



# DEPARTMENT OF ENERGY



Stanford Synchrotron Radiation Laboratory at Stanford Linear Accelerator Center (SLAC).



Acting Deputy Secretary Kuper at Colombian Coal Mine.



Outdoor Test Facility at National Renewable Energy Laboratory.



High Explosives Application Facility, Lawrence Livermore National Laboratory.

## Mission

*Discovering the solutions to power and secure America's future*

---

## Vision

*A unified Department of Energy that keeps its commitments to achieve results for America*

---

## Operating Principles

- *Ensure safe, secure, and environmentally responsible operations*
  - *Act with a sense of urgency*
  - *Work together*
  - *Treat people with dignity and respect*
  - *Make the tough choices*
  - *Keep our commitments*
  - *Embrace innovation*
  - *Always tell the truth*
  - *Do the right thing*
- 

## Strategic Themes

- *Strategic Theme 1 – Energy Security*
- *Strategic Theme 2 – Nuclear Security*
- *Strategic Theme 3 – Scientific Discovery and Innovation*
- *Strategic Theme 4 – Environmental Responsibility*
- *Strategic Theme 5 – Management Excellence*

[www.energy.gov/About/StrategicPlan.htm](http://www.energy.gov/About/StrategicPlan.htm)

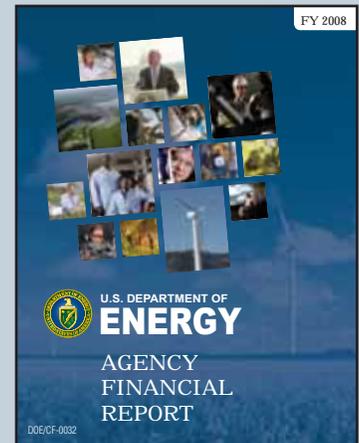
# FOREWORD

The [Reports Consolidation Act of 2000](#) authorizes federal agencies to consolidate various reports in order to provide performance, financial and related information in a more meaningful and useful format. In accordance with the Act, the Department of Energy (Department or DOE), in previous years, has produced a Performance and Accountability Report (PAR). For FY 2008, the Department has chosen again to produce an alternative report to the consolidated PAR and will continue to participate in the FY 2008 pilot pursuant to the [Office of Management and Budget's](#) (OMB) Circular A-136. The Department believes that this reporting approach will simplify and shorten the performance presentations for readers while utilizing the Internet for providing and leveraging additional performance information. The Department's FY 2008 pilot reporting includes the following three components and is available at the website below:

Agency Financial Report (AFR) [available November 17, 2008]

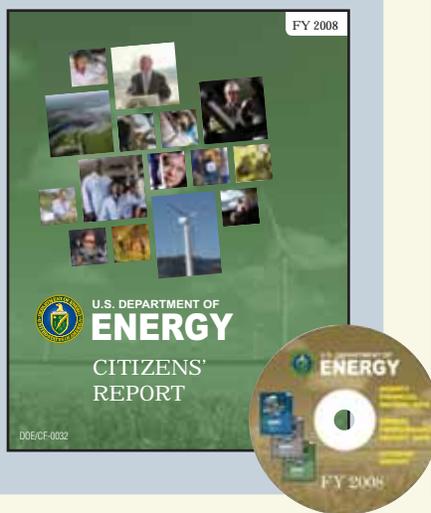
The AFR is organized by the following three major sections:

- *Management's Discussion and Analysis* section provides executive-level information on the Department's history, mission, organization, key activities within five strategic themes, analysis of financial statements, systems, controls and legal compliance and other challenges facing the Department.
- *Financial Results* section provides a Message from the Chief Financial Officer, the Department's consolidated and combined financial statements and the Auditors' Report.
- *Other Accompanying Information* section provides the Inspector General's Management and Performance Challenges, Improper Payments Information Act Reporting Details and other statutory reporting.



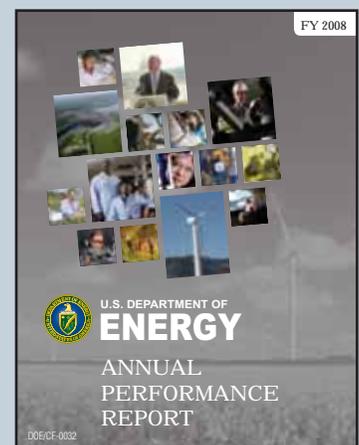
Citizens' Report  
[available January 15, 2009]

This document summarizes the Department's financial and performance information from the AFR and APR using a forward-looking perspective. A compact disc (CD) of all three integrated reporting components is available on the back cover.



Annual Performance Report (APR)  
[available January 15, 2009]

The APR is produced in conjunction with the Congressional Budget Justifications and provides the detailed performance information and descriptions of results by each performance measure.



This pilot reporting meets the following legislated reporting requirements:

- Department of Energy Organization Act of 1977 requires an annual report on agency activities.
- Federal Managers' Financial Integrity Act (FMFIA) of 1982 requires a report on the status of internal controls and the agency's most serious problems.
- Federal Financial Management Improvement Act (FFMIA) of 1996 requires an assessment of the agency's financial systems for adherence to Government-wide requirements.
- Inspector General (IG) Act of 1978 (Amended) requires information on management actions in response to IG audits.
- Government Management Reform Act (GMRA) of 1994 requires agency audited financial statements.
- Reports Consolidation Act of 2000 requires the consolidated reporting of performance, financial and related information in a PAR.
- Improper Payments Information Act (IPIA) of 2002 requires reporting on agency efforts to identify and reduce erroneous payments.

All three PAR pilot reports will be available at [www.cfo.doe.gov/cf1-2/2008parpilot.htm](http://www.cfo.doe.gov/cf1-2/2008parpilot.htm)



Printed with soy ink on recycled paper

## MESSAGE FROM THE SECRETARY



I am pleased to present the Department of Energy's fiscal year *2008 Citizens' Report*. This report provides key performance information and concise financial summaries for Congress and the American people. It summarizes our efforts to manage taxpayer resources efficiently and responsibly while accomplishing our mission of "Discovering the solutions to power and secure America's future."

The *Citizens' Report* is the third integrated reporting component that the Department will issue through our continued participation in an alternative reporting pilot program with the Office of Management and Budget. The other two pilot report components include the *Agency Financial Report*, that was issued on November 14, 2008 and the *Annual Performance Report*, that was made available electronically on January 15, 2009.

We are in the midst of challenging times. The volatility in global oil prices this past year has demonstrated the urgent need for alternative energy sources. The International Energy Agency's most recent *World Energy Outlook* estimates the world's primary energy needs will grow by more than 50 percent by 2030. Meeting that demand will require major changes and significant resource investment over decades around the world, at all stages of the energy cycle.

One of the Department's primary goals is to promote energy security through the development of reliable, clean and affordable energy. We have made progress in the areas of plug-in hybrid electric vehicles, cellulosic ethanol, solar power and wind energy. Research and development underway in the area of High Temperature Superconductivity will lead to advances in the distribution of electric power.

As we address this increased global energy demand, we must also address the environmental impact of our growing energy use. This creates a set of unique energy challenges for the world that no one nation or sector can solve alone. A consensus now exists among industrialized nations – in evidence at the last G-8 Summit – that effective carbon management must be undertaken, but in ways that do not undermine economic growth and, that account for those nations' desires to deliver greater prosperity for their people.

With the continued threat of terrorism, the security of the nuclear weapons and materials around the world remains another primary challenge. The Department maintains and improves the safety, security, reliability and performance of the U.S. nuclear weapons stockpile. We are striving to achieve a nuclear weapons complex that is smaller, safer, more secure and less expensive. This year, the Department's National Nuclear Security Administration downblended approximately 100 metric tons of U.S. highly enriched uranium – enough material for thousands of nuclear weapons – into low enriched uranium for peaceful use as nuclear reactor fuel.

We are persistent in our commitment to scientific discovery and innovation, which are the major engines of increasing productivity – indispensable to ensuring growth, job creation and rising incomes for American families in the technologically driven 21st century. This investment is essential if the United States is to maintain its world-class, scientific leadership and global competitiveness. The Department is the largest federal supporter of basic research in the physical sciences as we provide more than 40 percent of total federal funding. Our Science program leads the nation to support research in the physical sciences in a broad array of research subjects in order to improve our energy security and address issues ancillary to energy, such as climate change, genomics and life sciences. I am particularly proud of standing up three major new Department of Energy Bioenergy Research Centers. This effort has mobilized teams of the nation's top scientists and researchers to accelerate breakthroughs for a next-generation biofuels economy that could transform the transportation sector.

The Department continues to face the challenge of protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production. This year, we released our Engineering and Technology Roadmap, which provides strategic initiatives to reduce technical risks and improve technologies and processes for the cleanup of Cold War era nuclear waste. In addition, a license application for a high-level waste repository at Yucca Mountain was submitted to the Nuclear Regulatory Commission. This application represents the culmination of over 20 years of work by some of our nation's leading scientists, engineers and technical experts, and it should further encourage the expansion of nuclear power in the United States.

The independent public accounting firm KPMG LLP conducted an audit of the Department's fiscal year 2008 financial statements. Based on the results of that audit, I am very proud to announce that the Department has received an unqualified audit opinion. The Department has worked extremely hard to sustain our financial achievements and continues to demonstrate results of effective stewardship over the public funds entrusted to us by the American people. The Department has also taken actions to strengthen controls and reporting processes for performance data. Based on our internal evaluations, I can provide reasonable assurance that the financial and performance information contained in our alternative reporting pilot program is complete and reliable, and accurately describes the results achieved by the Department. A more detailed discussion of the Department's performance information is included in our *FY 2008 Annual Performance Report*.

The Department of Energy is committed to having a positive influence on the lives of all Americans. I am very proud of the Department's federal employees and contractor staff who work to contribute to the country's economic, environmental, and national security.

A handwritten signature in black ink that reads "Samuel W. Bodman". The signature is written in a cursive, flowing style.

Samuel W. Bodman  
January 15, 2009

# TABLE OF CONTENTS

Budget, Performance, and Financial Snapshot Fiscal Year 2008.....	1
Agency Organizational Structure .....	3
DOE Glance by Theme .....	4
Performance Measure Scorecard.....	5
Strategic Themes and Program Performance	
Theme 1—Energy Security .....	6
Theme 2—Nuclear Security.....	8
Theme 3—Scientific Discovery and Innovation.....	9
Theme 4—Environmental Responsibility .....	11
Theme 5—Management Excellence.....	13
Performance and Accountability Report Card.....	15
President’s Management Agenda.....	15
Message from the Chief Financial Officer.....	17
Analysis of Financial Statements.....	18
Principal Statements.....	21

# DOE BY THE NUMBERS

\$33,213	FY 2008 budgetary resources (obligations incurred \$ in millions)
727,000,000	Barrels of current capacity in the <a href="#">Strategic Petroleum Reserve</a>
138	Number of patents in FY 2008 resulting from DOE-sponsored research and development
86	Number of Nobel Laureates affiliated with DOE and predecessor agencies
4	Number of top 10 computers in the world affiliated with DOE ( <a href="#">Top 500 List</a> )
140,000,000	Cumulative miles of safe, reliable, and militarily effective nuclear propulsion plant operation



# Department of Energy

## Budget, Performance and Financial Snapshot Fiscal Year 2008

### Who We Are

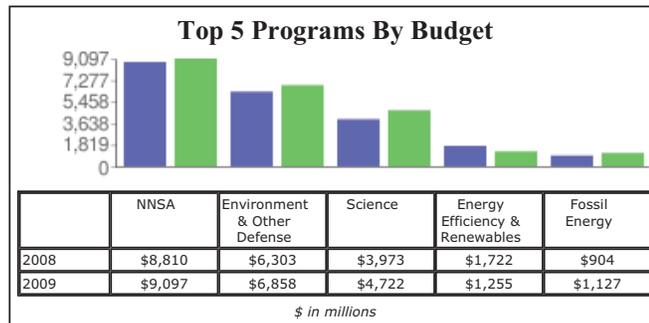
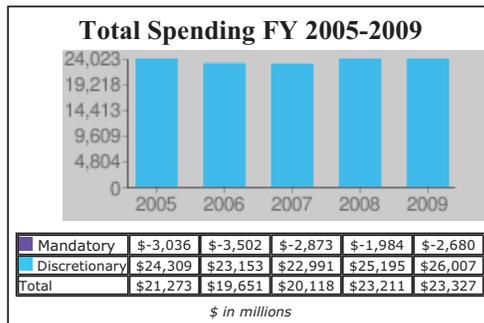
**Mission:** Discovering the solutions to power and secure America's future. (<http://www.energy.gov/about/strategicplan.htm>)

**Organization:** DOE's mission is carried out by 8 program offices, 13 staff and support offices, 22 operations and area offices, 24 research laboratories and facilities, 4 Power Marketing Administrations, the Energy Information Administration, and the National Nuclear Security Administration. (<http://www.energy.gov/organization/index.htm>)

**Personnel:** The workforce is comprised of 13,973 on-board federal employees and 93,094 estimated contractor employees. DOE is responsible for all national laboratories; the large number of contract employees is attributable to the highly specialized scientific and technical skill mixes required to manage and operate these facilities. (<http://humancapital.doe.gov/HCM/DOESTrategicHumanCapitalPlan551.pdf>)

**Budgetary Resources:** Resources for FY 2008 totaled \$33.213 billion or \$110 per person.

### Budget Snapshot



### Performance Snapshot

**Accomplishments:** In FY 2008, DOE continued to make progress in reducing the cost of cellulosic ethanol by improving fermentation yield and conversion of tars from gasification. Both of these accomplishments are critical to achieving the 2012 goal of \$1.33/gallon ethanol. DOE's National Renewable Energy Lab developed a solar cell efficiency of 40.8% that will lead to higher efficiency for concentrating photovoltaic technologies and help achieve the goal of developing solar cells that are projected to be ready for widespread deployment at a levelized cost of electricity of 5 to 10 cents per kilowatt-hour by 2015.

**Challenges:** Challenges: Providing leadership for reliable, affordable, sound energy supply, including new carbon management technologies. Ensuring the safety of the Nation's nuclear weapons, security of nuclear weapons and materials around the world due to the continued threat of terrorism. Disposing of large volumes of radioactive waste, as well as cleaning up contaminated soil and groundwater that are the result from more than 50 years of nuclear defense and energy research work in a safe, timely, and cost-effective manner. Combating cyber security threats. Improving workforce management, stressing performance and accountability, and improving hiring. Assuring the condition, functionality, and modernization of DOE's advanced research facilities and infrastructure. Implementing the action plan to improve contract and project management and remove DOE from GAO's High Risk List. ([http://management.energy.gov/documents/Final\\_CAP\\_Report\\_Website.pdf](http://management.energy.gov/documents/Final_CAP_Report_Website.pdf); [http://www.ig.energy.gov/images/IG-0808\\_\(2\).pdf](http://www.ig.energy.gov/images/IG-0808_(2).pdf))

### Financial Snapshot

Clean Opinion on Financial Statements			Yes
Timely Financial Reporting	Yes	Material Weaknesses	0
Improper Payment Rate	N/A	Total Assets	\$133,822
Total Liabilities	\$343,963	Net Cost of Operations	\$29,351

\$ in millions

**Footnote:** Additional information on federal spending can be found at <http://www.usaspending.gov/index.php>. Additional information on the performance of federal programs can be found at <http://www.whitehouse.gov/omb/expectmore/>.

# Summary of Department of Energy Ratings for Fiscal Year 2008

## FY 2008 Performance Results per Strategic Theme

■ Met/Exceeded    ■ Not met but improved over prior years  
■ Not met target    ■ Data not yet available

## Budget per Strategic Theme (\$ in millions)

### Strategic Theme: Energy Security

Promoting America's energy security through reliable, clean, and affordable energy



**2008 Actual = \$4,144**

Performance Measure(s)*	2006 Results	2007 Results	2008 Target	2008 Results	2009 Target
Efficiency of "white light" solid-state lighting in a lab device, in lumens per watt (LPW)	79	96	101	107	110
Modeled cost of 25-kilowatt passenger vehicle lithium-ion battery system for conventional hybrid vehicles	750	700	625	621	550

### Strategic Theme: Nuclear Security

Ensuring America's nuclear security



**2008 Actual = \$8,810**

Performance Measure(s)*	2006 Results	2007 Results	2008 Target	2008 Results	2009 Target
Cumulative number of border crossings and seaports with nuclear detection equipment installed	110	174	247	251	320
Annual percentage of warheads in Stockpile that are safe, secure, reliable, and available to President for deployment	100%	100%	100%	100%	100%

### Strategic Theme: Scientific Discovery and Innovation

Strengthening U.S. scientific discovery, economic competitiveness, and improving quality of life through innovations in science and technology



**2008 Actual = \$3,973**

Performance Measure(s)*	2006 Results	2007 Results	2008 Target	2008 Results	2009 Target
Average operation time of national scientific user facilities as percentage of scheduled operation time	92%	91%	91%	95%	91%

### Strategic Theme: Environmental Responsibility

Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production

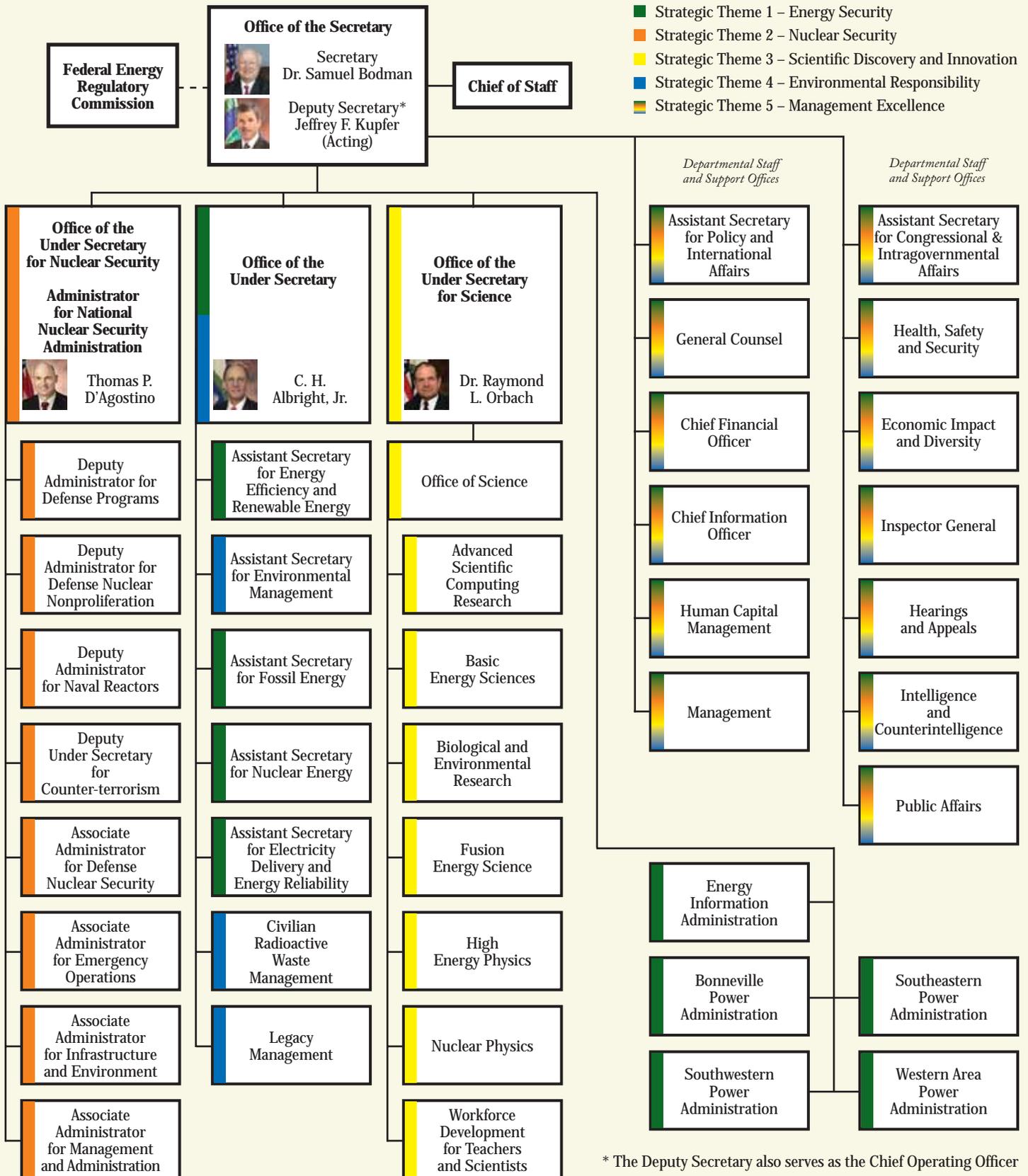


**2008 Actual = \$6,270**

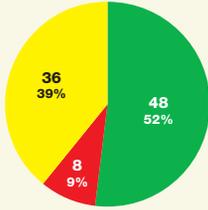
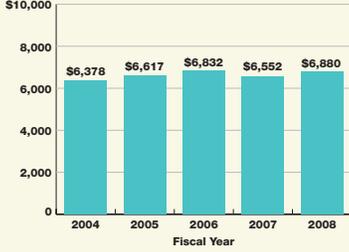
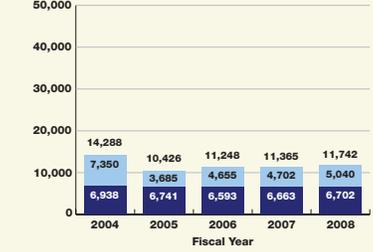
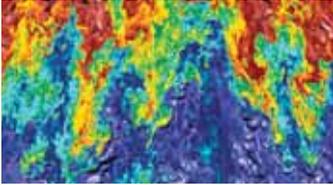
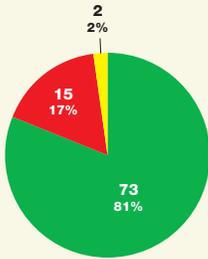
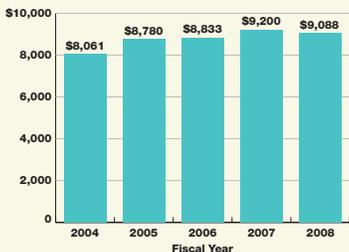
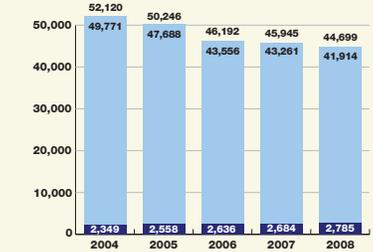
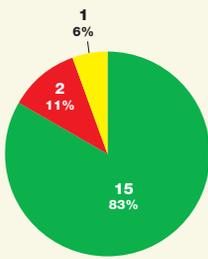
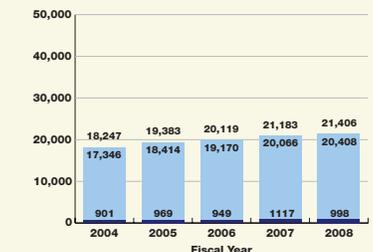
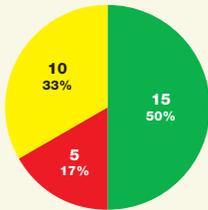
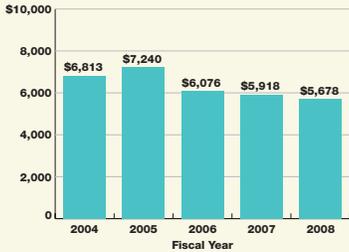
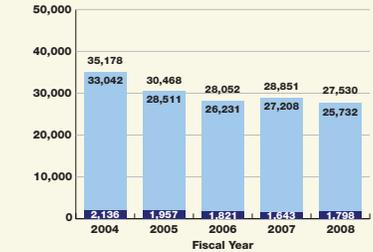
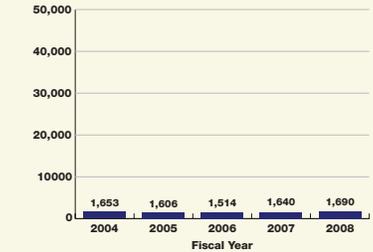
Performance Measure(s)*	2006 Results	2007 Results	2008 Target	2008 Results	2009 Target
By the end of Fiscal Year 2008 EM closed 7 high risk radioactive liquid waste tanks, resulting in a cumulative total of 9 of these tanks closed	2	2	9	9	9

\* This measure was selected from a number of performance measures aimed at the specific strategic theme

# AGENCY ORGANIZATIONAL STRUCTURE



# DOE GLANCE BY THEME

	2008 Performance (PART) <span style="color: green;">■</span> Met <span style="color: red;">■</span> Unmet <span style="color: yellow;">■</span> Unknown	Program Costs (nominal \$ millions)	End-of-Year Employment <span style="color: blue;">■</span> Federal Employees <span style="color: lightblue;">■</span> Contractor Employees
<b>Theme 1:</b> Energy Security  Substation Work, Southwestern Power Administration.			
<b>Theme 2:</b> Nuclear Security  Nuclear Simulations.			
<b>Theme 3:</b> Scientific Discovery and Innovation  Fermi Satellite in Earth's Orbit.			
<b>Theme 4:</b> Environmental Responsibility  Workers at DOE's Hanford Site.			
<b>Theme 5:</b> Management Excellence  Secretary Bodman Addressing DOE Interns.	<div style="border: 1px solid black; padding: 5px;"> <p>A portion of the program costs for the Management Excellence strategic theme is distributed among the other four strategic themes.</p> </div>		

## PERFORMANCE MEASURE SCORECARD

Strategic Theme	Program Cost <sup>a</sup> (gross \$ in millions)		GPRA Unit Performance Goal	FY 2008 Budgetary Expenditures Incurred <sup>b</sup> (million \$)	FY 2008 Performance Targets		
	FY 2008	FY 2007			Met	Unmet	Unknown
1. Energy Security	\$6,880	\$6,552	1.1.1 Hydrogen/ Fuel Cell Technologies	22	8	1	0
			1.1.2 Freedom Car & Vehicle Technologies	191	5	0	0
			1.1.3 Solar Energy	509	4	0	0
			1.1.4 Wind Energy	45	3	1	0
			1.1.5 Geothermal Technology	13	2	0	0
			1.1.6 Biomass & Biorefinery R&D	114	5	0	0
			1.1.11 Petroleum Reserves	239	3	0	0
			1.1.12 Energy Information Administration	97	3	0	0
			1.2.8 Near-Zero Emissions Coal-Based Electricity & Hydrogen Production	415	15	1	1
			1.2.14 New Nuclear Generation Technologies	495	8	0	0
			1.2.15 National Nuclear Infrastructure	241	2	0	0
			1.3.16 Electricity Delivery & Energy Reliability	131	5	0	0
			1.3.17 Western Area Power Administration	755	3	0	0
			1.3.18 Bonneville Power Administration	2,719	3	0	0
			1.3.23 Southeastern Power Administration	115	2	0	0
			1.3.24 Southwestern Power Administration	35	5	0	0
			1.4.7 DEMP/FEMP	17	2	0	0
			1.4.19 Industrial Technologies	45	3	0	0
			1.4.20 Building Technologies	103	6	0	0
			1.4.21 Weatherization	234	2	0	0
1.4.22 State Energy Programs	45	2	0	0			
<b>Total</b>				<b>6,624</b>	<b>91</b>	<b>3</b>	<b>1</b>
2. Nuclear Security	\$9,088	\$9,200	2.0.25 Office of the Administrator	368	1	0	0
			2.1.26 Directed Stockpile Work	1,404	4	1	0
			2.1.27 Science Campaign	289	6	0	0
			2.1.28 Engineering Campaign	153	5	0	0
			2.1.29 Inertial Confinement Fusion Ignition & High Yield Campaign	492	5	0	0
			2.1.30 Advanced Simulation & Computing Campaign	625	4	0	0
			2.1.31 Pit Manufacturing & Certification Campaign	219	3	1	0
			2.1.32 Readiness Campaign	166	3	0	0
			2.1.33 Readiness in Technical Base & Facilities (Operations)	1,659	3	1	0
			2.1.34 Secure Transportation Asset	231	5	0	0
			2.1.35 Nuclear Weapons Incident Response	157	1	0	0
			2.1.36 Facilities & Infrastructure Recapitalization Program	168	4	0	0
			2.1.57 Defense Nuclear Security	795	2	0	0
			2.1.38 Environmental Projects & Operations	8	2	0	0
			2.1.58 Cyber Security	c	2	1	0
			2.2.39 Nonproliferation & Verification R&D	306	6	0	0
			2.2.40 Elimination of Weapons-Grade Plutonium Production	119	2	1	0
			2.2.41 Nonproliferation & International Security	142	5	0	0
			2.2.42 International Nuclear Materials Protection, Control & Cooperation	574	4	1	0
			2.2.43 Fissile Materials Disposition	424	2	0	1
2.2.44 Global Threat Reduction Initiative	194	5	0	0			
2.3.45 Naval Reactors	798	5	0	0			
<b>Total</b>				<b>9,304</b>	<b>79</b>	<b>6</b>	<b>1</b>
3. Scientific Discovery and Innovation	\$3,790	\$4,004	3.1/2.46 High Energy Physics	729	5	0	0
			3.1/2.47 Nuclear Physics	443	5	0	0
			3.1/2.48 Biological & Environmental Research	585	6	1	0
			3.1/2.49 Fusion Energy Sciences	316	3	1	0
			3.1/2.50 Basic Energy Sciences	1,322	4	0	0
			3.1/2.51 Advance Scientific Computing Research	342	2	0	0
3.3.52 Research Integration	—	1	0	0			
<b>Total</b>				<b>3,737</b>	<b>26</b>	<b>2</b>	<b>0</b>
4. Environmental Responsibility	\$5,678	\$5,918	4.1.53 Environmental Management	6,585	3	3	0
			4.2.54 Nuclear Waste Disposal	419	2	1	0
			4.2.55 Legacy Management	184	2	0	0
<b>Total</b>				<b>7,191</b>	<b>7</b>	<b>4</b>	<b>0</b>
5. Management Excellence	Not covered by GPRA ratings						

<sup>a</sup> Program Costs are taken from the Department Consolidated Statements of Net Cost.<sup>b</sup> Includes capital expenditures but excludes such items as depreciation, changes in unfunded liability estimates, and certain other non-fund costs and allocations of Departmental Administration activities.<sup>c</sup> Expenditures included in GPRA Unit 2.1.37.

THEME 1

THEME 2

THEME 3

THEME 4

THEME 5

## ENERGY SECURITY

*Promoting America's energy security through reliable, clean, and affordable energy*

### Strategic Goals

	FY 2007			FY 2008			Strategic Objectives
	On-Board Employees	Gross Dollars in Millions	Average PART Rating	On-Board Employees	Gross Dollars in Millions	Average PART Rating	
1) Energy Diversity							1) Increase energy options and reduce dependence on oil. 2) Improve the quality of the environment by reducing greenhouse gas emissions and other impacts to land, water, and air from energy production and use. 3) Create a more flexible, more reliable and higher capacity U.S. energy infrastructure. 4) Cost-effectively improve the energy efficiency of the U.S. economy.
2) Environmental Impacts of Energy							
3) Energy Infrastructure							
4) Energy Productivity	6,663	\$6,552	Adequate	6,702	\$6,880	Adequate	

Energy is a vital force powering business, manufacturing, and the transportation of goods and services in order to serve the American and world economies. The Department has developed a diverse energy portfolio to promote America's energy security through reliable, clean, and affordable energy. This energy portfolio contains elements for increasing our energy security and reducing environmental impacts and greenhouse gas emissions, while simultaneously developing a stronger energy infrastructure and cost-effectively improving energy efficiency to reduce the economic cost of energy.

### Increasing Energy Diversity

The Department is responsible for promoting America's energy security, particularly by using multiple approaches to reduce the country's dependence on foreign oil. These approaches include developing technologies for increased vehicle efficiency, developing alternative fuels, and maintaining a supply of energy crude oil to insulate the country from supply disruptions.

Improved battery technology and development of hybrid electric vehicles have the potential to make our nation's vehicles more fuel efficient, which would significantly reduce oil consumption and greenhouse gas emissions. In 2008, the Department provided \$213 million in funding that significantly increased focus on plug-in hybrid electric vehicles, motors, and lithium-ion batteries as well as vehicle demonstration activities. These efforts reduced the cost of a 25-kilowatt lithium-ion battery from \$700 per battery in 2007 to \$621 in 2008, and will enable commercial production of hybrid electric vehicles. For more information on vehicle technology, see <http://www.eere.energy.gov/vehiclesandfuels>.

Biofuels, like ethanol, can reduce America's dependence on foreign oil by replacing petroleum fuels used in cars and trucks. The Department has continued to accelerate efforts that reduce ethanol production costs through funding research, development, and demonstration activities. The Department has reduced the

modeled ethanol production cost to \$2.43 per gallon, from about \$6.00 per gallon in 2001, based on bench scale data projected to commercial scale. In 2008, the Department, as part of the interagency Biomass Research and Development Board, co-produced the "2008 National Biofuels Action Plan," which outlines a strategy for overcoming the logistical barriers to expanding biofuels production in the United States. Further, the Department has established international biofuel partnerships with critical countries such as Brazil, China, the European Union, and India.

To protect the country from oil supply disruptions, the Department maintains the Strategic Petroleum Reserve (SPR), the world's largest supply of emergency crude oil. The federally-owned oil stocks are stored in huge underground salt caverns along the coastline of the Gulf of Mexico. In 2008, the Department maintained four government-owned oil storage facilities with a combined storage capacity of 727 million barrels of crude oil, with 702 million barrels currently in reserve.

### Reducing Environmental Impacts

Clean, affordable energy is vital to continue America's economic growth and reduce environmental damage and the threat of climate change. The Department manages a robust energy technology research and development portfolio that spans from developing affordable renewable energy technologies to clean coal technology to advanced nuclear reactors that provide clean energy while preventing proliferation.

The Department continues its efforts to integrate solar technologies that use energy from sunlight to generate emission-free electricity. The Department provides funding for research, development, and technology deployment activities to increase the use of solar power. To date, the Department has established 25 Solar America Cities and seven Solar America Showcases that work with the Department to educate and promote the adoption of solar power. For more information on solar technologies, see <http://www.eere.energy.gov/solar>.

The Department supports wind power research and development activities to enable wind turbines, a clean and renewable energy technology, to produce more of the nation's electricity. A total of 3,376 distributed wind turbines were deployed across the United States in FY 2008, exceeding the target of 500 new units. For more information on wind technology, see <http://www.eere.energy.gov/windandhydro>.

Currently, coal is the country's most abundant domestic energy resource. However, the continued use of this resource depends on significantly reducing the emission of carbon dioxide and other pollutants from coal power. To reduce these emissions, the Department has developed a clean coal research program that aims to establish the capability of producing electricity from coal with near-zero atmospheric emissions. DOE continues to make progress in its R&D on advanced coal technology, meeting 7 out of 7 R&D performance goals in PART for FY 2008. For example, DOE demonstrated Integrated Gasification Combined Cycle (IGCC) technology at pilot scale that would achieve a thermal efficiency of 43% at a capital cost of \$1,629 per kilowatt, compared to the baseline target of 43% efficiency at a capital cost of \$1,840 per kilowatt, according to systems analysis projections of full scale IGCC systems. The clean coal program continues to fund large-scale demonstrations, through the Clean Coal Power Initiative (CCPI), which focuses on demonstrating advances in carbon capture and storage technologies. The Department has restructured the FutureGen project to demonstrate cutting-edge carbon capture and storage technology at multiple commercial-scale clean coal power plants. For further information on clean coal, see <http://www.fossil.energy.gov/programs/powersystems/index.html>.

Nuclear energy is an important source of energy in the United States, supplying approximately 20% of the nation's electricity and over 70% of our clean, non-carbon electricity. Nuclear energy has the potential to provide electricity that will satisfy that demand without air pollution or greenhouse gas emissions. Due to the potential need for new generation capacity, the Department, through NP 2010, has supported the domestic expansion of nuclear energy by continuing to support industry cost-shared, near-term technology development and licensing demonstration activities that reduce the barriers to deployment of new nuclear power plants within the United States. As a result of Departmental efforts, two DOE industry partners had combined construction and operating license applications docketed by the Nuclear Regulatory Commission for review, representing significant progress toward deployment of new nuclear power plants. For more information on Nuclear Power 2010, see <http://www.ne.doe.gov/np2010/neNP2010a.html>.

Through the Generation IV program, the Department researches and develops 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. As a key component of the Generation IV program, the Next Generation Nuclear Plant project represents a new concept for nuclear energy utilization,

in which a gas-cooled reactor provides process heat for any number of industrial applications including electricity production, hydrogen production, coal-to-liquids, shale oil recovery, fertilizer production, and others. In FY 2008, the Department and the U.S. Nuclear Regulatory Commission delivered to Congress the [Next Generation Nuclear Plant Licensing Strategy Report](#) which outlines the licensing approach, the analytical tools, and the research and development activities required to license an advanced reactor design by 2017 and begin operation by 2021. For more information on Generation IV, see <http://www.nuclear.gov/genIV/neGenIV1.html>.

### Modernizing the Energy Infrastructure

The Department facilitates a more flexible, reliable, and higher capacity U.S. energy infrastructure that is essential to improving energy security, increasing energy diversity, reducing environmental impacts, and increasing energy productivity. Electric power technologies such as [Smart Grid](#), high temperature superconductivity (HTS) cables and advanced storage devices, improve the adaptability, reliability and capacity of the electric grid, enabling the nation to greatly expand the usage of alternative energy, and the ability to provide electricity to fuel widespread use of electric vehicles. In support of these technologies, DOE utilizes its analytical and policy expertise to site new national interest electric transmission corridors.

In FY 2008, the Department made advances in all of these areas. For example, DOE helped fund the installation and operation of HTS cables in Albany and Long Island, New York, demonstrating a technology that will double the power through existing rights-of-way over conventional equipment, while also reducing power line energy losses. The Department also played a key role in helping to restore the energy infrastructure in the Gulf region – where nearly a third of the nation's oil is drilled and one quarter of it refined – in the aftermath of major hurricanes.

### FY 2008 Shortfalls

In FY 2008, the Department was able to meet 95% of its performance measure targets in the area of Energy Security. However, the Department did not meet 5 of its targets, primarily in two areas:

- **Hydrogen Fuel Cell Development:** The Department's development of hydrogen fuel cells reduced the cost of fuel cells to \$73 per kilowatt, from \$94 per kilowatt in 2007, narrowly missing its goal of \$70 per kilowatt for 2008. The Hydrogen program plans to ramp up its funding for fuel cell component research to meet its 2010 goal of \$45 per kilowatt.
- **Clean Coal Demonstrations:** A few decision milestones for clean coal technology demonstrations were missed by 7 months, because planned funding for a 2008 award was used to cover cost escalation at previously awarded projects. However, DOE expects to meet future deadlines and milestones. The new FutureGen plan will encompass multiple demonstrations and lead to the sequestration of twice the carbon compared to the old FutureGen plan.

THEME 1

THEME 2

THEME 3

THEME 4

THEME 5

## NUCLEAR SECURITY

*Ensuring America's nuclear security*

### Strategic Goals

1) Nuclear Deterrent 2) Weapons of Mass Destruction 3) Nuclear Propulsion Plants	FY 2007			FY 2008		
	On-Board Employees	Gross Dollars in Millions	Average PART Rating	On-Board Employees	Gross Dollars in Millions	Average PART Rating
	2,684	\$9,200	Moderately Effective	2,785	\$9,088	Effective

### Strategic Objectives

- 1) Transform the nation's nuclear weapons stockpile and supporting infrastructure to be more responsive to the threats of the 21st century.
- 2) Prevent the acquisition of nuclear and radiological materials for use in weapons of mass destruction and in other acts of terrorism.
- 3) Provide safe, militarily effective nuclear propulsion plants to the U.S. Navy.

Throughout the second half of the 20th century, DOE and its predecessor agencies played a critical role in assuring our nation's security. DOE developed and maintained the arsenal of nuclear weapons that deterred the threats of our cold war enemies. With the end of the Cold War, the Department's national security focus has shifted from production and testing of nuclear weapons to science-based stockpile stewardship. The Department, through the National Nuclear Security Administration (NNSA), is responsible for maintaining a nuclear deterrent by ensuring the safety, security, and reliability of the U.S. nuclear weapons stockpile without underground nuclear testing, reducing the global danger from the proliferation of weapons of mass destruction, and enhancing U.S. national security through the military application of nuclear technology.

#### Providing a Nuclear Deterrent

##### Transform the nation's nuclear weapons stockpile

As part of its mission to ensure the safety, security, and reliability of the nuclear weapons stockpile, the Department is refurbishing a limited number of legacy-design warheads and accelerating the dismantlement of the remaining Cold War stockpile. In FY 2008, 100% of the nuclear weapons stockpile was safe, secure, reliable, and available for deployment and all radioactive material shipments were completed safely and securely.

##### Transform the nuclear weapons complex

The Cold War left the nation with a nuclear weapons complex that is too large, old, and expensive. Complex transformation is a major effort of the Department to develop a 21st century enterprise that is at the forefront of science and technology, and that is responsive to future national security needs. This effort is transforming the nuclear weapons complex into a modernized, cost-effective enterprise by: reducing the number of sites and facilities that possess large quantities of special nuclear materials; consolidating redundant capabilities; operating more shared user facilities; and designing, building, and operating new facilities in a manner that protects public and worker health and safety and the environment. In FY 2008, 292,000 gross square

feet of excess facilities space was funded for elimination resulting in the Department exceeding its cumulative long-term goal of eliminating 3 million gross square feet 1 year earlier than scheduled.

#### Reducing the Threat of Weapons of Mass Destruction

##### Reduce the threat of proliferation

The possibility that terrorists or rogue nations will acquire nuclear weapons or other weapons of mass destruction (WMD) is one of the most serious threats confronting the United States today. Drawing on the breadth of technical, scientific, and operational expertise, the Department pursues an aggressive non-proliferation strategy. This strategy includes securing civilian nuclear and radiological materials worldwide, securing Russian nuclear weapons and weapons-grade material, detecting and deterring illicit international nuclear transfers, strengthening international non-proliferation efforts, eliminating weapons-usable materials, and conducting R&D to improve proliferation and nuclear detonation detection technologies. This past year, MPC&A upgrades were completed at a total of 39 buildings containing weapons usable material. The Department monitored the elimination of a cumulative 345 metric tons of Russian weapons-usable highly enriched uranium from the Russian stockpile, supporting its goal of eliminating 500 metric tons by 2013. The Department installed radiation detection equipment at 7 major ports and 63 border crossings in Russia and 6 other countries. In addition, the Department increased the security of radiological materials at 11 facilities in China prior to the Olympic Games in Beijing.

#### Supporting U.S. Navy's Nuclear Propulsion Plants

##### Ensure the safety, reliability, and performance of the Navy's nuclear fleet

Nuclear power enhances warship capability and creates the flexibility needed to quickly travel anywhere in the world and arrive ready for combat operations. Sustained, high-speed capability enables rapid responses to changing world circumstances and helps the Navy stretch available assets to meet today's worldwide national security commitments. The Department ensures the safety, performance, reliability, and service life of the Navy's operating reactor plants.

It develops new technologies, methods, and materials to support reactor plant design for future generations of reactors for submarines and aircraft carriers of the U.S. Navy. In FY 2008, 100% of fleet operations were safe and reliable.

FY 2008 Shortfalls

In FY 2008, the Department was able to meet 94% of its performance measure targets in the area of national security. However, the Department did not meet 6% of its targets, primarily in the following areas:

- **Weapons Stockpile:** The target reduction in the cost of one of the Department's W76 warhead was missed due to a number of technical and management issues. Although this target was missed, the majority of the cost increases will be offset by efficiencies elsewhere in the program. Secondly, the 6 W88 pits were manufactured and certified as opposed to a target of 10. The reduction was due to the FY 2008 Continuing Resolution, a reduction to the final appropriation, and a facility stand-down for criticality reviews.

- **Weapons Complex:** The Department set out to have 85% of its major construction projects (greater than \$20 million in estimated costs) meet schedule and cost performance indices of 0.9-1.1, indicating improved efficiency. Only 6 of 9 (67%) construction projects earned value data fall within the specified band. The annual target was missed due to late receipt of final FY 2008 funding, resulting in cost increases, a delay in the site-wide EIS, and other factors.
- **Cyber Security:** The Department had planned to have all NNSA sites undergo a Cyber Security Site Assessment Visit. Only 85% of the sites were assessed in FY 2008, due to major changes in the assessment process that occurred during the year.
- **Threat of Proliferation:** The Department is overseeing the construction of a fossil fuel plant in Russia to replace energy production from the existing plutonium production reactor. The targeted completion for FY 2008 was 62.6%. However, only 46% of the plant was completed because of delays in design, procurement, and construction.



## SCIENTIFIC DISCOVERY AND INNOVATION

*Strengthening U.S. scientific discovery, economic competitiveness, and improving quality of life through innovations in science and technology*

Strategic Goals

Strategic Objectives

	FY 2007			FY 2008			
	On-Board Employees	Gross Dollars in Millions	Average PART Rating	On-Board Employees	Gross Dollars in Millions	Average PART Rating	
1) Scientific Breakthroughs							1) Achieve the major scientific discoveries that will drive U.S. competitiveness; inspire America; and revolutionize our approaches to the nation's energy, national security, and environmental quality challenges. 2) Deliver the scientific facilities, train the next generation of scientists and engineers, and provide the laboratory capabilities and infrastructure required for U.S. scientific primacy. 3) Integrate basic and applied research to accelerate innovation and to create transformational solutions for energy and other U.S. needs.
2) Foundations of Science							
3) Research Integration	1,117	\$4,004	Effective	998	\$3,790	Effective	

The ability to sustain a growing economy and raising the standard of living for all Americans depends on continued advancement in science and technology. The Department's network of national laboratories have contributed scientific advances in nuclear energy, nuclear medicine, advanced computation, genomics, materials science, chemistry, physics, and many other areas that have resulted in numerous Nobel Prizes and thousands of industrial patents. No other organization in the world builds, operates, and manages such a diverse array of technical talent and large-scale scientific instruments. For more information on scientific discovery and innovation, see <http://www.sc.doe.gov>.

Scientific Breakthroughs and Research Integration

Researchers use the Department's funding to push the far frontiers of physics, chemistry, materials science, biology, and supercomputing.

Their major scientific discoveries will drive U.S. competitiveness and revolutionize our approaches to the nation's energy, national security, and environmental quality challenges.

Some of these discoveries involve research into biological and environmental systems that can improve energy production and use. For example, there is basic research being conducted to achieve the breakthroughs that will make biofuels production truly cost-effective on a national scale. In FY 2008, the Department stood up three new DOE Bioenergy Research Centers where top scientists can discover breakthroughs in clean renewable fuels. In addition, DOE supports research in climate change, including the study of the potential effects of greenhouse gasses on the world's climate and environment. In FY 2008, the Department continued its efforts to improve climate predictions by deploying the Atmospheric Radiation Measurement mobile facility in China, which will provide new observations of clouds and dust.

Other discoveries involve research in basic energy sciences that provide the foundation for new and improved energy technologies and for understanding and mitigating the environmental impacts of energy use. This research explores the development of materials that improve the efficiency, economy, environmental acceptability and safety for energy generation, conservation, transmission and use. The potential applications of these research areas are lighter, stronger materials to increase fuel economy in automobiles, alloys and ceramics that improve the efficiency of combustion engines, and more efficient photovoltaic materials for solar energy conversion.

For example, DOE is making investments in nanoscience to engineer better materials. In FY 2008, the Department's five Nanoscience Research Centers provided researchers with advanced tools to study matter at the atomic scale. Researchers will be able to design materials with properties tailored to specific needs such as strong, lightweight materials, new lubricants, and more efficient solar energy cells. The Department also leads the national basic research effort needed for an economically and environmentally attractive fusion energy source.

#### Foundations of Science

A key strategy of DOE's mission is the support of fundamental science at great scale. The Manhattan Project, created to address a critical national security need during World War II, is an example. The energy security challenges that we face today are of comparable scale and complexity, and call for an unprecedented level of focus and dedication from American science.

These challenges drive the Department's efforts to deliver world-class scientific facilities to support researchers in universities, industry, and other government agencies. The Department also trains the next generation of scientists and engineers, and plans, executes, and evaluates the scientific and technological programs performed by its national laboratories. The resulting discoveries transform our understanding of energy and matter.

In the area of high energy and nuclear physics, the Department probes the secrets of the universe by exploring the basic constituents of matter and the forces between them, and by delivering new insights into the properties and interactions of atomic nuclei and nuclear matter. In FY 2008, the Department launched the Fermi Gamma-ray Space Telescope, in partnership with NASA, to observe and understand high-energy particles in space and search for the potential components of dark matter. The development of key cutting-edge technologies and trained manpower have enabled the United States to maintain a leading role in areas such as semiconductors, materials, and medicine.

DOE supports the building of the world's best scientific instruments. In FY 2008, the Department moved closer to completion of the Linac Coherent Light Source, the world's first x-ray free electron laser, which will enable scientists for the first time to observe chemical reactions and biological processes at the molecular level in real time.

Furthermore, the Department began construction of the Continuous Electron Beam Facility Upgrade Project that will allow scientists to study the basic building blocks of matter with unprecedented precision and resolution.

The Department also continues to enhance the world's fastest computers, and provides advanced computational and networking capabilities to scientists nationwide that enable them to extend the frontiers of science by simulating and predicting complex physical, chemical, and biological systems. For example, in FY 2008, the Department upgraded the Jaguar supercomputer (Oak Ridge, Cray XT4) to be the fastest in the world for open science and will be used to simulate complex physical, biological, and socioeconomic systems with greater realism and predictive power. In addition, the Gordon Bell prize for outstanding achievement in high performance computing with emphasis on scientific applications was awarded to an Oak Ridge National Laboratory team for attaining the fastest performance ever in a scientific supercomputing application.

#### Shortfalls and Future Challenges

In FY 2008, the Department was able to achieve 96% of its performance measure targets in the area of Scientific Discovery and Innovation. DOE did not meet one performance target and has three challenges in this area:

- **Genomics Facility Temporary Shutdown:** The Joint Genome Institute's Production Genomics Facility was shut down in December 2007 and January 2008 due to an ergonomic safety issue, which caused the facility to miss its operational availability performance goal. The safety issue has since been corrected.
- **Program Management Understaffing:** Many Federal Advisory Committee Act-chartered Committees of Visitors have identified understaffing of the various Office of Science program management staff as a serious issue with respect to the Science program being able to carry out its functions. In response, the Department completed an assessment of all its staffing levels in early 2008. Based on this assessment, the Department has requested funds for 21 additional personnel to address the concerns.
- **Burgeoning Global Energy Crisis and Intensifying Global Economic Competition:** The search for fundamental breakthroughs in science and technology is more urgent than ever. Overcoming our energy and environmental challenges and keeping America competitive will require more than incremental improvements in current technologies; it will require the transformational breakthroughs that only fundamental research in basic science can provide.
- **Basic Research Programs:** Pressure to support more obvious mission-relevant "use-inspired" research has the potential to erode funding for longer term, grand challenge and discovery research that may have much broader impacts on technology solutions of the future.

THEME 1

THEME 2

THEME 3

THEME 4

THEME 5

## ENVIRONMENTAL RESPONSIBILITY

*Protecting the environment by providing a responsible resolution to the environmental legacy of nuclear weapons production*

### Strategic Goals

### Strategic Objectives

	FY 2007			FY 2008			
	On-Board Employees	Gross Dollars in Millions	Average PART Rating	On-Board Employees	Gross Dollars in Millions	Average PART Rating	
1) Environmental Cleanup	1,643	\$5,918	Adequate	1,798	\$5,678	Adequate	1) Complete cleanup of the contaminated nuclear weapons manufacturing and testing sites across the United States. 2) Manage the Department's post-closure environmental responsibilities and ensure the future protection of human health and the environment.
2) Managing the Legacy							

One of the greatest challenges faced by the Department is cleaning up the environmental legacy of more than 50 years of nuclear weapons production and nuclear power research and development, and providing for the safe disposal of the nation's commercial and defense nuclear waste. This mission requires the stabilization and disposition of millions of gallons of liquid radioactive waste, millions of cubic meters of solid radioactive wastes, thousands of tons of spent nuclear fuel and special nuclear material, along with huge quantities of contaminated soil and water.

### Environmental Cleanup

The Department is responsible for addressing the nuclear weapons production waste from the past; providing the necessary environmental infrastructure for today that will ensure a clean, safe, and healthy environment for future generations; and ensuring that the Department's regulatory, contractual, and other commitments are satisfied. For more information on environmental cleanup, see <http://www.em.doe.gov>.

This mission includes the cleanup of 107 contaminated sites. Taken together, these sites encompass an area of 2 million acres – equal to the size of Rhode Island and Delaware combined. As of the end of FY 2008, the Department completed cleanup of 86 sites although it had planned to have completed 89 sites. The estimated life-cycle cost for cleaning up all 107 sites currently listed in the Environmental Management (EM) mission scope is projected to be over \$260 billion with a completion date estimated to be more than 40 years in the future. As part of these cleanup activities, the Department had several notable accomplishments across a variety of sites across the complex.

Reducing the amount of high risk radioactive liquid waste in the inventory and subsequent safe closure of the liquid waste tanks, EM provides tangible evidence for EM to contribute to the Department's goal to reduce the highest risks in the complex first. These tanks are distributed across the Idaho National Laboratory (INL), the Savannah River Site, and the Hanford Site (managed by the Office of River Protection). By the end of FY 2008, seven large (300,000

gallon) radioactive liquid waste tanks at INL were emptied, cleaned, and filled with grout. The tank vaults, transfer lines, cooling coils, and valve boxes were also filled with grout; with the completion of this activity *7 of the 11 radioactive liquid waste tanks at the INL have been safely closed.*

The Hanford site in southeastern Washington State had been producing plutonium for the nation's nuclear weapons since the Second World War; these activities have contaminated the soil and groundwater, resulting in placement of the 1,533 square kilometer (586 square mile) site on the National Priorities (Superfund) List. The environmental restoration of Hanford (managed by the Richland Operations Office) is addressed in a 1989 consent agreement between the DOE, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology, known as the Tri-Party Agreement. At the end of FY 2008, the Department retrieved 9,700 cubic meters of radioactive, solid waste, meeting an important FY 2008 milestone in the Tri-Party agreement, more than 3 months ahead of schedule and below budgeted cost.

Although the Department has made great progress, much remains to be done. The unique nature of many of the remaining challenges will require a strong and responsive applied research and engineering program. In March 2008, the Department released the Engineering and Technology Roadmap, detailing the initiatives aimed at reducing the technical risks and uncertainties with cleaning up nuclear waste and completing environmental remediation across the complex over the next 10 years.

### Managing the Legacy

After environmental cleanup of each contaminated site is completed, the Department is responsible for the long-term surveillance and maintenance of these sites to ensure future protection of human health and the environment as well as for satisfying the Department's contractual obligations to the former contractor workforce. These activities include soil and groundwater remediation, monitoring activities, and continuing the pensions and post retirement benefits of former contractor employees.

During FY 2008, the Office of Environmental Management transferred responsibility for 10 major sites to the Office of Legacy Management, more than tripling its budget for these functions. In FY 2008 at one of the sites transferred, the Department developed the Comprehensive Legacy Management and Institutional Controls Plan for the Fernald Preserve in Ohio, outlining the future planning processes and requirements for the long-term care of the site. Fernald is a former uranium processing facility located 18 miles northwest of Cincinnati, Ohio, that ceased operation in 1989 to begin environmental compliance, waste management, and remediation. For more information on legacy management, see <http://www.lm.doe.gov>.

Disposal of the nation's commercial and defense nuclear waste is another environmental management mission area of the Department. Construction of a repository at Yucca Mountain, Nevada, for the disposal of spent nuclear fuel and high-level radioactive waste is the strategy DOE is pursuing to implement the Nuclear Waste Policy Act of 1982, as amended (NWPA), and to meet DOE's contractual commitments with respect to commercial nuclear waste disposal. For more information on Yucca Mountain, see <http://www.ocrwm.doe.gov>.

As part of constructing a repository at Yucca Mountain, DOE's Office of Civilian Radioactive Waste Management (OCRWM) successfully submitted a license application to the Nuclear Regulatory Commission (NRC) in June 2008. The application was docketed by the NRC in September. A review and decision on the license is expected in 3 to 4 years. The submission and docketing of the license application is a major milestone in the process directed by Congress in the NWPA to construct a repository for the safe, permanent disposal of spent nuclear fuel and high-level radioactive waste.

### Shortfalls and Future Challenges

Enactment of funding reform is necessary to enable Congress to provide the significant increases in annual funding needed to construct a repository and transportation systems at Yucca Mountain. Delays in beginning acceptance of spent nuclear fuel at the Yucca Mountain repository have already resulted in litigation and judgments for breach of contract and damages against DOE. Based on the earliest projected repository opening date of 2020, taxpayer liabilities are currently estimated to be up to \$12.3 billion. This taxpayer liability is estimated to increase by an average of up to \$500 million annually for every year the opening of the Yucca Mountain repository is delayed beyond 2020.

While some small sites remain, several large sites – Savannah River, Idaho National Laboratory, Portsmouth, Paducah, Oak Ridge and Hanford – present enormous challenges to the Department. Cleanup of these sites is not expected for many years and consequently cost and schedule estimates to complete cleanup and closure are highly uncertain. This uncertainty impacts veracity of planning and cost estimates in the successful construction and operation of large, complex, first-of-a-kind facilities to conduct environmental cleanup. Over the last 3 years, DOE has experienced significant cost growth for those environmental management construction projects with a total project cost of over \$100 million.

In FY 2008, the Department was able to meet the majority of its performance measure targets in the area of Environmental Management. However, the Department did not meet its targets for the metrics involving the disposition of Transuranic (TRU) waste, and environmental remediation release sites completed.

- **Release Site Completions:** A release site is a portion of contaminated land which the Department has agreed to clean up to state and federal regulatory requirements. A release site is considered complete after regulatory approval for the remediation work is obtained and no additional EM resources are required (except for long-term stewardship). The Department completed cumulative total of 6,687 release sites at the end of FY 2008; 85 release sites below the original FY 2008 target. The missed target was due in large part to delays at Hanford (Richland), Sandia National Laboratory, and Los Alamos National Laboratory.
- **TRU Waste Disposition:** TRU waste is mixed or low-level radioactive waste that is contaminated with isotopes of plutonium, and other nuclides with atomic numbers greater than 92 (uranium). TRU waste is also categorized as contact-handled (CH) or remote-handled (RH) (RH-TRU waste should not be handled directly by workers and requires heavy container shielding and/or remote-handling equipment). The Department operates the Waste Isolation Pilot Plant, the only authorized disposal site for TRU defense waste. The Department targeted disposition of 53,608 cubic meters of TRU in FY2008. This included 53,425 cubic meters of CH-TRU, and 183 cubic meters of RH-TRU. The Department disposed of only 53,048 cubic meters of TRU, 560 cubic meters below the target (112 cubic meters RH-TRU; 448 cubic meters CH-TRU).

THEME 1

THEME 2

THEME 3

THEME 4

THEME 5

# MANAGEMENT EXCELLENCE

*Enabling the mission through sound management*

## Strategic Goals

## Strategic Objectives

	FY 2007			FY 2008		
	On-Board Employees	Gross Dollars in Millions	Average PART Rating	On-Board Employees	Gross Dollars in Millions	Average PART Rating
1) Integrated Management						
2) Human Capital						
3) Infrastructure						
4) Resources	1,640	N/A	Not a GPRA Unit	1,690	N/A	Not a GPRA Unit

- 1) Institute an integrated business management approach throughout DOE with clear roles and responsibilities and accountability to include effective line management oversight by both Federal and contractor organizations.
- 2) Ensure that the DOE workforce is capable of meeting the challenges of the 21st Century by attracting, motivating, and retaining a highly skilled and diverse workforce to do the best job.
- 3) Build, modernize, and maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace.
- 4) Institutionalize a fully integrated resource management strategy that supports mission needs and postures the Department for continuous business process improvement.

### Integrated Management

**Institute an integrated business management approach throughout DOE with clear roles and responsibilities and accountability to include effective line management oversight by both federal and contractor organizations**

The mission of the Department is enabled through the work performed by our major program and staff offices. The Department is the largest civilian contracting agency in the federal government and spends 90% of its annual budget on contractors to operate scientific laboratories, engineering, and production facilities and environmental restoration sites. To manage the Department more efficiently and effectively, management processes are being integrated across the complex. The Department has instituted an integrated business management approach that improves processes, performance, and eliminates waste throughout the Department. Furthermore, this approach involves developing and implementing clear performance goals and measures to better inform decision-makers and ensure accountability for integrated management.

### Human Capital

**Ensure that the DOE workforce is capable of meeting the challenges of the 21st Century by attracting, motivating and retaining a highly skilled and diverse workforce to do the best job**

The Department is committed to maintaining a workforce with the right skills to successfully perform its various missions. Thus, the human capital management efforts are focused on an integrated approach that ensures human capital programs and policies are linked to the Department's missions, strategies, and strategic goals. By utilizing this integrated approach, the Department can implement strategies to attract, motivate, and retain a highly

skilled and diverse workforce to meet the future needs of the nation in such areas as scientific discovery and innovation and contract management and administration.

### Infrastructure

**Build, modernize, and maintain facilities and infrastructure to achieve mission goals and ensure a safe and secure workplace**

The Department is cognizant that its facilities and infrastructure are aging. Continuing to conduct state-of-the-art, cutting edge mission work in a safe and secure manner will require improvement in the sustainability of the current infrastructure.

### Resources

**Institutionalize a fully integrated resource management strategy that supports mission needs and postures the Department for continuous business process improvement**

In an order to complete its missions, the Department is focused on using financial resources wisely and improving business processes where practical to improve efficiency and reduce costs. Furthermore, the programs within the Department prioritize activities to ensure that the activities offering the greatest benefit to accomplishing the missions of the Department are achieved within a satisfactory timeframe. The Department had many accomplishments in FY 2008 in fulfilling its management excellence goals. These include:

- **Improving Business Processes:** The Department linked human capital management efforts and policies to the missions, strategies, and goals of the Department while providing for continuous improvement in efficiency and effectiveness.

- **Advancing Technology:** The Department strengthened information technology management through consistent execution of robust information technology Capital Planning and Investment Control oversight and reporting processes designed to ensure successful investment performance. The Department updated its accounting processes to track the age of uncosted balances, which will help the Department evaluate whether funds are being used effectively.
- **Improving Asset Accountability:** Improved financial performance in project management by enhanced use of Earned Value Management (EVM) techniques that objectively track work progress and provide early warning of performance problems; currently, the Department is using certified EVM systems to manage 70% of the Department's capital asset projects.
- **Strengthening Human Capital:** The Department implemented workforce planning techniques throughout the agency and continued to work with Departmental business elements to pilot new planning and simulation tools that will further assist in the development of consistent workforce plans throughout the Department.
- **Enhancing Certification Efforts Aimed at Improving Programmatic Management:** The Department requires that Project Directors go through Project Management Certification. DOE has both a mandatory certification program and a requirement for certification through four levels. A total of 60 Federal Project Directors were certified in FY 2008.
- **Continuing Employee Development Initiatives:** The Department enhanced outreach and recruitment strategies and implements a comprehensive talent management system - Leadership and Management Plan to Succeed – designed to ensure that the Department has a continuous supply of internal and external candidates for leadership positions.
- **Improving Procurement:** The Department deployed a complex-wide corporate Strategic Integrated Procurement Enterprise System that will replace and consolidate as many as 30 procurement related systems across the Department. The Department issued revised contracting authority that raised the delegation levels to \$50 million for major DOE contracting offices. The Department also instituted a corporate Acquisition Career Management Training program to ensure that DOE's acquisition workforce receives timely and focused contract training. Furthermore, the Department completed a comprehensive Root Cause Analysis of contract and project management deficiencies in April 2008 and approved a Corrective Action Plan in July 2008.

## Future Challenges

The Department faces many potential obstacles that may impede its progress toward fulfilling its management excellence goals. These include:

- **Contractor Administration:** The Department must continue making improvements in the management and oversight of contractors managing and operating the Department's facilities. These efforts are crucial to resolving historic project and contract management weaknesses that have impeded the Department's ability to complete projects on cost and schedule. Initiatives like the Department's Corrective Action Plan will help ensure that the contractor operations are effective and efficient and that Department managers, and the contractors whom they manage, have the appropriate skill mix to accomplish all Departmental missions.
- **Human Capital Management:** An increased attrition rate due to retirements and competition with the private sector and a lack of adequate project and contract management skills has led the Department to adopt strategic workforce planning techniques, place increased emphasis on performance and accountability, and identify critical hiring needs. The Department is enhancing project and contract management training and certification, adopting recruitment and retention strategies to fill or avoid critical vacancies, avoid hiring delays and attract top recruits. DOE will need to hire approximately 5,000 new employees in the next 4 years just to maintain current workforce levels.
- **Cyber Security:** The task of protecting DOE's computer networks from cyber attacks have increased in complexity, frequency, and aggression. DOE is attacked over 10 million times each day in a wide variety of ways. Although DOE has a cyber security defense based on industry and government best practices, cyber attacks continue to evolve to avoid detection by these defenses.
- **Project Management Order Implementation:** The Department continues to face obstacles in ensuring that the various Departmental entities, federal and contractor, consistently implement the various Departmental project management practices and policies. For more information on the Department's project management guidance, see <http://www.directives.doe.gov/pdfs/doetext/neword/413/p4131.pdf>; <http://www.directives.doe.gov/pdfs/doetext/neword/413/o4133a.pdf>; and <http://www.directives.doe.gov/pdfs/doetext/neword/413/m4133-1.pdf>.

## PERFORMANCE AND ACCOUNTABILITY REPORT CARD

Score	Requirement or Initiative	Supporting Indicators
	Government Management Reform Act – Financial Statement Audit	— Unqualified Audit Opinion
	Federal Managers’ Financial Integrity Act – Internal Controls (Section II) Financial Systems (Section IV)	— No Material Weaknesses (Section II) — Financial Systems generally conform to (Section IV) requirements and no FISMA significant deficiencies identified.
	OMB Circular A-123, Appendix A	— No Material Weaknesses
	Federal Financial Management Improvement Act	— Substantially comply with Federal financial management system requirements.
	Federal Information Security Management Act (FISMA)	— No FISMA significant deficiencies identified. Annual report indicated DOE making progress although challenges continue to exist. ( <a href="http://ig.energy.gov/documents/IG-0801.pdf">http://ig.energy.gov/documents/IG-0801.pdf</a> )
	Improper Payments Information Act	— <1% Erroneous Payment Rate Not Considered Significant Risk per OMB Guidance

## PRESIDENT’S MANAGEMENT AGENDA

In 2001, the President unveiled the [President’s Management Agenda](#) (PMA) and challenged the federal government to become more efficient, effective, results-oriented, and accountable. Over the past seven years, the PMA has become the primary framework by which the Department has implemented changes to support the President’s management goals. The PMA reflects the President’s on-going commitment to achieve immediate and measurable results that matter to the American people.

Each agency is held accountable for its performance in carrying out the PMA through quarterly scorecards issued by the Office of Management and Budget (OMB). Agencies are scored green, yellow, or red on their status in achieving overall goals or long-term criteria, as well as their progress in implementing improvement plans. The Department is scored against six PMA initiatives highlighted in the chart to the right. Further information on OMB’s management of the PMA may be found at <http://www.ExpectMore.gov>.

President’s Management Agenda Scorecard <a href="http://www.Results.gov">www.Results.gov</a>	Current Status as of September 30, 2008	Progress in Implementation
Human Capital		
Commercial Services Management		
Financial Performance		
E-Government		
Performance Improvement		
Real Property		

 Green (Success): Implementation is proceeding according to plan.

 Yellow (Mixed Results): Some slippage or other issue(s) requiring adjustment.

 Red (Unsatisfactory): Initiative in serious jeopardy absent significant management intervention.

### Leadership Challenges

The Department carries out multiple complex and highly diverse missions. Although the Department is continually striving to improve the efficiency and effectiveness of its programs and operations, there are some specific areas that merit a higher level of focus and attention. These areas oftentimes require long-term strategies for ensuring stable operations and represent the most daunting Leadership Challenges the Department faces in accomplishing its mission. Due to the Department's significant efforts taken to address long-standing problems with its management of projects, the previously reported Project Management Leadership Challenge is no longer considered a stand alone challenge and has been incorporated into the contract administration challenge.

The Reports Consolidation Act of 2000 requires that the Inspector General (IG) prepare an annual statement summarizing what he considers to be the most serious management and performance challenges facing the Department.

Similarly, in FY 2003 the GAO identified six major management challenges and program risks to be addressed by the Department.

After considering all critical activities within the agency and those areas identified by the IG and GAO, the Department has identified nine Leadership Challenges that represent the most important strategic management issues facing the Department now and in the coming years. It is the Department's goal that the strategies to address these areas will also help mitigate related IG and GAO management challenges.

To highlight how the Department's strategies for mitigating its Leadership Challenges align with the IG and GAO challenge areas, the following table provides a crosswalk of the relationship between the three. Please note that the IG and GAO did identify areas that are not currently reported as Leadership Challenges by the Department. While the ongoing importance of those areas is recognized and they continue to receive appropriate management attention, management does not consider them to be Leadership Challenges.

IG Challenge Areas FY 2008	GAO Challenge Areas	DOE Leadership Challenges
Contract Administration S	Resolve problems in contract management that place the agency at high risk for fraud, waste and abuse S	Contract and Project Administration S Acquisition Process Management S
Safeguards and Security D	Address security threats and problems D	Security D
Environmental Cleanup D	Improve management for cleanup of radioactive and hazardous wastes D	Environmental Cleanup D Nuclear Waste Disposal D
Stockpile Stewardship D	Improve management of the Nation's nuclear weapons stockpile D	Stockpile Stewardship D
Cyber Security S		Cyber Security S
Energy Supply D	Enhance leadership in meeting the Nation's energy needs D	
<b>IG Watch List</b>		
Human Capital Management S		Human Capital Management S
Worker and Community Safety S		Safety & Health S
Infrastructure Modernization D	Revitalize infrastructure S	

D Mission Direct S Mission Support

## MESSAGE FROM THE CHIEF FINANCIAL OFFICER



It has been said that a journey of a thousand miles begins with a single step. To that end, when I joined the Department of Energy in June 2007, the Department had just regained its unqualified audit opinion. Since that time, the Department's financial management community has made exceptional strides, and I am pleased to report that our continued commitment has sustained the Department's clean, unqualified opinion and retained this accomplishment for a second year in a row. The Department's entire senior leadership team recognizes the value of accurate and timely financial information for decision making and should be commended for their role in achieving this major accomplishment.

The Department's fiscal year 2008 financial statements were reviewed by independent auditors and received an unqualified opinion. Furthermore, the auditors reported that no material weaknesses in internal controls were identified. The Department also completed an evaluation of its financial management system and found it to be in general conformance with governmental financial system requirements and identified no material nonconformances.

While we have made significant progress on our journey, much remains to be done. During my tenure, I have emphasized creating a professional culture that recognizes great outcomes, conducts dogged analysis, and provides accurate, timely financial analysis that can be relied on by our stakeholders. In short, we provide more than just numbers—we are smart money.

The Department continues to invest in the right resources to further strengthen its financial management and analysis capabilities and fosters close cooperation between the finance and program offices to achieve the results expected by the American people. I am committed to generating interest in financial management and building a talented financial management community at DOE. As chair of the Human Capital taskforce of the CFO Council, I led the creation of the CFO Council's new website [CFOJobs.gov](http://CFOJobs.gov). DOE is taking advantage of this government-wide effort to build a talented financial management community that attracts the best and the brightest to the U.S. government.

As we all strive to do more with less, our business systems become increasingly important in helping to close the human capital gap. iManage is the Department's business transformation and enterprise-wide business systems management program. Its mission is centered around connecting our people, simplifying our work, and liberating our data. Its purpose is to put timely and accurate information in the hands of the Department's decision makers. The recently unveiled iPortal continues improvements in information delivery, taking advantage of the latest in enterprise portal and web technologies.

We must be steadfast in our pursuit of financial management excellence, and in building our capabilities, skills, and competencies to further enhance the Department's strategic decision-making. I offer this report as a show of faith in our continued commitment to prudent financial management and the Department's continued financial integrity.

I wish to thank Secretary Bodman and the entire senior leadership team for their support, and I also welcome feedback from the readers of this report as we continue to endeavor for opportunities to improve the way we communicate the results of the Department's performance. Thank you.

  
Steve Isakowitz  
January 15, 2009

## ANALYSIS OF FINANCIAL STATEMENTS

The Department's financial statements are included in the Financial Results section of this report. Preparing these statements is part of the Department's goal to improve financial management and provide accurate and reliable information that is useful for assessing performance and allocating resources. The Department's management is responsible for the integrity and objectivity of the financial information presented in these financial statements.

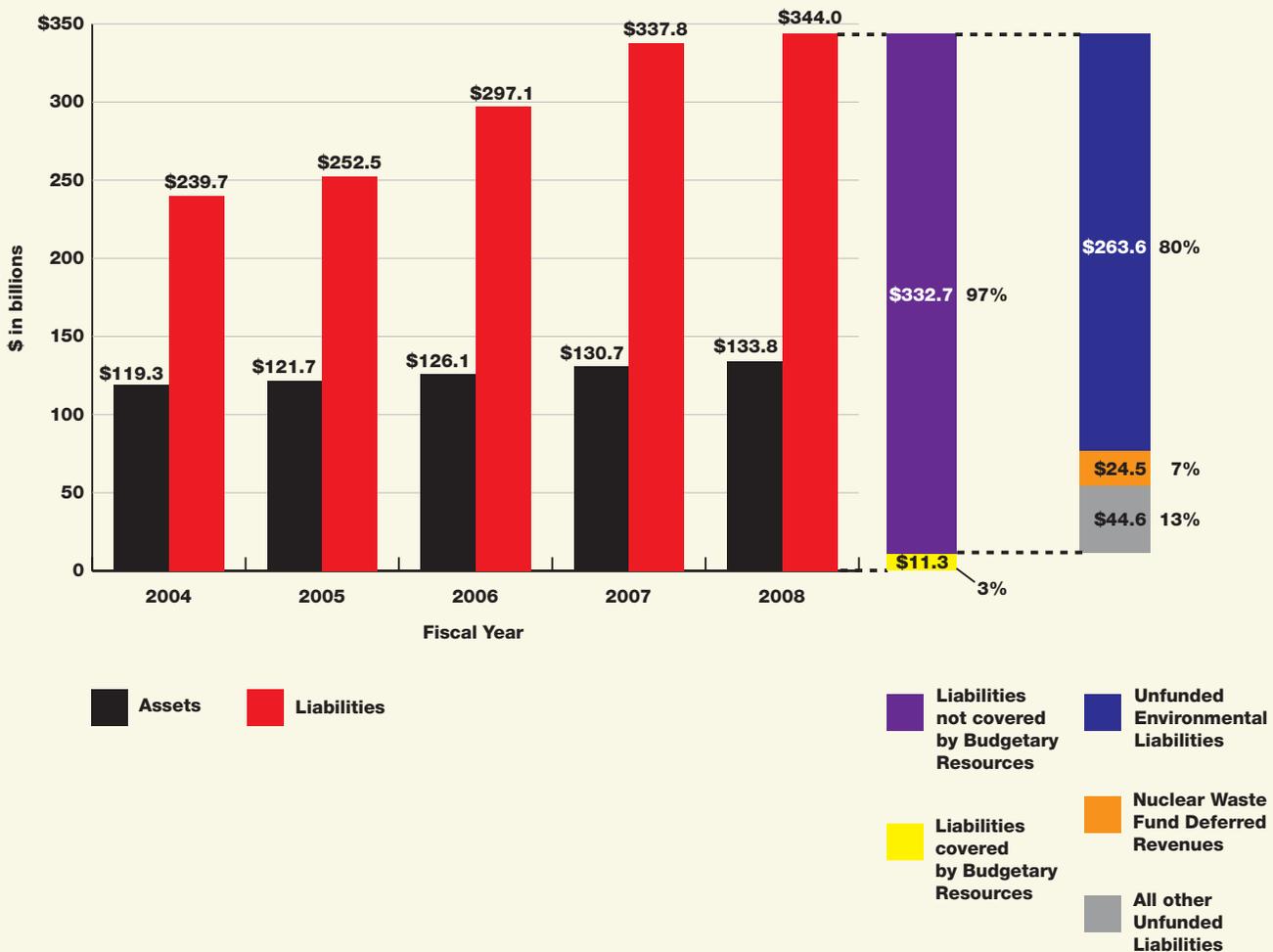
The financial statements have been prepared to report the financial position and results of operations of the entity, pursuant to the requirements of 31 U.S.C. 3515(b). The statements have been prepared from the Department's books and records in accordance with generally accepted accounting principles prescribed by the Federal Accounting Standards Advisory Board and the formats prescribed by the OMB. The financial statements are prepared in addition to the financial

reports used to monitor and control budgetary resources which are prepared from the same books and records. The statements should be read with the realization that they are for a component of the U.S. Government, a sovereign entity.

### Balance Sheet

The Department 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 \$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 future course of the Department's environmental cleanup activities will depend

Total Assets and Liabilities with Breakdown of FY 2008 Liabilities



on a number of fundamental technical and policy choices, many of which have not been made. The cost and environmental implications of alternative choices can be profound.

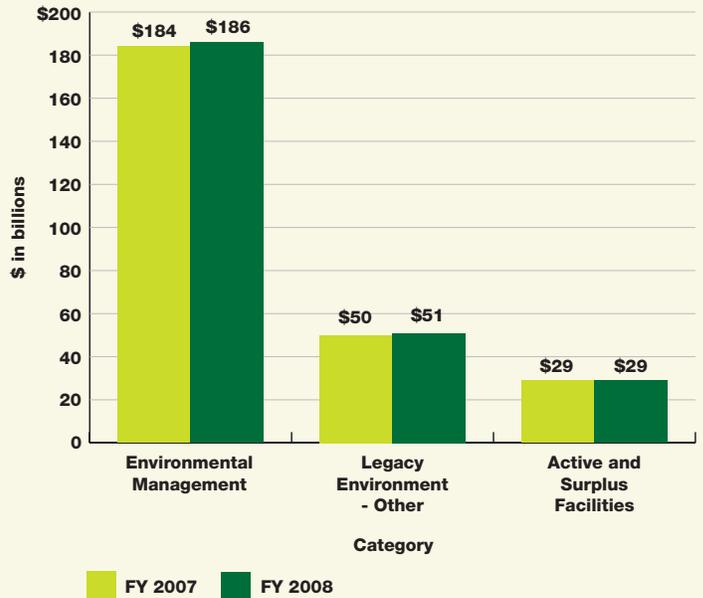
Net Cost of Operations

The major elements of net cost (see chart) include program costs, unfunded liability estimate changes and earned revenues. Unfunded liability estimate changes result from inflation adjustments; improved and updated estimates; revisions in acquisition strategies, technical approach, or scope; and regulatory changes. The Department's overall net costs are dramatically impacted by these changes in environmental and other unfunded liability estimates. Since these estimates primarily relate to past years of operations, they are not included as current year program costs, but rather reported as "Costs Not Assigned" on the Consolidated Statements of Net Cost. A relatively smaller increase in the Department's environmental liability estimates recorded in FY 2008 than in the prior two years resulted in the majority of the significant decrease in FY 2008 Costs Not Assigned.

Budgetary Resources

The Combined Statements of Budgetary Resources provide information on the budgetary resources that were made available to the Department for the year and the status of those resources at the end of the fiscal year.

Composition of Environmental Cleanup and Disposal Liability

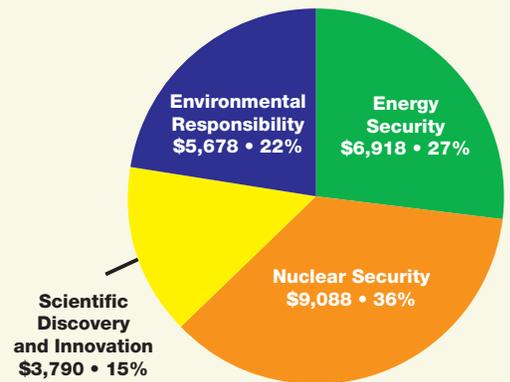


The Department receives most of its funding from general government funds administered by the Department of the Treasury and appropriated for Energy's use by Congress.

Major Elements of Net Cost

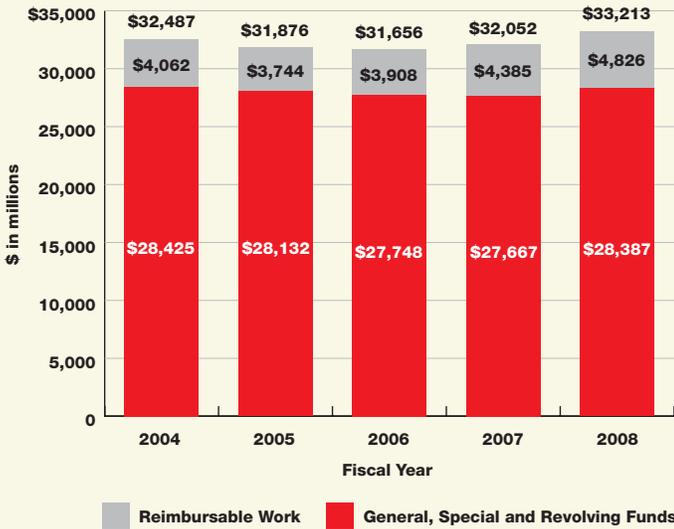


FY 2008 Program Costs (Gross) Breakdown by Strategic Theme



A portion of the program costs for the Management Excellence strategic theme is distributed among the other four strategic themes.

Obligations Incurred



Since budgetary accounting rules and financial accounting rules may recognize certain transactions at different points in time, Appropriations Used on the Consolidated Statements of Changes in Net Position will not match costs for that period. The primary difference results from recognition of costs related to changes in unfunded liability estimates.

Contractor Pension/Postretirement Benefit Obligations Trend Analysis

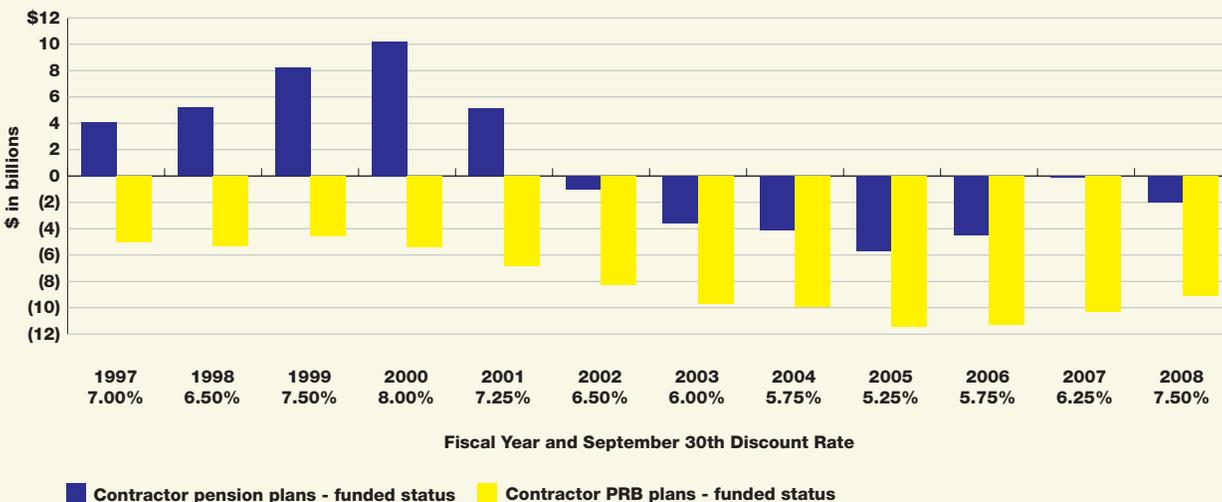
A 125 basis point increase in the discount rate (to its highest level in eight years) used to estimate contractor employee pension plan obligations for September 30, 2008 helped to offset a portion of the effect of poor asset performance for FY 2008. Still there was

a decline in the funded status from an under funding of less than \$0.1 billion in FY 2007 to an under funding of \$2.0 billion in FY 2008 for these plans. Of the \$1.9 billion decline in the pension funded status from FY 2007 to FY 2008, (\$4.5) billion was due to the increase in the discount rate from 6.25 percent on September 30, 2007, to 7.5 percent on September 30, 2008, and \$5.8 billion due to much smaller than expected pension plan asset values based on the contractors' long-term rate of return assumption. The \$1.3 billion net impact of these two large changes in the funded status plus \$0.7 billion for the cost of additional benefits accruing and (\$0.1) billion for other gains during the year represent the total change of \$1.9 billion.

A similar change in the discount rate used to estimate the obligations of contractor postretirement benefits other than pensions (PRB) improved the funded status by \$1.8 billion of the total improvement of \$1.2 billion from an under funding of \$10.3 billion in FY 2007 to an under funding of \$9.1 billion in FY 2008. In addition, the funded status declined by \$0.6 billion due to other liability increases during the year (\$0.4 billion attributable to experience versus the actuarial assumptions plus \$0.2 billion in cost of additional benefits accruing). Assets are not generally set aside to fund PRB plans as they are for pension plans, so PRB plans are not expected to ever become fully funded.

Prior to the adoption of Statements of Financial Accounting Standards (SFAS) No. 158 as of September 30, 2007, changes in the estimated plan benefit obligations were generally amortized over an extended time period, and therefore did not result in an immediate change in obligations recorded by the Department. However, under SFAS No. 158 the funded status of the plans is now fully reflected in the assets and liabilities recorded by the Department. The chart below shows the total net funded status for contractor employee pension and PRB plans and the year-end discount rate from FY 1997 to FY 2008.

Contractor Pension/Postretirement Benefit Obligations Trend Analysis



## PRINCIPAL STATEMENTS

U.S. Department of Energy Consolidated Balance Sheets  
As of September 30, 2008 and 2007

(\$ in millions)	FY 2008	FY 2007
<b>ASSETS:</b> <sup>(Note 2)</sup>		
Intragovernmental Assets:		
Fund Balance with Treasury <sup>(Note 3)</sup>	\$ 19,231	\$ 18,359
Investments and Related Interest, Net <sup>(Note 4)</sup>	27,604	25,800
Accounts Receivable, Net <sup>(Note 5)</sup>	526	456
Regulatory Assets <sup>(Note 6)</sup>	5,425	5,456
Other Assets	6	8
Total Intragovernmental Assets	<u>\$ 52,792</u>	<u>\$ 50,079</u>
Investments and Related Interest, Net <sup>(Note 4)</sup>	196	204
Accounts Receivable, Net <sup>(Note 5)</sup>	4,018	3,937
Inventory, Net: <sup>(Note 7)</sup>		
Strategic Petroleum and Northeast Home Heating Oil Reserve	20,484	19,415
Nuclear Materials	21,024	21,040
Other Inventory	478	470
General Property, Plant, and Equipment, Net <sup>(Note 8)</sup>	25,054	24,866
Regulatory Assets <sup>(Note 6)</sup>	5,151	5,636
Other Non-Intragovernmental Assets <sup>(Note 9)</sup>	4,625	5,032
Total Assets	<u>\$ 133,822</u>	<u>\$ 130,679</u>
<b>LIABILITIES:</b> <sup>(Note 10)</sup>		
Intragovernmental Liabilities:		
Accounts Payable	\$ 76	\$ 66
Debt <sup>(Note 11)</sup>	11,526	11,481
Deferred Revenues and Other Credits <sup>(Note 12)</sup>	37	36
Other Liabilities <sup>(Note 13)</sup>	243	271
Total Intragovernmental Liabilities	<u>\$ 11,882</u>	<u>\$ 11,854</u>
Accounts Payable	3,901	3,793
Debt Held by the Public <sup>(Note 11)</sup>	6,267	6,427
Deferred Revenues and Other Credits <sup>(Note 12)</sup>	25,830	25,145
Environmental Cleanup and Disposal Liabilities <sup>(Note 14)</sup>	266,081	263,603
Pension and Other Actuarial Liabilities <sup>(Note 15)</sup>	12,362	12,433
Capital Leases <sup>(Note 16)</sup>	479	214
Other Non-Intragovernmental Liabilities <sup>(Note 13)</sup>	4,773	3,272
Contingencies and Commitments <sup>(Note 17)</sup>	12,388	11,071
Total Liabilities	<u>\$ 343,963</u>	<u>\$ 337,812</u>
<b>NET POSITION:</b>		
Unexpended Appropriations:		
Unexpended Appropriations - Earmarked Funds <sup>(Note 18)</sup>	\$ 13	\$ 17
Unexpended Appropriations - Other Funds	11,106	10,665
Cumulative Results of Operations:		
Cumulative Results of Operations - Earmarked Funds <sup>(Note 18)</sup>	(5,726)	(6,637)
Cumulative Results of Operations - Other Funds	(215,534)	(211,178)
Total Net Position	<u>\$ (210,141)</u>	<u>\$ (207,133)</u>
Total Liabilities and Net Position	<u>\$ 133,822</u>	<u>\$ 130,679</u>

\* The accompanying notes are an integral part of these statements.

Note: The Department's complete statements, accompanying footnotes, and independent auditor's report are included in DOE's FY 2008 [Agency Financial Report](#).

U.S. Department of Energy Consolidated Statements of Net Cost  
For the Years Ended September 30, 2008 and 2007

(\$ in millions)

	FY 2008	FY 2007
<b>STRATEGIC THEMES:</b>		
<b>Energy Security:</b>		
Energy Diversity:		
Program Costs	\$ 1,309	\$ 1,082
Less: Earned Revenues <sup>(Note 19)</sup>	(16)	(6)
Net Cost of Energy Diversity	<u>1,293</u>	<u>1,076</u>
Environmental Impacts of Energy:		
Program Costs	1,167	1,046
Less: Earned Revenues <sup>(Note 19)</sup>	(51)	(60)
Net Costs of Environmental Impacts of Energy	<u>1,116</u>	<u>986</u>
Energy Infrastructure:		
Program Costs	3,989	3,974
Less: Earned Revenues <sup>(Note 19)</sup>	(4,089)	(4,187)
Net Cost of Energy Infrastructure	<u>(100)</u>	<u>(213)</u>
Energy Productivity Program Costs	<u>453</u>	<u>496</u>
Net Cost of Energy Security	<u>2,762</u>	<u>2,345</u>
<b>Nuclear Security:</b>		
Nuclear Deterrent		
Program Costs	6,702	6,869
Less: Earned Revenues <sup>(Note 19)</sup>	(2)	-
Net Cost of Nuclear Deterrent	<u>6,700</u>	<u>6,869</u>
Weapons of Mass Destruction Program Costs	<u>1,588</u>	<u>1,526</u>
Nuclear Propulsion Plants:		
Program Costs	798	810
Less: Earned Revenues <sup>(Note 19)</sup>	(16)	(19)
Net Cost of Nuclear Propulsion Plants	<u>782</u>	<u>791</u>
Net Cost of Nuclear Security	<u>9,070</u>	<u>9,186</u>
<b>Scientific Discovery and Innovation:</b>		
Net Cost of Scientific Discovery and Innovation	3,790	3,997
<b>Environmental Responsibility:</b>		
Environmental Cleanup:		
Program Costs	5,491	5,867
Less: Earned Revenues <sup>(Note 19)</sup>	(414)	(493)
Net Costs of Environmental Cleanup	<u>5,077</u>	<u>5,374</u>
Managing the Legacy Program Costs	<u>187</u>	<u>57</u>
Net Cost of Environmental Responsibility	<u>5,264</u>	<u>5,431</u>
Net Cost of Strategic Themes	20,886	20,959
<b>OTHER PROGRAMS:</b>		
Reimbursable Programs:		
Program Costs	3,869	3,544
Less: Earned Revenues <sup>(Note 19)</sup>	(3,861)	(3,480)
Net Cost of Reimbursable Programs	<u>8</u>	<u>64</u>
Other Programs: <sup>(Note 20)</sup>		
Program Costs	601	625
Less: Earned Revenues <sup>(Note 19)</sup>	(295)	(312)
Net Cost of Other Programs	<u>306</u>	<u>313</u>
Costs Applied to Reduction of Legacy Environmental Liabilities <sup>(Notes 14 and 21)</sup>	(5,313)	(5,573)
Costs Not Assigned <sup>(Note 22)</sup>	<u>13,464</u>	<u>45,732</u>
Net Cost of Operations <sup>(Note 23)</sup>	<u>\$ 29,351</u>	<u>\$ 61,495</u>

\* The accompanying notes are an integral part of these statements.

Note: The Department's complete statements, accompanying footnotes, and independent auditor's report are included in DOE's FY 2008 [Agency Financial Report](#).

U.S. Department of Energy Consolidated Statements of Changes in Net Position  
 For the Years Ended September 30, 2008 and 2007  
 (\$ in millions)

	<b>FY 2008</b>			
	<b>Earmarked Funds</b> <small>(Note 18)</small>	<b>All Other Funds</b>	<b>Eliminations</b>	<b>Consolidated</b>
<b>CUMULATIVE RESULTS OF OPERATIONS:</b>				
Beginning Balances	\$ (6,637)	\$ (211,178)	\$ -	\$ (217,815)
Budgetary Financing Sources:				
Appropriations Used	\$ 16	\$ 22,919	\$ -	\$ 22,935
Non-Exchange Revenue	57	52	-	109
Donations and Forfeitures of Cash	-	6	-	6
Transfers - In/(Out) Without Reimbursement	(214)	-	-	(214)
Other Financing Sources (Non-Exchange):				
Donations and Forfeitures of Cash	22	-	-	22
Transfers - In/(Out) Without Reimbursement <small>(Note 23)</small>	3	1,211	-	1,214
Imputed Financing from Costs Absorbed by Others <small>(Note 23)</small>	3	1,822	-	1,825
Other <small>(Note 23)</small>	614	(129)	(476)	9
Total Financing Sources	\$ 501	\$ 25,881	\$ (476)	\$ 25,906
Net Cost of Operations	410	(30,237)	476	(29,351)
Net Change	\$ 911	\$ (4,356)	\$ -	\$ (3,445)
Total Cumulative Results of Operations	\$ (5,726)	\$ (215,534)	\$ -	\$ (221,260)
<b>UNEXPENDED APPROPRIATIONS:</b>				
Beginning Balances	\$ 17	\$ 10,665	\$ -	\$ 10,682
Budgetary Financing Sources:				
Appropriations Received <small>(Note 24)</small>	\$ 12	\$ 23,958	\$ -	\$ 23,970
Appropriations Transferred - In/(Out)	-	2	-	2
Other Adjustments	-	(600)	-	(600)
Appropriations Used	(16)	(22,919)	-	(22,935)
Total Budgetary Financing Sources	\$ (4)	\$ 441	\$ -	\$ 437
Total Unexpended Appropriations	\$ 13	\$ 11,106	\$ -	\$ 11,119
Net Position	\$ (5,713)	\$ (204,428)	\$ -	\$ (210,141)
<b>FY 2007</b>				
<b>CUMULATIVE RESULTS OF OPERATIONS:</b>				
Beginning Balances	\$ (1,012)	\$ (179,039)	\$ -	\$ (180,051)
Budgetary Financing Sources:				
Appropriations Used	\$ 36	\$ 22,502	\$ -	\$ 22,538
Non-Exchange Revenue	72	52	-	124
Donations and Forfeitures of Cash	-	12	-	12
Transfers - In/(Out) Without Reimbursement	(878)	9	-	(869)
Other Financing Sources (Non-Exchange):				
Donations and Forfeitures of Cash	4	-	-	4
Transfers - In/(Out) Without Reimbursement <small>(Note 23)</small>	48	144	-	192
Imputed Financing from Costs Absorbed by Others <small>(Note 23)</small>	2	1,744	-	1,746
Other <small>(Note 23)</small>	343	113	(472)	(16)
Total Financing Sources	\$ (373)	\$ 24,576	\$ (472)	\$ 23,731
Net Cost of Operations	(5,252)	(56,715)	472	(61,495)
Net Change	\$ (5,625)	\$ (32,139)	\$ -	\$ (37,764)
Total Cumulative Results of Operations	\$ (6,637)	\$ (211,178)	\$ -	\$ (217,815)
<b>UNEXPENDED APPROPRIATIONS:</b>				
Beginning Balances	\$ 47	\$ 9,864	\$ -	\$ 9,911
Budgetary Financing Sources:				
Appropriations Received <small>(Note 24)</small>	\$ 5	\$ 23,291	\$ -	\$ 23,296
Appropriations Transferred - In/(Out)	-	13	-	13
Other Adjustments	1	(1)	-	-
Appropriations Used	(36)	(22,502)	-	(22,538)
Total Budgetary Financing Sources	\$ (30)	\$ 801	\$ -	\$ 771
Total Unexpended Appropriations	\$ 17	\$ 10,665	\$ -	\$ 10,682
Net Position	\$ (6,620)	\$ (200,513)	\$ -	\$ (207,133)

\* The accompanying notes are an integral part of these statements.

Note: The Department's complete statements, accompanying footnotes, and independent auditor's report are included in DOE's FY 2008 Agency Financial Report.

Principal Statements

U.S. Department of Energy Combined Statements of Budgetary Resources  
For the Years Ended September 30, 2008 and 2007

(\$ in millions)	FY 2008	FY 2007
<b>BUDGETARY RESOURCES:</b>		
Unobligated Balance, Brought Forward, October 1 <sup>(Note 24)</sup>	\$ 4,080	\$ 4,159
Recoveries of Prior Year Unpaid Obligations	53	52
Budget Authority:		
Appropriations <sup>(Note 24)</sup>	\$ 25,434	\$ 24,616
Borrowing Authority	425	315
Contract Authority	515	692
Spending Authority from Offsetting Collections:		
Earned:		
Collected	8,046	7,755
Change in Receivables from Federal Sources	30	(22)
Change in Unfilled Customer Orders:		
Advances Received	13	9
Without Advance from Federal Sources	260	124
Subtotal	\$ 34,723	\$ 33,489
Nonexpenditure Transfers, Net, Anticipated and Actual	(81)	117
Temporarily not Available Pursuant to Public Law	(159)	(257)
Permanently not Available	(1,774)	(1,428)
<b>Total Budgetary Resources</b> <sup>(Note 24)</sup>	<b>\$ 36,842</b>	<b>\$ 36,132</b>
<b>STATUS OF BUDGETARY RESOURCES:</b>		
Obligations Incurred:		
Direct	\$ 25,486	\$ 24,770
Exempt from Apportionment	2,901	2,897
Reimbursable	4,826	4,385
Total Obligations Incurred <sup>(Notes 23 and 24)</sup>	\$ 33,213	\$ 32,052
Unobligated Balance:		
Apportioned	1,991	2,495
Exempt from Apportionment	47	50
Unobligated Balance not Available <sup>(Note 24)</sup>	1,591	1,535
<b>Total Status of Budgetary Resources</b>	<b>\$ 36,842</b>	<b>\$ 36,132</b>
<b>CHANGE IN OBLIGATED BALANCE:</b>		
Obligated Balance, Net:		
Unpaid Obligations, Brought Forward, October 1	\$ 19,447	\$ 18,196
Less: Uncollected Customer Payments from Federal Sources, Brought Forward, October 1	(4,201)	(4,100)
Total Unpaid Obligated Balance, Net, October 1	\$ 15,246	\$ 14,096
Obligations Incurred <sup>(Notes 23 and 24)</sup>	33,213	32,052
Less: Gross Outlays	(31,505)	(30,748)
Less: Recoveries of Prior Year Unpaid Obligations, Actual	(53)	(52)
Change in Uncollected Customer Payments from Federal Sources	(290)	(102)
	<b>\$ 16,611</b>	<b>\$ 15,246</b>
Obligated Balance, Net, End of Period:		
Unpaid Obligations <sup>(Note 24)</sup>	\$ 21,102	\$ 19,447
Less: Uncollected Customer Payments from Federal Sources	(4,491)	(4,201)
<b>Total, Unpaid Obligated Balance, Net, End of Period</b>	<b>\$ 16,611</b>	<b>\$ 15,246</b>
<b>NET OUTLAYS:</b>		
Gross Outlays	\$ 31,505	\$ 30,748
Less: Offsetting Collections	(8,059)	(7,764)
Less: Distributed Offsetting Receipts <sup>(Notes 23 and 24)</sup>	(2,111)	(2,926)
<b>Net Outlays</b> <sup>(Note 24)</sup>	<b>\$ 21,335</b>	<b>\$ 20,058</b>

\* The accompanying notes are an integral part of these statements.

Note: The Department's complete statements, accompanying footnotes, and independent auditor's report are included in DOE's FY 2008 [Agency Financial Report](#).

U.S. Department of Energy Consolidated Statements of Custodial Activities  
For the Years Ended September 30, 2008 and 2007

(\$ in millions)

	FY 2008	FY 2007
<b>SOURCE OF COLLECTIONS:</b>		
Cash Collections: <sup>(Note 25)</sup>		
Power Marketing Administrations	\$ 573	\$ 532
Federal Energy Regulatory Commission	62	82
Petroleum Pricing Violation Escrow Fund	9	13
Total Cash Collections	\$ 644	\$ 627
Accrual Adjustment	(26)	(5)
Total Custodial Revenue	\$ 618	\$ 622
<b>DISPOSITION OF REVENUE:</b>		
Transferred to Others:		
Department of the Treasury	(302)	(290)
Army Corps of Engineers	(5)	(31)
Bureau of Reclamation	(327)	(305)
Others	(3)	(7)
Decrease/(Increase) in Amounts to be Transferred	19	11
Net Custodial Activity	\$ -	\$ -

\* The accompanying notes are an integral part of these statements.

Note: The Department's complete statements, accompanying footnotes, and independent auditor's report are included in DOE's FY 2008 [Agency Financial Report](#).





U.S. DEPARTMENT OF  
**ENERGY**

[WWW.ENERGY.GOV](http://WWW.ENERGY.GOV)

This report available at  
[www.cfo.doe.gov/cf1-2/2008parpilot.htm](http://www.cfo.doe.gov/cf1-2/2008parpilot.htm)