188	10,764
	NNSA Service Center	769,263	981,353	690,490
	Sandia National Laboratories	1,467,622	1,376,290	1,394,611
	Sandia Site Office	13,632	13,681	15,005
	Washington Headquarters	23,446	4,651	203
	Waste Isolation Pilot Plant	207,935	213,021	188,788
	Western Area Power Administration	18,934	30,169	29,423
<b>Nevada</b>		<b>722,905</b>	<b>728,533</b>	<b>755,880</b>
	Chicago Operations Office	2,632	2,358	1,379
	Nevada Site Office	165,574	163,513	190,553
	Nevada Test Site	360,790	359,807	332,866
	NNSA Service Center	917	917	917
	Washington Headquarters	1,193	1,119	180
	Western Area Power Administration	3,568	2,548	1,849
	Yucca Mountain Site Office	47,536	30,982	30,000
	Idaho National Laboratory	150	—	—
	University of Nevada, Las Vegas	2,000	5,400	5,105
	Yucca Mountain Project Office	138,545	161,889	193,031
<b>New York</b>		<b>959,143</b>	<b>976,583</b>	<b>1,017,696</b>
	Brookhaven National Laboratory	445,845	462,955	520,861

## DOE Appropriations by State by Laboratory

(dollars in thousands)

<b>State</b>	<b>Laboratory</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
	Brookhaven Site Office	3,744	4,234	4,529
	Chicago Operations Office	34,028	32,580	28,722
	Knolls Atomic Power Laboratory	301,587	288,214	302,800
	Lawrence Berkeley National Laboratory	—	540	6,225
	National Energy Technology Lab	6,490	14,580	11,917
	Schenectady Naval Reactors	7,261	7,951	8,269
	Separations Process Research Unit	3,500	27,334	15,500
	University of Rochester	46,399	60,480	58,302
	Washington Headquarters	21,098	22,230	1,571
	West Valley Demonstration Project	89,191	55,485	59,000
<b>Northern Mariana Islands</b>		<b>253</b>	<b>166</b>	<b>105</b>
	Washington Headquarters	253	166	105
<b>Ohio</b>		<b>678,771</b>	<b>378,323</b>	<b>376,840</b>
	Ashtabula Site	1,295	292	—
	Chicago Operations Office	11,875	9,842	8,906
	Consolidated Business Center	36,756	42,279	40,202
	Fernald Environmental Management Project	308,579	2,585	4,119
	Miamisburg Site	40,827	34,268	33,562
	National Energy Technology Lab	7,577	14,577	20,349
	Ohio Field Office	4,380	20	70
	Portsmouth Gaseous Diffusion Plant	253,227	235,323	249,868
	Washington Headquarters	14,255	17,351	1,024
	Fernald Site	—	21,786	18,740
<b>Oklahoma</b>		<b>29,111</b>	<b>30,957</b>	<b>29,598</b>
	Chicago Operations Office	4,688	3,160	3,048
	National Energy Technology Lab	2,060	2,042	954
	Southwestern Power Administration	19,343	22,694	25,267
	Washington Headquarters	3,020	3,061	329
<b>Oregon</b>		<b>23,627</b>	<b>11,802</b>	<b>9,532</b>
	Chicago Operations Office	8,950	5,230	5,777
	National Energy Technology Lab	8,400	375	350
	Washington Headquarters	6,277	6,197	3,405
<b>Pennsylvania</b>		<b>476,053</b>	<b>497,810</b>	<b>519,619</b>
	Bettis Atomic Power Laboratory	382,585	394,490	427,300
	Chicago Operations Office	24,489	20,860	19,280
	National Energy Technology Lab	40,183	44,789	56,693
	Pittsburgh Naval Reactors	10,126	10,735	11,299
	Southeastern Power Administration	3,571	3,749	3,937
	Washington Headquarters	15,099	23,187	1,110
<b>Puerto Rico</b>		<b>777</b>	<b>604</b>	<b>484</b>
	Chicago Operations Office	180	180	180
	Washington Headquarters	597	424	304
<b>Rhode Island</b>		<b>3,923</b>	<b>3,844</b>	<b>2,414</b>
	Chicago Operations Office	2,505	2,426	2,227
	Washington Headquarters	1,418	1,418	187
<b>South Carolina</b>		<b>1,942,326</b>	<b>1,931,111</b>	<b>2,258,948</b>
	Chicago Operations Office	7,131	3,046	3,064
	Savannah River National Laboratory	92,725	85,314	95,122
	Savannah River Operations Office	364,007	399,600	615,008
	Savannah River Site Office	34,894	61,502	65,931
	Southeastern Power Administration	180	189	198
	Washington Headquarters	2,297	2,243	316
	Savannah River Site	1,441,092	1,379,217	1,479,309
<b>South Dakota</b>		<b>39,621</b>	<b>38,088</b>	<b>35,350</b>

## DOE Appropriations by State by Laboratory

(dollars in thousands)

<b>State</b>	<b>Laboratory</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
	Washington Headquarters	2,060	2,141	157
	Western Area Power Administration	37,561	35,947	35,193
<b>Tennessee</b>		<b>2,471,258</b>	<b>2,440,822</b>	<b>2,517,332</b>
	Chicago Operations Office	7,337	6,481	6,196
	East Tennessee Technology Park (K25)	288,931	285,550	184,365
	Oak Ridge Institute for Science & Education	37,829	27,396	31,436
	Oak Ridge National Laboratory	932,505	888,159	1,066,091
	Oak Ridge Operations Office	104,952	106,123	106,434
	Oak Ridge Reservation	159,389	134,882	174,033
	Office of Scientific & Technical Information	11,108	10,448	10,425
	Washington Headquarters	4,858	5,051	668
	Y-12 National Security Complex	750,297	756,062	735,619
	Y-12 Site Office	174,052	220,570	202,065
<b>Texas</b>		<b>598,071</b>	<b>617,034</b>	<b>651,707</b>
	Chicago Operations Office	24,657	23,296	22,668
	National Energy Technology Lab	5,234	1,559	439
	Naval Petroleum Reserve No 1	—	295	2,000
	Pantex Plant	499,709	530,956	511,754
	Pantex Site Office	14,204	12,645	13,330
	Strategic Petroleum Reserve - Big Hill	24,064	17,262	75,505
	Strategic Petroleum Reserve - Bryan Mound	19,404	20,884	21,641
	Washington Headquarters	8,136	7,662	1,413
	Western Area Power Administration	2,663	2,475	2,957
<b>Utah</b>		<b>63,135</b>	<b>72,672</b>	<b>73,527</b>
	Chicago Operations Office	3,688	3,688	3,515
	Moab Site	28,056	23,734	30,513
	National Energy Technology Lab	727	—	—
	Washington Headquarters	2,356	5,754	225
	Western Area Power Administration	28,308	39,496	39,274
<b>Virginia</b>		<b>134,160</b>	<b>120,783</b>	<b>157,746</b>
	Chicago Operations Office	29,512	12,185	25,041
	National Energy Technology Lab	1,219	150	200
	Thomas Jefferson National Accelerator Facility	94,113	97,656	125,802
	Thomas Jefferson Site Office	1,550	1,872	1,965
	Washington Headquarters	7,766	8,920	4,738
<b>Virgin Islands</b>		<b>277</b>	<b>179</b>	<b>112</b>
	Washington Headquarters	277	179	112
<b>Vermont</b>		<b>1,743</b>	<b>1,615</b>	<b>279</b>
	Chicago Operations Office	259	110	118
	Washington Headquarters	1,484	1,505	161
<b>Washington</b>		<b>2,374,926</b>	<b>2,459,803</b>	<b>2,419,217</b>
	Chicago Operations Office	19,454	15,702	14,753
	Hanford Site	483,029	518,401	450,519
	National Energy Technology Lab	2,141	—	—
	Office of River Protection	988,152	991,203	1,001,008
	Pacific Northwest National Laboratory	361,151	405,510	409,444
	Pacific Northwest Site Office	5,316	5,053	5,618
	Richland Operations Office	510,731	517,660	537,467
	Washington Headquarters	4,952	6,274	408
<b>Wisconsin</b>		<b>44,854</b>	<b>58,070</b>	<b>48,556</b>
	Chicago Operations Office	36,015	48,513	47,720
	Washington Headquarters	8,839	9,557	836
<b>West Virginia</b>		<b>190,962</b>	<b>247,840</b>	<b>201,942</b>
	Chicago Operations Office	837	796	15

**DOE Appropriations by State by Laboratory**

(dollars in thousands)

<b>State</b>	<b>Laboratory</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
	National Energy Technology Lab	182,568	236,426	192,487
	Washington Headquarters	3,401	3,907	270
	Morgantown Office	4,156	6,711	9,170
<b>Wyoming</b>		<b>35,744</b>	<b>34,095</b>	<b>21,781</b>
	Chicago Operations Office	719	361	135
	National Energy Technology Lab	2,459	4,260	1,880
	Naval Petroleum Reserve No 3	7,774	7,482	8,312
	Rocky Mountain Oilfield Testing Center	4,128	3,964	3,300
	Washington Headquarters	1,393	2,971	143
	Western Area Power Administration	19,271	15,057	8,011
<b>All Other (foreign)</b>		<b>1,015</b>	<b>1,250</b>	<b>1,000</b>
	Washington Headquarters	1,015	1,250	1,000
<b>Undesignated State</b>		<b>358,444</b>	<b>652,705</b>	<b>629,486</b>
	Ames Laboratory	840	840	2,325
	Lawrence Livermore National Laboratory	25	—	75
	National Energy Technology Lab	222,850	260,287	345,555
	Washington Headquarters	50,480	288,631	171,825
	Western Area Power Administration	84,249	102,947	109,706
<b>Grand Total</b>		<b>25,167,915</b>	<b>26,028,379</b>	<b>26,648,562</b>

## DOE Appropriations by State by Program

(dollars in thousands)

Appropriation	(All)
Laboratory	(All)

<b>State</b>	<b>Organization</b>	<b>FY 2007</b>	<b>FY 2008</b>	<b>FY 2009</b>
<b>Alaska</b>		<b>4,392</b>	<b>9,477</b>	<b>449</b>
	Energy Efficiency and Renewable Energy	1,897	1,931	288
	Fossil Energy	2,334	7,385	—
	Science	161	161	161
<b>Alabama</b>		<b>34,381</b>	<b>31,155</b>	<b>27,588</b>
	Board of Contract Appeals	147	—	—
	Energy Efficiency and Renewable Energy	5,531	2,927	354
	Fossil Energy	25,099	25,463	25,000
	Science	3,604	2,765	2,234
<b>American Samoa</b>		<b>254</b>	—	—
	Energy Efficiency and Renewable Energy	254	—	—
<b>Arkansas</b>		<b>7,957</b>	<b>10,347</b>	<b>9,724</b>
	Energy Efficiency and Renewable Energy	2,456	2,477	288
	Fossil Energy	108	—	—
	Science	776	564	591
	Southwestern Power Administration	4,617	7,306	8,845
<b>Arizona</b>		<b>112,772</b>	<b>128,229</b>	<b>110,548</b>
	Energy Efficiency and Renewable Energy	1,953	1,842	319
	Fossil Energy	2,347	1,204	—
	Science	6,737	5,226	3,689
	Western Area Power Administration	101,735	119,957	106,540
<b>California</b>		<b>2,411,588</b>	<b>2,231,310</b>	<b>2,201,153</b>
	Chief Information Officer	6,465	7,200	7,200
	Civilian Radioactive Waste Management	6,050	7,347	6,450
	Electricity Delivery and Energy Reliability	18,886	15,604	24,672
	Energy Efficiency and Renewable Energy	39,453	37,672	33,874
	Environment, Safety and Health	3,425	—	—
	Environmental Management	48,096	27,854	17,603
	Fossil Energy	21,854	26,529	14,897
	Inspector General	1,890	2,486	2,442
	National Nuclear Security Administration	1,242,110	1,138,141	1,077,881
	Nuclear Energy	2,475	3,325	388
	Science	964,287	910,030	969,443
	Security	1,145	—	—
	Western Area Power Administration	55,452	51,086	42,792
	Health Safety and Security	—	4,036	3,511
<b>Colorado</b>		<b>687,197</b>	<b>652,165</b>	<b>575,976</b>
	Cost of Work	—	—	200
	Electricity Delivery and Energy Reliability	13,130	5,415	6,725
	Energy Efficiency and Renewable Energy	343,626	312,996	237,473

## DOE Appropriations by State by Program

(dollars in thousands)

	Environmental Management	118,328	6,094	9,302
	Fossil Energy	4,402	4,216	3,484
	Inspector General	1,112	994	1,065
	Legacy Management	17,452	125,039	123,679
	National Nuclear Security Administration	705	820	768
	Nuclear Energy	550	221	300
	Science	28,561	27,860	28,721
	Western Area Power Administration	159,331	168,460	164,259
	Health Safety and Security	—	50	—
<b>Connecticut</b>		<b>23,682</b>	<b>19,493</b>	<b>26,127</b>
	Energy Efficiency and Renewable Energy	2,934	3,001	378
	Fossil Energy	9,074	6,071	15,511
	Science	11,674	10,421	10,238
<b>District of Columbia</b>		<b>2,641,067</b>	<b>3,475,178</b>	<b>3,890,867</b>
	Chief Financial Officer	23,192	25,898	27,761
	Chief Information Officer	96,240	100,460	106,200
	Civilian Radioactive Waste Management	92,661	82,720	85,856
	Congressional and Intergovernmental Affairs	4,813	4,733	4,700
	Economic Impact and Diversity	6,154	6,443	4,400
	Electricity Delivery and Energy Reliability	15,428	12,458	21,132
	Energy Efficiency and Renewable Energy	597,332	787,521	595,352
	Environment, Safety and Health	82,114	—	—
	Energy Information Administration	66,423	70,130	78,895
	Environmental Management	598,112	648,191	628,030
	Fossil Energy	10,291	13,500	21,484
	General Counsel	23,202	29,889	31,233
	Hearing and Appeals	4,349	4,565	6,603
	Human Resources	22,107	27,986	31,436
	Inspector General	10,512	11,937	12,628
	Legacy Management	11,860	13,927	16,475
	Management	29,952	36,717	37,766
	National Nuclear Security Administration	398,669	437,271	670,300
	Nuclear Energy	68,863	118,985	121,028
	Office of the Secretary	5,429	5,751	5,700
	Public Affairs	4,493	3,339	3,780
	Policy and International Affairs	16,502	21,039	23,000
	Federal Energy Regulatory Commission	221,902	260,425	273,400
	Science	68,424	394,096	686,102
	Security	154,578	—	—
	Western Area Power Administration	465	478	480
	Innovative Technology Loan Guarantee Prog.	—	5,459	19,880
	Health Safety and Security	—	351,260	377,246
	Loan Guarantee	7,000	—	—
<b>Delaware</b>		<b>5,404</b>	<b>5,206</b>	<b>3,647</b>
	Energy Efficiency and Renewable Energy	864	803	152
	Fossil Energy	149	—	—
	Science	4,391	4,403	3,495

## DOE Appropriations by State by Program

(dollars in thousands)

<b>Florida</b>		<b>35,786</b>	<b>25,949</b>	<b>28,611</b>
	Energy Efficiency and Renewable Energy	3,494	3,116	772
	Fossil Energy	4,481	5,250	8,772
	Legacy Management	14,336	7,757	8,174
	Science	12,775	9,126	10,193
	Southeastern Power Administration	700	700	700
<b>Georgia</b>		<b>54,664</b>	<b>71,694</b>	<b>75,827</b>
	Energy Efficiency and Renewable Energy	3,744	3,668	495
	Fossil Energy	6,890	10,138	17,221
	Science	11,404	9,004	7,364
	Southeastern Power Administration	32,626	48,884	50,747
<b>Guam</b>		<b>263</b>	<b>173</b>	<b>111</b>
	Energy Efficiency and Renewable Energy	263	173	111
<b>Hawaii</b>		<b>2,998</b>	<b>2,941</b>	<b>2,610</b>
	Energy Efficiency and Renewable Energy	549	445	158
	Science	2,449	2,496	2,452
<b>Iowa</b>		<b>55,916</b>	<b>57,481</b>	<b>56,629</b>
	Energy Efficiency and Renewable Energy	5,135	5,451	353
	Fossil Energy	1,576	2,256	1,305
	National Nuclear Security Administration	357	488	353
	Science	32,432	31,254	34,038
	Western Area Power Administration	16,416	18,032	20,580
<b>Idaho</b>		<b>1,107,135</b>	<b>1,167,797</b>	<b>1,202,194</b>
	Civilian Radioactive Waste Management	200	200	200
	Cost of Work	3,169	4,989	1,000
	Electricity Delivery and Energy Reliability	2,900	4,930	2,000
	Energy Efficiency and Renewable Energy	13,962	12,869	11,803
	Environment, Safety and Health	5,958	—	—
	Energy Information Administration	157	170	200
	Environmental Management	536,884	523,485	447,400
	Fossil Energy	1,084	565	540
	Inspector General	556	1,118	932
	National Nuclear Security Administration	98,851	109,097	103,103
	Nuclear Energy	432,567	500,921	625,488
	Science	5,673	5,227	4,448
	Security	5,174	—	—
	Health Safety and Security	—	4,226	5,080
<b>Illinois</b>		<b>1,017,846</b>	<b>888,824</b>	<b>955,335</b>
	Civilian Radioactive Waste Management	1,650	1,700	1,800
	Cost of Work	5,060	12,063	6,762
	Electricity Delivery and Energy Reliability	10,994	13,869	4,759
	Energy Efficiency and Renewable Energy	44,923	53,463	29,634
	Environment, Safety and Health	637	—	—
	Energy Information Administration	2,372	2,500	3,100
	Environmental Management	13,078	433	459

## DOE Appropriations by State by Program

(dollars in thousands)

	Fossil Energy	10,699	16,421	13,857
	Inspector General	1,112	1,243	1,065
	National Nuclear Security Administration	60,092	65,490	67,919
	Nuclear Energy	19,625	22,895	50,460
	Science	838,412	696,142	773,163
	Security	9,192	—	—
	Health Safety and Security	—	2,605	2,357
<b>Indiana</b>		<b>22,993</b>	<b>24,508</b>	<b>17,047</b>
	Energy Efficiency and Renewable Energy	7,002	7,344	597
	Fossil Energy	557	777	878
	Science	15,434	16,387	15,572
<b>Kansas</b>		<b>7,971</b>	<b>7,926</b>	<b>5,259</b>
	Energy Efficiency and Renewable Energy	2,880	2,953	308
	Fossil Energy	382	420	382
	Science	4,709	4,553	4,569
<b>Kentucky</b>		<b>177,684</b>	<b>158,059</b>	<b>157,946</b>
	Energy Efficiency and Renewable Energy	4,842	5,055	385
	Environmental Management	164,927	142,131	153,433
	Fossil Energy	625	2,138	500
	Legacy Management	4,079	3,403	2,436
	National Nuclear Security Administration	1,987	4,010	—
	Science	1,224	1,322	1,192
<b>Louisiana</b>		<b>120,241</b>	<b>122,211</b>	<b>198,613</b>
	Energy Efficiency and Renewable Energy	2,526	2,365	412
	Fossil Energy	113,406	116,240	195,579
	Science	4,309	3,606	2,622
<b>Massachusetts</b>		<b>86,775</b>	<b>82,510</b>	<b>65,889</b>
	Energy Efficiency and Renewable Energy	6,892	7,292	589
	Fossil Energy	646	566	393
	Science	79,237	74,652	64,907
<b>Maryland</b>		<b>160,672</b>	<b>89,762</b>	<b>95,708</b>
	Chief Financial Officer	14,852	16,100	17,287
	Energy Efficiency and Renewable Energy	3,251	3,271	460
	Energy Information Administration	18,490	19,330	24,100
	Fossil Energy	20,418	20,256	19,448
	Inspector General	12,626	12,369	16,571
	Science	20,010	18,436	17,842
	Security	71,025	—	—
<b>Maine</b>		<b>3,654</b>	<b>4,168</b>	<b>997</b>
	Energy Efficiency and Renewable Energy	3,184	3,362	217
	Science	470	806	780
<b>Michigan</b>		<b>38,516</b>	<b>45,500</b>	<b>16,995</b>
	Energy Efficiency and Renewable Energy	15,180	26,139	931

## DOE Appropriations by State by Program

(dollars in thousands)

	Fossil Energy	888	964	—
	Science	22,448	18,397	16,064
<b>Minnesota</b>		<b>34,199</b>	<b>27,759</b>	<b>47,552</b>
	Energy Efficiency and Renewable Energy	9,791	734	558
	Fossil Energy	30	—	—
	Science	7,838	8,178	25,596
	Western Area Power Administration	16,540	18,847	21,398
<b>Missouri</b>		<b>464,987</b>	<b>473,793</b>	<b>546,931</b>
	Energy Efficiency and Renewable Energy	6,310	6,651	490
	Environment, Safety and Health	136	—	—
	Environmental Management	1,697	—	—
	Fossil Energy	—	2,392	—
	National Nuclear Security Administration	433,729	407,004	486,961
	Science	4,662	3,281	3,156
	Security	15	—	—
	Southwestern Power Administration	18,438	53,215	55,074
	Health Safety and Security	—	1,250	1,250
<b>Mississippi</b>		<b>3,647</b>	<b>28,849</b>	<b>32,808</b>
	Energy Efficiency and Renewable Energy	2,060	2,032	259
	Fossil Energy	—	25,730	31,507
	Science	1,587	1,087	1,042
<b>Montana</b>		<b>48,334</b>	<b>55,586</b>	<b>59,744</b>
	Energy Efficiency and Renewable Energy	2,625	2,760	170
	Fossil Energy	3,762	15,815	20,214
	Science	1,241	1,162	1,125
	Western Area Power Administration	40,706	35,849	38,235
<b>North Carolina</b>		<b>26,380</b>	<b>23,692</b>	<b>23,599</b>
	Energy Efficiency and Renewable Energy	4,841	4,911	527
	Fossil Energy	3,824	5,009	9,645
	Science	16,477	12,477	12,069
	Southeastern Power Administration	1,238	1,295	1,358
<b>North Dakota</b>		<b>102,332</b>	<b>117,790</b>	<b>113,926</b>
	Energy Efficiency and Renewable Energy	2,591	2,726	160
	Fossil Energy	13,013	17,035	7,313
	Science	507	438	188
	Western Area Power Administration	86,221	97,591	106,265
<b>Nebraska</b>		<b>36,892</b>	<b>41,137</b>	<b>42,238</b>
	Energy Efficiency and Renewable Energy	2,708	2,815	231
	Science	1,687	1,093	896
	Western Area Power Administration	32,497	37,229	41,111
<b>New Hampshire</b>		<b>3,566</b>	<b>4,046</b>	<b>2,005</b>
	Energy Efficiency and Renewable Energy	1,763	1,790	203
	Fossil Energy	—	658	153

## DOE Appropriations by State by Program

(dollars in thousands)

	Science	1,803	1,598	1,649
<b>New Jersey</b>		<b>99,574</b>	<b>102,508</b>	<b>97,655</b>
	Energy Efficiency and Renewable Energy	5,901	6,068	747
	Fossil Energy	5,707	9,443	7,407
	Science	87,966	86,997	89,501
<b>New Mexico</b>		<b>4,375,097</b>	<b>4,536,467</b>	<b>4,227,103</b>
	Civilian Radioactive Waste Management	121,624	67,877	130,500
	Cost of Work	38,823	39,253	7,150
	Electricity Delivery and Energy Reliability	5,711	5,730	5,700
	Energy Efficiency and Renewable Energy	53,025	60,305	56,873
	Environment, Safety and Health	1,104	—	—
	Environmental Management	410,156	408,946	396,630
	Fossil Energy	7,370	18,464	14,059
	Inspector General	4,671	4,846	5,637
	National Nuclear Security Administration	3,513,027	3,726,884	3,395,396
	Nuclear Energy	42,131	49,439	56,370
	Science	107,072	96,068	104,957
	Security	51,449	—	—
	Western Area Power Administration	18,934	30,169	29,423
	Health Safety and Security	—	28,486	24,408
<b>Nevada</b>		<b>722,905</b>	<b>728,533</b>	<b>755,880</b>
	Civilian Radioactive Waste Management	220,875	225,310	268,536
	Energy Efficiency and Renewable Energy	1,193	1,119	180
	Environment, Safety and Health	3,150	—	—
	Environmental Management	91,693	84,408	69,354
	Inspector General	1,001	1,118	1,198
	National Nuclear Security Administration	394,207	400,192	401,599
	Nuclear Energy	2,000	5,400	5,105
	Science	2,632	2,358	1,379
	Security	2,586	—	—
	Western Area Power Administration	3,568	2,548	1,849
	Health Safety and Security	—	6,080	6,680
<b>New York</b>		<b>959,143</b>	<b>976,583</b>	<b>1,017,696</b>
	Electricity Delivery and Energy Reliability	300	400	300
	Energy Efficiency and Renewable Energy	24,535	24,730	5,721
	Environment, Safety and Health	126	—	—
	Environmental Management	123,551	111,257	82,933
	Fossil Energy	6,690	14,580	11,917
	National Nuclear Security Administration	399,525	403,589	410,048
	Nuclear Energy	4,274	5,443	9,337
	Science	400,098	416,397	497,256
	Security	44	—	—
	Health Safety and Security	—	187	184
<b>Northern Mariana Islands</b>		<b>253</b>	<b>166</b>	<b>105</b>
	Energy Efficiency and Renewable Energy	253	166	105

## DOE Appropriations by State by Program

(dollars in thousands)

<b>Ohio</b>		<b>678,771</b>	<b>378,323</b>	<b>376,840</b>
	Energy Efficiency and Renewable Energy	14,088	15,026	1,024
	Environment, Safety and Health	60	—	—
	Environmental Management	632,765	304,537	320,444
	Fossil Energy	7,577	16,730	20,349
	Legacy Management	12,239	31,996	26,047
	Science	12,042	10,014	8,906
	Health Safety and Security	—	20	70
<b>Oklahoma</b>		<b>29,111</b>	<b>30,957</b>	<b>29,598</b>
	Energy Efficiency and Renewable Energy	3,020	3,061	329
	Fossil Energy	2,060	2,042	954
	Science	4,688	3,160	3,048
	Southwestern Power Administration	19,343	22,694	25,267
<b>Oregon</b>		<b>23,627</b>	<b>11,802</b>	<b>9,532</b>
	Energy Efficiency and Renewable Energy	3,162	3,249	305
	Fossil Energy	11,515	3,323	3,450
	Science	8,950	5,230	5,777
<b>Pennsylvania</b>		<b>476,053</b>	<b>497,810</b>	<b>519,619</b>
	Energy Efficiency and Renewable Energy	14,988	16,011	1,040
	Fossil Energy	38,485	49,903	54,461
	Inspector General	1,223	1,492	1,599
	National Nuclear Security Administration	392,316	404,847	438,205
	Science	25,075	21,430	19,983
	Southeastern Power Administration	3,571	3,749	3,937
	Security	395	—	—
	Health Safety and Security	—	378	394
<b>Puerto Rico</b>		<b>777</b>	<b>604</b>	<b>484</b>
	Energy Efficiency and Renewable Energy	597	424	304
	Science	180	180	180
<b>Rhode Island</b>		<b>3,923</b>	<b>3,844</b>	<b>2,414</b>
	Energy Efficiency and Renewable Energy	1,418	1,418	187
	Science	2,505	2,426	2,227
<b>South Carolina</b>		<b>1,942,326</b>	<b>1,931,111</b>	<b>2,258,948</b>
	Cost of Work	17,054	21,310	22,570
	Energy Efficiency and Renewable Energy	3,641	3,116	2,516
	Environment, Safety and Health	449	—	—
	Environmental Management	1,336,362	1,327,663	1,390,693
	Inspector General	1,556	1,740	1,732
	National Nuclear Security Administration	557,968	280,577	323,826
	Nuclear Energy	9,201	285,278	507,883
	Science	8,422	3,766	4,161
	Southeastern Power Administration	180	189	198
	Security	7,493	—	—
	Health Safety and Security	—	7,472	5,369

## DOE Appropriations by State by Program

(dollars in thousands)

<b>South Dakota</b>		<b>39,621</b>	<b>38,088</b>	<b>35,350</b>
	Energy Efficiency and Renewable Energy	2,060	2,141	157
	Western Area Power Administration	37,561	35,947	35,193
<b>Tennessee</b>		<b>2,471,258</b>	<b>2,440,822</b>	<b>2,517,332</b>
	Chief Information Officer	354	375	—
	Civilian Radioactive Waste Management	1,593	243	300
	Cost of Work	9,798	13,408	10,005
	Electricity Delivery and Energy Reliability	22,809	14,941	17,910
	Energy Efficiency and Renewable Energy	83,095	81,870	77,287
	Environment, Safety and Health	8,299	—	—
	Environmental Management	537,327	505,187	464,872
	Fossil Energy	5,079	3,725	3,511
	Inspector General	3,892	4,725	5,060
	National Nuclear Security Administration	1,097,423	1,141,125	1,021,157
	Nuclear Energy	31,973	42,154	39,992
	Science	662,924	619,706	862,402
	Security	6,692	—	—
	Health Safety and Security	—	13,363	14,836
<b>Texas</b>		<b>598,071</b>	<b>617,034</b>	<b>651,707</b>
	Energy Efficiency and Renewable Energy	7,968	7,487	1,213
	Energy Information Administration	168	175	200
	Environmental Management	23,726	20,027	—
	Fossil Energy	48,702	40,000	99,585
	National Nuclear Security Administration	489,977	523,564	525,074
	Science	24,657	23,296	22,668
	Security	210	—	—
	Western Area Power Administration	2,663	2,475	2,957
	Health Safety and Security	—	10	10
<b>Utah</b>		<b>63,135</b>	<b>72,672</b>	<b>73,527</b>
	Energy Efficiency and Renewable Energy	2,356	2,405	225
	Environmental Management	28,056	23,734	30,513
	Fossil Energy	727	3,349	—
	Science	3,688	3,688	3,515
	Western Area Power Administration	28,308	39,496	39,274
<b>Virginia</b>		<b>134,160</b>	<b>120,783</b>	<b>157,746</b>
	Energy Efficiency and Renewable Energy	4,673	4,758	538
	Energy Information Administration	3,043	3,155	4,100
	Fossil Energy	1,269	1,157	300
	Science	125,175	111,713	152,808
<b>Virgin Islands</b>		<b>277</b>	<b>179</b>	<b>112</b>
	Energy Efficiency and Renewable Energy	277	179	112
<b>Vermont</b>		<b>1,743</b>	<b>1,615</b>	<b>279</b>
	Energy Efficiency and Renewable Energy	1,484	1,505	161
	Science	259	110	118

## DOE Appropriations by State by Program

(dollars in thousands)

<b>Washington</b>		<b>2,374,926</b>	<b>2,459,803</b>	<b>2,419,217</b>
Chief Information Officer		2,013	2,100	2,100
Civilian Radioactive Waste Management		1,053	1,043	1,100
Cost of Work		254	298	550
Electricity Delivery and Energy Reliability		6,475	2,055	8,500
Energy Efficiency and Renewable Energy		41,726	39,631	43,622
Environment, Safety and Health		2,763	—	—
Environmental Management		1,972,775	2,019,803	1,981,096
Fossil Energy		7,673	6,448	8,250
Inspector General		1,668	1,989	1,998
National Nuclear Security Administration		170,495	207,850	174,064
Nuclear Energy		1,574	2,865	3,112
Science		162,560	169,683	189,352
Security		3,897	—	—
Health Safety and Security		—	6,038	5,473
<b>Wisconsin</b>		<b>44,854</b>	<b>58,070</b>	<b>48,556</b>
Energy Efficiency and Renewable Energy		8,683	9,290	576
Science		36,171	48,780	47,980
<b>West Virginia</b>		<b>190,962</b>	<b>247,840</b>	<b>201,942</b>
Cost of Work		85	99	300
Electricity Delivery and Energy Reliability		37,730	63,154	42,302
Energy Efficiency and Renewable Energy		24,284	28,095	30,991
Fossil Energy		119,317	146,835	117,272
Legacy Management		4,156	6,711	9,170
National Nuclear Security Administration		4,438	1,850	1,892
Science		952	1,096	15
<b>Wyoming</b>		<b>35,744</b>	<b>34,095</b>	<b>21,781</b>
Energy Efficiency and Renewable Energy		1,393	1,392	143
Fossil Energy		14,361	17,285	13,492
Science		719	361	135
Western Area Power Administration		19,271	15,057	8,011
<b>All Other (foreign)</b>		<b>1,015</b>	<b>1,250</b>	<b>1,000</b>
Fossil Energy		1,015	1,250	1,000
<b>Undesignated State</b>		<b>358,444</b>	<b>652,705</b>	<b>629,486</b>
Competitive Sourcing		2,464	—	—
Energy Efficiency and Renewable Energy		6,605	97,149	113,474
Fossil Energy		240,917	300,670	377,072
Management		24,209	28,316	29,234
Science		—	123,623	—
Western Area Power Administration		84,249	102,947	109,706
<b>Grand Total</b>		<b>25,167,915</b>	<b>26,028,379</b>	<b>26,648,562</b>