

UNITED STATES DEPARTMENT OF ENERGY CORPORATE OVERVIEW



U.S. DEPARTMENT OF
ENERGY

2012

SECTION ONE

INTRODUCTION TO THE DEPARTMENT OF ENERGY

EXECUTIVE SUMMARY

Welcome to the Department of Energy.

This book provides an overview of the Department of Energy (DOE). The opening sections describe the mission areas, organizational structure and upcoming critical issues of the Department, followed by brief descriptions of DOE's goals and programs. Later sections provide overviews of the Department's budget, staffing, contract management, project management, Congressional jurisdiction, Government Accountability Office (GAO) and DOE's Inspector General (IG) oversight and DOE high-visibility rulemakings.

We hope that this document enables you to acquire useful information about DOE. If you have any questions, please contact the Office of Program Analysis and Evaluation, at 202-586-1911.

Issued on November 27, 2012.

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DOE Verbal Shortcuts and Acronyms

The following acronyms and shortcuts are used at DOE to quickly identify people and offices:

People:

S-1:	Secretary of Energy
S-2 or DS	Deputy Secretary of Energy
ADS	Associate Deputy Secretary of Energy
S-3:	Under Secretary (sometimes referred to as Under Secretary of Energy)
S-4:	Under Secretary for Science
NA-1:	Under Secretary for Nuclear Security, and Administrator for NNSA
U/S:	Under Secretary abbreviation
Dash 1s:	Assistant Secretaries/ Program Element Heads (For example, FE-1 is the Assistant Secretary of Fossil Energy.) Dash 1s can also be PSOs or Program Secretarial Officers. Dash 1s are generally political appointees except for PMAs and LM, and several staff and support offices (CIO, HG, HSS, ED and MA).
PDAS:	Principal Deputy Assistant Secretary (generally, the most senior career employee)
DAS:	Deputy Assistant Secretary (generally, a senior career employee)
PAS:	President Appointed/Senate Confirmed

Program Offices/Administrations:

Staff and Support Offices

EERE: Office of Energy Efficiency and Renewable Energy	CFO: Chief Financial Officer
FE: Office of Fossil Energy	CHCO: Chief Human Capital Officer
NE: Office of Nuclear Energy	CIO: Chief Information Officer
OE: Office of Electricity Delivery and Energy Reliability	CI: Congressional and Intergovernmental Affairs
IE: Office of Indian Energy Policy and Programs	ED: Economic Impact and Diversity
ARPA-E: Advanced Research Projects Agency – Energy	GC: General Counsel
PMAs: Power Marketing Administrations	HSS: Health, Safety and Security
EIA: Energy Information Administration	HG: Hearings and Appeals
LPO: Loan Programs Office	IG: Inspector General
SC: Office of Science	IN: Intelligence and Counterintelligence
NNSA: National Nuclear Security Administration	MA: Management
EM: Office of Environmental Management	PI: Policy and International Affairs
LM: Office of Legacy Management	PA: Public Affairs

INTRODUCTION TO THE DEPARTMENT OF ENERGY

Quick Facts

Employees: Roughly 16,000¹ federal employees and 92,000 contractor employees
Budget: Approximately \$26 billion
Sites: Over 80 laboratories, sites and facilities across the U.S. and seven international offices

A Rich History

The Department of Energy (DOE) has one of the richest and most diverse histories in the federal government. DOE's origins start with the Manhattan Project and the race to develop the atomic bomb during World War II. Following the war, Congress engaged in a vigorous and contentious debate over civilian versus military control of the atom. The Atomic Energy Act of 1946 settled the debate by creating the Atomic Energy Commission, which took over the Manhattan Engineer District's sprawling scientific and industrial complex. The Atomic Energy Act of 1954 ended exclusive government use of the atom and began the growth of the commercial nuclear power industry, giving the Atomic Energy Commission authority to regulate the new industry.

In response to changing needs in the mid 1970s, the Atomic Energy Commission was abolished and the Energy Reorganization Act of 1974 created two new agencies: the Nuclear Regulatory Commission to regulate the nuclear power industry and the Energy Research and Development Administration to manage the nuclear weapon, naval reactor, and energy development programs. However, the extended energy crisis of the 1970s soon demonstrated the need for unified energy organization and planning.

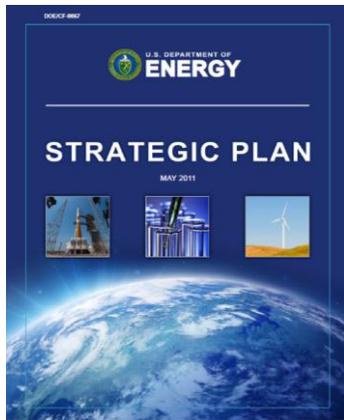
The Department of Energy Organization Act created DOE in 1977 by bringing together several federal agencies and programs. The Department of Energy, activated on October 1, 1977 as the 12th Cabinet agency, assumed the responsibilities of the Energy Research and Development Administration, the Federal Energy Administration, the Federal Power Commission, and parts and programs of several other agencies. The National Defense Authorization Act for Fiscal Year 2000 (FY 2000) established the National Nuclear Security Administration, a semi-autonomous organization within the Department, on March 1, 2000.

The establishment of the Department of Energy brought most federal energy activities under one umbrella and provided the framework for a comprehensive and balanced national energy plan. The Department undertook responsibility for long-term, high-risk research and development of energy technologies, federal power marketing, energy conservation, the nuclear weapons program, energy regulatory programs, and a central energy data collection and analysis program.

DOE's Mission and Vast Scope

As stated in the DOE 2011 Strategic Plan, the mission of the Department of Energy is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. The Strategic Plan provides the policy and operational framework for implementing the Department's mission through four strategic goals:

¹ This total includes the Federal Energy Regulatory Commission (FERC), which was created as an independent regulatory commission within the Department of Energy by Section 401 of the DOE Organization Act of 1977. In 2012, FERC had about 1,500 federal employees, while DOE had about 14,500, for a total of about 16,000 federal employees.



[DOE Strategic Plan](#)

Goal 1: Transform our Energy Systems. Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies.

Goal 2: The Science and Engineering Enterprise. Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas.

Goal 3: Secure our Nation. Enhance nuclear security through defense, nonproliferation, and environmental efforts.

Goal 4: Management and Operational Excellence. Establish an operational and adaptable framework that combines the best wisdom of all Department stakeholders to maximize mission success.

The four broad goals articulated in the Strategic Plan are described in the sections below, along with those programs focused towards that goal. It is important to emphasize that the programmatic efforts of the Department are not stove-piped narrowly into these goals, but cross multiple goals. For example, Transform our Energy Systems relies extensively on activities in the Office of Science, especially for basic energy research, in addition to the Applied Energy Programs and ARPA-E. These cross-cutting efforts are embodied in "Integrated Technology Teams" that bring together program managers and experts across the Office of Science, Applied Energy, and ARPA-E. Similarly, the program offices play a significant role in the Management and Operational Excellence Goal, which does not solely rely on the DOE support offices.

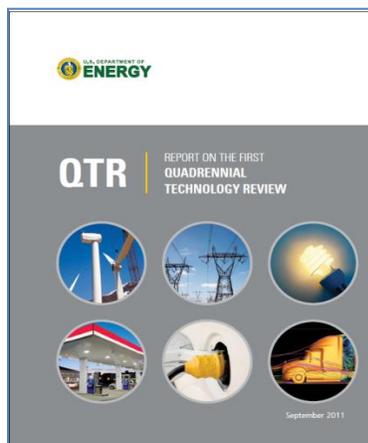
STRATEGIC GOAL 1: TRANSFORM OUR ENERGY SYSTEMS: Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies.

DOE is focused on diversifying America's energy supply, improving energy efficiency, and expanding supplies of clean energy. The Under Secretary of Energy directs DOE's Office of Energy Efficiency and Renewable Energy (EERE), Office of Fossil Energy (FE), Office of Nuclear Energy (NE), Office of Electricity Delivery and Energy Reliability (OE) and Office of Indian Energy Policy and Programs (IE), with a combined annual budget of approximately \$3.8 billion. These energy offices accelerate and promote technologies that can reduce America's reliance on oil imports, produce clean electricity with reduced emissions, and bolster U.S. economic competitiveness. DOE's five energy offices work with scientists at research and development programs, many of which are from DOE's national laboratories, to reduce the cost of new beneficial technologies for consumers and to bring the technologies into the marketplace.

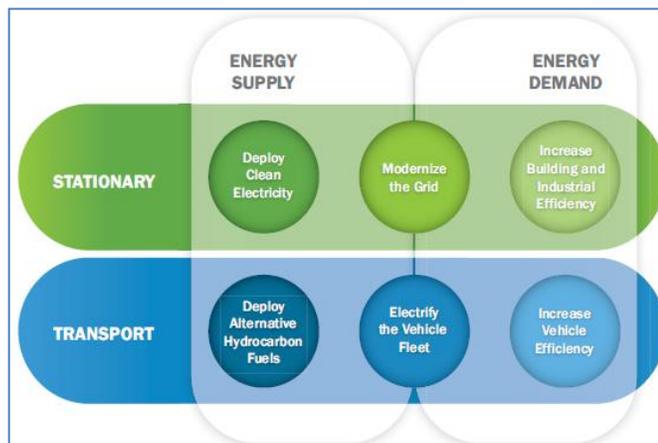
Some DOE offices and programs are directly involved in selling, distributing, and storing energy for safekeeping. The Power Marketing Administrations (PMAs) sell hydroelectric power generated at multipurpose water projects owned and operated primarily by the Department of Interior's Bureau of Reclamation and the U.S. Army Corps of Engineers. In FY 2011, DOE's four PMAs marketed power from 134 Federal power plants with maximum operating capabilities of 38,437 megawatts, approximately three percent of the Nation's power plant capacity. DOE also has responsibility for the Strategic Petroleum Reserve (SPR). SPR currently stores up to 696 million barrels of crude oil at four storage sites located along the Gulf Coast, to minimize the threat of severe oil supply disruptions. The Department also provides a national service through its Energy Information Administration (EIA), which tracks and analyzes energy data, and through the Loan Programs Office which provides loan guarantees to accelerate the deployment of innovative clean energy projects.

Quadrennial Technology Review (QTR)

DOE published its first Quadrennial Technology Review (QTR) in September 2011 to establish a framework for thinking clearly about transforming the Nation's energy system. The Department's energy strategy has historically been organized along individual program lines and based on annual budgets. With the QTR, DOE binds together multiple energy technologies, as well as multiple DOE energy technology programs, toward the common purpose of solving our Nation's energy challenges. In addition, the QTR provides a framework for DOE multi-year planning. The QTR involved extensive consultation with more than 600 stakeholders in industry, academia, DOE national laboratories, and other organizations. The energy strategies identified by the QTR include the following six strategies (shown on the right):



[Report On the First QTR](#)



The QTR establishes principles by which the Department can judge the priority of the full spectrum of our research efforts. Rather than an ordered prioritization of technologies or activities, these principles are used to guide more detailed priority-setting during the annual budget process and to inform decisions about which technologies merit further investment. The QTR, as recommended by the President's Council of Advisors on Science and Technology (PCAST), is the necessary first step of a multi-agency Quadrennial Energy Review that could dramatically improve the integration and effectiveness of the government's energy policy. Most recently, 17 [technology assessments](#) were published as part of the QTR process in August 2012. These assessments summarize techno-economic status and R&D opportunities for the most important energy technologies and systems.

STRATEGIC GOAL 2: THE SCIENCE AND ENGINEERING ENTERPRISE: Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas.

DOE is the largest federal funder of the physical sciences. The Department supports basic research into the smallest constituents of matter; the most fleeting subatomic, atomic, and chemical transitions; and the structure and properties of materials and biological systems. DOE's research extends understanding of nature; enables new technologies that support the Department's energy, environment, and security missions; and improves the quality of life of all Americans. Scientific discovery feeds technology development and, conversely, technology advances enable scientists to pursue an ever more challenging set of questions. The Department maintains scientific leadership in fields where this feedback is

particularly strong, including materials science research, bio-energy research, and high-performance computing.

The Department's Office of Science (SC) program is unique among federal research agencies in the extent to which it enables discoveries and innovation through investments in the design, construction, and operations of unique, world-leading facilities and research tools for discovery. SC's technical enterprise will not remain vital without a continual upgrading and full exploitation of the experimental and computational tools that advance discoveries. These tools for discovery in science often push technology development earlier and harder than almost any other type of scientific activity.

The Department has core technology research competencies in nuclear systems, security, and reliability systems, accelerator and detector technologies, light sources and associated instrumentation, high-speed diagnostics, and pulsed power systems. The Department's scientific research also plays an important role in a high-technology economy through the skilled technical workforce that work and train in these diverse activities.

SC has an annual budget of \$5 billion, manages 10 of the 17 DOE national laboratories and more than 40 Energy Frontier Research Centers (EFRCs), engages in research with over 300 universities nationwide, and works cooperatively with the energy technology programs on Energy Hubs and Integrated Technology Teams ("tech teams").

STRATEGIC GOAL 3: SECURE OUR NATION: Enhance nuclear security through defense, nonproliferation, and environmental efforts.

Throughout the second half of the 20th Century, DOE and its predecessor agencies played a critical role in ensuring our Nation's security. DOE developed and maintained the arsenal of nuclear weapons that deterred the threats of our Nation's Cold War enemies.

With the end of the Cold War, the Department's national security focus shifted from weapons development to stockpile stewardship. This focus centers upon assuring the safety, security and reliability of our nuclear deterrent. DOE, through the National Nuclear Security Administration (NNSA), works to enhance national security through the military application of nuclear energy. NNSA, with a budget of approximately \$11 billion/year, has four national security priorities:

- Ensuring the integrity, safety and security of the country's nuclear weapons;
- Promoting international nuclear safety;
- Advancing nuclear non-proliferation; and,
- Continuing to provide safe, efficient and effective nuclear power plants for the U.S. Navy.

In addition to the stockpile stewardship, non-proliferation and naval reactor activities listed above, DOE's Office of Intelligence and Counterintelligence (IN) works to ensure the security of DOE critical programs through the application of an effective and coordinated counterintelligence program. Counterintelligence activities focus on protecting our nuclear weapons secrets and other sensitive scientific endeavors, and cooperating with other Departmental and U.S. government elements in efforts to defeat terrorism. IN also supports the Department and the broader national security community with technically-based intelligence analysis of foreign nuclear programs, global nuclear materials security, cyber threats, and global energy security matters.

Complete the Environmental Remediation of our Legacy and Active Sites.

One of the greatest challenges faced by the Department is cleaning up the environmental legacy of more than 70 years of nuclear weapons production and nuclear power research and development. This mission requires the stabilization and disposition of over 90 million gallons of liquid radioactive waste, millions of cubic meters of solid radioactive wastes, thousands of tons of used nuclear fuel and special nuclear material, and huge quantities of contaminated soil and water. The total remaining costs to clean up these sites is estimated at over \$250 billion, making it the third largest federal liability after Social Security and Medicare.

DOE has had responsibility for cleaning up a total of 108 contaminated sites. Taken together, these sites encompassed an area of two million acres – equal to the size of Rhode Island and Delaware combined. As of the end of FY 2011 DOE, through its Office of Environmental Management (EM), completed cleanup activities for 90 sites in 30 states (in addition to the Commonwealth of Puerto Rico). EM is responsible for the remaining cleanup at 17 sites in 11 states. 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. With such vast, complex projects the estimates for cost and schedule are highly uncertain. Even after completion of the clean-up effort, DOE, through its Office of Legacy Management (LM), maintains surveillance and monitoring at the various sites.

Disposal of the Nation's commercial and defense nuclear waste is another environmental management challenge. The DOE Office of Nuclear Energy's Used Fuel Disposition program researches technology options that will enable decision makers to decide how to best manage nuclear waste and used fuel from reactors, and evaluates nuclear fuel management and high-level waste disposal options, including options for the storage and transportation of used nuclear fuel. The project to construct a repository at Yucca Mountain, Nevada, for the disposal of used nuclear fuel and high-level radioactive waste was cancelled in 2010. Options to address requirements for long-term storage or disposition of nuclear waste are currently being considered, including those recommended by a Blue Ribbon Commission, appointed by Secretary Chu at the request of the President. Many of these options would require legislative action. There is at present no approved plan for disposal of commercial and defense nuclear waste, which is currently being stored on-site at public utilities and at secure DOE facilities. Transuranic Waste, however, is being disposed of at the Waste Isolation Pilot Plant in New Mexico.

STRATEGIC GOAL 4: MANAGEMENT AND OPERATIONAL EXCELLENCE: Establish an operational and adaptable framework that combines the best wisdom of all Department stakeholders to maximize mission success.

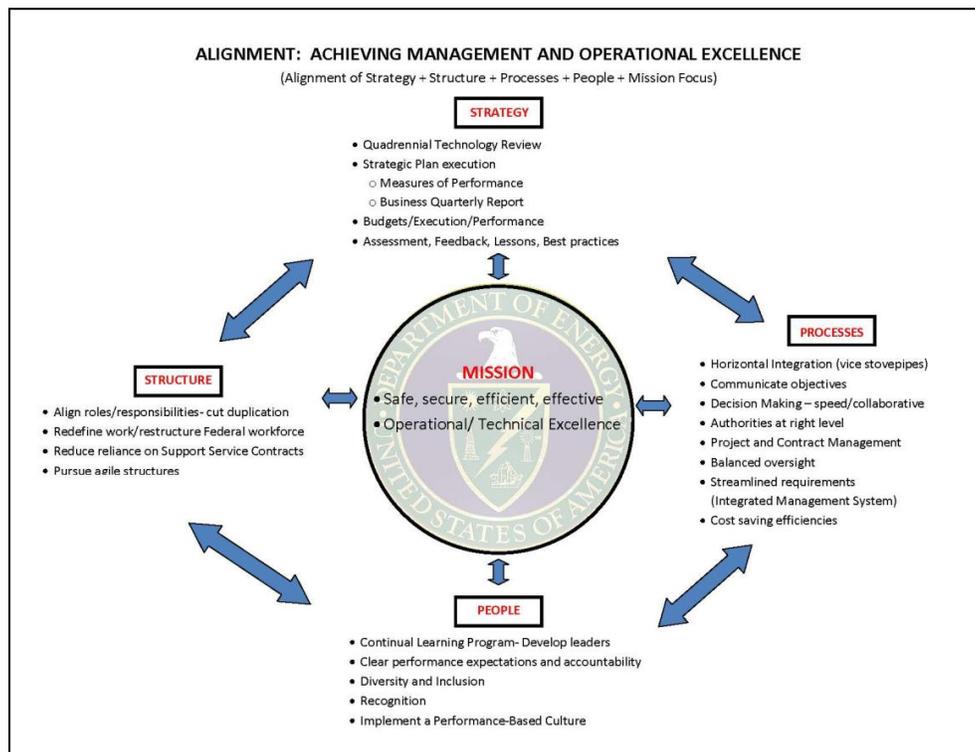
As described in DOE's 2011 Strategic Plan, DOE relies upon seven Management Principles:

- Our mission is vital and urgent.
- Science and technology lie at the heart of our mission.
- We will treat our people as our greatest asset.
- We will pursue our mission in a manner that is safe, secure, legally and ethically sound, and fiscally responsible.
- We will manage risk in fulfilling our mission.
- We will apply validated standards and rigorous peer review.
- We will succeed only through teamwork and continuous improvement

Goal 4 is implemented using a systems approach to align DOE’s strategy, processes, structure and people so they are focused on mission accomplishment, including performance-based management. Management and Operations Excellence follow three key priorities:

1. Improve mission execution via alignment and corporate horizontal integration.
2. Capture efficiencies while achieving excellence.
3. Institutionalize effectiveness via culture change.

As described in Section 6, the Department implements these priorities within the framework of the DOE Strategic Plan to pursue management and operational excellence through performance management, management alignment and corporate integration.



DOE Priority Goals and Performance Management

In January 2012, the Department established eight Priority Goals in response to the GPRA Modernization Act of 2010, which called for the establishment of a set of goals reflecting the highest priorities of the Department. The Deputy Secretary reviews progress on the eight priority goals along with other key goals during a Business Quarterly Review (BQR). Starting in late 2012, priority goal progress will be reported to the public on the government-wide website Performance.gov. Additional Key Goals and performance measures are tracked for each program. Furthermore, 52 Measures of Performance (MOPs) track DOE management and operational excellence, Goal 4 of the Strategic Plan. The eight DOE Priority Goals are described in the following table.

Program	Area	DOE Goal Statement	Goal Leaders
Science	User Facilities	Prioritization of scientific facilities to ensure optimal benefit from Federal investments. By September 30, 2013, formulate a 10-year prioritization of scientific facilities across the Office of Science based on (1) the ability of the facility to contribute to world-leading science, (2) the readiness of the facility for construction, and (3) an estimated construction and operations cost of the facility.	William Brinkman Patricia Dehmer
Energy	Battery Performance	Reduce the cost of batteries for electric drive vehicles to help increase the market for Plug-In Hybrids and All Electric Vehicles and thereby reduce petroleum use and greenhouse gas emissions. By October 2013, demonstrate a prototype Plug-In Hybrid battery technology that is capable of achieving a cost of \$400/kWhr (useable energy) during high volume manufacturing (100,000 packs per year) compared to a 2008 baseline of \$1000/kWhr.	David Sandalow Kathleen Hogan
Energy	SunShot	Make solar energy as cheap as traditional sources of electricity. By the end of the decade, drive the cost of solar electricity down to: \$1/W at utility scale; \$1.25/W at commercial scale; and \$1.50/W at residential scale. By December 2013, demonstrate a prototype thin film or film silicon module with an efficiency of greater than 21% and a balance-of-system with a 50% reduction of the permitting and installation costs to \$1.50/W.	David Sandalow Steve Chalk
Energy	Appliance Standards	Reduce consumer energy use and costs for household appliances. By December 31, 2013, issue at least 9 new energy conservation standards to deliver net consumer savings of hundreds of billion of dollars over 30 years and require efficient products across domestic and international manufacturers.	David Sandalow Kathleen Hogan
Energy	Weatherization Retrofits	Save low income families money and energy through weatherization retrofits. From FY2010 through FY2013, in collaboration with HUD, enable the cost-effective energy retrofits of a total of 1.2 million housing units, of which more than 75% are low income.	David Sandalow Kathleen Hogan
NNSA	Non-Proliferation	Make significant progress toward securing the most vulnerable nuclear materials worldwide within four years. By December 31, 2013, remove or dispose of a cumulative total of 4,353 kg of vulnerable nuclear material (highly enriched uranium and plutonium), and complete material protection, control and accounting (MPC&A) upgrades on a cumulative total of 229 buildings containing weapons usable material.	Thomas D'Agostino Anne Harrington Terry Geliske
NNSA	Weapons Stockpile	Maintain the U.S. nuclear weapons stockpile and dismantle excess nuclear weapons to meet national nuclear security requirements as assigned by the President through the Nuclear Posture Review. Each year through 2013 and into the future, maintain 100% of warheads in the stockpile that are safe, secure, reliable, and available to the President for deployment.	Thomas D'Agostino Dr. Donald Cook Patrick Ciganer
EM	Footprint Reduction	Reduce the Department's Cold War legacy environmental footprint. By September 30, 2013 achieve a 71% reduction in DOE's cold war environmental footprint.	Thomas D'Agostino Tracy Mustin

DOE's Leadership and Management: Secretary, Deputy Secretary, Associate Deputy Secretary, and Under Secretaries

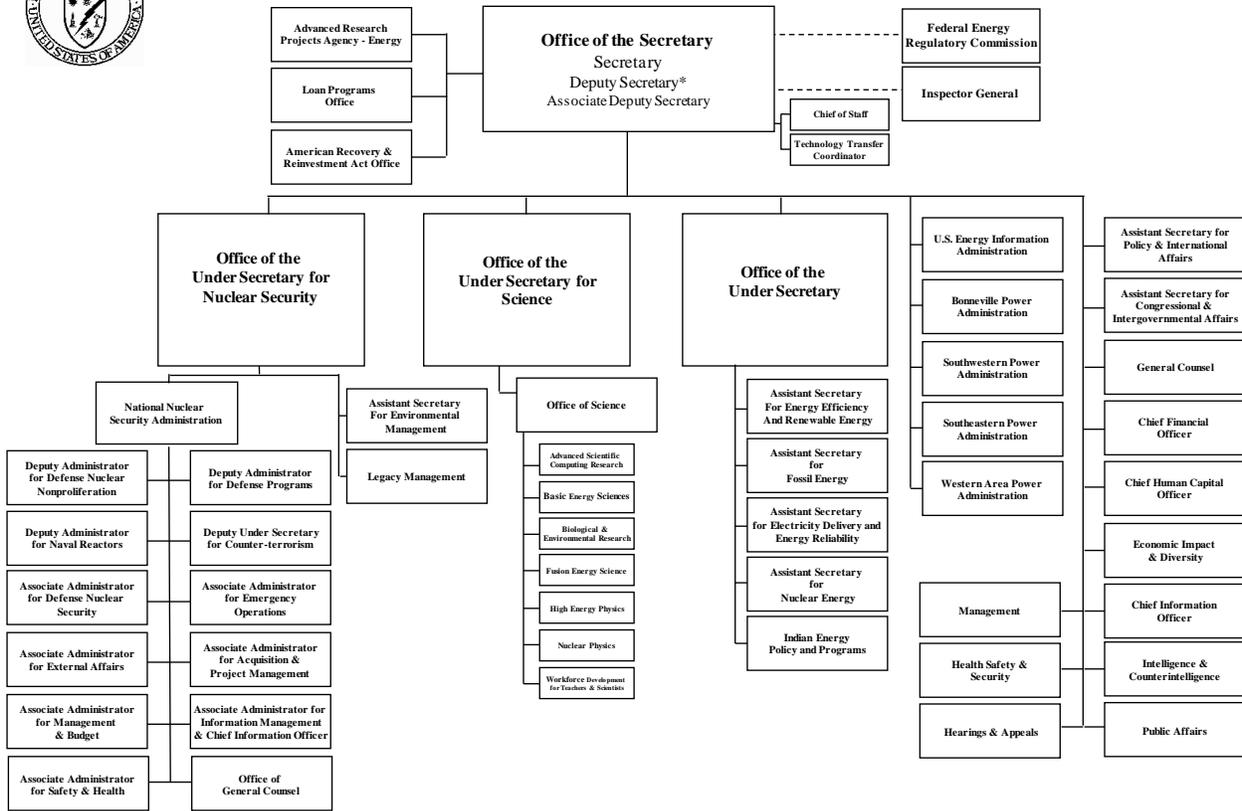
The Department of Energy Organization Act, as amended, establishes the Secretary, Deputy Secretary and three Under Secretaries as the principal officers of the Department. The Deputy Secretary is to act for and exercise the functions of the Secretary during the absence or disability of the Secretary or in the event the position becomes vacant. The Deputy Secretary serves as the Chief Operating Officer of the Department, oversees the operations of the Department, and provides policy direction to the Under Secretaries. Additionally, all staff and support offices report administratively to the Deputy Secretary. The Associate Deputy Secretary supports the Secretary and Deputy Secretary to drive improvements in mission execution and management efficiency.

The Under Secretary of Energy presides over DOE's energy offices (EERE, FE, NE, OE and IE), respective field offices and three national labs. With the establishment of NNSA, the position of Under Secretary for Nuclear Security was created to serve as the Administrator of NNSA. This Under Secretary oversees all NNSA programs, NNSA field offices and national labs, and the environmental management offices (EM and LM). The Energy Policy Act of 2005 created the position of the Under Secretary for Science. The Under Secretary for Science oversees SC and SC's ten national labs, and serves as the Secretary's chief science advisor.

The Department's Organizational Chart.



DEPARTMENT OF ENERGY



* The Deputy Secretary also serves as the Chief Operating Officer

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DOE's National Laboratories

At the heart of DOE's mission are its national laboratories, a network of 17 institutions that are run primarily through contractors. With nearly \$11 billion of the DOE Fiscal Year (FY) 2013 appropriations going to the national laboratories, much of the DOE mission accomplishment takes place at those laboratories.

The laboratories focus on cutting-edge basic and applied science, research and development, national defense, and environmental management. They also provide large scientific facilities in support of research and development to other federal agencies and non-federal entities, including major collaborations with industry. They maintain access to critical scientific, technical and national security capabilities to meet national priorities. Out of the 17 national laboratories, 10 are overseen by the Office of Science (SC), 3 are overseen by NNSA, and 4 are overseen by other DOE offices.

The chart below lists DOE's national laboratories with their locations and programmatic offices.

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

DOE's national laboratories were initially created as a means to an end: victory in World War II and national security at the dawn of the new atomic age. Since that time, they have responded to national priorities: first for national defense and also in the space race; more recently to include basic and applied energy research, as well as new methods for countering terrorism and cyber attacks domestically and abroad.

The national labs have contributed scientific advances in nuclear energy, nuclear medicine, advanced computation, genomics, materials science, chemistry, physics and other areas that have resulted in over 100 Nobel Prizes and thousands of industrial patents since DOE's inception. No other organization in the world builds, operates and manages such a diverse array of technical talent and large-scale scientific instruments.

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

DOE Headquarters and Field Relationships

The Department's organizational philosophy is based on the concept of centralized policy development, program planning and administrative management and support at headquarters, with decentralized program implementation and project management at the various field organizational elements. Accomplishment of DOE's work is generally through contractors at various field locations. Operating under the authority derived or specifically delegated by the Secretary of Energy, federal staff at headquarters provide all elements of the Department with management direction and broad policy overview, oversight, planning, budgeting, resource allocation and maintenance of relations with the Congress, other federal agencies and the public.

Within this structure, there are no bureaus or equivalent independent components, with the exception of the Federal Energy Regulatory Commission (FERC), an independent regulatory commission, and the Inspector General, that function within the bounds of independent authorities granted by their respective legislation. NNSA, while being a distinct entity within the Department, operates under the policy control of the Secretary.

DOE primarily accomplishes its work in the field. Energy research and development, environmental management, waste management and defense missions are carried out through an extensive network of contractors, frequently under Management and Operating (M&O) and/or Facility Management (FMC) contracts. These contractors are private industrial, education or non-profit institutions that construct and operate DOE's government-owned/contractor-operated (GOCO) facilities. More information on DOE's contract management is discussed in section nine of this book.

It should be noted that DOE is one of the most leveraged of the Cabinet Departments, with nearly seven contractor employees for every federal employee. See section eight of this book for more information on DOE's federal and contractor employees.

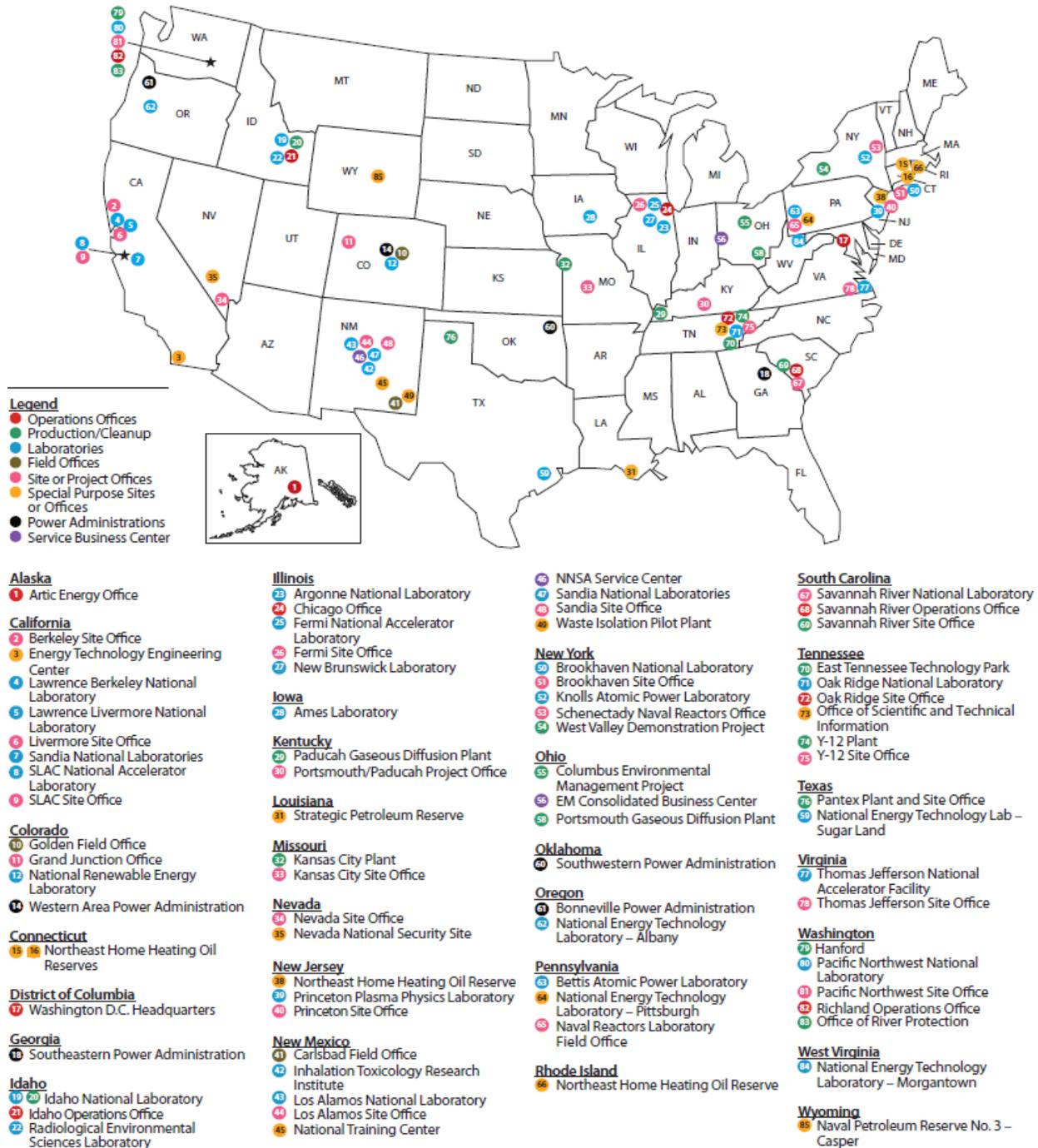
The reporting relationships between headquarters and field offices are managed by Program Secretarial Officers (PSOs). Each field office and specialized office is assigned to a specific PSO who has line management responsibility for managing field activities. This ensures clear accountability and responsibility for all activities, whether performed by federal or contractor entities. PSOs are the heads of the major headquarters line programs:

- The Assistant Secretaries for EM, EERE, FE, NE and OE;
- The Deputy Administrators of NNSA for Defense Programs, Defense Nuclear Nonproliferation, and Naval Reactors; and,
- The Directors of LM, SC and IE.

The PSOs are ultimately accountable to the Secretary and Deputy Secretary, through the Under Secretaries, for all aspects of the planning and execution of their programs conducted both at headquarters

and the field. Although reporting to headquarters through a single PSO, the managers of field offices are accountable to all PSOs that have programs being accomplished through their sites.

The following map shows the locations of DOE laboratories and field offices.



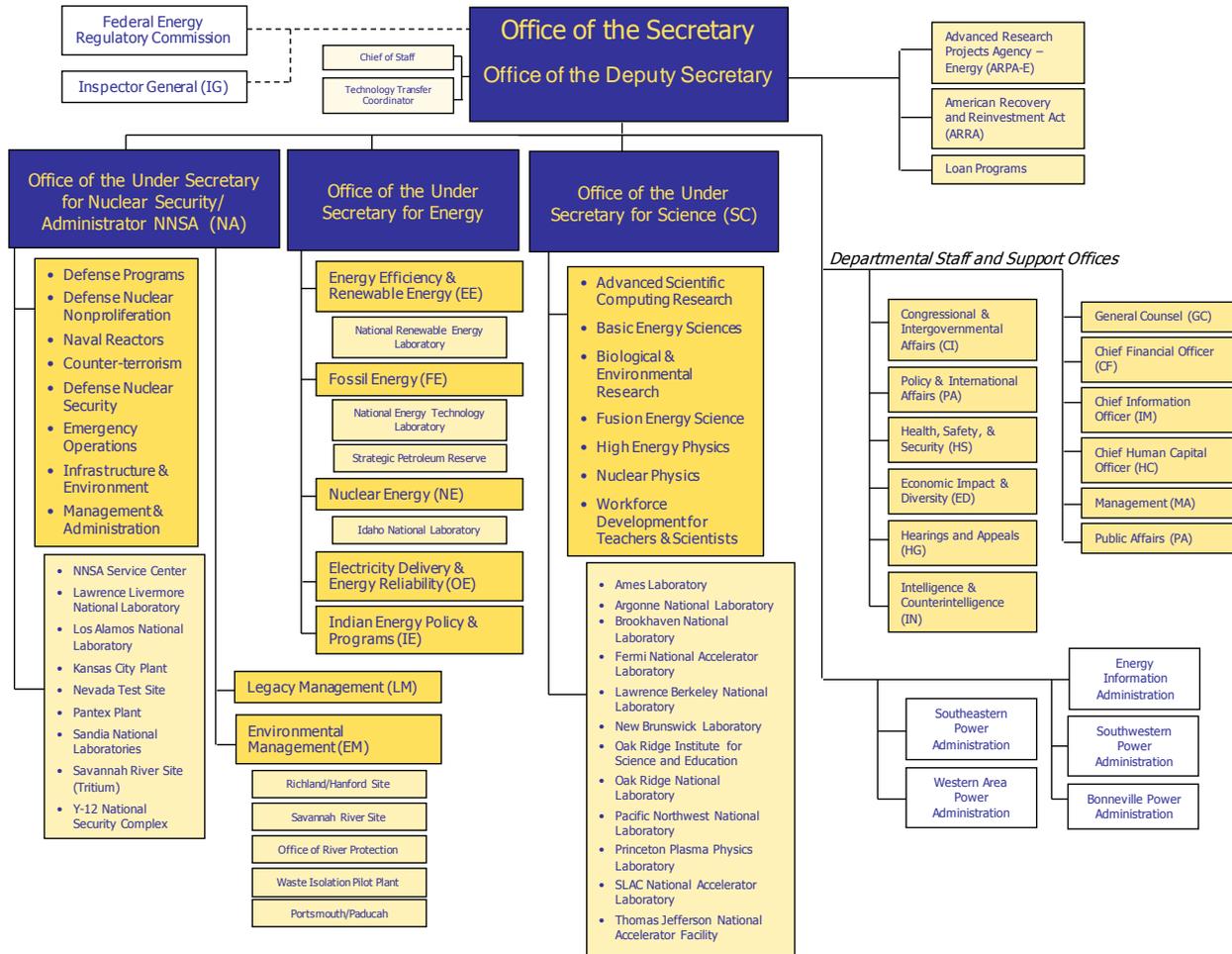
The DOE national security complex is under the principal responsibility of NNSA and consists of eight primary sites: four production facilities (Pantex Plant, Y-12 National Security Complex, Kansas City Plant, and Savannah River Site), three national laboratories (Los Alamos National Laboratory, Lawrence

Livermore National Laboratory, and Sandia National Laboratories), one test site (Nevada National Security Site), and three Naval Reactors laboratories and sites. In addition, a number of DOE laboratories and sites support NNSA missions and partner with NNSA’s primary sites.

The following map shows the locations of the principal DOE national laboratories and sites that comprise the NNSA national security complex.



The following chart displays DOE Program relationships to the field and Staff and Support Offices.



SECTION TWO

CRITICAL ISSUES

- Top Critical Issues
- Other Critical Issues
- Events
- Issues/Events by Chronology

This section contains a listing of Top Critical Issues, Other Critical Issues, as well as key Events, which have been sorted by major topic area. Most of these issues and events can be found in the individual program sections, which contain additional detail and other issues of interest. Actions and dates have been identified as appropriate. The final section contains a re-listing of all issues and events by chronology, with abridged description

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
MAJOR CAPITAL PROJECTS				
NNSA EM MA	Review of High Risk Capital Asset Projects	Of the 122 DOE active capital asset projects, several have exceeded their original baseline costs and eight are at risk or expected to breach current performance baseline: Waste Treatment and Immobilization Plant (WTP), Salt Waste Processing Facility (SWPF), Mixed Oxide Fuel Fabrication Facility (MOX), Waste Solidification Building (WSB), Nuclear Facility Decontamination and Decommissioning (D&D) Special Process Research Unit, Building G2 & H2 D&D, Nuclear Materials Safeguards and Security (NMSSUP), and Microwave Deployment at Y-12. Uranium Processing Facility (UPF) is also being closely monitored due to potential cost and schedule issues, and high interest from the Department of Defense. Four projects are on a watch list for closer management attention and are listed below (UPF, MOX, WTP, SWPF). See Project Management, Section 10, for additional details.	Conduct selected reviews of major, complex projects to determine alternative approaches to meet project goals and reduce long-term costs. Independent technical experts will lead deep-dive project reviews (at least one month) and involve all appropriate stakeholders. Teams will report to S-1/S-2 on alternative project approaches.	Jan-2013
NNSA	Uranium Processing Facility (UPF)	The critical decision (CD-2) on the project performance baseline for the Uranium Processing Facility at Y-12 will be ready for approval by the Deputy Secretary in July 2013.	Deputy Secretary to approve/disapprove CD-2.	Jul-2013
NNSA	Mixed Oxide Fuel Fabrication Facility (MOX) Feedstock	The MOX project is currently being rebaselined. NNSA recently canceled a multi-billion dollar Pit Disassembly and Conversion Facility that would disassemble nuclear weapons pits and provide feedstock to the MOX Fuel Fabrication Facility. The new DOE strategy involves using existing facilities and is being analyzed as part of an ongoing NEPA action.	The new strategy Record of Decision will need to be issued by the Under Secretary for Nuclear Security, and coordinated with S-1/S-2, by mid-2013.	Apr-2013
EM	Waste Treatment and Immobilization Plant (WTP) Cost, Schedule, and Technical Issues	The Waste Treatment and Immobilization Plant Project has many significant issues, including technical, cost and schedule challenges. The Secretary convened a group of independent technical experts to review technical issues and provide perspectives and opinions.	Revised Defense Nuclear Facilities Safety Board Implementation Plan for Recommendation 2010-2, Pulse Jet Mixing - S-1 Signature - April 2013; Quarterly updates of strategy for implementing Secretary Waste Treatment Plant/Office of River Protection Mission review initiatives - S-2. Potential Congressional follow-up to GAO review of WTP – S-2, Date TBD. (Nov-2012 to Apr-2013)	Nov-2012
EM	Salt Waste Processing Facility (SWPF) Cost and Schedule	The Project has cost overruns. DOE is negotiating with the contractor on a path forward and a new baseline (goal is to complete by end of November 2012).	Rebaseline project by Nov 30, 2012. S-2, the Secretary Acquisition Executive, is required to approve rebaselined Project.	Nov-2012

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
EM	K-25 Decontamination and Decommissioning (D&D) Oversight	The original CD2 baseline of \$479M increased to the current baseline of \$1,397M.	Continue enhanced oversight of the K-25 D&D project to ensure that the approved baseline will be achieved without significant changes.	Jan-2013
NATIONAL SECURITY				
NNSA	Nuclear Stockpile Annual Assessment	NNSA laboratory directors will need to brief S-1 in January 2013 on the status of the U.S. nuclear stockpile. S-1 will need to approve the joint letter from the Secretary of Energy and Secretary of Defense to the President on their assessment of the stockpile and the need for nuclear testing.	January 2013 briefing by NNSA laboratory directors to S-1 and March 2013 transmittal of joint letter to the President.	Jan-2013
NNSA	Non-Proliferation: 4-year Lock Down	By Dec 2013, the United States plans to remove or dispose from foreign countries a cumulative total of 4,353 kg of vulnerable nuclear material and complete material protection, control and accounting upgrades on a cumulative total of 229 foreign buildings containing weapons usable material. Negotiations with some of the international partners will be needed on fuel removal schedules, with emphasis on Belarus and South Africa.	The international engagement strategy will be developed and coordinated by the Office of Defense Nuclear Nonproliferation for engagements by NA-1 or S-2 starting in the April timeframe.	Apr-2013
SAFEGUARDS AND SECURITY				
NNSA /HSS	Nuclear Security Reviews and Reforms	In response to the security breach at the Y-12 National Security Complex (Y-12) and Defense Nuclear Facilities Safety Board (DNFSB) recommendations, NNSA, HSS, and MA are conducting reviews of DOE nuclear safeguards and security policies, procedures, personnel, facilities, and contracts.	NNSA Administrator approve/disapprove of the proposed path forward in January 2013. HSS will finish its review of the planned implementation of Y-12 recommendations by Dec 2012 and complete its schedule of inspections by Oct 2013.	Jan-2013
HSS	Safety Culture Reviews	In January 2012, HSS published an Independent Oversight assessment of nuclear safety culture and management of nuclear safety concerns at the Hanford Site Waste Treatment and Immobilization Plant (WTP), a follow-up to the October 2010 HSS review of the WTP nuclear safety culture.	HSS is scheduled to complete nuclear safety culture extent of condition reviews of similar nuclear facility construction projects and other nuclear operations by the end of Dec 2012 to determine if the safety culture issues identified at the WTP exist elsewhere.	Dec-2012
ENERGY				
LPO	Loan Portfolio Management	Briefing on status of FOIA requests and high-profile projects, including current loan guarantee portfolio and potential for new loans.	Office of Loan Guarantees will provide updates to senior leadership.	Jan-2013

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
FE	Carbon Capture Utilization and Storage (CCUS) Demonstration Projects	Path forward on Carbon Capture Utilization and Storage (CCUS) demonstration projects, including ARRA funded projects.	Determine the scientific path forward and how the FE FY13 budget and ARRA funding will be impacted.	Mar-2013
FE	Strategic Petroleum Reserve (SPR) Refill	The President authorized an SPR drawdown in CY 2011 selling 30 million barrels and a decision must be made whether or not to initiate refill. The refill on the SPR is required to (a) restore the Nation's protection and International Energy Agency (IEA) stockpiling obligation and (b) address the current deficiency in SPR stocks at one of its critical sites.	Decision to be made by Jan 31, 2013 is driven by the current deficiency in SPR stocks at one of its critical sites. A new storage cavern was acquired in 2012 and oil fill is tentatively planned in early 2013 to address this issue.	Jan-2013
NE	Implement Blue Ribbon Commission (BRC) Recommendations	The Secretary in FY10 chartered the Commission to develop "conduct a comprehensive review of policies for managing" the nuclear fuel cycle, including all civilian and defense applications of nuclear technology. The Commission's recommendations were delivered to the Secretary in January 2012.	Report to Congress was due July 2012. The report is complete and is under review. Department needs to complete its review and issue the report to Congress as soon as possible.	TBD
NE	Small Modular Reactor (SMR) Licensing Technical Support Awards	Establish Cooperative Agreements with industry partner(s) for the Small Modular Reactor Licensing Technical Support Program.	Complete Notifications and announce industry partners. Sign Cooperative Agreements (Jan - 2013 to Mar -2013)	Jan-2013
SCIENCE				
SC	Energy Frontier Research Centers (EFRCs)	In FY 2009, 46 Energy Frontier Research Centers (EFRCs) were initiated using \$100M from the annual appropriation (30 EFRCs) and \$277M of Recovery Act funding (16 EFRCs, 5-year fully funded). The Centers were established for an initial period of 5 years; their mid-term peer review was very positive and recommended continuing the Center program. Because the Recovery Act funding for the Centers expires in FY 2013, the Office of Science must decide whether to reduce the number of Centers from 46 to about 30 or to add \$55M/year to retain 46 Centers.	Decide whether to reduce the number of EFRCs or add funding; Office of Science is in discussions on future budgets.	Jan-2013
SC	Future of Fusion Energy Sciences	The ITER Project is currently supported, but the funding level is less than optimum. However, increasing the funding level in the out-years would significantly decrease the funding for domestic fusion research and facilities activities, and for activities throughout the Office of Science.	Determine contribution to ITER and impact on SC programs; Office of Science is in discussions on future budgets.	Jan-2013

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
SC	Future of Nuclear Physics	The total cost of operation and construction of three Nuclear Physics (NP) facilities is more than 60% of the budget, leaving less than 40% for the support of research programs. These facilities, begun during a time when it appeared that the budget for the Office of Science would double over a 7-year period, now threaten to squeeze the research programs to an unacceptably low level (< 40% of NP funding). Termination of the operating facilities or the construction projects would also seriously harm the Nuclear Physics program.	Determine right balance between facilities and research in NP; Office of Science is in discussions on future budgets.	Jan-2013
SC	Future of High Energy Physics	The High Energy Physics (HEP) program must quickly determine a future direction for experimental research with the U.S. The construction experiment that is under discussion (related to Fermi National Accelerator Laboratory) is expensive (approx \$1.5 B) and will strain the HEP budget. The issue is to determine whether the budget can be adjusted in a way that can support this new experiment and still retain a balanced portfolio of research and other, smaller experiments.	Determine future balance of HEP program and vision for Fermi National Accelerator Laboratory; Office of Science is in discussions on future budgets.	Ongoing
KEY INTERNATIONAL ISSUES				
OE	Iraq Energy Infrastructure	As directed by the White House, under the National Security Staff's Global Critical Energy Infrastructure Protection Program, DOE/OE must develop a 5-year plan by the end of January 2013 to assist Iraq in improving the security of its critical energy infrastructure to include training and technology integration.	Delivery of the 5-year plan to the Secretary by December 2012.	Dec-2012
PI	Keystone XL Pipeline Permit	The Secretary of Energy will be asked by the Secretary of State for DOE's views on whether it would be in the national interest to grant permission to TransCanada to construct the Keystone XL pipeline from Canada into the U.S.	After the State Department issues the Final Environmental Impact Statement on the Keystone XL pipeline they will draft the Record of Decision and the National Interest Determination. DOE and seven other agencies will have 15 days to notify the Secretary of State if they disagree with the proposed determination. (State Depart., who has the lead, cannot estimate a date in 2013 at this time)	TBD
PI	Liquefied Natural Gas (LNG) Exports	Develop a U.S. position for a range of bilateral interactions including Japan, Turkey, EU, Russia, Qatar and Israel about authorizing LNG exports from the United States, unless it is resolved in the 4 th quarter of 2012. Turkey, EU and Japan want imports; Qatar, Russia and others want to preserve high prices for gas.	PI will deliver to the Secretary a coordinated recommendation by January 18, 2013.	Jan-2013

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
PI	Sanctions on Iran	Continue to monitor oil markets closely, working with producers, consumers and the IEA to assure that actions taken to reduce revenues for Iran do not cause spikes in oil prices. Also monitor impacts of possible sanctions on natural gas and petrochemicals.	Monitor oil markets and coordinate with producers, consumers and the IEA. (CY 2013)	Jan-2013
PI	International Energy Dialogues	DOE is actively engaged with Brazil, China, India, Saudi Arabia, Iraq, Nigeria, Kazakhstan, Russia, South Africa and other countries on a wide-range of issues (LNG exports, pipelines, oil and gas development, renewable energy, etc.). These dialogues require high level DOE participation and long-range planning.	See the separate schedule for the Dialogues in FY13 prepared by PI. (CY 2013)	Jan-2013
PI	International Treaties and Organizations	DOE has agreements with the European Union and that impact oil markets, scientific and technology innovation, non-proliferation policies, and a host of other mission critical activities. A regular schedule of ministerials and meetings are set for FY13 with critical agenda items for DOE and the U.S.	See the separate schedule for the Treaties and International Organizations in FY13 prepared by PI. (CY 2013)	Jan-2013
OTHER ISSUES				
ADS	Achieve Management and Operational Excellence	Ensure compliance with OMB directives to achieve Management and Operational efficiencies and effectiveness; analyze and address FY 2013 DOE IG Management Challenges.	Associate Deputy Secretary (ADS) will oversee implementation in FY 2013.	Jan-2013
OCIO	Cybersecurity	Full implementation of the Joint Cybersecurity Coordination Center (JC3) and advanced DOE-wide cybersecurity services (Federal and contractor sites), respond effectively to cybersecurity threats, and work on an interagency level to ensure that DOE is fully protected from cyber threats.	<ul style="list-style-type: none"> • DOE CIO will coordinate with NNSA CIO and IN to complete JC3 consolidated operations by September 30, 2013. JC3 optimization will occur throughout 2014 • DOE CIO will establish an enhanced cybersecurity services program (DEX) and coordinate implementation at NNSA labs and plants as well as the Power Marketing Administrations by end of Q3 FY 2013 • DOE CIO will develop and deploy an Information and Communication Technology (ICT) Supply Chain Risk Management (SCRM) Program by Q1 FY 2013. The program will provide centralized SCRM resources to the Enterprise. 	Dec-2012

TOP CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
CFO	Sequestration	Unless Congress passes legislation that modifies or repeals current law, the first automatic spending cuts under the Budget Control Act (BCA) will take effect on January 2, 2013, with profound impacts on FY 2013 2nd, 3rd and 4th quarter programmed funding levels.	Data collected at the start of the continuing resolution will allow CFO to move quickly in the event the decision is made to plan for a sequester.	Dec-2012
CFO	FY14 Budget Submission	Programs will need to align the FY14 President's budget with Administration priorities.	DOE CFO will work with program offices to ensure alignment in time for the January 2013 submission to OMB.	Jan-2013
HC	Human Capital (HC) Management	Implement HC reform initiatives, including time-to-hire, recruitment strategies, and training. In addition, HC will identify critical hires required in 2013.	HC will deliver to the Secretary by Jan 2013, a report on reform initiatives and critical hires.	Jan-2013
GC	General Counsel Issues	DOE is involved in major litigation, including Yucca Mountain, the Nuclear Waste Fund User Fee, NEPA cases (Hanford, Nevada), and a Rocky Flats class action suit.	See the separate schedule for actions on the major cases (Nov-2012 to Apr-2013)	Nov-2012

OTHER CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
NATIONAL SECURITY				
NNSA	Warhead Life Extension Program	Nuclear Weapon Council is developing a life extension program strategy for the US stockpile. This includes W76-1 in production, B61-12 in development engineering until 2016, a W78/88-1 Feasibility and Cost Study that finishes in 2016, and supporting Analysis of Alternatives for the Long Range Stand-off weapon to be completed summer 2013.	Internal validation of NNSA's options, costs and schedules will be required for the NNSA Administrator. As a member of the NWC, the Administrator will need to present these options to the members of the Department of Defense by mid-2013.	Jul-2013
NNSA	Livermore Valley Open Campus	CD-1 will require approval to explore third party financing opportunities for the development of the innovative technology park located on the LLNL and SNL/CA campuses. (Jan-Mar)	The NNSA Administrator will need to approve/disapprove the CD-1 for this project in January 2013.	Jan-2013
NNSA	Mission Executive Council	The NNSA Administrator is the co-chair of the four agency Mission Executive Council (DHS, DoD, DNI, and DOE). Together with S-2, they represent DOE and its S&T capabilities. They will need to champion the cross-agency strategic use of DOE laboratories to meet the council's national security objectives. (Apr-Jun)	The Under Secretary for Nuclear Security will need to lead the strategic discussions on the use of DOE laboratories as broader national security assets with peers in DHS, DoD and ODNI by April 2013.	Apr-2013
NNSA	S8G Prototype Refueling	Refueling of the S8G Prototype submarine propulsion plant at the Kesselring site (NY) is needed in order to provide an additional 20 years of nuclear fleet operator training and qualification, research and development, and full-scale development of technology for the OHIO Class SSBN Replacement life-of-ship core. The refueling is required in FY 2018 to coordinate with inactivation and recapitalization of other Naval Reactors reactor training assets and to support the project's alignment with enabling a life-of-ship core for the OHIO Replacement.	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013
NNSA	Ohio Class SSBN Replacement Program	Replace the current fleet of OHIO-Class SSBNs with a new class of submarines. In PB13, DoD delayed construction start of the OHIO-class Ballistic Missile Submarine Replacement program by two years (from FY 2019 to FY 2021). Naval Reactors must deliver the propulsion plant for this new ship, and NR has modified its funding request to support the Navy's new ship construction schedule.	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013
NNSA	Expended Core Facility Recapitalization	Naval Reactors' current facility for processing naval used nuclear fuel is over 50 years old and in need of replacement to ensure that aircraft carrier and submarine refueling schedules and operational requirements are maintained. NR is seeking funding to ensure a new facility can be completed by 2021/2022 to minimize substantial costs associated with operational workarounds and maintenance and repair of the current facility.	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013

OTHER CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
NNSA	Managing pensions	NNSA is responsible for reimbursing M&O contractors on pension costs. There are two types of pension costs, so called "Minimum Required Contributions" (MRC) as required by law and "Alternative Funding Strategy" (AFS) to make contributions above the MRC.	The NNSA Principal Deputy will need to decide on the amount of pension funding for M&O contractors in March 2013.	Mar-2013
NNSA	Workforce planning (right sizing and improving our capabilities through leadership and development)	As of early September 2012, NNSA had 1,842 FTEs on-board paid from the Office of Administrator (OA) account (another 790 are paid for out of other accounts). Under the likely FY 2013 appropriation for OA, NNSA can support 1,817 FTEs, a 111 FTE (6 percent) reduction compared to FY 2011 levels of 1,928 FTEs. NNSA has reduced its FTEs in FY 2012 in anticipation of less FY 2013 funding.	If on-going efforts are not successful in further reducing FTE levels, starting in January 2013 NNSA will need to consider reductions in other administrative areas or find other means to further reduce payroll. (Jan-Jun)	Jan-2013
NNSA	Nuclear Counter Terrorism/	Render Safe Program Special Access Programs	S-1/S-2/NA-1 will need status updates on these activities.	Ongoing
EM	H-Canyon Utilization	Evaluate the use of H-Canyon at Savannah River Site considering currently planned activities and various potential foreign materials that might be dispositioned there. National Environmental Policy Act Record of Decision must be issued for additional activities and are targeted for issuance in early FY 2013.	Support EM Senior Advisor's decision regarding the Record of Decision (Nov 2012, Jan 2013)	Nov-2012
EM	Maintain Progress on Integrated Savannah River Site Tank Waste Program	Funding available to perform waste treatment is substantially decreased because the project funds are used to construct the Salt Waste Processing Facility and to compensate for previously underfunded pension contributions and statutorily imposed increases in current pension funding.	No action required (assumes approval of Salt Waste Processing Facility new baseline, which would provide funding).	Ongoing
EM	Implementation of Actions Resulting from S-1 Requested Review of the Paducah Gaseous Diffusion Plant Project	Complete independent review of the Paducah Gaseous Diffusion Plant transition from USEC to DOE; review includes assessment of decontamination and decommissioning for both Paducah and Portsmouth Gaseous Diffusion Plants.	Final Report presented to S-1/S-2, January 2013	Jan-2013
LM	Uranium Leasing program, Western Colorado	Under the Uranium Leasing Program, DOE administers tracts of land for the exploration, development, and extraction of uranium and vanadium ores. Due to a ruling by a Federal judge, leasing operations are on hold pending the preparation of a Programmatic Environmental Impact Statement (PEIS) and judicial review.	DOE is working with Federal, state, tribal and local cooperating agencies on development of a Draft PEIS. DOE plans to issue the Draft PEIS for public review in February 2013 and a Final PEIS in late 2013	Jul-2013
IN	Classified Briefings	IN recommends briefings on the following issues for incoming leadership: 1. Espionage threat to the DOE Complex 2. Foreign nuclear developments 3. Foreign energy-related developments 4. Cyber issues (possibly a joint briefing with OCIO)	Briefings for senior leadership (Q1 CY 2013)	Jan-2013

OTHER CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
ENERGY				
EERE	Final Rules for Appliance Efficiency Standards	DOE expects to issue at least 6 final rules, setting new standards for products such as motors, battery chargers, and various types of commercial refrigeration equipment.	Rules need to be approved by OMB/OIRA -- currently being worked. Date TBD, varies (CY 2013)	Jan-2013
FE	Unconventional oil and gas Research Plan	On April 13, 2012, a Memorandum of Agreement was signed by DOE, DOI and EPA to develop a multi-agency research plan to address questions associated with safely and prudently developing unconventional shale gas and tight oil reserves.	Final plan 2013. Critical budget decision on implementation required by Jan 2013.	Jan-2013
FE	LNG Export Applications	Fourteen applications received to export LNG to non-Free Trade Agreement countries on hold pending release of two-part LNG cumulative impacts study.	Decision on first application by late 1st qtr. /early 2nd qtr. 2013, assuming study released 4th qtr. 2012. Remainder of applications addressed sequentially.	Dec-2012
EIA	Commercial Buildings Energy Consumption Survey (CBECS)	CBECS provides critical data that inform investments in research, new technologies, building design, energy performance labeling and energy management practices. Potential FY 2013 sequestration scenarios could jeopardize project completion.	At the funding level in OMB's October 2012 sequestration scenario there would not be sufficient resources to keep CBECS on track. DOE leadership could leverage non-EIA funding to support CBECS. Without DOE support, EIA would need to terminate core analytic and data collection activities and furlough employees.	Oct-2012
PMAs	Secretarial Initiatives for the PMAs	The S-1 issued a memorandum on March 16, 2012 regarding proposed goals for the Power Marketing Administrations. The memorandum has generated public comments and concerns, including significant Congressional correspondence and legislative proposals to block implementation. In 2012, Western Area Power Administration was the first PMA to begin a joint DOE/PMA public outreach process to explore the goals outlined in the memorandum. The Western Joint Outreach Team (JOT) is expected to submit recommendations to S-1 by the end of Dec 2012 with implementation of any adopted recommendations to begin in 2013.	No action required; however a Joint Outreach Team is expected to submit draft recommendations to S-1 by December 2012 with implementation of any adopted recommendations in 2013.	Dec-2012
SCIENCE				
SC	Science User Facilities	SC Priority Goal: "Prioritization of scientific facilities to ensure optimal benefit from Federal investments. By September 30, 2013, formulate a 10-year prioritization of scientific facilities across the Office of Science based on (1) the ability of the facility to contribute to world-leading science, (2) the readiness of the facility for construction, and (3) an estimated construction and operations cost of the facility."	Due Sep 2013 with quarterly milestones.	Sep-2013

OTHER CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
SC	High Performance Computing	The 2011 DOE Strategic Plan set a goal to maintain “leadership in computational sciences and high-performance computing” with a targeted outcome to continue to develop and deploy high-performance computing hardware and software systems through exascale platforms. The Office of Science, together with NNSA, are the leads in DOE in achieving this outcome. Early plans to achieve this goal were either too expensive (multiple billions of dollars over a decade) or achieved the desired computational power too slowly (well over a decade).	Continue to work with NNSA, other agencies, the DOE laboratories, and the scientific communities served by the Office of Science to determine an affordable plan that delivers hardware and software as rapidly as possible.	Ongoing
SC	Special nuclear material disposition: Protection of Building 3019 During Disposition	Implement lessons learned from SC and HSS reviews for improved security operations at Building 3019 and to mitigate vulnerabilities associated with the EM removal and disposition of U-233.	Strategy, produced by the Office of Science, by January 2013	Jan-2013
SUPPORT OFFICES				
ADS	Achieve Management and Operational Excellence	Improve Mission Execution via Alignment and Corporate Horizontal Integration. Capture Efficiencies while Achieving Excellence. Institutionalize Effectiveness via Culture Change.	ADS responsible for implementation in FY2013 and beyond .	Ongoing
OCIO	Implementation of DOE's IT Modernization Strategy to Unify the Federal IT Environment	Includes deploying a comprehensive technical architecture and transitioning the Office of the CIO to be the Program, Staff and Field Office's managing partner for shared IT services.	Multiple milestones, see OCIO Section.	Ongoing
CFO	FY2013 Continuing Resolution	Under a six month FY 13 CR, the Department will be provided with nearly half of the FY 12 funding level. The Department is taking the additional step of reducing the amount available by an additional several percent, in light of FY 13 funding uncertainties.	CR budget implementation. (Q1 & Q2 FY 2013)	Oct-2012
CFO	Begin Strategic Planning and Prioritization Process	Strategic Planning Process will begin in 2013, with first draft strategic goals due to OMB Summer 2013.	Final Strategic Plan due with President's 2015 Budget in Feb 2014.	Jun-2013
ED	Diversity & Inclusion	DOE is rated amongst the lowest agencies in the Federal government on the annual "Best Places to Work" survey, and improvements to the diversity and inclusion culture at DOE have been identified as key steps needed to improve DOE's rating.	ED will prepare a report by Jan 2013 for the Deputy Secretary outlining steps needed to improve the culture of diversity and inclusion at DOE.	Jan-2013

OTHER CRITICAL ISSUES

Office	Short Title	Issue Description	Required Action(s) and Date(s)	Date
HSS	Fukushima Daiichi Nuclear Disaster Response	As a follow-up to the actions and activities conducted in FY 2011, in FY 2012 HSS completed near term nuclear safety improvement actions identified in the report <i>Review of Requirements and Capabilities for Analyzing and Responding to Beyond Design Basis Events</i> .	By the end of December 2012, HSS is scheduled to complete all nuclear safety improvement actions identified in the report.	Dec-2012
PA	Completing Energy.gov Digital Reform Initiative	Through its Digital Strategy and Communications Office, PA is leading a cost-saving website reform effort to help upgrade the Department's digital communications and website efforts, reducing costly duplications while improving transparency and customer service to the public.	No specific action required by senior leadership. Website reform is projected to save the Department of Energy \$10 million annually by FY 2015 already saving \$1.55 million.	Ongoing
S-1 Office	Emergency Response	Respond immediately and effectively to a wide range of potential issues, including oil/gas market fluctuations, blackouts, natural disasters, etc. When these events occur in areas of DOE mission support/competence, DOE must be prepared to respond.	No action or date currently, but in the event of an emergency the request for a DOE response will come through S-1.	Ongoing

EVENTS

Office	Event	Description	Date
EERE	OMB Sustainability Scorecards	Through the OMB Scorecard process, agencies are assessed on several sustainability areas and progress towards implementing statutory or Executive Order targets and goals. (OMB releases annually scorecard in spring Mar-2013)	Mar-2013
EERE	Annual Greenhouse Gas (GHG) Inventory/Annual Energy Report	DOE will provide its annual GHG emissions report to OMB/CEQ for the prior fiscal year. The Annual Energy Report provides, among other things, DOE's total energy/water use and GHG emissions for all operations. S-2 signs the report. (Submittal to OMB January 31, 2013)	Jan-2013
EERE	EV Everywhere Framing Document (Vehicles)	EERE will draft, review, and finalize the framing document for the Department's EV-Everywhere Grand Challenge. EERE will roll-out this document sometime in Q1, approximately February 2013.	Feb-2013
EERE	Critical Materials Hub Selection and announcement	DOE will invest up to \$120 million over five years to launch a new Energy Innovation Hub, establishing a multidisciplinary and sustained effort to identify problems and develop solutions across the lifecycle of critical materials. (investment date TBD, approx Q2)	Jan-2013
FE	FutureGen 2.0 power purchase plan	Inclusion of FutureGen power in the 2013 Illinois Commerce Commission - Midwest Independent System Operator (ICC-MISO) power purchase plan. (Dec 3, 2012)	Dec-2012
OE	National Electric Transmission Congestion Study	OE plans to release a draft for comment of DOE's third triennial National Electric Transmission Congestion Study; study will provide critical input to the S-1 designation of National Interest Electric Transmission Corridors. (Draft release February 6, 2013; Final study will be released on May 10, 2013.)	Feb-2013
OE	Smart Grid Investment Program	Smart Grid Program will hold the second national workshop on cybersecurity best practices for deployment of smart grid technologies. (Will notify all the Smart Grid Investment Grant recipients and Smart Grid Demonstration recipients of the event in November 2012)	Nov-2012
ARPA-E	ARPA-E Energy Innovation Summit	ARPA-E will hold its fourth annual Energy Innovation Summit to bring together thought leaders from academia, business, and government to examine cutting-edge energy issues and catalyze the rapid handoff of advanced energy technologies into the competitive marketplace.(Takes place on Feb 25-2013)	Feb-2013
EIA	Release of the Annual Energy Outlook (AEO)	The AEO examines the future direction of the U.S. energy system, including long-term projections and analyses that take into account a range of trends, technologies, policies and uncertainties impacting the U.S. energy economy. (release on Mar 1-2013)	Mar-2013
EIA	Release of the International Energy Outlook (IEO)	The IEO provides EIA's long-term assessment of world energy markets. The projections include an analysis of global supply and demand by energy source for 16 regions through 2040. Reference case projections are business-as-usual trend analyses, given known technology and demographic trends. Alternative scenarios explore the impacts of different macroeconomic and oil price assumptions.	Apr-2013
EM	WTP	Celebration of Waste Treatment Plant Analytical Laboratory construction complete - S-2	Feb-2013
PI	International Engagements and Meetings	See PI Section	Ongoing

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Top Critical Issues	OCIO	Cybersecurity	<ul style="list-style-type: none"> • DOE CIO will coordinate with NNSA CIO and IN to complete JC3 consolidated operations by September 30, 2013. JC3 optimization will occur throughout 2014. • DOE CIO will establish an enhanced cybersecurity services program (DEX) and coordinate implementation at NNSA labs and plants as well as the Power Marketing Administrations by end of Q3 FY 2013. • DOE CIO will develop and deploy an Information and Communication Technology (ICT) Supply Chain Risk Management (SCRM) Program by Q1 FY 2013. The program will provide centralized SCRM resources to the Enterprise. (September 30, 2012 is the first deadline for milestones) 	Sep-2012
Other Critical Issues	CFO	FY2013 Continuing Resolution	CR budget implementation. (Q1 & Q2 FY 2013)	Oct-2012
Events	OE	Smart Grid Investment Program	Will notify all the Smart Grid Investment Grant recipients and Smart Grid Demonstration recipients of the event in November 2012	Nov-2012
Top Critical Issues	EM	Salt Waste Processing Facility (SWPF) Cost and Schedule	Rebaseline project by Nov 30, 2012. S-2, the Secretary Acquisition Executive, is required to approve rebaselined Project.	Nov-2012
Other Critical Issues	EM	H-Canyon Utilization	Support EM Senior Advisor's decision regarding the Record of Decision (Nov 2012 to Jan 2013)	Nov-2012
Top Critical Issues	EM	Waste Treatment and Immobilization Plant (WTP) Cost, Schedule, and Technical Issues	Revised Defense Nuclear Facilities Safety Board Implementation Plan for Recommendation 2010-2, Pulse Jet Mixing - S-1 Signature - April 2013; Quarterly updates of strategy for implementing Secretary Waste Treatment Plant/Office of River Protection Mission review initiatives - S-2. Potential Congressional follow-up to GAO review of WTP – S-2, Date TBD. (Nov-2012 to Apr-2013)	Nov-2012
Top Critical Issues	GC	General Counsel Issues	See the separate schedule for actions on the major cases (Nov-2012 to Apr-2013)	Nov-2012
Top Critical Issues	HSS	Safety Culture Reviews	HSS is scheduled to complete nuclear safety culture extent of condition reviews of similar nuclear facility construction projects and other nuclear operations by the end of Dec 2012 to determine if the safety culture issues identified at the WTP exist elsewhere	Dec-2012
Top Critical Issues	OE	Iraq Energy Infrastructure	Delivery of the 5-year plan to the Secretary by December 2012.	Dec-2012
Top Critical Issues	CFO	Sequestration	Data collected at the start of the continuing resolution will allow CFO to move quickly in the event the decision is made to plan for a sequester.	Dec-2012
Other Critical Issues	HSS	Fukushima Daiichi Nuclear Disaster Response	By the end of December 2012, HSS is scheduled to complete all nuclear safety improvement actions identified in the report.	Dec-2012

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Events	FE	FutureGen 2.0 power purchase plan	Inclusion of FutureGen power in the 2013 Illinois Commerce Commission - Midwest Independent System Operator (ICC-MISO) power purchase plan. (takes place Dec 31, 2012)	Dec-2012
Other Critical Issues	PMA	Secretarial Initiatives for the PMAs	No action required; however a Joint Outreach Team is expected to submit draft recommendations to S-1 by December 2012 with implementation of any adopted recommendations in 2013.	Dec-2012
Top Critical Issues	NNSA EM MA	Review of High Risk Capital Asset Projects	Conduct selected reviews of major, complex projects to determine alternative approaches to meet project goals and reduce long-term costs. Independent technical experts will lead deep-dive project reviews (at least one month) and involve all appropriate stakeholders. Teams will report to S-1/S-2 on alternative project approaches.	Jan-2013
Top Critical Issues	EM	K-25 Decontamination and Decommissioning (D&D) Oversight	Continue enhanced oversight of the K-25 D&D project to ensure that the approved baseline will be achieved without significant changes.	Jan-2013
Other Critical Issues	IN	Classified Briefings	Briefings for senior leadership (Q1 CY 2013)	Jan-2013
Top Critical Issues	PI	Sanctions on Iran	Monitor oil markets and coordinate with producers, consumers and the IEA. (CY 2013)	Jan-2013
Top Critical Issues	PI	International Treaties and Organizations	See the separate schedule for the Treaties and International Organizations in FY13 prepared by PI. (CY 2013)	Jan-2013
Other Critical Issues	EERE	Final Rules for Appliance Efficiency Standards	Rules need to be approved by OMB/OIRA -- currently being worked. Date TBD, varies (CY 2013)	Jan-2013
Top Critical Issues	PI	International Energy Dialogues	See the separate schedule for the Dialogues in FY13 prepared by PI. (CY 2013)	Jan-2013
Top Critical Issues	NNSA /HSS	Nuclear Security Reviews and Reforms	NNSA Administrator approve/disapprove of the proposed path forward in January 2013. HSS will finish its review of the planned implementation of Y-12 recommendations by Dec 2012 and complete its schedule of inspections by Oct 2013.	Jan-2013
Top Critical Issues	LPO	Loan Portfolio Management	Office of Loan Guarantees will provide updates to senior leadership.	Jan-2013
Top Critical Issues	FE	Strategic Petroleum Reserve (SPR) Refill	Decision to be made by Jan 31, 2013 is driven by the current deficiency in SPR stocks at one of its critical sites. A new storage cavern was acquired in 2012 and oil fill is tentatively planned in early 2013 to address this issue.	Jan-2013
Top Critical Issues	SC	Energy Frontier Research Centers (EFRCs)	Decide whether to reduce the number of EFRCs or add funding; Office of Science is in discussions on future budgets.	Jan-2013

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Top Critical Issues	SC	Future of Fusion Energy Sciences	Determine contribution to ITER and impact on SC programs; Office of Science is in discussions on future budgets.	Jan-2013
Top Critical Issues	SC	Future of Nuclear Physics	Determine right balance between facilities and research in NP; Office of Science is in discussions on future budgets.	Jan-2013
Top Critical Issues	PI	Liquified Natural Gas (LNG) Exports	PI will deliver to the Secretary a coordinated recommendation by January 18, 2013.	Jan-2013
Top Critical Issues	ADS	Achieve Management and Operational Excellence	Associate Deputy Secretary (ADS) will oversee implementation in FY 2013.	Jan-2013
Top Critical Issues	CFO	FY14 Budget Submission	DOE CFO will work with program offices to ensure alignment in time for the January 2013 submission to OMB.	Jan-2013
Top Critical Issues	HC	Human Capital (HC) Management	HC will deliver to the Secretary by Jan 2013, a report on reform initiatives and critical hires.	Jan-2013
Other Critical Issues	NNSA	Livermore Valley Open Campus	The NNSA Administrator will need to approve/disapprove the CD-1 for this project in January 2013.	Jan-2013
Other Critical Issues	NNSA	Workforce planning (right sizing and improving our capabilities through leadership and development) –	If on-going efforts are not successful in further reducing FTE levels, starting in January 2013 NNSA will need to consider reductions in other administrative areas or find other means to further reduce payroll. (Jan-Jun)	Jan-2013
Other Critical Issues	EM	Implementation of Actions Resulting from S-1 Requested Review of the Paducah Gaseous Diffusion Plant Project	Final Report presented to S-1/S-2, January 2013	Jan-2013
Other Critical Issues	FE	Unconventional oil and gas Research Plan	Final plan 2013. Critical budget decision on implementation required by Jan 2013.	Jan-2013
Other Critical Issues	SC	Special nuclear material disposition: Protection of Building 3019 During Disposition	Strategy, produced by the Office of Science, by January 2013	Jan-2013
Other Critical Issues	ED	Diversity & Inclusion	ED will prepare a report by Jan 2013 for the Deputy Secretary outlining steps needed to improve the culture of diversity and inclusion at DOE.	Jan-2013
Events	EERE	Annual Greenhouse Gas (GHG) Inventory/Annual Energy Report	Submittal to OMB January 31, 2013	Jan-2013
Top Critical Issues	NE	Small Modular Reactor (SMR) Licensing Technical Support Awards	Complete Notifications and announce industry partners. Sign Cooperative Agreements (Jan - 2013, Mar -2013)	Jan-2013
Events	EERE	EV Everywhere Framing Document (Vehicles)	Roll-out Date TBD, approx Q1 2013.	Feb-2013

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Other Critical Issues	EIA	Commercial Buildings Energy Consumption Survey (CBECS)	At the funding level in OMB's October 2012 sequestration scenario there would not be sufficient resources to keep CBECS on track. DOE leadership could leverage non-EIA funding to support CBECS. Without DOE support, EIA would need to terminate core analytic and data collection activities and furlough employees.	Feb-2013
Events	OE	National Electric Transmission Congestion Study	Draft release February 6, 2013; Final study will be released on May 10, 2013.	Feb-2013
Events	EM	WTP	Celebration of Waste Treatment Plant Analytical Laboratory construction complete - S-2	Feb-2013
Events	ARPA-E	ARPA-E Energy Innovation Summit	ARPA-E will hold its fourth annual Energy Innovation Summit to bring together thought leaders from academia, business, and government to examine cutting-edge energy issues and catalyze the rapid handoff of advanced energy technologies into the competitive marketplace. (Feb 25-2013)	Feb-2013
Other Critical Issues	LM	Uranium Leasing program, Western Colorado	DOE is working with Federal, state, tribal and local cooperating agencies on development of a Draft PEIS. DOE plans to issue the Draft PEIS for public review in February 2013 and a Final PEIS in late 2013.	Feb-2013
Top Critical Issues	NNSA	Nuclear Stockpile Annual Assessment	January 2013 briefing by NNSA laboratory directors to S-1 and March 2013 transmittal of joint letter to the President.	Mar-2013
Top Critical Issues	FE	Carbon Capture Utilization and Storage (CCUS) Demonstration Projects	Determine the scientific path forward and how the FE FY13 budget and ARRA funding will be impacted.	Mar-2013
Other Critical Issues	NNSA	S8G Prototype Refueling	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013
Other Critical Issues	NNSA	Ohio Class SSBN Replacement Program	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013
Other Critical Issues	NNSA	Expended Core Facility Recapitalization	By Mar 2013, NNSA Administrator will need to approve/disapprove the budgets for these items based on DoD/Navy requirements.	Mar-2013
Other Critical Issues	NNSA	Managing Pensions	The NNSA Principal Deputy will need to decide on the amount of pension funding for M&O contractors in March 2013.	Mar-2013
Events	EIA	Release of the Annual Energy Outlook (AEO)	Release on March 1, 2013.	Mar-2013
Events	EERE	OMB Sustainability Scorecards	OMB releases annually scorecard in spring Mar-2013.	Mar-2013
Events	EERE	Critical Materials Hub Selection and announcement	Investment date TBD, approx Q2 2013.	Apr-2013

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Top Critical Issues	NNSA	Non-Proliferation: 4-year Lock Down	The international engagement strategy will be developed and coordinated by the Office of Defense Nuclear Nonproliferation for engagements by NA-1 or S-2 starting in the April timeframe.	Apr-2013
Top Critical Issues	NNSA	Mixed Oxide Fuel Fabrication Facility (MOX) Feedstock	The new strategy Record of Decision will need to be issued by the Under Secretary for Nuclear Security, and coordinated with S-1/S-2, by mid-2013.	Apr-2013
Other Critical Issues	NNSA	Mission Executive Council	The Under Secretary for Nuclear Security will need to lead the strategic discussions on the use of DOE laboratories as broader national security assets with peers in DHS, DoD and ODNI by April 2013.	Apr-2013
Events	EIA	Release of the International Energy Outlook (IEO)	Release Early April 2013.	Apr-2013
Other Critical Issues	CFO	Begin Strategic Planning and Prioritization Process	Final Strategic Plan due with President's 2015 Budget in Feb 2014.	Jun-2013
Top Critical Issues	NNSA	Uranium Processing Facility (UPF)	Deputy Secretary to approve/disapprove CD-2.	Jul-2013
Other Critical Issues	NNSA	Warhead Life Extension Program	Internal validation of NNSA's options, costs and schedules will be required for the NNSA Administrator. As a member of the NWC, the Administrator will need to present these options to the members of the Department of Defense by mid-2013.	Jul-2013
Other Critical Issues	SC	Science User Facilities	Due Sep 2013 with quarterly milestones	Sep-2013
Top Critical Issues	SC	Future of High Energy Physics	Determine future balance of HEP program and vision for Fermi National Accelerator Laboratory; Office of Science is in discussions on future budgets.	Ongoing
Other Critical Issues	NNSA	Nuclear Counter Terrorism/	S-1/S-2/NA-1 will need status updates on these activities.	Ongoing
Other Critical Issues	EM	Maintain Progress on Integrated Savannah River Site Tank Waste Program	No action required (assumes approval of Salt Waste Processing Facility new baseline, which would provide funding).	Ongoing
Other Critical Issues	FE	LNG Export Applications	Decision on first application by late 1st qtr./early 2nd qtr. 2013, assuming study released 4th qtr. 2012. Remainder of applications addressed sequentially.	Ongoing
Other Critical Issues	SC	High Performance Computing	Continue to work with NNSA, other agencies, the DOE laboratories, and the scientific communities served by the Office of Science to determine an affordable plan that delivers hardware and software as rapidly as possible.	Ongoing
Other Critical Issues	ADS	Achieve Management and Operational Excellence	ADS responsible for implementation in FY2013 and beyond .	Ongoing

ISSUES / EVENTS BY CHRONOLOGY

Issue Type	Office	Short Title	Required Action(s) and Date(s)	Date
Other Critical Issues	OCIO	Implementation of DOE's IT Modernization Strategy to Unify the Federal IT Environment	Multiple milestones, see OCIO Section.	Ongoing
Other Critical Issues	PA	Completing Energy.gov Digital Reform Initiative	No specific action required by senior leadership. Website reform is projected to save the Department of Energy \$10 million annually by FY 2015 already saving \$1.55 million.	Ongoing
Other Critical Issues	S-1 Office	Emergency Response	No action or date currently, but in the event of an emergency the request for a DOE response will come through S-1.	Ongoing
Events	PI	International Engagements and Meetings	See PI Section	Ongoing
Top Critical Issues	NE	Implement Blue Ribbon Commission (BRC) Recommendations	Report to Congress was due July 2012. The report is complete and is under review. Department needs to complete its review and issue the report to Congress as soon as possible	TBD
Top Critical Issues	PI	Keystone XL Pipeline Permit	After the State Department issues the Final EIS on the Keystone XL pipeline they will draft the Record of Decision and the National Interest Determination. DOE and seven other agencies will have 15 days to notify the Secretary of State if they disagree with the proposed determination. (State Department, who has the lead, cannot estimate a date in 2013 at this time.)	TBD

SECTION THREE

GOAL 1: TRANSFORM OUR ENERGY SYSTEMS: Catalyze the timely, material and efficient transformation of the nation's energy system and secure U.S. leadership in clean energy technologies.

Programs in brief

- Under Secretary of Energy (S-3)
- Office of Energy Efficiency and Renewable Energy (EERE)
- Office of Fossil Energy (FE)
- Office of Nuclear Energy (NE)
- Office of Electricity Delivery and Energy Reliability (OE)
- Office of Indian Energy Policy and Programs (IE)

- Advanced Research Projects Agency – Energy (ARPA-E)
- Power Marketing Administrations (PMAs)
- Energy Information Administration (EIA)
- Loan Programs Office (LPO)

OFFICE OF THE UNDERSECRETARY

OFFICE OVERVIEW

Number of Federal Employees ≈ 10 (in U/S office) FY 2013 Budget Request ≈ \$3.8 billion Headed by: Political Appointee
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The Office of the Under Secretary of Energy (S-3) oversees the activities of the program offices for Fossil Energy (FE), Energy Efficiency and Renewable Energy (EERE), Office of Electricity Delivery and Energy Reliability (OE), Office of Nuclear Energy (NE) and the Office of Indian Energy and Policy Programs (IE). S-3 both manages and coordinates the research, development and deployment activities of these functional program offices, and sets the strategic direction for DOE policies within these programs.

Program Priorities

The S-3 Office works with the applied energy research programs to focus effort on activities with the greatest potential to reduce energy consumption, mitigate greenhouse gas emissions and improve energy security. The S-3 Office is also responsible for overseeing the development of budget requests that balance resources across the five program offices. The Quadrennial Technology Review (QTR), completed in 2012, is used by the Under Secretary to guide energy program investments. S-3 is planning to update the QTR in 2013. In addition, S-3 advises the Secretary on energy policy matters, represents DOE in a variety of interagency deliberations, and plays a key role in public engagement, representing the views of the DOE regarding energy technology and policy.

Program Accountability

The S-3 Office draws on technical and policy analysis capabilities across the energy program offices to support its responsibilities in energy R&D, strategy and budgeting. S-3 works with the CFO and the applied energy programs on the development of budget requests, and also conducts periodic program reviews to track the status of progress against program goals.

The overall FY 2013 budget of the programs overseen by S-3 is \$3.8 billion. The S-3 Office's operating budget is funded from the S1 budget. Additionally, \$1 million will be allocated in program direction funds from the four applied energy research programs to support the S-3 COO Office in FY 2013.

Office of the COO

In 2012, the Secretary of Energy established the Office of the Chief Operating Officer for the Under Secretary of Energy (S3-COO), which is analogous to similar organizations reporting to the other Departmental Under Secretaries. S3-COO's function is to coordinate program management, headquarters and field operations, national laboratory management and stewardship for the energy portfolio. The Office also represents the Under Secretary and S-3 programs on various Departmental operations councils and boards. The S3-COO Office is new and ultimately will comprise a staff of 6: a COO and a Deputy, a cybersecurity expert, a human resources expert, two senior program analysts and an administrative assistant. Currently, only the COO and one program analyst position are filled (by individuals in "acting" capacities.)

Clean Energy Grand Challenges

The Secretary of Energy has tasked the Under Secretary with managing the DOE "Clean Energy Grand Challenges" aimed at addressing the most pressing energy challenges while working with industry, universities, national laboratories and government partners to set technical goals for cutting costs. As of 2012, the current Grand Challenges are (1) EV Everywhere (2) SunShot (3) Advanced Computing (4) Advanced Batteries. Each Grand Challenge team is staffed by the applied programs with oversight and input provided by the S-3 office.

Integrated Technology Teams

The Office of the Under Secretary has overseen the Integrated Technology Teams ("tech teams") since their formation in 2011. These teams address specific cross-cutting technology focus areas, and consist of the relevant R&D program managers from different DOE offices. Their mandate is to foster coordination between the R&D funding strategy of multiple DOE programs, develop DOE-wide techno-economic targets for technologies, and provide a single point of entry for outside researchers to discuss new scientific and technology concepts relevant to the DOE energy mission.

As of 2012, the current tech teams are: (1) Batteries for Transportation; (2) Biofuels; (3) Carbon Capture, Utilization and Storage; (4) Grid; (5) Advanced Computing; and (6) Fuel Cells and Hydrogen. The membership of each tech team includes federal program managers from the Office of Science, ARPA-E and the applied programs (EERE, NE, FE and OE). The Advanced Computing tech team also includes federal program managers from NNSA and EM.

S-3 UPCOMING CRITICAL ISSUES/EVENTS

- Within the November-January time-frame selections will need to be made regarding permanent hires for the COO Office positions, to include the COO and Deputy COO and the HR and Cyber Specialists.
- Work with OMB, DOE senior leadership and CFO to negotiate and determine final FY 2014 President's Budget Request; coordinate and share information with program offices; review all S-3 program budget justifications that are submitted to OMB.
- Coordinate the release and associated briefings with all S-3 program offices for the annual budget roll out of the FY 2014 President's Budget Request
- Work with S-3 program offices on actions required for the FY 2013 budget, including final budget numbers determined by Congress, a full-year CR, or sequestration.

KEY GOALS

The following key goals are derived from the DOE Strategic Plan, Goal 1. These goals are tracked by the programs and DOE corporately, and are reviewed by the Deputy Secretary on a quarterly basis.

Under Secretary of Energy

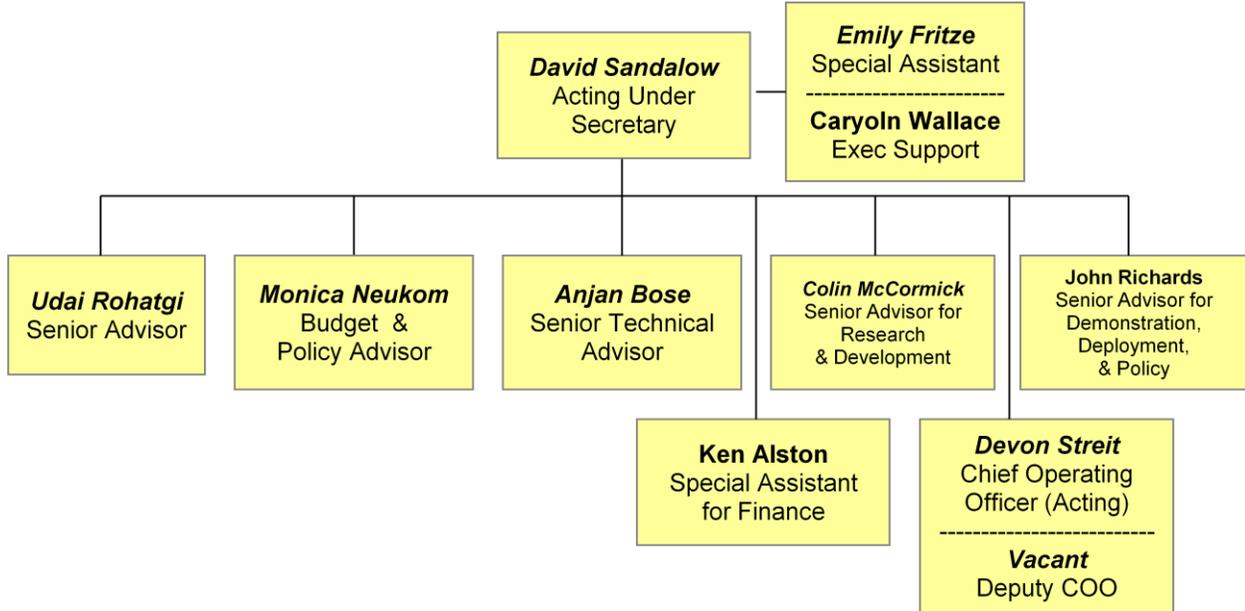
Note: Priority Goals are shaded.

Goal Description	Goal Target
SunShot: Make solar energy as cheap as traditional sources of electricity	By the end of the decade, drive the cost of solar electricity down to: \$1/W at utility scale; \$1.25/W at commercial scale; and \$1.50/W at residential scale. By December 2013, demonstrate a prototype thin film or film silicon module with an efficiency of greater than 21% and a balance-of-system with a 50% reduction of the permitting and installation costs to \$1.50/W.
Battery Performance: Reduce the cost of batteries for electric drive vehicles	By October 2013, demonstrate a prototype Plug-In Hybrid battery technology that is capable of achieving a cost of \$400/kWh (useable energy) during high volume manufacturing (100,000 packs per year) compared to a 2008 baseline of \$1000/kWh.
Appliance Standards: Reduce consumer energy use and costs for household appliances	By December 31, 2013, issue at least 9 new energy conservation standards to deliver net consumer savings of hundreds of billion of dollars over 30 years and require efficient products across domestic and international manufacturers.
Weatherization: Save low income families money and energy through weatherization retrofits	From FY2010 through FY2013, in collaboration with HUD, enable the cost-effective energy retrofits of a total of 1.2 million housing units, of which more than 75% are low income.
Grid: Modernize the Electric Grid	Reduce utility-scale energy storage costs 30% by 2015 (Strategic Plan)
SMR: Establish Technology Test Beds and Demonstrations: SMR Licensing Technical Support Program	Complete small modular reactor (SMR) design certification by 2016 (Strategic Plan)
CCS: Advance Post-Combustion Carbon Capture	Conduct laboratory through pilot-scale tests of advanced post-and oxy-combustion capture technologies that show 90 percent CO ₂ capture at no more than a 35 percent increase in LCOE by 2015. (Strategic Plan)

S-3 KEY PERSONNEL

- Udai Rohatgi, Senior Adviser
- Lisa (Devon) Streit, Acting Chief Operating Officer for the S-3 Organization

S-3 ORGANIZATION CHART



OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

Number of Federal Employees ≈ 800 FY 2013 Budget Request ≈ \$2.3 Billion Headed by: Political Appointee

OFFICE OVERVIEW

The Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) supports clean energy applied Research, Development, Demonstration and Deployment (RDD&D) for efficiency and renewable energy technologies. Through the resulting technologies and practices, EERE addresses our nation's energy security, environmental and economic goals by:

- Providing U.S. businesses and households with low-cost energy services by creating low-cost renewable supplies and energy efficient products and systems;
- Assuring adequate and secure supplies of oil and gas and derivative petroleum products at prices consistent with economic growth;
- Ensuring diversity and choice in the way energy services are produced; and,
- Developing approaches that can accelerate economic growth and job creation while improving the environment by both reducing greenhouse gas emissions and improving air and water quality.

EERE achieves these goals by developing and accelerating the adoption of a new generation of energy technologies — buildings, factories and vehicles that are clean, safe, efficient and productive. There is an intense international race underway that will determine where these systems are invented and produced. EERE supports innovation that will allow U.S. manufacturers and U.S. workers to lead this race and secure the benefits of clean, domestic energy systems as a foundation for a prosperous American future.

The EERE goals and budget are implemented by a federal work force of over 800 professionals, organized to increase energy security through: (a) reducing oil imports through developing electric and other vehicle technologies, including natural gas powered vehicles, as part of our Fuels and Vehicles portfolio (Vehicles, Biomass and Hydrogen. \$770 million); (b) promoting clean diverse power through our Renewable Generation portfolio (Solar, Wind, Geothermal and Water. \$490 million); and (c) encouraging more productive energy use through our energy efficiency portfolio (Buildings, Advanced Manufacturing, Federal Energy and Weatherization/Intergovernmental. \$827 million). EERE also pursues management excellence through business management, planning, support, analysis and coordination systems and services (Program Direction, Laboratory Facilities and Infrastructure, and Strategic Programs. \$250 million).

Key Program Focus:

Hydrogen & Fuel Cell Technologies - \$80 million: The Hydrogen and Fuel Cell Technologies Program's mission is to enable the widespread commercialization of hydrogen and fuel cell technologies, through research, development, demonstration and deployment activities, with the goals of advancing these technologies to be competitive in terms of cost, reliability and performance, and reducing the institutional and market barriers to their widespread commercialization.

Biomass and Biorefinery Systems - \$270 million: The mission of the Biomass and Biorefinery Systems Program is to leverage technical innovation in the physical and biological sciences to develop and promote a commercially viable, sustainable, domestic bioenergy industry that produces clean, secure, renewable biofuels, bioproducts and biopower that will reduce dependence on oil, reduce greenhouse gas emissions, and create jobs through targeted research, development, demonstration and deployment supported through public and private partnerships.

Solar Energy - \$310 million: The Solar Energy Technologies Program supports the SunShot Initiative's mission to develop solar energy technologies through a collaborative national effort to make solar photovoltaic and concentrated solar power energy technologies cost-competitive with fossil fuel-based energy by reducing the cost of solar energy systems by 50 to 75 percent before 2020.

Wind Energy - \$95 million: The mission of the Wind Energy Program is to accelerate widespread U.S. deployment of clean, affordable, reliable and domestic wind power, both land based and off shore, in order to promote national security, economic growth and environmental quality.

Geothermal Technology - \$65 million: The Geothermal Technologies Program's mission is to accelerate deployment of geothermal energy nationwide through research, development, demonstration and analysis efforts focused on improving performance and decreasing costs to allow geothermal energy to compete directly with conventional electricity sources and enable widespread utilization in the U.S.

Water Power - \$20 million: The mission of the Water Power Program is to research, develop, test, demonstrate and facilitate the deployment of innovative technologies – including marine and hydrokinetic technologies and conventional hydropower technologies – capable of generating renewable, environmentally responsible and cost-effective electricity from U.S. water resources at an accelerated pace.

Vehicle Technologies - \$420 million: The mission of the Vehicle Technologies Program is to develop and promote energy-efficient and environmentally friendly transportation technologies that will enable America to use significantly less petroleum and reduce greenhouse gas emissions while meeting or exceeding drivers' performance expectations and environmental requirements.

Building Technologies - \$310 million: Addresses opportunities to produce more goods and services with less energy by enabling improved energy efficiency in the buildings sector.

Advanced Manufacturing - \$290 million: The mission of the Advanced Manufacturing Office is to research, develop and demonstrate (at a convincing scale) new energy-efficient manufacturing processes and materials technologies to reduce the energy intensity and life-cycle energy consumption of manufactured products and promote a corporate culture of continuous improvement in energy efficiency among existing facilities and manufacturers.

Federal Energy Management Program - \$32 million: The Federal Energy Management Program's mission is to provide the services, tools and expertise Federal agencies to help them achieve their Federal energy management goals.

Facilities and Infrastructure - \$26.4 million: Enables the acquisition and maintenance of scientific capabilities and support infrastructure at the National Renewable Energy Laboratory, EERE's primary national laboratory in Golden, Colorado.

Weatherization and Intergovernmental Activities - \$195 million: The mission of the Weatherization and Intergovernmental Activities Program is to significantly accelerate, in partnership with state and local organizations, the deployment of energy efficiency and renewable energy technologies and practices by a wide range of government, community and business stakeholders.

Program Direction - \$164.7 Million: Provides personnel and operational resources for executive and technical direction and oversight of EERE programs – including operations at headquarters and in the field office.

Strategic Programs - \$58.9 million: Guides, strengthens and communicates work on EERE technologies and ensures that EERE achieves its goals with strong management and with the greatest possible efficiency.

EERE UPCOMING CRITICAL ISSUES/EVENTS

January – March 2013

OMB Sustainability Scorecards (January 2013)

Through the OMB Scorecard process, agencies are assessed on several sustainability areas and progress towards implementing statutory or Executive Order targets and goals. These scorecards are released by OMB annually each spring and are available, by agency, to the public.

Regional Industrial Energy Efficiency & Combined Heat and Power Dialogue Meetings (Northeast Region: January 24, 2013; Mid-Atlantic: Region March 13, 2013; Western Region: May)

In support of the August 2012 Executive Order on Accelerating Industrial Energy Efficiency, DOE is convening three regional dialogues on Industrial Energy Efficiency & Combined Heat and Power.

Annual Greenhouse Gas (GHG) Inventory/Annual Energy Report submittal to OMB/CEQ (January 31, 2013)

DOE will provide its annual GHG emissions report to OMB/CEQ for the prior fiscal year. The Annual Energy Report provides, among other things, DOE's total energy/water use and GHG emissions for all operations. S-2 signs the report.

EERE Budget Roll Out (February 2013)

The Legislative Affairs Office coordinates the release and associated briefings for the EERE annual budget roll out. The purpose of the budget roll out events is to provide stakeholders with a broad overview of major program thrusts and key priorities of EERE.

ICM Inc. (February 2013)

Completion of the pilot integrated cellulosic biorefinery in St. Joseph, Missouri, to produce fuel-grade ethanol from corn fiber, switchgrass and energy sorghum. DOE and/or EERE senior leadership will attend as a supporter and possibly make a presentation for the kickoff/completion of the projects. This could be potential political and/or marketing events for EERE.

Rentech-Clearfuels (March 2013)

Completion of an integrated pilot project for fuel production by thermochemical conversion of woodwaste in Commerce City, Colorado. As with the ICM Inc. project, DOE and/or EERE senior leadership will attend as a supporter and possibly make a presentation for the kickoff/completion of the projects. This could be potential political and/or marketing events for EERE.

Soitec Solar Manufacturing Factory Grand Opening, San Diego (date TBD; approximately Q1-Q2)

Soitec received a \$25 million award under SUNPATH (Scaling Up Nascent Photovoltaics AT Home) to build a new demonstration factory. Their innovative Concentrating Photovoltaic (CPV) system employs innovations in mass assembly that will reduce the cost of CPV. The effort also leverages early deployment of the systems on DOD bases through collaboration between the DOE and the DOD.

Final Rules for Appliance Efficiency Standards (date varies: Q1 for Transformers; Q3 for Battery Chargers; Q4 for remainder)

DOE expects to issue at least 6 final rules, setting new standards for products such as motors, battery chargers and various types of commercial refrigeration equipment. These rules are projected to save in

excess of 10 quads of primary energy over 30 years, which equates to over \$100 billion in operating cost savings for consumers. Four of these proposals are currently at the Office of Internal Review for clearance and will require publication in the Federal Register, public comment and submission of the final rule. Standards for battery chargers and transformers require only submission of the final rules.

Interim report to Congress entitled "Advanced Geothermal Energy Research and Development" (date TBD; approximately Q1)

This report, which the Geothermal program is still reviewing in draft, addresses Title VI, Subtitle B of the Energy Independence and Security Act of 2007. DOE will submit the final report to Congress.

H₂USA Announcement (date TBD; approximately Q1)

This announcement will highlight a domestic industry-led initiative for a hydrogen infrastructure to refuel fuel cell electric vehicles, following approval by S-1. The stakeholders have requested S1 to make an announcement launching the H2USA partnership. S1 response is pending.

Finalization of EV Everywhere Framing Document (Vehicles) (date TBD; approximately Q1)

EERE will draft, review, and finalize the framing document for the Department's EV-Everywhere Grand Challenge. EERE will roll-out this document sometime in Q1, approximately February 2013.

Direct Final Rules - updating Federal Commercial and Residential Building Efficiency Standards to ASHRAE 90.1-2010 and the 2012 IECC (exact date TBD; approximately Q1)

These two rules will increase the efficiency of federal buildings by 15-20% by updating the referenced building efficiency standards for Federal Commercial and Federal Residential buildings.

Publication of FY 2011 Annual Report to Congress on Federal Government Energy Management (date TBD; approximately Q1 or Q2)

The report reveals that the Federal Government did not meet its goal of an 18% reduction in facility energy intensity compared to FY 2003. Although the Government's performance was 1.9% better than the prior year, the 16.5% reduction fell short of the 18% goal. Recent investment of \$9 billion in facility improvements from FY 2009 through FY 2011 should improve performance and get the Government back on track toward meeting the 30% reduction goal for FY 2015.

April – June 2013

Critical Materials Hub Selection Announcement (date TBD; approximately Q2)

DOE will invest up to \$120 million over five years to launch a new Energy Innovation Hub, establishing a multidisciplinary and sustained effort to identify problems and develop solutions across the lifecycle of critical materials.

Final Rule: Energy Efficiency and Sustainable Design Standards for New Federal Buildings (date TBD; approximately Q2)

The rule is currently with OMB for review. Changes to the rule to accommodate a General Services Administration requirement to recommend a green building certification system will potentially result in a supplemental Notice of Proposed Rulemaking.

EcoCAR 2: Plugging Into the Future, Year 2 Competition (May 13 – 23, 2013)

DOE will develop and manage a challenge for 15 Universities to reduce the environmental impact of a car without compromising performance, safety, or consumer acceptability.

DOE Strategic Sustainability Performance Plan (SSPP) (June 2013)

Under Executive Order 13514, Federal agencies are required to develop, implement and annually update a plan that outlines an agency wide path forward for greenhouse gas reduction, the elimination of waste, improvements to energy and water performance, and performance based contracting.

4th Annual US-China Energy Efficiency Forum (EEF) (June 2013)

The EEF will enhance U.S.-China cooperation on energy efficiency technology development and deployment by bringing together approximately 200 government and industry representatives from both countries to facilitate commercial opportunities in energy efficiency that help meet each country's respective energy and environmental goals.

July – September 2013

2015 IECC Preliminary & Final Action Hearings/90.1-2013 Final Publication

2013 is the final year for development of the 2015 IECC (residential building energy code) and for 90.1-2013 (commercial building energy code). DOE will be submitting code change proposals and providing testimony at the hearings in 2013 for both codes.

WAP, SEP and EECBG ARRA Program Close-Out

DOE will manage and soon close out over 2,400 grants under the ARRA Program as the program winds down..

GovENovation 2013 Workshop and Tradeshow

Sponsor, re-name and reconstitute the GovEnergy workshop and tradeshow which was cancelled by co-sponsor General Services Administration a month prior to its planned August 20, 2012 opening. This DOE sponsored training workshop and tradeshow for federal energy managers will have expected attendance of approximately 1,000. Planning for the event will be required during early FY 2013.

October – December 2013

President's Performance Contracting Challenge (PPCC) Milestones

DOE, through its FEMP office, will be supporting agencies in their efforts to develop and award their Energy Savings Performance Contracts and Utility Energy Services Contracts. DOE has committed to \$100 million in awards for the PPCC. This initiative is closely coordinated with CEQ and OMB.

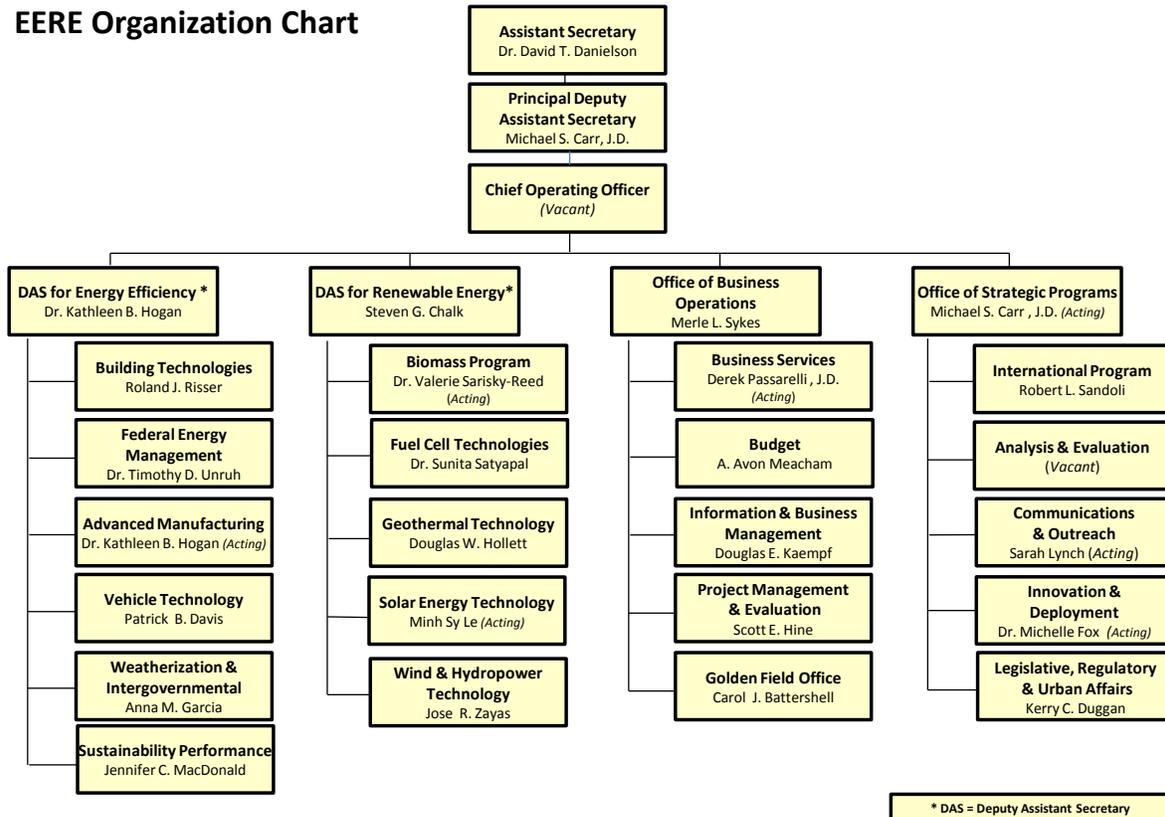
Hawaii Programmatic EIS

DOE will be developing this document during FY 2013 with collaboration from the State of Hawaii, the Department of the Interior and the Environmental Protection Agency.

EERE KEY PERSONNEL

- David Danielson, Assistant Secretary
- Michael Carr, Principal Deputy Assistant Secretary
- Kathleen B. Hogan, Deputy Assistant Secretary of Energy Efficiency
- Steven G. Chalk, Deputy Assistant Secretary of Renewable Energy

EERE Organization Chart



OFFICE OF FOSSIL ENERGY

OVERVIEW

Number of Federal Employees ≈ 680 FY 2013 Budget Request ≈ 651 billion Headed by: Political Appointee

Fossil fuels – coal, oil and natural gas – currently account for more than 80 percent of domestic energy consumption, a share the Energy Information Administration (EIA) projects will be maintained through at least 2035. Consequently, the U.S. Department of Energy’s (DOE) Office of Fossil Energy (FE) has an ongoing and important role in helping meet America’s demand for secure, reasonably priced and environmentally sound fossil energy.

FE’s staff consists of 1,200 scientists, engineers, technicians, contractors and administrative personnel, with headquarters located in downtown Washington, D.C. and in Germantown, Md. The office also includes the National Energy Technology Laboratory (NETL), with locations in Morgantown, W.Va.; Pittsburgh, Pa.; Sugarland, Texas; and Albany, Or. NETL also has an office in Alaska that monitors ongoing R&D activities focused on Alaska’s vast fossil energy resources. Key programs at NETL include the development of advanced coal, natural gas, and oil technologies. FE maintains and operates the Strategic Petroleum Reserve (SPR), based in New Orleans, La., and the Rocky Mountain Oilfield Testing Center (RMOTC) in Casper, Wyo.; and manages the emergency Northeast Home Heating Oil Reserve (NEHHOR) and the Naval Petroleum and Oil Shale Reserves, which control oil-bearing lands owned by the U.S. government.

Over more than three decades, FE’s fossil energy research and development (R&D) programs have produced significant achievements and excellent value for the public funds invested. FE’s Clean Coal Program is leading efforts to exploit the nation’s most abundant energy resource in an environmentally sustainable way. Attaining commercial development and deployment of carbon capture, utilization and storage (CCUS) technologies is a key component of this strategy. Collectively, FE’s programs are aimed at reducing America’s reliance on imported energy sources, and promoting new energy technologies and methodologies that encourage the efficient and environmentally sound use of America’s abundant fossil fuels.

The FutureGen 2.0 Project, planned for Meredosia, Ill., promotes advanced, full-scale integration of oxy-combustion and carbon capture and storage technology to produce electric power while capturing and storing carbon dioxide (CO₂) in a deep saline reservoir. The Kemper (Kemper County, Miss.), Hydrogen Energy California (HECA – Kern County, Calif.) and Summit (Penwell, Texas) projects will demonstrate large-scale co-deployment of integrated gasification combined cycle (IGCC) and CCUS by selling CO₂ for enhanced oil recovery (EOR). HECA and Summit will use oxygen-blown gasifiers and sub-bituminous coal; Kemper will use a novel transport reactor technology on lignite, a technology developed in conjunction with DOE-FE. These demonstration projects will result in coal-based electricity generation at near zero atmospheric emissions. Other key coal R&D programs include pollution control innovations for traditional power plants, including mercury reduction; improved gasification technologies; advanced combustion systems; development of stationary power fuel cells; improved turbines for future coal-based combined cycle plants; and creation of a portfolio of technologies that can capture and permanently store greenhouse gases.

The Oil and Natural Gas Program includes collaborative research and development with the Environmental Protection Agency and the Department of the Interior’s U.S. Geological Survey to understand and minimize the potential environmental, health, and safety impacts of natural gas development through hydraulic fracturing. If not addressed, concerns over potential impacts may affect access to this resource and hinder national energy and economic objectives. This program is also evaluating gas hydrates as a potentially significant future source of domestic natural gas supply. In addition, FE also authorizes natural gas imports and exports under the Natural Gas Act.

The Office of Petroleum Reserves, which manages the SPR and the **NEHHOR Program**, were established by Congress to protect the U.S. against potential foreign and domestic disruptions in critical oil supplies. SPR is the Nation's emergency stockpile with 695 million barrels of crude oil having a value of over \$80 billion, and is stored in four government-owned storage sites in the Gulf Coast. SPR maintains an operational readiness posture that enables it to respond to energy supply emergencies within days of an event. The U.S. has released oil from SPR 17 times since 1985 – three times were to address IEA emergency response actions in 1991, 2005 and 2011. In 2011, SPR released 30 million barrels as part of the IEA Collective Action to address the significant loss of Libyan oil production. In addition, SPR has been used to address U.S. oil supply disruptions due to hurricanes, river closures and pipeline problems. The oil reserve is vital to the nation's energy and economic security. As a result of product shortages created by hurricanes in 2005 and 2008, consideration has been given to the strategic need for a Refined Petroleum Product Reserve to address the major vulnerability of hurricanes impacting Gulf Coast refining operations and to provide a "real-time" response to product shortages and price spikes in the Southeast.

The Northeast contains nearly 70 percent of U.S. households that use home heating oil. NEHHOR was established in 2000 as an emergency supply of fuel oil for homes and businesses in that region to supplement normal supplies if weather or another event were to interfere with normal marine deliveries. The reserve stores 1 million barrels of ultra low sulfur distillate (clean burning fuel oil) at two locations located in the Northeast.

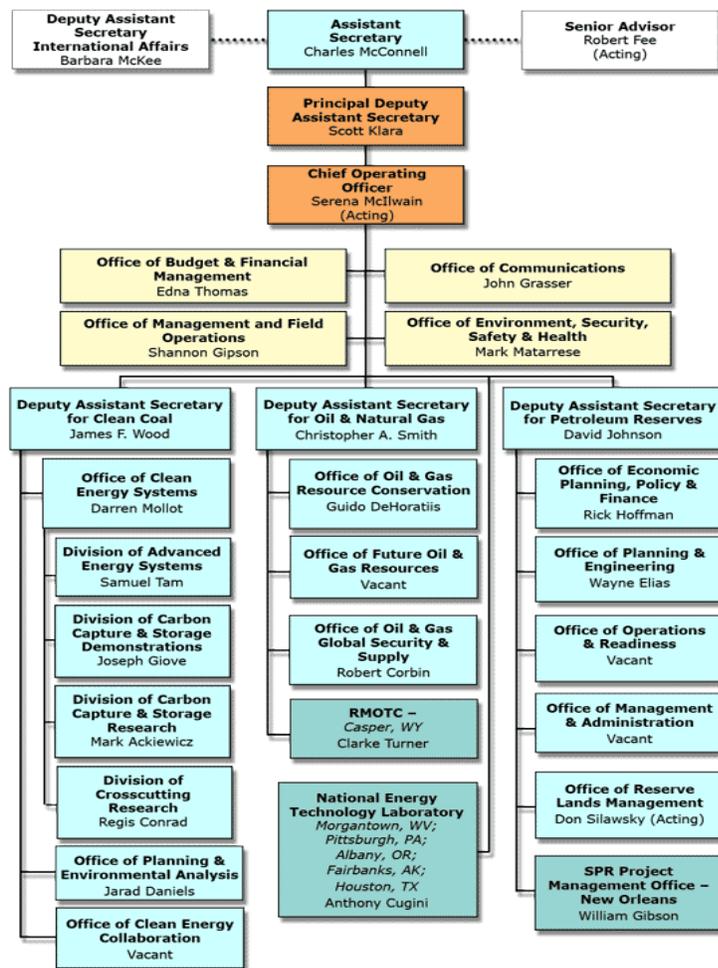
UPCOMING CRITICAL ISSUES/EVENTS

- **FutureGen 2.0** – Inclusion of its power in the 2013 Illinois Commerce Commission - Midwest Independent System Operator (ICC-MISO) power purchase plan: December 31, 2012.
- **Summit** – Pursuing financial close: January 15, 2013
- **NRG** – Decision Point Application for phase 3: November 30, 2012; NETL approval required within 90 days.
- **Draft Multi-Agency Collaborative Research Plan** – On April 13, 2012, a Memorandum of Agreement was signed by DOE, DOI and EPA to develop a multi-agency research plan to address questions associated with safely and prudently developing unconventional shale gas and tight oil reserves. Publication of final plan is slated for January 2013. A critical budget decision regarding implementation is required by January 2013.
- **SPR** -- Decision must be made to refill or not refill the reserve. Jan 2013.
- **Path forward on CCUS demonstration projects** - including ARRA funded projects (Future Gen). Sep 2013.
- **LNG Export Applications** -- All applications to export LNG to non-Free Trade Agreement countries (14 as of 10-24-12) are currently on hold pending release of two-part LNG cumulative impacts study. Assuming study is released in 4th Qtr, CY 2012, DOE decision on first application anticipated to be completed late 1st Qtr/early 2nd Qtr CY 2013. Remainder of applications to be addressed sequentially upon completion of first application decision.

FE KEY PERSONNEL

- Charles McConnell, Assistant Secretary
- Scott Klara, Principal Deputy Assistant Secretary
- Serena McIlwain, Acting Chief Operating Officer
- Barbara McKee, Deputy Assistant Secretary for International Affairs
- James Wood, Deputy Assistant Secretary for Clean Coal
- Christopher Smith, Deputy Assistant Secretary for Oil & Natural Gas
- David Johnson, Deputy Assistant Secretary for Petroleum Reserves

FE ORGANIZATION CHART



Effective as of
July 26, 2012

OFFICE OF NUCLEAR ENERGY

Number of Federal Employees ≈ 400
FY 2013 Budget Request: \$770.5 Million
Headed by: Political Appointee

OFFICE OVERVIEW

The Office of Nuclear Energy (NE) supports the diverse civilian nuclear energy programs of the U.S. government, leading federal research and development (R&D) efforts in nuclear energy technologies, including generation, safety, waste storage and management, and security technologies to help meet the Nation's energy security, proliferation resistance and climate goals.

As well as managing the Idaho National Laboratory (INL), NE partners with industry, academia, state and local governments, and other countries to promote nuclear facilities that rely upon advanced fuel technologies that will help develop new generation capacity while improving the environmental aspects of nuclear power.

A prerequisite to the expansion of nuclear power is public confidence in the safety of nuclear plants and commercial confidence that plants can be operated safely, reliably and economically. The Department explores innovative improvements to light water reactor systems and fuel forms to further enhance safety, prevent severe accident conditions, or significantly mitigate the consequences of an accident. R&D efforts are coordinated with reactor vendors, utilities, universities, regulators and the international community to ensure that lessons learned from the events at Fukushima, Japan are appropriately incorporated and that these efforts are integrated and efficient.

Finding a consent-based, long-term solution to managing the Nation's nuclear waste and used nuclear fuel is a longstanding challenge. Such a solution, however, is necessary to ensure the future viability of an important carbon-free energy supply and to further strengthen America's standing as a global leader on issues of nuclear safety and nonproliferation. In FY 2010, the Secretary of Energy chartered a Blue Ribbon Commission (the Commission) on America's Nuclear Future composed of experts from government, academia and industry. The Commission's charter was to "conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, including all alternatives for the storage, processing and disposal of civilian and defense used nuclear fuel, high-level waste, and materials derived from nuclear activities... [and to] provide advice, evaluate alternatives, and make recommendations for a new plan to address these issues." The Commission issued its final report on January 26, 2012.

There are a number of key elements that the Department has recognized as foundational to the Nation's used fuel management and high-level waste disposal program. NE had been pursuing advances in these areas even prior to the release of the Commission's recommendations. These efforts focus on evaluating consolidated interim storage and transportation issues (focused initially on decommissioned sites); working with industry to develop standardized approaches to used fuel management; and initiating research on geologic disposal alternative environments.

NE's FY 2013 request is \$770 million. These funds will be used to support nuclear energy research, development and demonstration efforts, as well as ensure the availability and safety of the national nuclear energy research facilities and capabilities.

Nuclear Energy Programs:

Small Modular Reactor Licensing Technical Support facilitates the licensing and eventual deployment of new nuclear power plants in the United States. To support the construction of new nuclear power plants in the U.S., NE is focusing on small modular reactors (SMRs) as a clean, affordable energy option for both domestic and international utilities. NE has initiated an SMR Licensing Technical Support program

that will help industry overcome the financial and regulatory barriers facing the first movers in the SMR industry, with a goal of having the first operational SMR in the 2022 timeframe.

Energy Policy Statement from the DOE Strategic Plan, 2011:

- Complete small modular reactors design certification by 2016 and commercial demonstration by 2019. [NOTE: Delays in initiating the program have pushed certification to 2018 and demonstration to 2022.]

Reactor Concepts Research, Development and Deployment develops new and advanced reactor designs and technologies that advance the state of reactor technology to improve its competitiveness, and help advance nuclear power as a resource capable of meeting the Nation's energy, environmental and national security needs. RD&D activities are designed to address technical, cost, safety and security issues associated with reactor concepts including advanced SMRs, High Temperature Gas-cooled Reactors and other advanced reactor concepts. Additionally, Reactor Concepts RD&D conducts R&D on advanced technologies to support life extensions of currently operating Light Water Reactors (LWRs).

Energy Policy Statement from the DOE Strategic Plan, 2011:

- Complete a comprehensive assessment, by September 2012, of materials degradation issues for light-water reactor plants operating beyond 60 years.

Fuel Cycle Research and Development supports long-term technology development activities to develop next generation light water reactor fuels with enhanced accident tolerance; investigate fuel forms, reactors and fuel/waste management approaches that could dramatically increase the sustainability of nuclear energy including improved utilization of fuel resources; develop techniques that will enable long-lived actinide elements to be repeatedly recycled (i.e., fully closed fuel cycles) to promote a cost effective and low-proliferation-risk approach that significantly decreases the long-term challenges posed by the waste and its disposal; improve the utilization of fuel resources to reduce the amount of natural material required to produce nuclear energy; and investigate means of ensuring that economically viable resources of nuclear fuel are available.

Energy Policy Statement from the DOE Strategic Plan, 2011:

- Demonstrate advanced inspection techniques for irradiated fuel at the Irradiated Materials Characterization Laboratory.

Used Fuel Disposition (UFD) researches a suite of technology options that will enable future decision makers to decide how to best manage nuclear waste and used fuel from reactors. In addition, UFD will expand initiatives that began in FY 2012 to lay the foundation for used nuclear fuel management and high-level waste disposal including options for the storage and transportation of used nuclear fuel.

Nuclear Energy Enabling Technologies (NEET) conducts R&D in crosscutting technologies that directly support and enable the development of new and advanced reactor designs and fuel cycle technologies. These technologies will advance the state of nuclear technology, improving its competitiveness, and promoting continued contribution to meeting our Nation's energy and environmental challenges. NEET makes the nation's nuclear energy research facilities available to university and industry investigators through the National Scientific User Facility subprogram. The Energy Innovation Hub for Modeling and Simulation is creating a virtual reactor model of an actual operating pressurized water reactor to simulate reactor behavior. Engineers will be able to use this virtual

model to improve the safety and economics of reactor operations by simulating proposed solutions to reactor power production increases and reactor life and license extensions.

International Nuclear Energy Cooperation serves as NE lead for international activities, including analysis, development and implementation of international civil nuclear energy policy and coordination and integration of NE's international nuclear technical activities.

Radiological Facilities Management maintains the infrastructure necessary to support US Government requirements for radioisotope power systems necessary for space exploration and national security missions. Additionally the Research Reactor Infrastructure (RRI) subprogram provides research reactor fuel services and maintenance of fuel fabrication equipment to support the continued operation of U.S. research reactors.

Idaho Facilities Management and **Idaho Site-wide Safeguards and Security** manage the planning, acquisition, operation, maintenance, disposition and protection NE-owned facilities, capabilities and nuclear materials at the INL.

In addition to INL, NE manages facilities and/or conducts research and development activities at most of the Department's national laboratories.

NE UPCOMING CRITICAL ISSUES/EVENTS

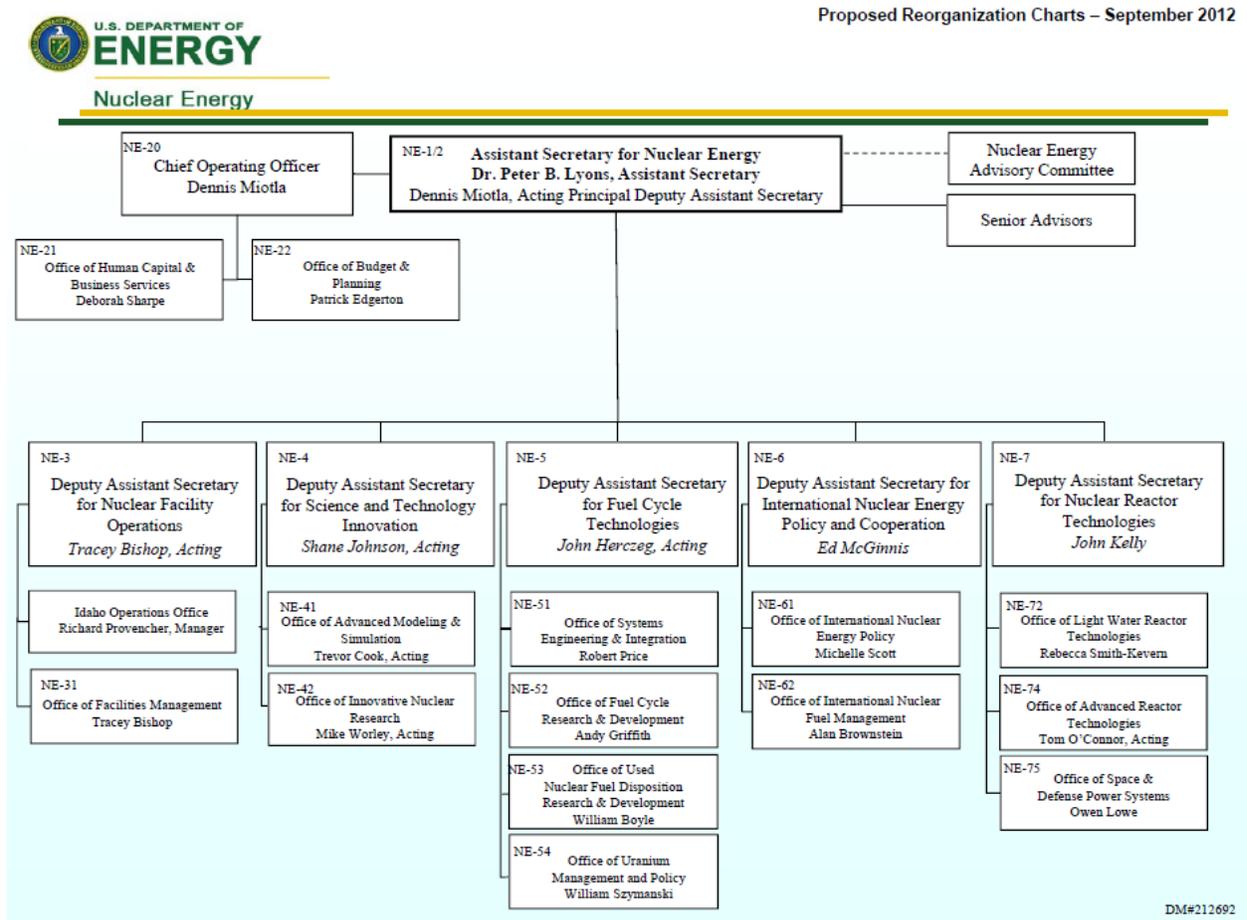
- Announce the selection of industry partner(s) for the Small Modular Reactor Licensing Technical Support Program in January 2013. The cooperative agreement(s) will be negotiated and signed by the end of March 2013. During this period industry partners will be able to begin work under pre-award authorization.
- The Energy Innovation Hub for Modeling and Simulation will issue its third update to the "Virtual Environment Reactor Analysis" computer code. This new computer code provides state-of-the-art detailed simulation of the workings of an actual commercial nuclear power plant. The Department's investment in the modeling and simulation Hub will significantly enhance the safety and performance of the existing fleet of 104 commercial nuclear reactors and any future deployment of new nuclear plants in the U.S. - June 2013
- DOE proposes to obtain full cost recovery for radioisotope power systems from user agencies. NASA is the primary user of Nuclear Energy's Space and Defense Power Systems infrastructure. Users currently only pay the incremental cost of supporting their missions. The proposed change would transition infrastructure costs to NASA.
- In FY10, The Secretary of Energy chartered the Commission to "conduct a comprehensive review of policies for managing" the nuclear fuel cycle, including all civilian and defense applications of nuclear technology. The Commission's recommendations were delivered to the Secretary in January 2012. The FY 2012 budget directed DOE to develop a strategy for the management of used nuclear fuel and high level waste within 6 months of the Commission's recommendations (July 31, 2012). The strategy is still under development. – TBD
- The International Framework for Nuclear Energy Cooperation (IFNEC) is a 63-nation framework that was established in 2007. The U.S. has initiated efforts with specific countries to transition its leadership as the Steering Group Chair to another IFNEC member country as part of an effort to

ensure its long term viability. Identification of a country to serve in this leadership role needs to be finalized prior to the next annual IFNEC ministerial meeting, September 2013

NE KEY PERSONNEL

- Dr. Peter B. Lyons, Assistant Secretary for Nuclear Energy
- Dennis Miotla, Chief Operating Officer and Acting Principal Deputy Assistant Secretary
- Dr. John Kelly, Deputy Assistant Secretary for Nuclear Reactor Technologies
- Ed McGinnis, Deputy Assistant Secretary for International Nuclear Energy Policy and Cooperation
- Tracey Bishop, Deputy Assistant Secretary for Nuclear Facility Operations
- Shane Johnson, Deputy Assistant Secretary for Science and Technology Innovation
- Dr. Monica Regalbutto, Deputy Assistant Secretary for Fuel Cycle Technologies
- Richard Provencher, Manager Idaho Operations Office

NE ORGANIZATION CHART



**OFFICE OF ELECTRICITY DELIVERY AND
ENERGY RELIABILITY**

Number of Federal FTEs Funded \approx 106 (63 HQ & 43 at NETL) FY 2013 Budget Request \approx \$143 Million Headed by: Political Appointee
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OVERVIEW

The Office of Electricity Delivery and Energy Reliability (OE) is responsible for driving electric grid modernization and resiliency in the energy infrastructure. The mission of OE executed within six divisions: (1) Power Systems Engineering Research and Development; (2) National Electricity Delivery; (3) Infrastructure Security Energy Restoration; (4) Smart Grid Investment Program; (5) Energy Infrastructure Modeling and Analysis; and (6) Corporate Business Operations.

Established in 2003, OE leads the Department's efforts to ensure a resilient, reliable, secure, efficient and flexible electricity system. OE accomplishes this effort by partnering with all entities associated with the electric grid and other energy infrastructure. Through research and development, regulatory and policy analysis, modeling and analysis, and emergency preparedness, OE works to bring together technology, policy and operations to ensure the reliability, security and resiliency of our Nation's energy infrastructure. OE partners with stakeholders from various state and local governments, international partners, the DOE national laboratories and universities to develop advanced technologies and innovative policies that facilitate the creation and implementation of sound, strategic energy infrastructure plans.

OE's key programmatic activities are designed to:

- Increase overall understanding of grid operations and interactions with the emergence of new technologies, requirements and complexities;
- Help address and reduce our Nation's electric transmission congestion;
- Increase the capacity and efficiency of the electric grid with advanced technologies such as smart grid systems, energy storage, synchrophasor units, and others;
- Develop and disseminate cybersecurity capabilities to reduce the risk of energy disruptions;
- Enhance risk management to better secure the energy infrastructure through development of tools and technology to build resilience, mitigate events and recover quickly from major disasters;
- Deliver value from the deployment of the \$4.5 billion Recovery Act for grid modernization; and
- Assist states and regions in addressing issues on energy infrastructure

OE's goals and objectives to promote a modern grid under an "all of the above"/generation neutral energy strategy align with the DOE Strategic Plan to improve the energy infrastructure. Current efforts to achieve these goals include:

- Developing technologies that can better integrate variable renewable energy sources with fossil fuels sources;
- Facilitating the development and demonstration of storage technologies and reducing utility scale energy storage costs;
- Monitoring new threats and working with industry and other federal agencies to create security and communication standards while facilitating the hardening of America's energy infrastructure; and,
- Enabling better understanding and control of the electric grid by installing more than 1,000 synchrophasor units by 2013 and deploying more than 26 million smart meters by 2013.

These and other activities are performed with support from DOE's National Energy Technology Laboratory (NETL) site office in Morgantown, WV.

MISSION IMPLEMENTATION

The implementation of OE's mission is achieved through the following six functions of the organization:

- **Power Systems Engineering Research and Development** -- Leads efforts to develop next generation technologies that will maintain the reliability, enhance the flexibility, improve system level efficiency, and improve the security of the Nation's electricity grid so that it is prepared to meet the demands of the 21st century. Key research and development program areas include: Grid Cyber Security, Energy Storage, Smart Grid demonstration projects, Power Electronics, Adaptive Networks, Intelligent Communications and Control Systems. This Division also manages 32 Smart Grid and Energy Storage demonstration projects (\$658 million).
- **National Electricity Delivery (NED)** – Through OE's Assistant Secretary, functions as DOE's electricity policy advisor to the Secretary. It provides objective policy assistance and analysis to States and regions on State electricity policies. NED also analyzes transmission congestion, proposes National Interest Electric Transmission Corridors for the Secretary's consideration, coordinates Federal agency reviews of applications to site transmission facilities, and issues permits for cross-border transmission and authorizes exports of electricity. In addition, it manages the \$80 million Interconnection Transmission Planning and \$48.6 million State Assistance Electricity Policy program.
- **Infrastructure Security and Energy Restoration (ISER)** – Leads coordination of DOE's response to energy emergencies (physical and cyber) and supports national homeland security policies which require DOE to secure the Nation's energy infrastructure, and to assist state and local governments with energy assurance planning, disruption preparation and emergency response. By leveraging resources of the Department and the entire U.S. government, OE identifies key foreign energy supplies and provides technical assistance to ensure product flow to the U.S. In addition, OE manages the \$51.5 State and Local Assurance Planning Program.
- **Energy Infrastructure Modeling and Analysis (EIMA)** – Provides the resources and capabilities to observe and analyze the electric grid system. This institutional capability focuses on modeling and analytics in key areas such as: grid and environmental modeling, transmission reliability and clean energy analysis, smart grid data integration analytics, energy security modeling, visualization and energy infrastructure and risk (criticality) analysis.
- **Smart Grid Investment Program (SGIP)** – Leads the management and oversight of the \$3.6 billion Smart Grid Investment Grants Program (99 projects) and Workforce Training Program (52 projects totaling \$100 million). SGIP collects and analyzes critical systems and consumer benefit data that provides insight and knowledge for the development of OE's future strategic objectives in the area of cyber security, transmission and distribution R&D, grid modeling, and other areas.
- **Corporate Business Operations (CBO)** -- Supports the OE organization and implements proven best business practices. CBO institutionalizes an integrated business management, human capital and resource management approach and strategy to advance DOE's and OE's continuous business process improvement.

OE UPCOMING CRITICAL ISSUES/EVENTS

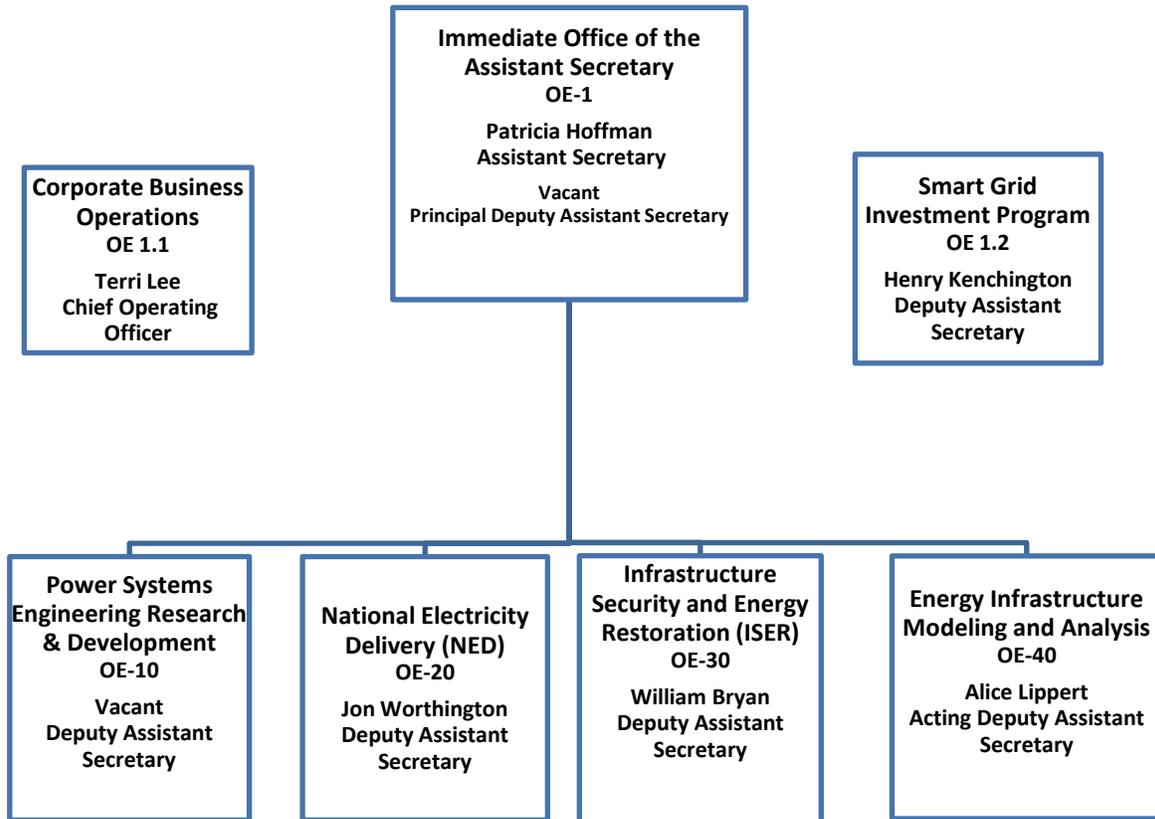
- October 2012 – January 2013
As directed by the White House, under the National Security Staff's Global Critical Energy Infrastructure Protection Program, DOE/OE must develop a five year plan this winter to assist Iraq in improving the security of its critical energy infrastructure to include training and technology integration.
- November 2012
On September 14th DHS and DOE met with 75 electric utility CEOs and leadership of the major electric and nuclear trade associations in Colorado Springs to provide a classified briefing on "Threats to the Electric Sector" with a primary focus on cyber threats. OE Assistant Secretary Hoffman briefed the Electricity Subsector Cyber Security Capability Maturity Model (ES-C2M2) and the need for companies to understand what their capabilities are, where they have gaps, and where to apply resources. OE will follow up with these CEOs and provide immediate action items that will enhance their cybersecurity posture in the short run, and in the long run, investigate the possibility of scheduling a facilitated ES-C2M2 engagement with the CEOs' companies.
- December 5, 2012
Smart Grid Investment Program will hold the second national workshop on cybersecurity best practices for deployment of smart grid technologies.
- January 29, 2013
The Smart Grid Investment Program will issue five reports on the impacts and benefits (improvements in grid reliability, efficiency, asset utilization and cost savings) related to the \$3.4 billion investment in smart grid technologies under ARRA and present these findings at the Distributech conference.
- February 6, 2013
OE plans to release a draft for comment of DOE's third triennial National Electric Transmission Congestion Study pursuant to section 1221(a) of EPCA 2005. This study will provide critical input to the Secretary of Energy's designation, if appropriate, of National Interest Electric Transmission Corridors.
- February 6-7, 2013
DOE (OE) and NARUC will jointly sponsor the 2013 National Electricity Forum in Washington DC as part of a unique federal-state partnership to advance electricity grid modernization. This year's Forum will focus on challenges facing the three major electricity interconnections (Eastern, Western and ERCOT (in Texas)), and the ways the organizations and capabilities created in the interconnections with ARRA funds can be brought to bear on those problems. Challenges include transmission siting, renewable energy integration, smart grid deployment, cybersecurity and others.
- May 10, 2013
OE plans to release the final version of the 2012 National Electric Transmission Congestion Study.
- July 2013
DOE's Electricity Advisory Committee (FACA) will present papers (with recommendations to DOE) on several electricity-related topics. One will be a major report required by Congress on

energy storage, and another a paper recommending that DOE play a lead role in the development of the next-generation software needed to operate the nation's bulk power networks.

OE KEY PERSONNEL

- Patricia Hoffman, Assistant Secretary
- Henry Kenchington, Deputy Assistant Secretary for Smart Grid Investment Program
- Jon Worthington, Deputy Assistant Secretary for National Electricity Delivery
- William Bryan, Deputy Assistant Secretary for Infrastructure Security and Energy Restoration
- Alice Lippert, Acting Deputy Assistant Secretary for Energy Infrastructure Modeling and Analysis
- Terri Lee, Chief Operating Officer
- William Parks, Senior Technical Advisor
- Samara Moore, Senior Technical Advisor (Detailed to the White House effective 9/4/12 to 9/4/13 w/one year option to extend)

OE ORGANIZATION CHART



OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

OFFICE OVERVIEW

Number of Federal Employees ≈ 5 FY 2013 Budget Request ≈ \$2.5 Million Headed by: Political Appointee

The Office of Indian Energy Policy and Programs (IE) is charged by Congress to direct, foster, coordinate and implement energy planning, education, management and programs that assist tribes with energy development, capacity building, energy infrastructure, energy costs and electrification of Indian lands and homes. IE is also authorized to provide grants, including formula grants or grants on a competitive basis to eligible tribal entities. To date, this function has been implemented by DOE's Office of Energy Efficiency & Renewable Energy's Tribal Energy Project (TEP).

In addition to assisting tribes to plan and coordinate their energy needs, and serving as a coordination mechanism between the federal government and tribal leaders on energy issues, IE also seeks to promote tribal lands as a base for development of renewable energy projects. IE has three short-term strategic initiatives that support these goals:

- **Education and Capacity Building:** The Indian Energy Education and Capacity Building Initiatives are intended to provide easily accessible, multi-format information to tribal leaders, executives and staff on options for energy efficiency and renewable energy development. These efforts are delivered through a variety of mechanisms, including the tribal leader best practices forums, education workshops delivered in person and on-line, individual tribal council presentations, inter-tribal sessions, conferences and webinars. Partners include NREL, NCSL, WAPA and BPA.
- **Transmission and Electrification Technical Assistance:** The IE Transmission and Electrification Initiative promotes tribal electric transmission and electrification development through analysis and technical assistance support to tribes that are evaluating commercial scale or community scale energy projects. IE is currently conducting studies on transmission capacity and resource availability on or near Indian lands and electrification on Indian lands. In addition, IE provides direct assistance to tribes for pre-feasibility studies of, and applications for, proposed grid interconnection. IE is also supporting a micro-grid design pilot program, focused on rural Alaska Native villages.
- **Strategic Technical Assistance and Response Team (START) Program:** The START initiative is aimed at advancing next-generation energy development in Indian Country. It is led by a technical assistance team comprised of experts from DOE and its National Renewable Energy Laboratory (NREL). Early-stage project development technical assistance is provided to selected projects in the 48 contiguous states. DOE and NREL experts work directly with community-based teams and tribal legal/finance specialists to further develop market feasibility; due diligence research, analysis and documentation; and early pre-development work to prepare site control, verify resource, pre-qualify off-take agreements and strategy, and produce a permitting plan. The Alaska START initiative is assisting in the development of tribal energy planning for Alaska Native Entities. In partnership with the Denali Commission, DOE-IE and NREL will conduct community-based planning and training and implement a variety of clean energy projects, including: energy storage infrastructure, renewable energy deployment and projects promoting energy efficient housing. START technical assistance experts will work directly with community-based teams to evaluate project financial and technical feasibility, provide on-going training to community members, and help implement initiatives that save money by saving energy.

IE UPCOMING CRITICAL ISSUES/EVENTS

January through April 2013

- \$6.5 million funding announcement for tribal energy efficiency and renewable energy projects
- Alaska START Program announcement – Round 2 – for technical assistance to Alaska Native villages and corporations
- START Program announcement – Round 2 – for technical assistance to tribes in the Lower 48.
- Alaska Native Village Micro-grid Design Pilot Project

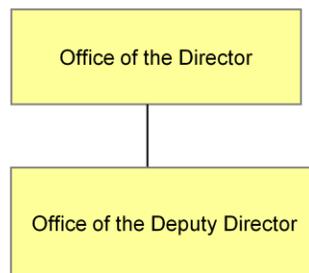
All other events in 2013

- IE is currently in the process of finalizing a transition plan with the Office of Energy Efficiency and Renewable Energy's Tribal Energy Program (EERE-TEP). S-3 approved a transition of the EERE-TEP activities, including financial and technical assistance programs, to IE for FY 2013. The goal is to fully transition EERE-TEP to IE in FY 2014. The two programs will have a transition plan that gives IE co-management and oversight over the EERE-TEP activities in FY 2013.
- IE and EERE-TEP are working on a FY 2013 Funding Announcement for renewable energy and energy efficiency projects. Estimated funding, based on the EERE-TEP FY 2013 Budget Request of \$7,000K, is approximately \$6,700K. Both programs expect to make an announcement shortly after the beginning of the 2013 calendar year.

IE KEY PERSONNEL

- Tracey A. LeBeau, Director, Office of Indian Energy Policy and Programs
- Pilar Thomas, Deputy Director, Office of Indian Energy Policy and Programs

IE ORGANIZATION CHART



ADVANCED RESEARCH PROJECTS AGENCY—ENERGY (ARPA-E)

OFFICE OVERVIEW

Number of Federal Employees \approx 35
FY 2013 Budget Request: \$350 Million
Headed by: Political Appointee

ARPA-E does not fund exploratory science or incremental improvements to existing technologies. Rather, ARPA-E helps translate science into quantum leaps in energy technologies that are not likely to be funded by the private sector but that, if successful, would enhance the economic and energy security of the United States by reducing America's dependence on energy imports, reducing U.S. energy-related emissions, improving energy efficiency across all sectors of the U.S. economy, and ensuring the U.S. maintains a technological lead in the development and deployment of advanced energy technologies.

ARPA-E was originally called for in the 2006 National Academy of Sciences' report, "Rising above the Gathering Storm." The Report envisioned an energy-focused version of the successful Defense Advanced Research Projects Agency (DARPA). With the passage of The America Competes Act in 2007, ARPA-E was authorized but remained dormant without an appropriated budget until 2009.

ARPA-E received its first appropriation of \$400 million via the American Recovery and Reinvestment Act (ARRA), and later received almost \$180 million in FY 2011 and \$275 million in FY 2012. With this funding, ARPA-E has invested in over 210 transformative and potentially disruptive research projects across 14 specific and one open programs. Additionally, ARPA-E is in the final stages of soliciting ideas from America's best and brightest to continue its open program with a new, \$150 million, 50+ project round that is applicable to a wide array of potentially transformative and disruptive energy technologies.

ARPA-E's research programs run the gamut, from carbon capture and energy storage technologies, to natural gas fuel systems for passenger cars and technologies that would allow the electric grid to be both more efficient and resilient. ARPA-E's portfolio of programs covers the generation, storage and use of energy for both critical transportation and stationary uses.

ARPA-E coordinates closely with other DOE programs, the rest of the federal government, universities and the private sector to identify "white space" where others are not making investments in innovation and where ARPA-E's support would be appropriate. Typically, these technologies involve entirely new learning curves (See Figure 1), which offer the prospect of transformational and disruptive technologies with dramatically improved cost-to-performance ratios compared to present-generation technologies.

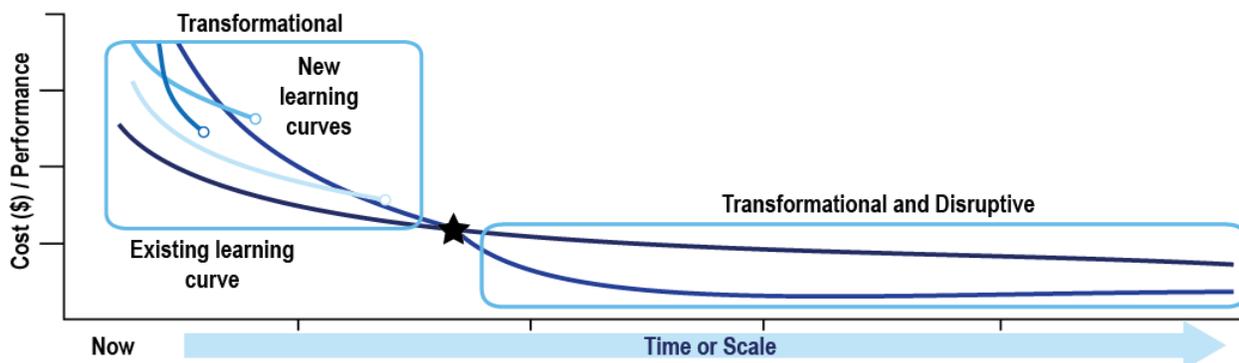


Figure 1. ARPA-E Supported Innovation Creates New Learning Curves.

ARPA-E's only true metric of success is whether the technologies it has funded succeed in the competitive marketplace. While it is too soon in ARPA-E's history for this success to have already

occurred, preliminary indicators of likely success include: handoffs of supported technologies to other organizations, technical achievements, follow-on funding and, to a lesser degree, publications and patents.

As of June 2012, ARPA-E has already experienced several notable preliminary indicators of likely success. At least five ARPA-E projects have generated spin-off companies or successful Initial Public Offerings (IPOs). At least four ARPA-E projects have announced strategic partnerships with established industry participants. On the technology side, ARPA-E performers have doubled the world record energy density for a rechargeable lithium-ion battery (to 400 Whr/kg), developed a 1 megawatt silicon carbide transistor the size of a fingernail, engineered microbes that use hydrogen and carbon dioxide to make liquid transportation fuel, and pioneered a near-isothermal compressed air energy storage system. In addition, ARPA-E performers have applied for at least 34 patents and submitted at least 48 technical papers. Finally, 11 ARPA-E projects that received \$39 million in funding went on to garner at least \$200 million of private sector funding (publicly announced to date).

ARPA-E evaluates the effectiveness of its projects by practicing active program management that includes substantial government involvement with detailed high-impact milestones, performer site visits, quarterly report evaluation, and project terminations when goals are not being met. ARPA-E builds the milestones for its projects with significant understanding of the potential impact in the market, which drives early engagement and investment by the private sector to advance the technologies to market. Through a process of active program management, an ARPA-E Program Director (PD) becomes an integral part of each project team. PDs visit and assess the projects at least two times a year, offer technical advice and experience in overcoming obstacles as they arise, while maintaining the objective viewpoint necessary to terminate a project that is not meeting its technical milestones. To date, nine projects have been terminated using this process.

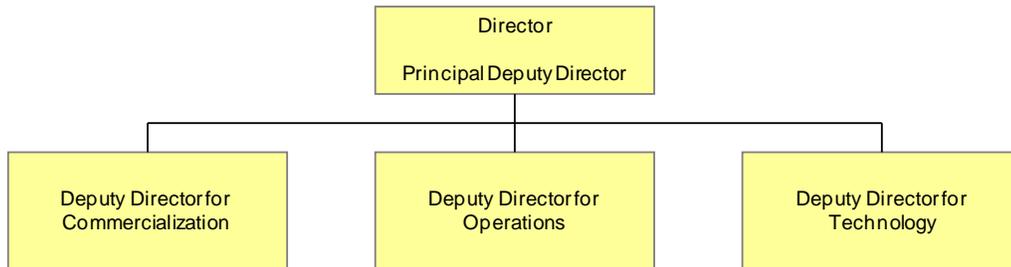
ARPA-E UPCOMING CRITICAL ISSUES/EVENTS

- Recruiting Technical Leaders – ARPA-E’s Program Directors are statutorily limited to three years terms (subject to extension at the Director’s discretion), requiring ARPA-E to continuously and aggressively recruit highly skilled professionals with the capability to execute ARPA-E’s mission. As the first wave of Program Director transitions occur, ARPA-E has developed processes to effectively manage both programmatic and project specific transitions.
- ARPA-E Energy Innovation Summit – ARPA-E will hold its fourth annual Energy Innovation Summit February 25 - February 27, 2013 at the Gaylord Convention Center just outside Washington, D.C. This event brings together thought leaders from academia, business and government to examine cutting-edge energy issues and catalyze the rapid handoff of advanced energy technologies into the competitive marketplace. The summit leverages DOE’s convening power to cost-effectively advance both ARPA-E and the wider Department’s core missions.
- Statutory Authorization – Under present law, ARPA-E’s statutory authorization expires at the conclusion of FY 2013.
- ARRA Funding Closeout – Because the majority of ARPA-E funding comes from ARRA, ensuring that these projects are closed out will be important.

ARPA-E KEY PERSONNEL

- ARPA-E Director (vacant).
- Dr. Eric Toone, Principal Deputy Director
- Dr. Pramod Khargonekar, Deputy Director for Technology
- Shane Kosinski, Deputy Director for Operations
- Dr. Cheryl Martin, Deputy Director for Commercialization

ARPA-E ORGANIZATION CHART



POWER MARKETING ADMINISTRATIONS

OVERVIEW

Number of Federal Employees ≈ 4,792 FY 2013 Budget Request ≈ \$85.2 Million Headed by: Career Employees at all four

The Power Marketing Administrations (PMAs) are agencies within the Department of Energy (DOE) whose primary mission is to market the electrical power produced at federal dams. None of the PMA employees are political appointees. The PMA Administrators, as well as all other PMA employees (excluding contractors), are career federal employees.

The PMA program began in the 1900s when power produced at federal water projects in excess of project pumping needs was sold in order to repay the Government's investment in the projects. The PMAs market this power "... in such a manner as to encourage the most widespread use thereof at the lowest possible rates to consumers consistent with sound business principles." (Flood Control Act of 1944)

There are four PMAs – Bonneville Power Administration (Bonneville), Southeastern Power Administration (Southeastern), Southwestern Power Administration (Southwestern), and Western Area Power Administration (Western) - each operating in a different geographic region. Each PMA's headquarters is located in its service territory, and the four PMA Administrators report to the Deputy Secretary of Energy.

Each of the PMAs by law is a distinct and self-contained entity within DOE, much like a wholly-owned subsidiary of a corporation. The four PMAs share some common characteristics, but each also has unique features stemming from history, geography and specific authorizing statutes. These differences mean the policies and programs of one PMA often are not completely applicable to another. As a result of these differences, each PMA must be evaluated separately when considering the impact of new policies.

PMA Projects and Sales

The PMAs sell hydroelectric power generated at multipurpose water projects owned and operated primarily by the Department of Interior's Bureau of Reclamation and the U.S. Army Corps of Engineers. (Bonneville also sells electric power from one nuclear project owned by Energy Northwest, and Western sells the Federal entitlement to the coal-fired Navajo Generating Station.) The PMAs generally sell power and set rates on a project or system basis, rather than for individual dams. In FY 2011, the four PMAs marketed power from 134 Federal power plants with maximum operating capabilities of 38,437 megawatts. In certain cases, the Federal hydropower is supplemented with power purchased from other sources in order to "firm up" the variable hydropower resource and sell a more valuable product.

PMA Assets

The PMAs own, operate and maintain a total of 33,730 circuit miles of transmission line, 609 substations, and extensive communications and control networks. Bonneville's transmission comprises about 75 percent of the Pacific Northwest's high-voltage transmission. Southeastern has no transmission facilities; it negotiates arrangements with other utilities to use their transmission facilities to deliver power from federal dams to customers.

Rates and Revenues

Each PMA develops cost-based rates for the firm power it sells. Rates are set to collect enough revenue to pay for annual operation and maintenance (O&M) of the power features (and a proportionate share of the joint-use features of the project), including the power O&M expenses of the generating agency, and repay with interest the capital investment in power generation and transmission facilities.

In addition, Bonneville's and Western's rates are set to collect additional revenue to repay certain other capital costs, generally for a project's irrigation features, that are assigned to power users for repayment. Non-power-related costs are specified in enabling legislation and have been assigned to power users for repayment when other project beneficiaries (e.g. water users) are unable to repay their share of the project's capital costs. In addition, Bonneville collects through rates funds necessary to implement extensive programs designed to mitigate adverse impacts of the Columbia River power system on fish and wildlife populations. Western is also responsible for environmental restoration costs for some projects.

The PMAs use open public processes when setting rates and allocating power. Proposed rates for Southeastern, Southwestern and Western are submitted to the Deputy Secretary of Energy for approval on an interim basis, and then forwarded to the Federal Energy Regulatory Commission (FERC) for final approval. By law, Bonneville's rate proposals go directly to FERC.

In FY 2011, the four PMAs generated \$4.9 billion in total revenue, 67 percent of that from Bonneville.

PMA customers

The four PMAs sign multi-year contracts for the sale of federal power to their 1,555 customers. By law, "preference" in the sale of power is given to municipalities, rural electric cooperatives, irrigation districts and other publicly-owned entities. These PMA customers, in turn, serve millions of retail power users. In addition, Bonneville provides direct electrical service to several large industrial customers, primarily two aluminum smelters. Bonneville also is mandated to extend the availability of its power to residential and small farm customers of investor-owned utilities within its service area. As a matter of policy, Western also gives preference to federally recognized tribes and now provides the benefits of allocations to federal power to 90-plus tribes across its 15-state service territory.

Load Growth Responsibility

Bonneville has the responsibility to acquire the output of new resources when needed to meet the growth of electric loads in its regions. In 2011, Bonneville implemented a new tiered rates structure that will be implemented through 2028 that limits its sales of firm power at the lowest rate to its preference customers. The new rate structure sends price signals to customers to meet their load growth through conservation and the long-term certainty enables them to seek out new resources. The other three PMAs do not need to meet electrical load growth – they generally market only that power produced by the federal dams that is in excess of the projects' needs.

Financing

Bonneville is self-financed through a revolving fund – power revenues are deposited into this fund and are then available for Bonneville to spend. Bonneville also uses permanently authorized borrowing authority of \$47.745 billion to finance capital investments. Given these financing mechanisms, BPA does not receive annual appropriations.

Southeastern's program is financed through federal power receipts and alternative financing arrangements. Southeastern's federal power receipts fund annual operating expenses subject to amounts specified in law. Budget authority for Southeastern is included within DOE's annual budget request.

Southwestern's program is financed through annual appropriations, Federal power receipts and alternative financing arrangements. Southwestern's federal power receipts fund annual operating expenses subject to amounts specified in law. Customer advance funding and annual appropriations are sought for capitalized expenses. Budget authority for Southwestern is included within DOE's annual budget request.

Western's program is financed through a combination of revolving fund, borrowing authority, annual appropriations and alternative financing arrangements. For Western's primary account, annual expenses

are financed via power receipts subject to amounts specified in law. Customer advance funding and annual appropriations are sought for capitalized expenses, with heavy reliance on customer funding. Budget authority for Western is included within DOE's annual budget request.

The power revenues collected by Southeastern, Southwestern and Western that are not used to finance annual expenses are deposited in the U.S. Treasury. These three PMAs required specific Congressional authorization for use of receipts from power sales.

Staffing

Federal employment by the four PMAs totals 4,792 full-time equivalents (FTE) in FY 2013, over one-quarter of DOE's total FTEs. Bonneville, Southwestern and Western also make use of contractors for support functions across their organizations. The PMAs have employees in Washington, D.C., who are liaisons to DOE, other Executive Branch agencies, the Congress, and other interest groups. Typically, there are a total of 10 employees from the four PMAs at DOE headquarters.

PMAs UPCOMING CRITICAL ISSUES/EVENTS

- The Secretary of Energy issued on March 16, 2012, a memorandum regarding the Power Marketing Administrations' role. The memorandum has generated significant comments and concerns, including significant Congressional correspondence and legislative proposals to block implementation. A pending action under the memorandum is a Federal Register Notice seeking public comment on draft Joint Outreach Team (JOT) recommendations related to the Western Area Power Administration anticipated in early November 2012 with final JOT recommendations expected to be submitted to the Secretary by the end of December 2012. Implementation of any adopted recommendations has been scheduled to begin in 2013.

Bonneville:

- The Columbia River Treaty (CRT) includes a unilateral right for Canada or the U.S. to terminate beginning in 2024 with 10 years' notice provided. BPA and the U.S. Corps of Engineers, as the U.S. Entity for the CRT (CRT), will develop a recommendation to be provided to the State Department in September 2013.
- The updated Federal Columbia River Power System (FCRPS) biological opinion for salmon and steelhead currently is due in 2014. NOAA has planned the following milestones: an implementation plan released in July 2013; a draft biological opinion released in August 2013; and the final biological opinion released in December 2013.

Southeastern:

- **Wolf Creek and Center Hill Dams – Rehabilitation:** In response to established and revised operations, modifications to customer contracts, and restructured scheduling, Southeastern continues to discuss the issues of dam safety and its potential impact on customers' rates. The customers have great concerns on their ability to handle added costs on the customer rates for the structural repairs. By the end of FY 2013, Southeastern will continue to work with the U.S. Army Corps of Engineers on dam safety in the Cumberland Basin during extreme drawdown at the Wolf Creek and Center Hill projects. Weekly, Southeastern will notify customers' scheduling entities of the quantity of energy that is available under the Cumberland System's interim operations. Southeastern will also verify that 100 percent of the Federal energy delivered during the Cumberland System interim operations goes to meet customer contract obligations.

- **Customer Funding:** Southeastern has established Memoranda of Understanding with its preference customers and the U.S. Army Corps of Engineers in five districts to provide funding to rehabilitate hydroelectric generating equipment. This enhances reliability and lessens future budget impacts. Under this agreement, provide at least \$15 million for rehabilitation efforts by the end of FY 2013 and establish a customer-funding work plan for FY 2014 by September 30, 2013.
- **Purchase Power and Pumping Energy:** A process that has increased with dam storage reduction and extended drought conditions. The entire process needs to be understood with impact on budget and customer rates.
- **Droughts:** Droughts continue to plague the Southeastern United States resulting in adverse hydrological conditions that impact hydropower generation marketed by Southeastern. Reductions in the quantities of generation available has necessitated the purchase of replacement power to fulfill existing contractual obligations thereby resulting in less funding to repay the Federal investment in these projects and rate increases to preference customers. Despite these adverse hydrological conditions, Southeastern continues to market and deliver reliable, cost-based Federal hydroelectric power to public bodies and cooperatives in the Southeastern United States. Southeastern will update the repayment studies for all hydroelectric power systems by April 1, 2013, and request approval from the Federal Energy Regulatory Commission for new power and transmission rates for the FY 2014-2018 rate period for an effective date of October 1, 2013.
- **Appropriations:** Since FY 2010, Southeastern annual expenses and purchase power and wheeling were offset by receipts collected from the sale of Federal hydropower which resulted in a net zero budget authority. This funding mechanism is sought every fiscal year via the Congressional Budget process.

Western:

- **Access to Capital:** In recent years, new appropriation levels for Western have been held at \$96M or less than 10 percent of total program need. Limited availability of new appropriations and lower planned estimates of customer funding continues to decrease the amount of critical capitalized infrastructure investment as part of Western's Construction and Rehabilitation Program. This is a funding concern shared by Western and DOE. Western is currently developing a detailed funding alternative analysis to support continued discussion with the Administration.
- **Joint Outreach Team (JOT):** A DOE and WAPA joint team is preparing recommendations for the Secretary in response to his March 16, 2012 memo outlining potential improvements to PMA operations and the electric grid. A public outreach process concluded in August, 2012. A Federal Register Notice seeking public comment on draft recommendations is anticipated in early November 2012 with final JOT recommendations going to the Secretary by the end of December 2012. Implementation of adopted recommendations for Western would begin in 2013.
- **Transmission Infrastructure Program (TIP):** Western's TIP program is responsible for administering \$3.25 billion in borrowing authority to help integrate renewable energy related transmission lines into the electric grid. The Montana Alberta Tie Ltd. (MATL) was the first project to receive borrowing authority under the program. The \$161 million MATL project loan was repaid by the project developer in August 2012, closing out the project with the TIP program. The development and financing program currently has two transmission projects approved for federal borrowing authority, Electrical District No. 5 to Palo Verde Hub (ED5) which is under construction and TransWest Express (TWE) which is expected to begin construction in 2013. To date, Western has dispersed approximately \$22 million for ED5 construction and approximately

\$17 million for TWE development. TIP is using advanced customer funding for preliminary development work on two additional projects.

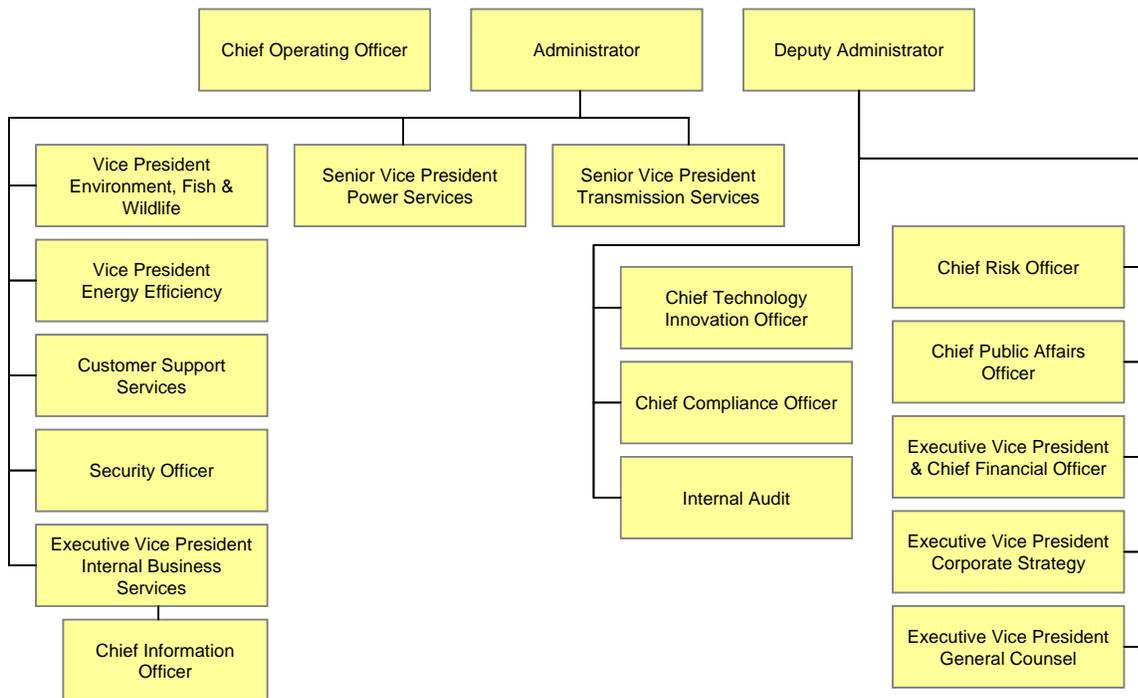
- **Cyber Security:** Western will conduct a Cyber Maturity Model Assessment to identify the current state of cyber security.

PMA's KEY PERSONNEL

BONNEVILLE KEY PERSONNEL

- Stephen J. Wright, Administrator
- William K. Drummond, Deputy Administrator
- Kimberly A. Leathley, Acting Chief Operating Officer (short-term detail)
- Anita J. Decker, Chief Operating Officer (Permanent)

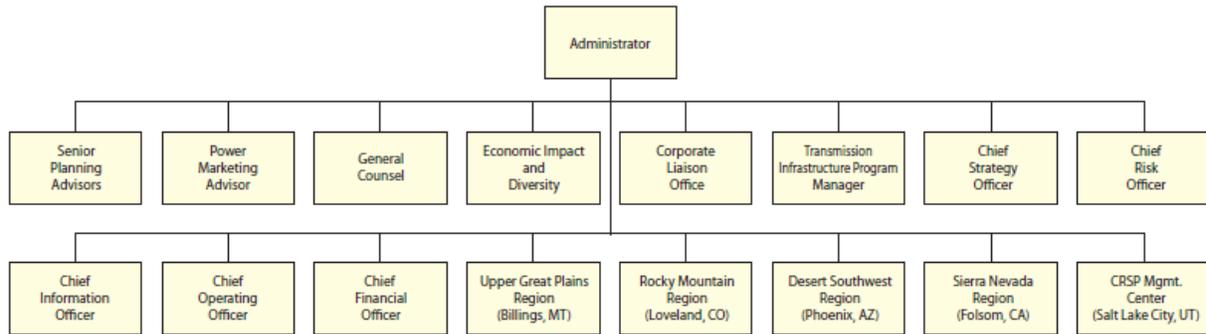
BONNEVILLE POWER ADMINISTRATION ORGANIZATION CHART



WESTERN KEY PERSONNEL

- Anita Decker, Acting Administrator
- LaVerne Kyriss, Acting Assistant Administrator for Corporate Liaison (DC)
- Chief Financial Officer: Linda Kimberling
- General Counsel: John Bremer
- Chief Operating Officer: Tony Montoya

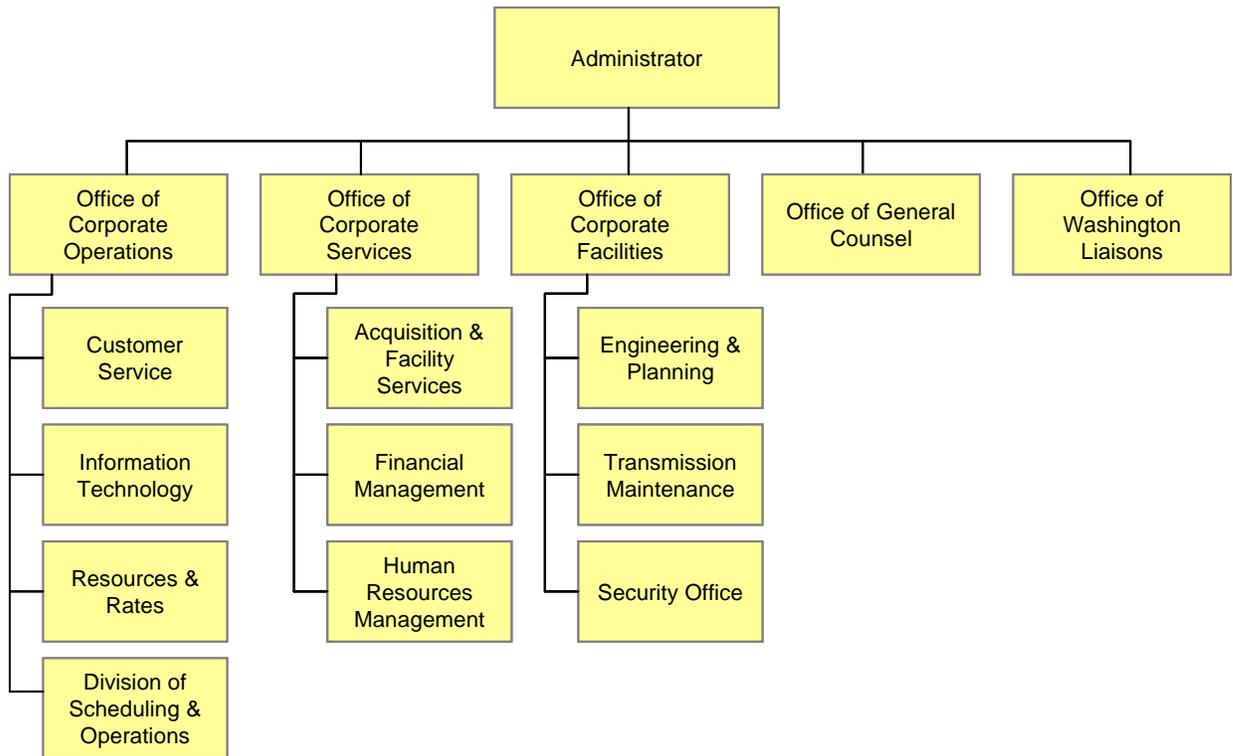
WESTERN AREA POWER ADMINISTRATION ORGANIZATION CHART



SOUTHWESTERN KEY PERSONNEL:

- Christopher M. Turner, Administrator
- James K. McDonald, Assistant Administrator, Office of Corporate Operations
- Ronald A. Szatmary Jr., Assistant Administrator, Office of Corporate Services
- Scott D. Carpenter, Assistant Administrator, Office of Corporate Facilities
- Laurence J. Yadon II, Assistant Administrator, Office of General Counsel
- Katherine M. Tyer, Deputy Assistant Administrator, Office of Washington Liaisons

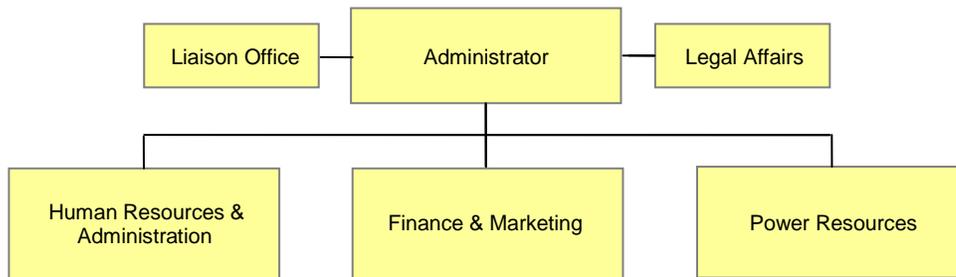
SOUTHWESTERN POWER ADMINISTRATION ORGANIZATION CHART



SOUTHEASTERN KEY PERSONNEL

- Kenneth E. Legg, Administrator
- Joel W. Seymour, Assistant Administrator, Office of Human Resources and Administration
- Herbert R. Nadler, Assistant Administrator, Office of Power Resources
- Virgil G. Hobbs, III, Assistant Administrator, Office of Finance and Marketing
- Katherine M. Tyer, Deputy Assistant Administrator, Office of Washington Liaisons
- Vacant, Assistant Administrator, Office of Legal Affairs

SOUTHEASTERN POWER ADMINISTRATION ORGANIZATION CHART



ENERGY INFORMATION ADMINISTRATION

Number of Federal Employees ≈ 370 FY 2013 Budget Request ≈ \$116 million Headed by: Political Appointee

OFFICE OVERVIEW

The U.S. Energy Information Administration (EIA), created by the Congress in 1977, is the statistical and analytical agency of the U.S. Department of Energy and is located in Washington, D.C.

EIA collects, analyzes and disseminates independent and impartial energy information to promote sound policymaking, efficient markets and public understanding of energy and its interaction with the economy and the environment. EIA is the Nation's premier source of energy information and, by law, its data, analyses and forecasts are independent of approval by any other officer or employee of the United States government. EIA neither formulates nor advocates policy proposals. EIA provides impartial advice to DOE leadership on current and projected domestic and international energy markets, including both physical supply and demand conditions and financial market conditions.

EIA's program supports the Department's strategic objective of leading a national conversation on energy by providing relevant, accessible online content that makes complex energy topics more understandable.

EIA conducts over 60 recurring surveys that provide data on a broad range of energy resources, reserves, production, consumption, distribution and related economic and statistical information. EIA uses this data to issue a wide range of weekly, monthly and annual reports on energy production, stocks, demand, imports, exports, and prices, and prepares special reports and analyses on topics of current interest to promote broader understanding of the rapidly evolving energy landscape. Examples include:

Weekly Reports: *Weekly Natural Gas Storage Report (Principal Federal Economic Indicator)* • *Weekly Petroleum Status Report* • *Natural Gas Weekly Update* • *This Week in Petroleum* • *Gasoline and Diesel Fuel Update* • *Weekly Coal Production Report*

Monthly Reports: *Short-Term Energy Outlook* • *Natural Gas Monthly* • *Electric Power Monthly* • *Petroleum Supply Monthly* • *Petroleum Marketing Monthly* • *Monthly Energy Review*

Annual Reports: *Annual Energy Outlook* • *International Energy Outlook* • *Annual Energy Review* • *Natural Gas Annual* • *Renewable Energy Annual* • *Petroleum Supply Annual* • *Electric Power Annual* • *Annual Coal Report*

Special Reports: *The Availability and Price of Petroleum and Petroleum Products Produced in Countries Other Than Iran (provided every two months)* • *Special Reports requested by Congress and the Administration* • *State Energy Profiles* • *Country Analysis Briefs*

Energy Education Products: *Today in Energy* • *Energy in Briefs* • *Energy Explained* • *Energy Kids*

EIA's data and analyses are widely used by Congress, federal and state governments, the private sector, the broader public, and the media. EIA has two closely watched reports on gas and petroleum stocks that are current market indicators of supply and demand. All of EIA's products can be accessed through its Website, <http://www.eia.gov>, which logs more than 2 million user sessions per month.

EIA UPCOMING CRITICAL ISSUES/EVENTS

- **Release of the *Annual Energy Outlook (AEO)* - March 2013.** The AEO examines the future direction of the U.S. energy system, including long-term projections and analyses that take into

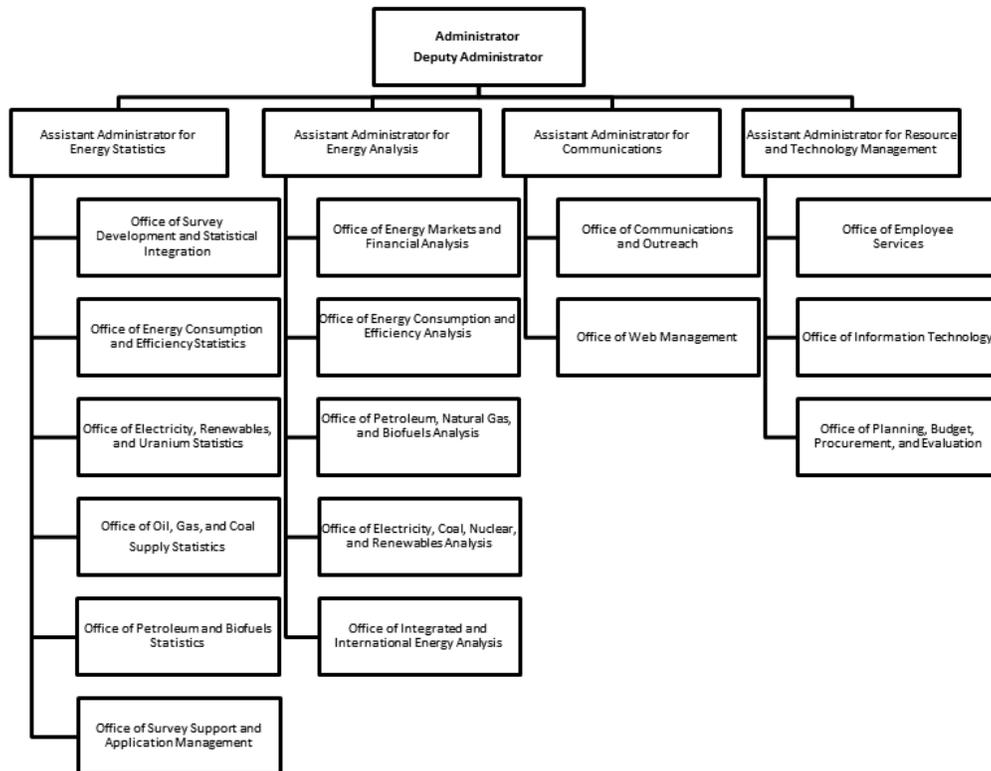
account a range of trends, technologies, policies and uncertainties impacting the U.S. energy economy.

- **Release of the *International Energy Outlook (IEO)* - April 2013.** The IEO provides EIA’s long-term assessment of world energy markets. The projections include an analysis of global supply and demand by energy source for 16 regions through 2040.
- **Commercial Buildings Energy Consumption Survey (CBECS) - April 2013.** Field collection of CBECS data begins after extensive planning and preparation efforts. As the U.S. benchmark, CBECS provides critical data that inform investments in research, new technologies, building design, energy performance labeling and energy management practices. Given the relative scale and complexity of CBECS, potential FY 2013 sequestration scenarios could jeopardize project completion, leaving a significant gap in the data, which were last released for 2003.

EIA KEY PERSONNEL

- Adam Sieminski, EIA Administrator (PAS)
- Howard Gruenspecht, Deputy Administrator (Career SES)

EIA ORGANIZATION CHART



LOAN PROGRAMS OFFICE

Number of Federal Employees ≈100 FY 2013 Budget Request ≈ \$9 million Headed by: Political Appointee
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OFFICE OVERVIEW

The Department of Energy's Loan Programs – administered by the Loan Programs Office (LPO) – enable DOE to work with private companies and lenders to mitigate the financing risks associated with innovative and advanced energy technology and vehicle manufacturing projects, thereby fostering their deployment on a broader, commercial scale.

The LPO manages the §1703 Loan Guarantee Program authorized by Title XVII of the Energy Policy Act of 2005 (as amended), the §1705 Loan Guarantee Program authorized by the American Recovery and Reinvestment Act of 2009, and the Advanced Technology Vehicle Manufacturing (ATVM) Program authorized under Section (§)136 of the Energy Independence and Security Act of 2007. The LPO staff performs every aspect of loan transaction underwriting and asset management for complex, large scale domestic energy projects, including soliciting and evaluating applications; technical, financial, credit, market, environmental, regulatory and legal due diligence analyses; negotiating and structuring legal documentation; and robust management of closed transactions. In each program, LPO guarantees the debt of a qualified lender to a qualified project. Where in most instances, the qualified lender is the Federal Financing Bank, under the Financial Institution Partnership Program (FIPP), the lender is a private lending institution. The LPO oversees disbursement of federal funds to these projects, and ultimately the repayment of funds by borrowers. To date, LPO has invested nearly \$35 billion in loans, loan guarantees and conditional commitments for loan guarantees to 33 clean energy projects with more than \$55 billion in total economic investment. LPO manages three programs across Title XVII and ATVM:

- §1703 of Title XVII provides loan guarantees to qualifying projects that employ new or significantly improved energy technologies that avoid, reduce, or sequester air pollutants or greenhouse gases. §1703 authority is continuing, with several projects currently in due diligence across various industries, including nuclear, advanced fossil and renewable energy technologies.
- §1705 of Title XVII provided loan guarantees to qualified clean energy projects that commenced construction on or before September 30, 2011. Though a statutory sunset prevents new projects from receiving new §1705 loan guarantees beyond that date, the LPO continues to monitor the financial and technical performance of nearly thirty approved projects in its portfolio.
- §136 (ATVM) provides direct loans to qualifying advanced technology vehicles or qualifying component and engineering integration projects in the United States. The aggregate loan authority for these projects is approximately \$25 billion, of which \$8.4 billion has been obligated to active projects.

The LPO accelerates the domestic commercial deployment of innovative and advanced energy technologies at a scale sufficient to contribute meaningfully to the achievement of the nation's clean energy objectives, including supporting the economy, ensuring energy independence and security, and reducing reliance on greenhouse gas emitting technologies. The LPO endeavors to minimize the potential loss of funds by U.S. taxpayers by only guaranteeing those transactions which provide a reasonable prospect of repayment of invested capital.

LPO UPCOMING CRITICAL ISSUES/EVENTS

For each transaction, there are several highly visible and critical decision points that must be met before a project may be issued a loan guarantee, including:

- Acceptance of the project's application and completion of the entire due diligence and underwriting process;
- Recommendation by the Credit Committee for approval;
- Recommendation by the Credit Review Board for approval;
- The decision by the Secretary of Energy to issue a conditional commitment for a loan guarantee; and
- Ultimately, the decision by the Secretary to issue a loan guarantee.

In addition, once a project has been issued a loan guarantee, there are certain other critical decision points that could also be high visibility, including initial disbursement of guaranteed funds, and the granting of any consents, waivers or amendments requested by borrowers.

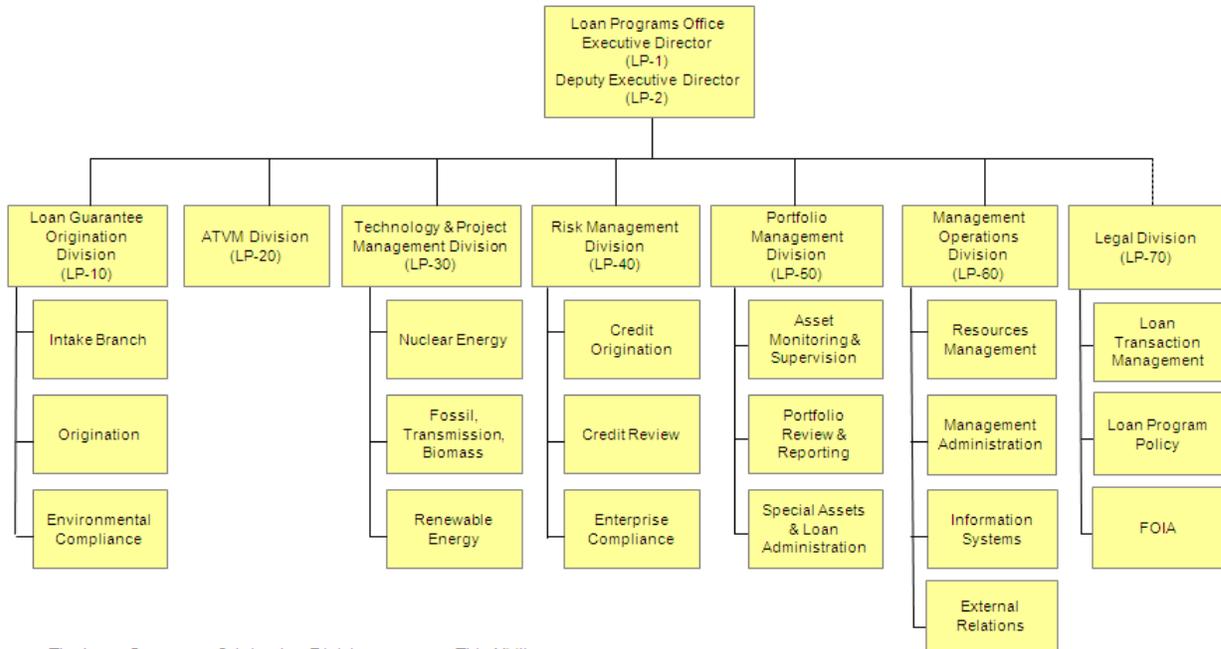
Other Critical Issues:

- Status of appropriations/authority under the CR, including whether existing projects can be continued and new projects can be initiated. (Jan 2013)
- Briefing on status of FOIA requests and other high-profile projects (e.g. Solyndra). (Jan 2013)

LPO KEY PERSONNEL

- David G. Frantz, Executive Director, LPO
- Morgan Wright, Director, Strategic Initiatives
- David Yeh, Senior Advisor
- David G. Frantz, Deputy Executive Director, LPO
- Douglas G. Schultz, Director, Loan Guarantee Origination Division
- Nicholas Whitcombe, Acting Director, ATVM Division
- Dong K. Kim, Director, Technical and Project Management Division
- Vacant, Director, Risk Management Division
- Frances I. Nwachuku, Director, Portfolio Management Division
- Morgan Wright, Acting Director, Management Operations Division
- Susan S. Richardson, Director, Legal Division and LPO Chief Counsel

LPO ORGANIZATION CHART



Notes: The Loan Guarantee Origination Division manages Title XVII programs.
 The LPO Chief Counsel is Director of the Legal Division reporting to the DOE General Counsel, with a dotted line relationship to the LPO Executive Director.

SECTION FOUR

GOAL 2: THE SCIENCE AND ENGINEERING ENTERPRISE: Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity with clear leadership in strategic areas.

OFFICE OF SCIENCE

OFFICE OVERVIEW

Number of Federal Employees ≈ 1,070 FY 2013 Budget Request ≈ \$4.99 Billion Headed by: Political Appointee
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The Office of Science's (SC) mission is to deliver the scientific discoveries and major scientific tools that transform our understanding of nature and advance the energy, economic and national security of the United States. The Office of Science accomplishes its mission and advances national goals by supporting:

- *The Frontiers of Science*—discovering nature's mysteries through study of the cosmos; the subatomic particles, atoms and molecules that are the building blocks of the materials; and the DNA, proteins and cells that are the building blocks of entire biological systems.
- *The 21st Century Tools of Science*—providing to the Nation's researchers more than 30 national scientific user facilities, the most advanced tools of modern science including accelerators, colliders, supercomputers, light sources, neutron sources and facilities for studying the nanoworld.
- *Energy and Environmental Science*—advancing a clean energy agenda through fundamental research on energy production, conversion, storage, transmission and use, and advancing our understanding of the earth's climate through basic research in atmospheric and environmental sciences and climate change.

The Office of Science is the Nation's largest federal sponsor of basic research in the physical sciences and the lead federal agency supporting fundamental scientific research for energy, providing 45% of the federal support of basic research in this area. The Office of Science supports over 25,000 investigators annually at over 300 U.S. academic institutions and at all of the DOE national laboratories. Research that explores the frontiers of science serves as the foundation of the Office of Science research portfolio.

Each of the programs in the Office of Science supports research to probe the most fundamental questions of its disciplines. In chemistry, material sciences and biology, the questions probe the world we live in, encompassing both non-living and living things:

- How do the remarkable properties of materials, such as catalysts, emerge from the atomic and electronic constituents and how can we control those properties?
- How can we master the nanoscale in order to create new materials with capabilities rivaling those of living things?
- How do materials behave under extreme temperature, pressure, or electromagnetic conditions?
- How can we achieve a systems-level understanding of a microbe or community of microbes to ultimately model and predict characteristics from genetic and environmental interactions?

In high energy and nuclear physics, the questions probe the subatomic world and origins of the universe:

- What lies beyond the Standard Model?
- What are dark energy and dark matter?
- What governs the behavior of quarks and gluons?

In plasma and fusion science, the questions probe the 4th state of matter and its control:

- What governs the behavior of self-heated plasmas?
- Can we reduce and control turbulence in plasmas?

- How do plasmas interact with other forms of matter and with light?

Supporting all of these research areas are advances in the numerical methods, mathematical analysis techniques, algorithms and innovative code development that make possible the scientific discovery through computation and simulation using the world's fastest computers.

The Office of Science also provides the Nation's researchers with state-of-the-art national scientific user facilities. Many of these facilities extend the frontiers of measurement science, allowing researchers to probe the subatomic, atomic, molecular and biological worlds and to understand the correlations between structure and function in each of these size regimes—from the subatomic world to entire biological systems. Other facilities extend the frontiers of computation and simulation, allowing researchers to perform experiments that would be impossible to replicate in the laboratory. Still other facilities provide researchers with the opportunity to build nanosystems from the bottom up. The scientific user facilities offer capabilities unmatched anywhere in the world, enabling the U.S. to remain at the forefront of science, technology and innovation. Approximately 25,600 researchers from universities, national laboratories, industry and international partners use the Office of Science scientific user facilities annually. A list of SC's national scientific user facilities can be found at

<http://science.energy.gov/user-facilities/>.

The SC research programs and scientific user facilities together provide the foundation for targeted investments by the Office of Science in research to advance energy research and our understanding of climate. These include investments such as the three Bioenergy Research Centers (BRCs), the Energy Frontier Research Centers (EFRCs), two Energy Innovation Hubs (in Fuels from Sunlight and Batteries and Energy Storage), and atmospheric process and climate modeling research.

The BRCs have been highly productive in their first four years of operations, generating significant research accomplishments and disseminating results through peer-reviewed publications and intellectual property; they have collectively produced over 780 publications and 320 items of intellectual property (invention disclosures, licenses, patent filings and patents).

The EFRCs' fundamental scientific advances are having a significant impact that is being translated to industry. As of mid-2012, the 46 Centers have authored over 2,400 peer-reviewed publications, have filed 55 invention disclosures and 124 patents/applications, and have issued at least 22 licenses for EFRC patents. More than 30 companies have benefited from the results of EFRC research, including both small start-ups and major corporations.

The Office of Science has long been a leader of U.S. scientific discovery and innovation, supporting research that led to over 100 Nobel Prizes during the past 6 decades—more than 20 in the past 10 years. Over the decades, Office of Science investments have driven the modern biotechnology revolution and the transition from observing natural phenomena to the science of control and directed design at the nanoscale. SC has pushed the frontiers of our understanding of the origins of matter and the universe, and has built and operated the large-scale scientific facilities that collectively form a major pillar of the current U.S. scientific enterprise.

These investments and accomplishments have led to new technologies and created new businesses and industries, making significant contributions to our Nation's economy and quality of life. Descriptions of recent science discoveries and accomplishments can be found at: <http://science.energy.gov/stories-of-discovery-and-innovation>.

SC has a FY2013 request of \$4,992 million and manages its research portfolio through six interdisciplinary program offices:

Advanced Scientific Computing Research: FY2013 budget request of \$456 million; ASCR supports research to discover, develop and deploy computational and networking capabilities to analyze, model, simulate, and predict complex phenomena important to DOE.

Basic Energy Sciences: FY 2013 budget request of \$1,800 million; BES supports fundamental research to understand, predict and ultimately control matter and energy at the electronic, atomic and molecular levels in order to provide the foundations for new energy technologies.

Biological and Environmental Research: FY 2013 budget request of \$625 million; BER supports fundamental research focused on three scientific drivers: exploring the frontiers of genome-enabled biology; discovering the physical, chemical and biological drivers and environmental impacts of climate change; and seeking the geological, hydrological and biological determinants of environmental sustainability and stewardship.

Fusion Energy Sciences: FY 2013 budget request of \$398 million; FES supports research to expand the fundamental understanding of matter at very high temperatures and densities and to build the scientific foundation of fusion energy.

High Energy Physics: FY 2013 budget request of \$777 million; HEP supports research toward understanding how the universe works at its most fundamental level by discovering the most elementary constituents of matter and energy, probing the interactions among them, and exploring the basic nature of space and time itself.

Nuclear Physics: FY 2013 budget request of \$527 million; NP supports research to discover, explore and understand all forms of nuclear matter, supporting experimental and theoretical research to create, detect and describe the different forms and complexities of nuclear matter that can exist in the universe, including those that are no longer found naturally.

In addition, SC sponsors a range of activities that engage students and professionals in science, technology, engineering and mathematics (STEM) to help develop the skilled scientific workforce needed for the Office of Science mission and the Nation. These activities are supported through the Office of Workforce Development for Teachers and Scientists, with a FY 2013 budget request of \$14.5 million.

Program Management: SC makes extensive use of merit-based peer review and federal advisory committees of experts to inform promising directions for research investments, to identify priorities, to determine the very best scientific proposals to support, and to assess the quality of the management of our programs. In addition, the Office of Science uses its six federal advisory committees to provide scientific guidance, and as an important means of communication with, and building consensus within, the scientific community.

SC is actively engaged in coordinated efforts with DOE's applied technology programs and NNSA. SC's activities have focused on collaborative efforts targeted at the interface of scientific research and technology development to ultimately accelerate DOE mission and national goals. Coordination between the basic research programs of SC and applied programs of the DOE technology offices is enhanced through joint management working groups, joint program reviews, and the program management activities of the DOE Small Business Innovation Research and Small Business Technology Transfer programs. Co-funding research activities and facilities at the DOE laboratories and funding mechanisms that encourage broad partnerships (e.g., Funding Opportunity Announcements) are also means that stimulate greater collaboration and research integration among the research communities.

The Office of Science is responsible for the oversight of ten [DOE national laboratories](#): Ames National Laboratory, Argonne National Laboratory, Brookhaven National Laboratory, Fermi National Accelerator Laboratory, Lawrence Berkeley National Laboratory, Oak Ridge National Laboratory, Pacific Northwest National Laboratory, Princeton Plasma Physics Laboratory, SLAC National Accelerator Laboratory and Thomas Jefferson National Accelerator Facility.

SC UPCOMING CRITICAL ISSUES/EVENTS

- Formulate a 10-year prioritization of scientific facilities across the Office of Science. September 2013.
- Maintain annual schedules for routine activities requiring action by political appointees:
 - SC laboratory planning meetings and laboratory reviews.
 - Budget formulation and defense. (Budget execution is below the political level.)
 - Appointment of Federal Advisory Committee Act committee members.
 - Expedient approval/disapproval of mission essential meetings/conferences.
 - Remaining congressional reports.
 - Timely consideration of SES hires, new and backfills.
 - Timely approvals of major DOE competed awards—Fermi, Lawrence and PECASE.
- Continue actions related to President Obama’s Executive Order 13514 on sustainability, including impact assessments on the ten SC Laboratories.
- Maintain (non-programmatic) activities that may require political support:
 - Portfolio Analysis and Management System
- Continue renewed efforts to monitor SC laboratory international activities.
- Seek resolution of policies related to scientific conferences and meetings.

Issues by program:

- **Advanced Scientific Computing Research (ASCR):**
 1. Work together with NNSA to address the goal in the 2011 DOE Strategic Plan to maintain “leadership in computational sciences and high-performance computing” with a targeted outcome to continue to develop and deploy high-performance computing hardware and software systems through exascale platforms.
- **Basic Energy Sciences (BES):**
 1. Reduce the number of Energy Frontier Research Centers, or add funding in future budgets to sustain the current program.
 2. Complete construction of the National Synchrotron Light Source II (NSLS-II) at Brookhaven National Laboratory.
 3. Maintain U.S. leadership in x-ray science and x-ray photon sources through the construction of new facilities and fabrication of instrumentation for existing and new facilities.
 4. Maintain U.S. leadership in neutron scattering through optimal operation of the Spallation Neutron Source and through fabrication of the world’s best instruments for this facility.
- **Biological and Environmental Research (BER):**
 1. Establish BER as the sole leader in the systems biology of microbes and plants to advance bioenergy research through targeted investments and early results.
 2. Establish BER as a leader in climate measurements and modeling through targeted investments and interactions with other federal agencies to define federal roles and responsibilities.
- **Fusion Energy Sciences (FES):**

1. Continue the U.S. contribution to the ITER project at the SC-1 level (\$225M/year). Maintain a strong, though perhaps downsized, domestic fusion and plasma physics program.
 2. Consider the optimum size and composition of the domestic FES program with and without the ITER project.
- **High Energy Physics (HEP):**
 1. Define a strategic vision for the future of Fermi National Accelerator Laboratory (FNAL) in the post-Tevatron era.
 2. Consider the strategic vision for U.S. investment in the three “frontiers” of high energy physics, as follows:
 - a. (Intensity Frontier) Continue (or not) the Long Baseline Neutrino Experiment at FNAL at a reduced level.
 - b. (Energy Frontier) In light of the robust U.S. contributions to the premier particle collider, the Large Hadron Collider (LHC) at CERN in Geneva, Switzerland, consider at what level the U.S. will participate in the LHC upgrade.
 - c. (Cosmic Frontier) Define the appropriate role of SC/HEP vis-à-vis NSF and other agencies in studies of dark matter and dark energy, for example in the funding of the Large Synoptic Survey Telescope.
 - **Nuclear Physics (NP):**
 1. Complete construction of the CEBAF 12 GeV Upgrade at Thomas Jefferson National Accelerator Facility.
 2. Construct (or not) the Facility for Rare Isotope Beams at Michigan State University.
 3. Continue (or not) operations of the Relativistic Heavy Ion Collider (RHIC) at Brookhaven National Laboratory.
 4. Determine the optimum balance of investments in facilities versus investments in research during the period of construction of the CEBAF 12 GeV Upgrade and the Facility for Rare Isotope Beams; seek to maintain a research portfolio that is at least 40% of the total Nuclear Physics funding.
 - **Workforce Development for Teachers and Scientists (WDTS):**
 1. Develop a graduate student thesis-parts program that engages the DOE laboratory system to replace the SC Graduate Fellowship Program, which was not funded in FY 2013.
 - **Science Laboratories Infrastructure (SLI):**
 1. Maintain the SLI Program at a level between \$100-200M/year.
 - **Safeguards and Security (S&S):**
 1. Continue efforts to improve cybersecurity posture at headquarters and field sites.
 2. Implement lessons learned from Y-12 Security Breach at Oak Ridge and subsequent DOE reviews for improved security operations at Building 3019.
 3. Continue mitigation of safety and security vulnerabilities at ORNL associated with the EM U-233 management and disposition campaign. .
 4. Continue SSI’s approach to security—the “baseline level of protection”—and the use of automated systems to better align security operations at SC laboratories with core mission capabilities.
 5. Address the awarding of the protective force contract for DOE Oak Ridge, including making sure it is advertised as a full and open competition.
 - **Program Direction (SCPD):**

1. Maintain a balanced workforce and streamline operations across the SC enterprise within the current fiscal constraints.
 2. Re-invigorate the workforce through enhanced recruitment efforts.
 3. Create synergies through consolidation of IT hardware and software purchases and support service contracts at Headquarters level.
- **Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR):**
 1. Continue to use grants as award mechanism (rather than contracts).
 2. Carry out pilot outreach and analysis efforts afforded by newly legislated administrative funds.

KEY GOALS

The following key goals include the Priority and key goals, derived from the Strategic Plan and related to the overarching Goal 2. These goals are tracked by the programs and DOE corporately, and are reviewed by the Deputy Secretary on a quarterly basis.

Under Secretary for Science

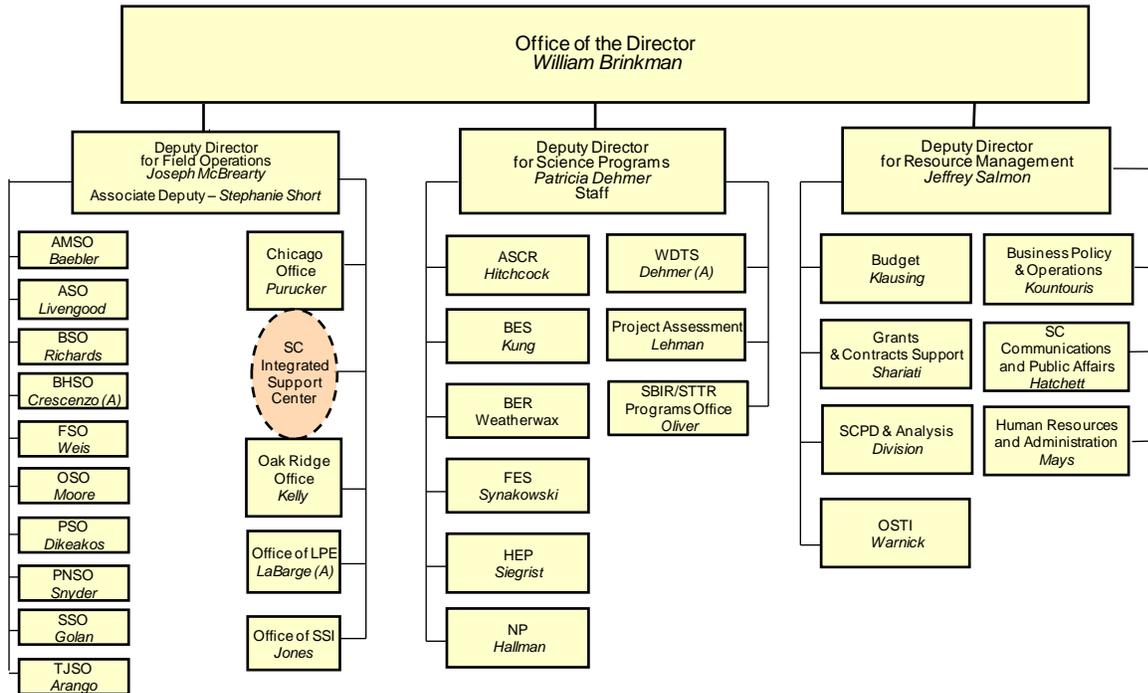
Note: Priority Goals are shaded.

Goal Description	Goal Target
Science Facilities Plan: Prioritize scientific facilities to ensure optimal benefit from Federal investments	By September 30, 2013, formulate a 10-year prioritization of scientific facilities across the Office of Science based on (1) the ability of the facility to contribute to world-leading science, (2) the readiness of the facility for construction, and (3) an estimated construction and operations cost of the facility.
Climate Science: Improve Climate Models	Determine the major sources of uncertainty in our understanding of the coupled climate system by 2015 (Strategic Plan)
Bioenergy Research: Deliver new technologies to advance our mission	Apply systems biology approaches by 2015 to create viable biofuel processes and greatly increase the understanding of microbes in carbon-dioxide climate balance: (Strategic Plan)
Sub-Atomic Physics: Extend our knowledge of the natural world	Perform a series of experiments through 2020 in the intensity, energy and cosmological frontiers to illuminate questions about the unification of the forces of nature, the structure of black holes, and the origins of the universe (Strategic Plan)
Materials Research: Deliver new technologies to advance our mission	Develop and explore a broad spectrum of new materials that have novel properties such as catalytic activity, electrothermal behavior, radiation resistance, or strength, or otherwise contribute to the advancement of energy technologies by 2020 (Strategic plan)
Fusion: Develop fusion energy scientific and technical foundations	Execute U.S. responsibilities for construction of the ITER project, consistent with sound management principles. (Strategic Plan)
Exascale Computing: Lead computational sciences and high-performance computing	Continue to develop and deploy high-performance computing hardware and software systems through exascale platforms (Strategic Plan)

SC KEY PERSONNEL

- Dr. William F. Brinkman, Director, Office of Science
- Dr. Patricia M. Dehmer, Deputy Director for Science Programs
- Mr. Joseph McBrearty, Deputy Director for Field Operations
- Dr. Jeffrey Salmon, Deputy Director for Resource Management

SC ORGANIZATION CHART



10/24/12

The National Laboratory Directors' Council (NLDC)

www.nationallabs.org

September 2012

The *National Laboratory Directors' Council (NLDC)* is composed of the Laboratory Directors from the seventeen DOE National Laboratories (Table 1). The NLDC seeks to promote advances in the various DOE missions, increase the effectiveness of DOE and the National Laboratories through collaboration and coordination on strategic issues and concerns of broad interest, and provide a forum for presenting the Secretary and DOE senior management with consensus views on matters that affect the laboratories and their ability to contribute to the DOE mission. With its standing working groups, it represents the most senior operational and scientific leadership at the laboratories and is thus a key mechanism for coordinating across the DOE laboratory complex on matters ranging from scientific directions to operational issues and requirements. In short, in DOE's diverse federated environment, the NLDC is a critical resource available to the Department's senior leadership to inform DOE strategy and policy.

Governance

A subset of four NLDC members comprises an Executive Committee that organizes and coordinates the activities of the NLDC. The Executive Committee consists of a chair (Thom Mason), as well as a Director from an NNSA laboratory (Paul Hommert), a multi-program laboratory (Paul Alivisatos), and an open seat which can be from any other lab (currently, Eric Isaacs). All committee members are elected by the NLDC members. The NLDC has a liaison/chief of staff (Rosio Alvarez) who manages regular meetings with members of the NLDC and the Secretary of Energy and is the point of contact for DOE on matters identified by the Directors. The current Executive Committee serves for two years, and an election for two new Executive Committee members is set to take place by the end of this calendar year. The incoming and outgoing Executive Committees will overlap in the first meeting with the new DOE administration.

DOE Interactions

The NLDC Executive Committee holds a monthly teleconference with the Secretary of Energy and DOE senior management to identify, discuss and resolve issues on behalf of the NLDC and the DOE laboratory complex. Every third month, the meeting is a face-to-face meeting either in Washington DC or at a site location. From DOE, attendees include the Secretary, the Deputy Secretary, the three Under Secretaries or their representative, and the Chief of Staff; other functionaries (e.g., the General Counsel, Chief Operating Officers or Assistant Secretaries) join for part of the meeting depending on the topic and assuming their input is germane to the discussion. From the NLDC, attendees include the four Executive Committee members and the liaison; other NLDC members join as warranted by topics. The NLDC liaison works with DOE on the agenda, prepares briefing materials for the NLDC, and develops the minutes; the briefing materials and minutes are shared with DOE and all the NLDC members. Meetings cover a broad range of topics from scientific strategies to operational issues. In the past year, routine topics have included nanosafety, cybersecurity, natural gas and biofuels, the Quadrennial Technology Review and promoting the value of the National Labs. The NLDC has helped to identify, prioritize and fix policies and processes that impact efficient operations and it reviews all proposed policy changes through its representation to the DOE Directives Review Board.

In the coming year, DOE leadership with the NLDC can build upon the results and move into more strategic discussions regarding how to best address the national needs in energy and the DOE missions

with the DOE laboratory complex, both in the short and long-term, as well as continuing to work to streamline policies and processes across DOE to improve performance.

Working Groups

To provide insights on specific issues and impacts, and to help work with the various DOE offices on implementation, the NLDC has six standing Working Groups or Committees that represent the spectrum of issues discussed: research, operations, information technology, finance, legal and communications. Like the NLDC, an Executive Committee that is representative of the 17 laboratories governs each working group; the current leadership for each is summarized in Table 2. While the formal interface with DOE is through the NLDC, each working group has routine interactions with DOE counterparts to facilitate discussions and issues resolution.

The Chief Research Officers (CRO) Group advises the NLDC on scientific and programmatic issues, serving as a forum for communication and coordination of the major activities related to the strategic direction for the laboratories. The current chair of the CRO group is Steve Ashby (PNNL). In the past year, the CRO group or their representatives have worked on developing a position paper on the value of the National Laboratories, and thematic workshops that partnered with industry. Their primary interface in DOE is with the principal deputy in the various research program offices.

The Chief Operations Officers (COO) Group advises the NLDC on issues and improvement opportunities related to the management and operation of the National Laboratory infrastructure. The COO Group evaluates resource impacts of administrative and regulatory requirements to facilitate productive and cost-effective utilization of the DOE laboratory system; promotes practices based upon performance-based management; and shares best practices and lessons learned. The current chair of the COO group is Michael Schlender (PNNL). In the past year, the COO group or their representatives have interfaced directly with the operations representatives from each of the three Under Secretaries as well as the directors of the various administrative support groups in DOE. They have provided specific input on reducing regulatory burden across the complex, developing contractor assurance models that support the relationship between DOE and the laboratory contractors, and implementing requirements on energy efficiency goals.

The National Laboratory Chief Information Officers (CIO) Council advises the NLDC and provides an interface to DOE organizations on issues in information technology and cyber security. The Council also functions as a forum for information exchange, consensus building and coordination of major activities in IT and cyber security. The current chair of the CIO Council is Thomas Harper (LANL). The organization's current strategies are as follows:

- Coordinate CIO Council activities to influence federal initiatives and actions to enhance desired and shared outcomes across laboratory missions.
- More rapidly advance the technologies critical to the success of the national laboratories and DOE, by fostering multi-lab collaborations to investigate, evaluate and deploy innovative information technologies in a secure environment.
- Influence the development and implementation of DOE's approach, oversight and policy for CIO/IT to better enable DOE's missions.

The CIO Council has routine interactions with the DOE CIO and representatives from the three Under Secretaries. The CIO Council along with the Under Secretaries comprise the Information Management Governance Council (IMGC).

The National Laboratory Chief Financial Officers (CFO) Group advises the NLDC on business, procurement and financial issues, and provides an interface to the DOE CFO and Office of Management in these areas. This Group also functions as a forum for information exchange, sharing of best practices, consensus building, and coordination of major initiatives impacting the DOE contractor community in the business, procurement and financial arena. The current Chair of the CFO Group is Marty Conger (PNNL). The CFO Group has tackled the creation of standard pension and benefit metrics across DOE, developed Institutional Cost Reporting for transparency into the cost of doing business across the contractor community, helped implement the new Technology Transfer Mechanism Agreements for Commercializing Technology (ACT), supported the business case to raise the General Plant Project threshold to \$10 million and developed a white paper on understanding overhead at the DOE National Labs, addressing the reasonableness of overhead costs compared to commercial labs.

The National Laboratory Chief Communications Officer (CCO) Group advises the NLDC on matters related to communications and public affairs across the Laboratories. The CCO focuses on promoting the scientific missions and value of the DOE laboratories, protecting and growing the reputation of the DOE's National Laboratories collectively and fostering effective planning, coordination and cooperation across the National Labs, and between DOE and its National Laboratories in their communication efforts. The current chair of the CCO Group is Matt Howard (ANL).

The General Counsel (GC) Working Group advises the NLDC on legal issues, serving as a forum for communication and coordination of the major legal issues potentially impacting activities at the laboratories. The current chair of the GC group is Steven Silbergleid (NREL). In the past year, the GC group has spent the majority of its efforts interfacing and working with DOE's Office of General Counsel on the potential impact of a legal decision on the M&O contractors by providing position papers and legal analysis. The GC group's primary interface in DOE is with the DOE General Counsel or his representatives, along with the NNSA General Counsel and his representatives.

Table 1: Laboratories and Directors (as of September 18, 2012)

DOE Laboratory (Contractor)	Director (e-mail)	NLDC Role
AMES Laboratory (<i>Iowa State University of Science & Technology</i>)	Dr. Alexander H. King (alexking@ameslab.gov)	
Argonne National Laboratory (ANL) (<i>UChicago Argonne, LLC</i>)	Dr. Eric D. Isaacs (isaacs@anl.gov)	NLDC Executive Committee
Brookhaven National Laboratory (BNL) (<i>Brookhaven Science Associates</i>)	Dr. Samuel Aronson (samaronson@bnl.gov)	
E.O. Lawrence Berkeley National Laboratory (LBNL) (<i>University of California</i>)	Dr. Paul Alivisatos (palivisatos@lbl.gov)	NLDC Executive Committee
Fermi National Accelerator Laboratory (FNAL) (<i>Fermi Research Alliance, LLC</i>)	Dr. Piermaria J. Oddone (pjoddone@fnal.gov)	

Idaho National Laboratory (INL) <i>(Battelle Energy Alliance, LLC)</i>	Mr. John J. Grossenbacher (john.grossenbacher@inl.gov)	
Los Alamos National Laboratory (LANL) <i>Los Alamos National Security, LLC</i>	Dr. Charlie McMillan (mcmillan1@lanl.gov)	
Lawrence Livermore National Laboratory (LLNL) <i>(LLNL)</i>	Dr. Penrose C. (Parney) Albright (albright6@llnl.gov)	
National Energy Technology Laboratory (NETL) <i>(Government-owned, government-operated)</i>	Dr. Anthony Cugini (anthony.cugini@netl.doe.gov)	
National Renewable Energy Laboratory (NREL) <i>(Alliance for Sustainable Energy, LLC)</i>	Dr. Dan E. Arvizu (dan_arvizu@nrel.gov)	
Oak Ridge National Laboratory (ORNL) <i>(UT-Battelle, LLC)</i>	Dr. Thom Mason (mastont@ornl.gov)	NLDC Executive Committee, Chair
Pacific Northwest National Laboratory (PNNL) <i>(Battelle Memorial Institute)</i>	Mr. Michael Kluse (mkluse@pnl.gov)	
Princeton Plasma Physics Laboratory (PPPL) <i>(Princeton University)</i>	Dr. S.C. Prager (sprager@pppl.gov)	
Sandia National Laboratories (SNL) <i>(Lockheed Martin Corporation)</i>	Dr. Paul Hommert (pjhomme@sandia.gov)	NLDC Executive Committee
Savannah River National Laboratory (SRNL) <i>(Savannah River Nuclear Solutions, LLC)</i>	Dr. Terry Michalske (terry.michalske@srnl.doe.gov)	
SLAC National Accelerator Laboratory <i>(Stanford University)</i>	Professor Persis S. Drell (persis@slac.stanford.edu)	
Thomas Jefferson National Accelerator Facility (TJNAF) <i>(Jefferson Science Associates, LLC)</i>	Dr. Hugh (Mont) Montgomery (mont@jlab.org)	
NLDC Liaison	Dr. Rosio Alvarez (ralvarez@lbl.gov)	NLDC Executive Committee Secretary

Table 2: NLDC Working Group Executive Committees (as of September 18, 2012)

Working Group	Executive Committee Membership
Chief Research Officer (NLCRO)	Steve Ashby, Chair (sfashby@pnnl.gov)
	Doon Gibbs (gibbs@bnl.gov)

	Steve Rottler (jsrottl@sandia.gov)
	Mark Peters (mtpeters@anl.gov)
	Dana Christensen (dana.christensen@nrel.gov)
Chief Operations Officer (NLCOO)	Mike Schlender, Chair (mike.schlender@pnnl.gov)
	Mr. Juan Alvarez (juan.alvarez@inl.gov)
	Kim Sawyer (kcsawye@sandia.gov)
	Chris Bingham (Chris.Bingham@inl.gov)
	Mike Bebon (bebon@bnl.gov)
Chief Information Officer (NLCIO)	Thomas Harper, Chair (tharper@lanl.gov)
	Steve Baumgartner (sbaumgar@pppl.gov)
	Tom Schlagel (schlagel@bnl.gov)
	Jill Deem (jill_deem@nrel.gov)
	Jerry Johnson (JerryJ@pnnl.gov)
	Becky Verastegui (verasteguirj@ornl.gov)
Chief Financial Officer (NLCFO)	Marty Conger (No Executive Committee) (martin.conger@pnnl.gov)
General Council (NLGC)	Steve Silbergleid, Chair (steven.silbergleid@nrel.gov)
	Gary Leonard (gleonard@fnal.gov)

	Jeffrey Blair (jablair@lbl.gov)
	Karen Hoewing (Karen.hoewing@pnnl.gov)
	Linda Guinn (linda.guinn@inl.gov)
	Nicole Porter (porterne1@ornl.gov)
	Paul Ehlenbach (ehlenbach1@llnl.gov)
	William Elias (welias@anl.gov)
Chief Communications Officer (NLCCO)	Matt Howard, Chair (mhoward@anl.gov)
	Marge Lynch (mlynch@bnl.gov)
	Kitta MacPherson (kmacpher@pppl.gov)
	Jeff Miller (jwmiller@lbl.gov)
	David Behrmann (david.behrmann@pnnl.gov)

SECTION FIVE

GOAL 3: SECURE OUR NATION: Enhance nuclear security through defense, nonproliferation and environmental efforts.

Programs in brief

- National Nuclear Security Administration (NNSA)
- Office of Environmental Management (EM)
- Office of Legacy Management (LM)

NATIONAL NUCLEAR SECURITY ADMINISTRATION

Number of Federal Employees ≈ 2,700 FY 2013 Budget Request ≈ \$11.5 Billion Headed by: Political Appointee
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OFFICE OVERVIEW

The National Nuclear Security Administration (NNSA) is a semi-autonomous agency within the Department of Energy. The NNSA was established in March 2000 pursuant to Title 32 of the National Defense Authorization Act for FY 2000 (Public Law 106-65), and is structured to provide clear and direct lines of accountability and responsibility for the management of the Nation's nuclear weapons complex, naval reactors, and for nuclear nonproliferation activities. NNSA received roughly \$11.0 billion in funding in FY 2012, of which about \$740 million was used to pay for contractor pension costs.

NNSA carries out three major nuclear security programs in support of the President. Using a state-of-the-art science, technology, engineering and manufacturing base, the NNSA maintains the safety, security and effectiveness of the U.S. nuclear weapons stockpile, accelerates efforts to reduce the global threat posed by nuclear proliferation and terrorism, and provides safe and effective nuclear propulsion systems for the U.S. Navy. NNSA also applies its capabilities to a range of other national security programs as well as science, energy and technology efforts.

The NNSA Administrator has developed five key goals for the coming decade as NNSA implements its responsibilities under the President's comprehensive nuclear security agenda:

- Reduce nuclear dangers;
- Manage the nuclear weapons stockpile and advance naval nuclear propulsion;
- Modernize the NNSA infrastructure;
- Strengthen the science, technology and engineering base; and,
- Drive an integrated and effective NNSA enterprise.

NNSA comprises four major offices that were established to carry out the Department's national nuclear security mission: the Office of Defense Programs; the Office of Naval Reactors; the Office of Defense Nuclear Nonproliferation; and the Office of the Administrator. NNSA also has a number of smaller offices that report directly to the Associate Principal Deputy Administrator and have separate Congressionally-identified projects.

The Office of Defense Programs (FY 2012 appropriation of \$5.8 billion) is responsible for maintaining the safety, security and reliability of the U.S. nuclear weapons stockpile. In addition, this office maintains the capability to design and produce nuclear weapons and maintains the capability to resume underground nuclear testing.

The Office of Defense Nuclear Nonproliferation (FY 2012 appropriation of \$2.3 billion) provides policy and technical leadership to limit or prevent the spread of materials, technology and expertise

relating to weapons of mass destruction; advances the technologies to detect the proliferation of weapons of mass destruction worldwide; and, eliminates or secures inventories of surplus materials and infrastructure usable for nuclear weapons.

The Office of Naval Reactors (FY 2012 appropriation of \$1.1 billion) provides the U.S. Navy with safe, militarily effective nuclear propulsion plants. Naval Reactors ensures the safe and reliable operation of these plants—beginning with technology development, continuing through reactor operation and ultimately disposing of the reactor plants.

The Office of the Administrator (FY 2012 appropriation of \$411 million) has a small central staff to administer and manage its major elements. This office includes an Associate Principal Deputy Administrator, a chief of staff, a chief scientist and policy advisor. This account pays for roughly 1,850 federal employees working throughout NNSA as well as other administrative expenses.

Other Offices (FY 2012 appropriations of \$1.4 billion) provide both mission and mission support and report directly to the Deputy Administrator, including the Office of Infrastructure and Operations, Office of Emergency Operations, Office of Nuclear Security, Office of Counterterrorism and Counterproliferation, the Office of Information Management and CIO and the Office of Safety and Health. The largest of these Offices is the Office of Nuclear Security, which receives roughly \$700 million a year to provide protection from a full spectrum of threats, especially terrorism, for NNSA personnel, facilities, nuclear weapons and information.

NNSA Defense Programs Office Overview

One of the primary missions of NNSA is to maintain and enhance the safety, security and reliability of the U.S. nuclear weapons stockpile. NNSA, through its Office of Defense Programs, ensures that the U.S. nuclear arsenal meets the country's national security requirements and continues to serve its essential deterrence role.

In partnership with the Department of Defense, NNSA's Defense Programs provides the research, development, secure transportation and production activities necessary to support the U.S. nuclear weapons stockpile. Following the end of the Cold War, the United States discontinued production of new nuclear warheads and voluntarily ended underground nuclear testing. Today, NNSA uses and oversees a wide-range of breakthrough science experiments, engineering audits and high-tech computer simulations, including extensive laboratory and flight tests of warhead components and subsystems, to keep the existing warheads reliable, secure and safe. Every year, the Secretary of Energy is able to certify the reliability of the stockpile without conducting an underground nuclear test. NNSA's use of science-based research and development in the absence of underground nuclear testing in order to maintain the Department of Energy's portion of the nation's nuclear deterrent is known as the Stockpile Stewardship Program.

NNSA's nuclear weapons activities are carried out in a nationwide network of government-owned, contractor-operated national security laboratories, test site and nuclear weapons production sites. These sites, collectively known as NNSA's nuclear security enterprise, provide the necessary research, development and production capabilities needed to maintain the reliability, security and safety of the weapons stockpile. The enterprise also provides broader support to the nation's national security missions in coordination with other federal agencies.

Part of keeping the U.S. nuclear weapons stockpile safe and reliable includes working with the Department of Defense to maintain the quantity and quality of weapons necessary for U.S. national

security needs. The New START Treaty between the United States and Russian Federation, which was signed by President Obama and ratified by the US Senate in 2010, will cap the strategic deployed nuclear arsenals of each country at 1,550 warheads. As a result of these actions, the stockpile is the smallest it has been since the Eisenhower administration. NNSA's Defense Programs is actively working to meet the reduced stockpile quantity levels by safely dismantling and disposing of those nuclear weapons that have been designated in excess of U.S. national security needs.

In addition to maintaining the actual weapons, NNSA is also focused on the security and safety of the weapons. Robust security protects weapons and weapons material both at each facility and through securely transporting materials and weapons between facilities and military locations. NNSA also strives to conduct operations in ways that are safe for the environment and the public.

As threats against the country evolve and become more and more unpredictable, and especially as the current weapons in the U.S. nuclear stockpile age and become increasingly difficult and expensive to maintain, NNSA is working to transform itself and revitalize the entire nuclear weapons enterprise to be smaller, safer, more secure and more efficient. NNSA must be better able to respond quickly to technical problems in the stockpile and be able to respond rapidly to unforeseen national security needs.

NNSA Defense Nuclear Nonproliferation Office Overview

One of the gravest threats the United States and the international community face is the possibility that terrorists or rogue nations will acquire nuclear weapons or other weapons of mass destruction (WMD), or the materials and technologies that go into these weapons. NNSA, through its Office of Defense Nuclear Nonproliferation, works closely with a wide range of international partners, U.S. federal agencies, the U.S. national laboratories and the private sector to detect, secure and dispose of dangerous nuclear and radiological material and related WMD technology and expertise. Drawing on the breadth of technical, scientific and operational expertise in NNSA and the Department's national laboratories, the Office of Defense Nuclear Nonproliferation (NN) advances U.S. priorities in this area through several programs:

Global Threat Reduction Initiative (GTRI)

GTRI subprograms work in the United States and internationally to convert research reactors and medical isotope production processes from use of HEU, remove and dispose of excess nuclear and radiological materials, and protect high-priority nuclear and radiological sources from theft.

Nonproliferation and Verification R&D program

Nonproliferation and Verification R&D subprograms support long-term basic and applied research, development, and testing of new technologies to improve U.S. capabilities to detect and monitor nuclear weapons production, proliferation of nuclear weapon-usable materials and nuclear explosions worldwide.

Nonproliferation and International Security program

Nonproliferation and International Security subprograms provide a range of policy and technical support to implement and monitor WMD reductions; revitalize the safeguards technology and human capital base at the U.S. national laboratories to help strengthen the international safeguards system; strengthen nuclear material security and export control systems; transition WMD expertise and infrastructure in partner countries to peaceful purposes; and improve international nuclear nonproliferation regimes, agreements and arrangements.

International Nuclear Materials Protection and Cooperation (INMPC) program

INMPC consists of two major subprograms: the nuclear Material Protection, Control and Accounting (MPC&A) program and the Second Line of Defense (SLD) program. The MPC&A program works to

improve the security of nuclear warheads and materials at sites in Russia and at nuclear material sites in other countries; to consolidate and convert weapon-usable nuclear material stocks; and to enable Russia and other countries to sustain MPC&A upgrades over the long term without continued U.S. support. The SLD program seeks to strengthen the capability of foreign governments to deter, detect and interdict illicit nuclear and radioactive material trafficking. The SLD program is divided into an SLD “core” program, which installs radiation detection equipment at key foreign land borders, airports and ports, and a Megaports Initiative, which is designed to enhance radiation screening of cargo containers at major foreign seaports.

Fissile Materials Disposition

The Office of Fissile Materials Disposition is comprised of two programs – the U.S. Surplus Materials Disposition program and the Russian Surplus Materials Disposition program. The U.S. Surplus Materials Disposition program—also referred to as the U.S. Surplus Fissile Materials Disposition program—supports the down-blending of HEU that is excess to U.S. defense needs and efforts to fabricate 34 metric tons of U.S. excess plutonium into mixed oxide fuel, which will be irradiated in commercial reactors. The Russian Surplus Materials Disposition program—also referred to as the Russian Surplus Fissile Materials Disposition program or the Russian plutonium disposition program—is planning to assist Russia in modifying reactors in that country, which will dispose of an equivalent amount of Russian weapon-grade plutonium.

NNSA Naval Reactors Office Overview

The Naval Reactors Program is an integrated program of the Department of Energy and Department of the Navy. Presidential Executive Order 12344 and Public Laws 98-525 and 106-65 set forth the responsibility of Naval Reactors for all aspects of the Navy’s nuclear propulsion, including research, design, construction, testing, operation, maintenance and ultimate disposition of Naval nuclear propulsion plants.

The Program’s responsibility includes all related facilities, radiological controls and environmental, safety and health matters, as well as selection, training and assignment of personnel. All of this work is accomplished by a lean network of dedicated research labs, nuclear-capable shipyards, equipment contractors and suppliers, and training facilities which are centrally controlled by a small Headquarters staff. The Director of Naval Reactors is Admiral Kirkland H. Donald; he also serves as the Deputy Administrator for Naval Reactors in the National Nuclear Security Administration.

The Program uses two Government-owned, contractor-operated laboratories, the Bettis and Knolls Atomic Power Laboratories, which employ about 6,800 personnel, and are predominantly involved with the design, development and operational oversight of nuclear propulsion plants for naval vessels. Through these laboratories, and through testing conducted at the Advanced Test Reactor located at the Idaho National Laboratory, the Program will complete scheduled design, analysis and testing of reactor plant components and systems, and will conduct planned development, testing, examination and evaluation of nuclear fuel systems, materials and manufacturing and inspection methods necessary to ensure the continued safety and reliability of reactor plants in Navy warships. The Program will also accomplish planned testing, maintenance and servicing of land-based prototype nuclear propulsion plants, and will execute planned inactivation of shutdown, land-based reactor plants in support of environmental cleanup goals. Finally, the Program will carry out the radiological, environmental and safety monitoring and ongoing cleanup of facilities necessary to protect people, minimize release of hazardous effluents to the environment and comply with all applicable regulations.

NNSA Other Key Offices

Overview

Nuclear Security

The Office of Defense Nuclear Security (DNS) is responsible for the development and implementation of security programs for NNSA. In this capacity, DNS is the NNSA line management organization responsible for security direction and program management with respect to prioritization of resources, program evaluation and funding allocation. Key management areas include security operations, resources, engineering and technical support to NNSA field elements and facilities. Specific subject matter expertise also includes physical and personnel security, protective forces, nuclear materials control and accountability, classified and sensitive information protection and technical security programs.

Emergency Response

NNSA ensures that capabilities are in place to respond to any NNSA and Department of Energy facility emergency. It is also the nation's premier responder to any nuclear or radiological incident within the United States or abroad and provides operational planning and training to counter both domestic and international nuclear terrorism.

Counterterrorism and Counterproliferation

The Office of Counterterrorism and Counterproliferation is charged with providing expertise, practical tools and technically informed policy recommendations required to advance U.S. nuclear counterterrorism and counterproliferation objectives. The office executes a unique program of work focused solely on these missions, synchronizing their support activities across the NNSA, coordinating DOE/NNSA related policies, and building partnerships with U.S. government agencies and key foreign governments on these issues.

Infrastructure and Operations

This Office is responsible for the integrated, effective and efficient oversight of the Nuclear Security Enterprise through management of the NNSA Site Offices and complex-wide, non-mission-specific infrastructure.

NNSA Management and Operating Contractors

Overview

NNSA draws upon the expertise and infrastructure resident across the Nuclear Security Enterprise to help accomplish its mission. The Enterprise spans national laboratories, naval atomic power laboratories, manufacturing and experiment sites and NNSA offices in the United States and around the world. The management and operating (M&O) contractors are the Department's long-term partners, performing the diverse research, development and manufacturing necessary to carry out our mission. The Enterprise is a national asset, contributing directly to the missions of the Departments of Defense, State and Homeland Security, the U.S. Intelligence Community and other agencies and government entities. The Enterprise also supports broader international efforts through the Mutual Defense Agreement with the United Kingdom and agreements with other countries, as part of our collective goals to assure nuclear deterrence with our allies and to reduce the threat of nuclear terrorism.

NNSA's eight sites consist of three National Security Laboratories: Los Alamos and Sandia in New Mexico and Lawrence Livermore in California; four plants: Pantex Plant in Texas, Savannah River Site in South Carolina (tritium facilities only), Kansas City Plant in Missouri and the Y-12 National Security Complex in Tennessee; and, the Nevada National Security Site. NNSA is in the process of awarding a contract that will merge operations at the Pantex Plant and Y-12 National Security Complex

NNSA UPCOMING CRITICAL ISSUES/EVENTS

The following bullets describe high-visibility critical decisions points and events:

- **Nuclear Weapons Annual Assessment** – Outbrief by the NNSA laboratory directors to S-1 in early 2013 on the status of the US nuclear stockpile and the joint letter from the Secretary of Energy and Secretary of Defense to the President on their assessment of the stockpile, in March, 2013. (Jan-Mar)
- **Nuclear Safety** - The Joint Integrated Lifecycle Security (ILS) Tool is being developed jointly with DoD to optimize physical security upgrades, use control technologies and safety enhancements. ILS will perform risk/benefit analysis and inform DoD/NNSA on best path forward to optimally decrease nuclear security risk using a holistic approach for the entire nuclear enterprise. (Apr-Jun)
- **Nuclear Security** –NNSA is undertaking a number of actions to improve security at NNSA sites. A variety of security-related decisions need to be made to accommodate the security budget. (Jan-Mar)
- **Procurements** -- Implementation of the consolidated Y12/Pantex contract and full implementation of the NNSA Production Office (NPO). NNSA is merging two sites – Pantex and Y12 – into a single integrated contract, with the goal of saving on costs. (Jan-Mar). Sandia National Laboratories and Kansas City Plant contracts are ending on September 30, 2013. (Jul-Sep).
- **Program Management** – NNSA is deploying an independent analytic capability for cost estimation for NNSA programs, to improve planning and execution of projects and programs. (Jan-Mar).
- **MOX Facility** – The Mixed Oxide (MOX) Fuel Fabrication Facility has experienced a number of cost challenges and plans to propose a project baseline change to the Deputy Secretary in December 2012. The facility will provide a capability to convert plutonium into MOX fuel in accordance with the April 2010 agreement between the United States and Russia. (Dec.)
- **Record of Decision for MOX Feedstock** – NNSA recently canceled a multi-billion dollar Pit Disassembly and Conversion Facility that would disassemble nuclear weapons pits and provide feedstock to the MOX Fuel Fabrication Facility. The new DOE strategy, which involves utilizing existing facilities at Los Alamos National Laboratory and the Savannah River Site to provide feedstock for MFFF, is being analyzed as part of an ongoing NEPA action, with a Record of Decision expected in mid-2013. (Apr-June)
- **UPF** – A CD-2, the critical decision on the project performance baseline for the Uranium Processing Facility at Y-12, will be up for approval by S-2, the DOE acquisition authority. (Jul-Sep).
- **Warhead Life Extension Program** – Nuclear Weapon Council (which includes the NNSA Administrator as a member) is developing a life extension program strategy for the US stockpile. This includes W76-1 in production, B61-12 in development engineering until 2016, a W78/88-1 Feasibility and Cost Study that finishes in 2016, and supporting Analysis of Alternatives for the Long Range Stand-off weapon to be completed summer 2013. The NWC meets routinely. (Jan-Dec)
- **Livermore Valley Open Campus** – CD-1 will require approval to explore third party financing opportunities for the development of the innovative technology park located on the LLNL and SNL/CA campuses. (Jan-Mar)
- **Mission Executive Council** – The NNSA Administrator is the co-chair of the four agency council (DHS, DoD, DNI, DOE). Together with S-2, they represent DOE and its S&T capabilities. They will need to champion the cross-agency strategic use of DOE laboratories to meet the council’s national security objectives. (Apr-Jun)

- **Non-Proliferation: 4-year Lock Down** – The President has made a commitment that by December 2013, the United States would remove or dispose from foreign countries a cumulative total of 4,353 kg of vulnerable nuclear material (highly enriched uranium and plutonium), and complete material protection, control and accounting upgrades on a cumulative total of 229 foreign buildings containing weapons usable material. Negotiations with international partners will be needed on fuel removal schedules, with emphasis on Belarus and South Africa, in order to meet 4 year lockdown goals for removal or disposal of vulnerable nuclear materials. (Apr-Jun).
- **S8G Prototype Refueling** – Refueling of the S8G Prototype at the Kesselring site (NY) is needed in order to provide an additional 20 years of nuclear fleet operator training and qualification, research and development and full-scale development of technology for the OHIO Replacement life-of-ship core. The refueling is required in FY 2018 to coordinate with inactivation and recapitalization of other Naval Reactors reactor training assets and to support the project’s alignment with enabling a life-of-ship core for the OHIO Replacement. Decision needed by March 2013. (Jan-Mar)
- **Ohio-Class SSBN Replacement Program** – In PB13, DoD delayed construction start of the OHIO-class Ballistic Missile Submarine Replacement program by two years (from FY 2019 to FY 2021). Naval Reactors must deliver the propulsion plant for this new ship, and NR has modified its funding request to support the Navy's new ship construction schedule. A decision is needed by March 2013. (Jan-Mar)
- **Expedited Core Facility Recapitalization** - Naval Reactors' current facility for processing naval used nuclear fuel is over 50 years old and in need of replacement to ensure that aircraft carrier and submarine refueling schedules and operational requirements are maintained. NR is seeking funding to ensure a new facility can be completed by 2021/2022, to minimize substantial costs associated with operational workarounds and maintenance and repair of the current facility. A decision is needed by March 2013. (Jan-Mar)
- **Managing Pensions** –NNSA is responsible for reimbursing M&O contractors on pension costs. There are two types of pension costs, so called “Minimum Required Contributions” (MRC) as required by law and “Alternative Funding Strategy” (AFS) to make contributions above the MRC. In March 2013, NNSA must formally decide how much in pensions it will pay in FY 2013. (Jan-Mar).
- **Workforce Planning** (right sizing and improving our capabilities through leadership and development) – As of early September 2012, NNSA had 1,842 FTEs on-board paid from the Office of Administrator (OA) account (another 790 are paid for out of other accounts). Under the likely FY 2013 appropriation for OA, NNSA can support 1,817 FTEs, a 111 FTE (6 percent) reduction compared to FY 2011 levels of 1,928 FTEs. NNSA has reduced its FTEs in FY 2012 in anticipation of less FY 2013 funding. If on-going efforts are not successful in further reducing FTE levels, starting in January, NNSA will need to consider reductions in other administrative areas or find other means to further reduce payroll. (Jan-Jun)
- **Nuclear Counter Terrorism/ Render Safe Program Special Access Programs:** Senior level status update to DOE leadership on our assessment of potential nuclear terrorism threats, DOE capabilities to respond, and their specific responsibilities in the event of a nuclear terrorism incident or other similar emergency. (Jan-Mar)

KEY GOALS

The following key goals include the Priority and key goals, derived from the Strategic Plan and related to the overarching Goal 3. These goals are tracked by the programs and DOE corporately, and are reviewed by the Deputy Secretary on a quarterly basis.

Under Secretary for Nuclear Security

Note: Priority Goals are shaded.

Goal Description	Goal Target
Nuclear Stockpile: Maintain the U.S. nuclear weapons stockpile and dismantle excess nuclear weapons to meet national nuclear security requirements as assigned by the President through the Nuclear Posture Review	Each year through 2013 and into the future, maintain 100% of warheads in the stockpile that are safe, secure, reliable, and available to the President for deployment.
Weapon Performance: Experimentally Validated Physics Models	Deliver by 2020 a physics-based capability to enable assessment of weapon performance with quantified uncertainties (cumulative percentage progress) (Strategic Plan)
Non-proliferation: Make significant progress toward securing the most vulnerable nuclear materials worldwide within four years	By December 31, 2013, remove or dispose of a cumulative total of 4,353 kg of vulnerable nuclear material (highly enriched uranium and plutonium), and complete material protection, control and accounting (MPC&A) upgrades on a cumulative total of 229 buildings containing weapons usable material.
Special Nuclear Materials: Next generation detection of special nuclear material	Complete, by the end of 2013, demonstration of next-generation technologies and methods to detect movement of special nuclear material for new treaty monitoring tools to ensure the obligations of foreign governments are being met. (Strategic Plan)
Naval Reactors: provides militarily effective nuclear propulsion plants	By 2015, provide the Navy with A1B reactor plant for next-generation aircraft carrier that increases core energy, provides nearly three times the electric plant generating capability, and will require half of the reactor department sailors need as compared to today's aircraft carriers. (Strategic Plan)
Environmental Management Progress: Reduce the Department's Cold War legacy environmental footprint	By September 30, 2013 achieve a 71% reduction in DOE's cold war environmental footprint.
Environmental Management R&D: Develop novel methods to accelerate progress and reduce costs	Develop novel methods for addressing high-level waste that can accelerate progress and reduce costs of this multi-decadal program, w/ 2012 target date for the first demonstration (Strategic Plan)

NNSA KEY PERSONNEL

The following individuals are the Presidentially-appointed, Senate Confirmed NNSA personnel

- Thomas D'Agostino, Under Secretary for Nuclear Security and Administrator
- Neile Miller, Principal Deputy Administrator
- Donald Cook, Deputy Administrator for Defense Programs
- Anne Harrington, Deputy Administrator for Defense Nuclear Nonproliferation
- Admiral Kirkland Donald (USN), Deputy Administrator for Naval Reactors

The following individuals are the Senior Executive Service personnel that lead mission and mission support functions:

- Michael Lempke, Associate Principal Deputy Administrator and Associate Administrator for Infrastructure and Operations (NA-00)
- Robert Raines, Associate Administrator for Acquisition and Project Management (NA-APM)
- Joseph Krol Jr., Associate Administrator for the Office of Emergency Operations (NA-40)
- Robert Osborn II, Associate Administrator for Information Management & CIO (NA-IM)
- Bruce Diamond, General Counsel (NA-GC)
- Clarence T. Bishop, Associate Administrator for External Affairs (NA-EA)
- Dr. Steven Aoki, Associate Administrator for Counterterrorism and Counterproliferation (NA-80)
- Jeff Harrell, Acting Associate Administrator for the Office of Defense Nuclear Security (NA-70)
- Don Nichols, Associate Administrator for Safety and Health (NA-SH)
- Cindy Lersten, Associate Administrator for Management and Budget (NA-MB)

NNSA ORGANIZATION CHART



**Under Secretary for Nuclear Security & Administrator:
Thomas P. D'Agostino**
Principal Deputy Administrator: Neile L. Miller

Office of Science and Policy
NA-1

Chief of Staff
Associate Principal Deputy Administrator*

Office of Civil Rights

Mission

Mission Support

Deputy Admin. for Defense Programs
NA-10

Dep. Admin. for Defense Nuclear Nonproliferation
NA-20

Deputy Admin. for Naval Reactors
NA-30

Associate Admin. for External Affairs
NA-EA

Office of General Counsel
NA-GC

Associate Admin. for Acquisition & Proj. Management
NA-APM

Assoc. Admin. for Emergency Operations
NA-40

Assoc. Admin. for Defense Nuclear Security & Chief, Defense Nuclear Security
NA-70

Assoc. Admin. & Deputy Under Sec. for Counterterrorism & Counterproliferation
NA-80

Assoc. Admin. for Infrastructure & Operations*
NA-00

Associate Admin. for Management & Budget
NA-MB

Associate Admin. for Information Mgmt. & CIO
NA-IM

Associate Admin. for Safety & Health and Chief, Defense Nuclear Safety
NA-SH

Kansas City Manager

Livermore Manager

Los Alamos Manager

Nevada Manager

NNSA Production Manager

Sandia Manager

Savannah River Manager

* Dual Hatted Position

May2012

OFFICE OF ENVIRONMENTAL MANAGEMENT

Number of Federal Employees ≈ 1,485 FY 2013 Budget Request ≈ \$5.6 Billion Headed by: Political Appointee

OFFICE OVERVIEW

Over fifty years of nuclear weapons production and energy research generated tens of millions of gallons of liquid radioactive waste, millions of cubic meters of solid radioactive wastes, thousands of tons of used nuclear fuel and special nuclear material, along with huge quantities of contaminated soil and water. The Environmental Management (EM) program was established in 1989 to achieve the successful cleanup of this Cold War legacy. EM is committed to its safety principles and will continue to maintain and demand the highest safety performance to protect the workers, the communities and the environment where it operates.

EM is addressed in the Department's May 2011 Strategic Plan under Goal 3: Enhance nuclear security through defense, nonproliferation and environmental efforts. Specifically, Goal 3 outlines EM's strategy: to work aggressively to reduce the footprint of the nation's contaminated sites while bringing to bear the Department's formidable research and development assets to develop and deploy transformational technologies that will both accelerate and lower the cost to disposition the highest curie materials that present high risk to public health and the environment.

The EM program has made significant progress in the last decade in shifting away from the risk management approach of characterization and stabilization of nuclear waste, to embracing a mission completion philosophy based on cleanup and closure, thus reducing risk and the Department's environmental liability. EM is demonstrating the importance of remaining steadfast to operating principles while staying focused on the mission. For example:

- EM is constructing and operating facilities to treat radioactive liquid tank waste into a safe, stable form to enable ultimate disposition.
- EM is securing and storing nuclear material in a stable, safe configuration in secure locations to protect national security.
- EM is transporting and disposing of transuranic and low-level wastes in a safe and cost effective manner to reduce risk.
- EM is decontaminating and decommissioning facilities that provide no further value to reduce long-term liabilities and maximize resources for cleanup.
- EM is remediating soil and ground water contaminated with radioactive and hazardous constituents.
- EM is fulfilling its commitments to reduce risk and complete cleanup across all sites for the generations to come.

Protecting the safety of EM workers is a core value that is incorporated into every aspect of the EM program. EM strives to promote and maintain a healthy safety culture at all of its sites. To protect our workers, EM has a goal of zero accidents or incidents in the work place and, to date, has maintained a strong safety record. EM continues to utilize the Integrated Safety Management System to ensure that all work activities are appropriately scoped, analyzed for hazards, comprehensively planned to eliminate or mitigate those hazards, and effectively performed by trained employees. In addition, EM follows DOE Order 226.1B, *Implementation of Department of Energy Oversight Policy* which instills the philosophy that line management is responsible for ensuring safety when work is being performed. EM seeks to continue improvements in the area of safety by instituting corrective actions, promoting lessons learned and developing new or improved processes.

There remain a number of high visibility, high priority cleanup projects for which EM is responsible, the majority of which are at Hanford, Washington, Savannah River Site, South Carolina and Idaho. These projects are as follows:

- Salt Waste Processing Facility construction (Savannah River)
- Waste Treatment and Immobilization Plant construction (Hanford)
- Integrated Waste Treatment Unit startup (Idaho)
- Depleted Uranium Hexafluoride Conversion Facility operations (Paducah)

Additionally, the smaller sites, such as Portsmouth and Paducah, continue to hold a notable position on EM's priority list. The unprecedented scope of the EM cleanup mission is governed by regulatory agreements and planned milestones. Some of these agreements were initially negotiated in a fiscal and political climate that was at times overly optimistic. Over the last 22 years, EM has maintained a working relationship with regulators and developed agreements and compliance milestones that provide the framework and schedule for cleaning up the Cold War legacy at DOE sites. There are approximately 40 such agreements in place. In FY 2011, EM met 97 percent of its enforceable agreement milestones. While EM's goal is to meet 100 percent of its compliance agreement milestones in FY 2013, subsequent developments at the sites may require DOE to renegotiate some of the compliance milestones in order to achieve the 100 percent goal.

Stakeholder and regulators play a major role in determining how EM achieves cleanup and are key collaborators in the path forward. It is essential that EM work with stakeholders and regulators to review and re-evaluate priorities and sequencing at each site, with a goal of addressing compliance issues through open and transparent communication. These dialogues are already established through regular forums such as the Site Specific Advisory Board, State and Tribal and Intergovernmental Working Group, National Governors Association, and other municipalities and localities. As EM will necessarily make adjustments to its milestone achievement timeline, it will become more important for its stakeholders to understand the underlying factors and rationale for these changes.

Over the last two years, EM has established separate operations activities and capital asset projects within its Project Baseline Summaries. Capital asset projects are managed in accordance with DOE Order 413.3 B, *Program and Project Management for the Acquisition of Capital Assets*. EM is currently finalizing the operations activities policy and protocol to manage operations activities, which are not governed by DOE Order 413.3B.

EM's continued progress in contract and project management has resulted in EM meeting three of the five criteria needed in order to be removed from the Government Accountability Office's (GAO) High Risk List. GAO has noted that EM has demonstrated strong commitment and leadership, demonstrated progress in implementing corrective measures, and developed a corrective action plan that identifies root causes, effective solutions and a near-term plan for implementing those solutions.

EM UPCOMING CRITICAL ISSUES/EVENTS

Compliance Agreements

Historically, each state's regulators and stakeholders have worked independently to address and drive actions based on the interests of that particular state and site. This has resulted in a patchwork of state agreements, milestones, and commitments that have no inherent risk priority assignment to them, with potentially higher risk projects competing for the same limited resources as lower risk projects. EM is evaluating the costs, benefits and other impacts associated with adjusting the current cleanup schedules and approaches consistent with projected out-year federal funding. The Secretary's support is needed as EM engages regulators to review, reprioritize and renegotiate compliance agreements based on the results of complex-wide strategic planning analyses.

H-Canyon Utilization

The canyon's utilization must be addressed considering the items we are currently planning and the various potential foreign materials that might be dispositioned via H-Canyon; associated NEPA Records of Decision for additional H-Canyon activities are targeted for early FY-2013. This would allow the Department to process a limited quantity of aluminum-clad spent nuclear fuel containing highly enriched uranium (HEU) and Canadian liquid HEU down-blending at the Savannah River Site. Additionally, utilization of H-Canyon to accomplish multiple DOE missions is supported by the Defense Nuclear Facilities Safety Board and the State of South Carolina.

Waste Treatment and Immobilization Plant (WTP)

The WTP has many significant issues, including technical, cost and schedule challenges. Cost and schedule increases are areas needing S-2 approval as the Acquisition Executive, as well as S-1 support due to the high priority, visibility and cost of the Project.

- **WTP technical issues**, such as Hydrogen in Piping and Ancillary Vessels (HPAV), Low Activity Waste (LAW) Operations, High Level Waste (HLW) Operations
 - If pumping and/or mixing capability is lost for an extended period due to an accident, there is a potential that hydrogen gas may build-up in piping and vessels.
 - DOE will complete a business case in FY 2013 to evaluate the costs and merits of an approach to feed waste directly from tank farms to the Low Activity Waste vitrification facility that is part of the overall WTP project.
 - Direct feed of waste to the High Level Waste vitrification facility is being evaluated as an opportunity to allow treatment of some of the higher-activity tank waste.
 - The Secretary of Energy formed a group of independent technical experts to assess the WTP's "black cells". The primary purpose of the review is to assess the plant's capability to detect equipment vulnerabilities or failures in the black cells, assess plans to repair those systems and recommend any design changes or operational enhancements that may be needed to assure its 40-year functional design.
 - In August 2012, the Secretary informed the Defense Nuclear Facilities Safety Board of the Department's status on Recommendation 2010-2 Implementation Plan (IP), Pulse Jet Mixing at WTP. Based upon test data regarding the viscosity of pulse jet mixing fluids in the vessel, the current computational model is not technically valid. The WTP Black Cell Review Group is examining this technical challenge and will provide expert opinions on how to address the issue.

- **Cost and schedule increases, including:**
 - Phasing of Baseline Change Proposal (BCP) submittals
 - Contracting strategy

- Resolution of technical issues
- Schedule for operations of LAW and HLW

Proposed Construction and Operation of a Pipeline to Supply Natural Gas vice Diesel Fuel for the Hanford Waste Treatment Plant

Construction of a pipeline is being considered to provide natural gas to the Hanford site Waste Treatment and Immobilization Plant and tank farm evaporator. The pipeline would eliminate the need to have six tanker trucks per day transporting diesel fuel to the WTP. A contract has been awarded for preparation of an Environmental Impact Statement (EIS) for the construction of the pipeline. The EIS is to be completed in January 2014, followed by the Record of Decision shortly thereafter. Construction would begin in 2014 if the decision is made to construct the pipeline.

Salt Waste Processing Facility (SWPF) Renegotiation with the Contractor on path forward and re-baseline project

The Salt Waste Processing Facility has experienced a cost over-run necessitating a renegotiation with the contractor on a path forward and re-baselined project. The goal is to complete the contract and schedule modifications by the end of November with current administration engagement.

It is important for DOE to integrate SWPF operations with the Savannah River Site (SRS) liquid waste system to optimize the entire system. Current scenarios for SWPF start-up include earliest feasible time of FY 2017 up to FY 2018.

- **Contract Management Actions:** DOE received a best-case Estimate at Completion updated scenario from the contractor in March 2012 of over \$400 M and a subsequent cost and schedule BCP in April 2012. DOE requested return of \$20M provisional fee in light of the contractor's overrun of contract ceiling.
 - The SWPF team developed a schedule of tasks to evaluate the cost overrun and possible contract alternatives aimed at controlling cost and schedule while stimulating stronger sense of ownership by the contractor. Briefed in April 2012, the Deputy Secretary approved a contracting approach to move more risk to the contractor through a fixed price contract for the remaining work.
 - DOE requested a cost proposal from the contractor based on guidance of an assumed funding available to complete the project. This constitutes a worst case funding scenario and should bound discussions to aid in negotiation preparations. The project is executing pre-negotiation activities in preparation for negotiation with the contractor.
- **Project Management Actions:** Concurrent with the contracting actions being taken, the project is completing scheduled tasks to support the project re-baseline effort targeted for a November 2012 completion. The re-baseline effort requires formal approval by the Deputy Secretary, who is the Secretary Acquisition Executive, in accordance with the Energy Systems Acquisition Advisory Board (ESAAB) process.

Maintaining Progress on the Integrated Savannah River Site (SRS) Tank Waste Program

It is critical to maintain progress on the integrated SRS tank waste program under pressures of pension funding considerations and delays in SWPF startup in FY 2013 and beyond. Funding for the tank waste system has remained relatively constant, but the amount of funding available to support direct work (e.g., actual treatment of waste) has decreased substantially. Two dominant reasons include:

- Legacy pensions and post-retirement benefit funding requirements at SRS have increased dramatically, and will remain high for several more years, due to underfunding pension contributions in the past and statutory changes mandating higher contributions to the pension fund
- Providing funds within the site target to support the construction of the Salt Waste Processing Facility

Secretari ally Requested Review of the Paducah Gaseous Diffusion Plant (PGDP) Project

EM is completing an independent review of the PGDP transition from United States Enrichment Corporation (USEC) to DOE. At the Secretary of Energy's direction, the review also includes an assessment of Decontamination and Decommissioning (D&D) activities for Paducah and Portsmouth GDPs. This review focuses on improvements to the Paducah transition baseline as well as an integrated approach to reducing D&D life-cycle costs at both plants. A final report will be issued in December 2012.

Strategy for Nickel Decontamination and Recycling for Unrestricted Release

During Calendar Year (CY) 2012, the DOE Paducah/Portsmouth Project Office (PPPO) has been exploring technologies to decontaminate the Department's contaminated but potentially valuable nickel, recovered during the Gaseous Diffusion Plant's cleanup. A commercial technology for decontaminating this material was demonstrated at bench scale but has not been applied on an industrial scale. PPPO is evaluating the feasibility of the technology by considering the return on investment, extent of commercial end-product nickel markets, the value of consolidating different site's nickel, etc. PPPO will make a final viability assessment in CY 2013. If decontamination and reuse of the nickel is in the best interest of the Government and the National Environmental Policy Act analyses are favorable, a Secretarial decision may be sought in CY 2014 to support the release of DOE's decontaminated nickel.

Uranium Barter Services (Exchange of Excess Uranium for cleanup) at Portsmouth Gaseous Diffusion Plant (PGDP)

The Office of Environmental Management plans to continue bartering uranium for services in FY 2013 to sustain the current Secretarial initiative to accelerate decontamination and decommissioning at Portsmouth. Each barter exchange is preceded by a 30-day notification to Congress, signed by the Secretary (four per year). The FY 2013 Congressional Budget Request assumes continued barter of uranium to augment the requested \$178,094,000 for cleanup activities. On May 15, 2012, the Secretary of Energy issued a determination authorizing transfers of natural uranium to fund the accelerated cleanup activities at PGDP through September 2013. The Secretary also determined that the transfer of up to 2,400 metric tons of natural uranium (MTU) per year for accelerated cleanup work at Portsmouth and Paducah would not have an adverse material impact on the commercial market, with no more than 600 MTU per CY quarter for the period 2012 through 2021. In support of the Departmental priority to accelerate the cleanup, DOE plans to transfer up to 2,200 MTU in FY 2013. The expected value based on the current market value of the material transferred is \$275M to \$297M. The actual value of the material is subject to the final amounts transferred and the market value at the time of the transfer. The funding associated with the material transferred will support cleanup activities within the decontamination and decommissioning contract.

Mercury Storage Facility Location Selection

The Mercury Export Ban Act of 2008 requires DOE to have a mercury storage facility operational by the January 1, 2013. It was determined National Environmental Policy Act analysis must be completed prior to making the selection. DOE issued an Environmental Impact Statement in January 2011 expressing a preferred alternative. DOE determined it needed to evaluate two additional locations (near Carlsbad, New Mexico) and has undertaken a supplement to the EIS (SEIS), which will be completed in June of 2013. Once the SEIS document is complete, a final decision on the site may be made and a Record of Decision issued, to inform the public of the decision.

Los Alamos National Laboratory (LANL) Framework Agreement with New Mexico Environment Department (NMED)

Under reduced FY 2013 funding, LANL will be unable to meet its milestones under the 3706 m³ Transuranic (TRU) Waste Campaign along with the other ground water and storm water commitments specified in the Framework Agreement. In order to meet the milestones, the full year budget request of \$239M is required. If LANL funding is significantly constrained, the terms of the Framework Agreement (less than 1-year-old) will not be met, the renegotiation of the current Consent Order will be jeopardized, and layoffs could occur. Fines and penalties from NMED could follow which, in turn, could damage the relations among DOE, LANL and the State of New Mexico. The NMED has recently expressed strong frustration and disappointment with the anticipated FY 2013 budget numbers. The NMED has indicated that it will not be willing to renegotiate the current Consent Order but, rather, will consider issuing fines for missed milestones under a reduced funding scenario.

Submission of a Resource Conservation and Recovery Act (RCRA) Permit Application for the Calcine Disposition Project

DOE is required by the 1995 Settlement Agreement to submit a RCRA Part B Permit application to the State of Idaho by December 1, 2012, for High Level Waste calcine, a granular solid stored at the Idaho site. The Permit application is under preparation and is based on treating calcine by converting it to a ceramic solid which will be ready to be shipped out of the State of Idaho by December 31, 2035 (also a requirement of the 1995 Settlement Agreement). Following submission of the Permit on December 1, 2012, it will be necessary to respond to questions from the State during FY 2013. The calcine is currently stored in facilities under a RCRA Permit exemption that expires in CY 2016.

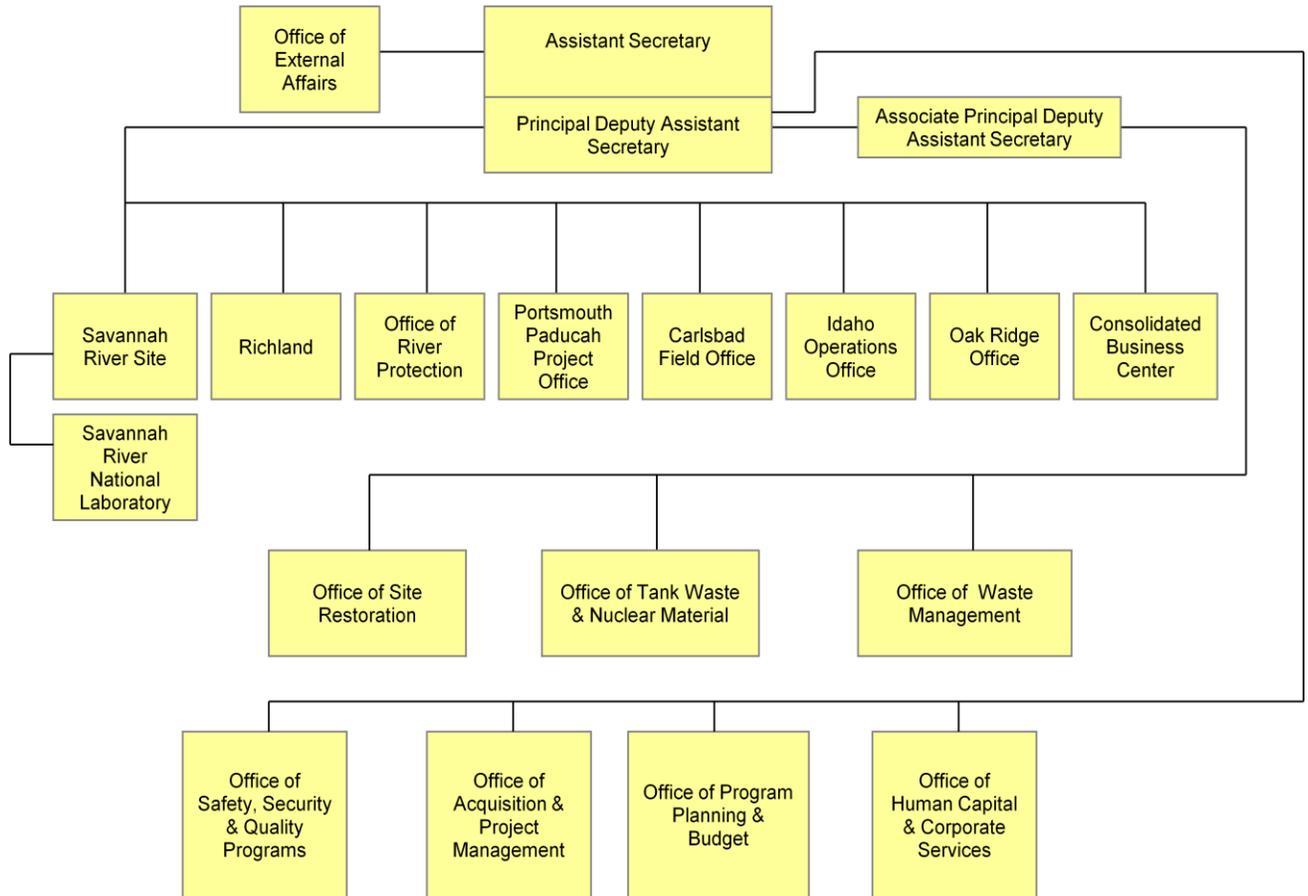
Resume Start-up of the Integrated Waste Treatment Unit (IWTU)

The Integrated Waste Treatment Unit (IWTU) is a one of a kind liquid waste treatment facility to treat Sodium Bearing Waste (SBW) scheduled to restart in 2013. On June 16, 2012, while conducting operational testing prior to handling radioactive material, the IWTU experienced a Rapid System Shutdown resulting from internal pressurization in the off-gas system. The cause of the pressurization was determined to have resulted from wood charcoal fines that clogged the off-gas filters. Corrective measures are now underway and start-up is scheduled to resume in January 2013 with treatment of the 900,000 gallons of SBW expected to be completed by April 2014. Completion of treatment of SBW by December 31, 2012, is required in the 1995 Settlement Agreement.

EM KEY PERSONNEL

- David Huizenga, Senior Advisor for Environmental Management
- Tracy Mustin, Principal Deputy Assistant Secretary

EM ORGANIZATION CHART



OFFICE OF LEGACY MANAGEMENT

Number of Federal Employees ≈ 60 FY 2013 Budget Request ≈ \$180 Million Headed by: Career Employee
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OFFICE OVERVIEW

To demonstrate its commitment to providing a long-term, sustainable solution to the legacy of the Cold War, the Department established the Office of Legacy Management (LM) in December 2003. At the end of FY 2012 LM had responsibility for 91 former Cold War sites located in 28 states and Puerto Rico.

Each year LM assumes responsibility for additional sites for long-term management. The source of these sites includes the Office of Environmental Management (EM), the U.S. Army Corps of Engineers and private licensees of former uranium mills. LM expects to be responsible for 128 sites by FY 2020.

LM also has responsibility for funding the pensions and post-retirement benefits for ~12,000 retirees (former contractor workers) and the records and information systems associated with the Yucca Mountain project.

To accomplish its mission, LM has adopted the following as its five main goals:

- Protect human health and the environment. The Department's environmental legacy responsibilities stem primarily from the activities of the Department and predecessor agencies, particularly during World War II and the Cold War. The sites include former uranium mills, uranium processing sites, facilities that manufactured components for nuclear weapons, research reactors and nuclear weapon/device test areas. The majority of these sites require ground water monitoring, many have engineered disposal cells, and a handful have on-going waste management and active groundwater treatment systems. LM also coordinates the Department's environmental justice activities.
- Preserve, protect and share records and information. LM manages over 100,000 cubic feet of physical records and over 100 terabytes of electronic information. LM expects to process over 2,500 requests for information under the Privacy Act, Freedom of Information Act, Energy Employees Occupational Illness Compensation Program Act and other inquiries during FY 2013. LM has an active stakeholder outreach program for communities near sites that have ongoing environmental concerns.
- Meet commitments to the contractor workforce. LM is responsible for funding pensions and post-retirement benefits (i.e., health insurance, Medicare Part B, and life insurance) for former management and operating contractor employees associated with certain DOE sites. These sites include: Rocky Flats, Fernald, Mound, Portsmouth and Paducah (pre-USEC), Pinellas, Grand Junction and Yucca Mountain.
- Optimize the use of land and assets. LM actively seeks to reuse, transfer, or dispose of real and personal property that no longer support an ongoing Departmental mission. Reuse includes nature preserves, grazing rights, sustainable forestry, recreation, and light industrial. LM also manages the Department's uranium leasing program which consists of 25,000 acres in Western Colorado.
- Sustain management excellence. LM was designated as the second high performing organization (HPO) in the federal government by the Office of Management and Budget (OMB) in February 2007. LM completed its five year commitment as an HPO and has reapplied to OMB for a five year extension. The HPO application commits LM to a set of programmatic goals, efficiency measures, personal management practices, and limits funding for federal staff.

LM UPCOMING CRITICAL ISSUES/EVENTS

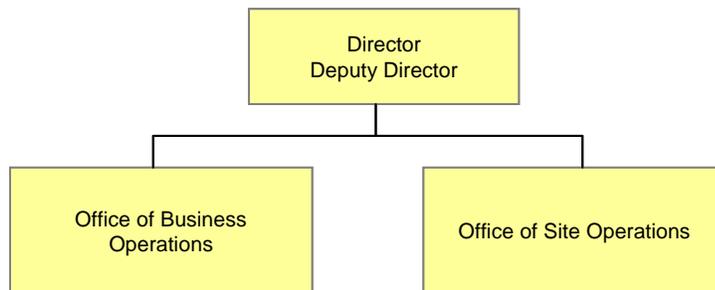
The following bullets describe high-visibility critical decisions points and events:

- **Navajo Nation 5-Year Plan, (AZ, UT, and NM)** – Five federal agencies (DOE, EPA, RNC, DOI, and HHS) are in the 5th year of a 5-year plan to address the effects of uranium contamination on the Navajo Nation. DOE has met all commitments in the plan. The agencies have committed to a second 5-year plan starting in 2013.
- **Yucca Mountain - Licensing Support Network** – LM is maintaining the records and information systems (including the Licensing Support Network) associated with the Yucca Mountain project.
- **Uranium Leasing program, Western Colorado** – A Federal judge ruled that LM’s National Environmental Policy Act documentation and consultation with the US Fish and Wildlife Service regarding the Endangered Species Act were insufficient. Leasing operations are on hold pending the preparation of a Programmatic Environmental Impact Statement (PEIS) and judicial review. Estimated date of completion is July 2013.
- **LM’s HPO proposal** – The Deputy Secretary sent LM’s proposal to extend its HPO designation for an additional five years to OMB, Office of Federal Procurement Policy. LM is waiting for approval of that proposal.

LM KEY PERSONNEL

- David Geiser, Director, Office of Legacy Management
- Barbara McNeal-Lloyd, Director, Office of Business Operations
- Tom Pauling, Director, Office of Site Operations

LM ORGANIZATION CHART



SECTION SIX

GOAL 4: MANAGEMENT AND OPERATIONAL EXCELLENCE: Establish an operational and adaptable framework that combines the best data and analysis from all Department stakeholders to maximize mission success.

This section addresses management operations, including the DOE systems approach to executing management and operations processes and alignment across the Department, and brief descriptions of DOE's Staff and Support Offices that support management and operational excellence.

Achieving Management and Operational Excellence

Associate Deputy Secretary (ADS)

Field Management Council (FMC)

Staff and Support Offices: Summary

Chief Financial Officer (CFO)

Chief Human Capital Officer (CHCO)

Chief Information Officer (CIO)

Congressional and Intergovernmental Affairs (CI)

Economic Impact and Diversity (ED)

General Counsel (GC)

Health, Safety and Security (HSS)

Hearings and Appeals (HG)

Inspector General (IG)

Intelligence and Counterintelligence (IN)

Management (MA)

Policy and International Affairs (PI)

Public Affairs (PA)

ACHIEVING MANAGEMENT AND OPERATIONAL EXCELLENCE

The U.S. Department of Energy is supporting the President's Executive Order 13589 of November 9, 2011 to Promote Efficient Spending in the Federal Government as well as Executive Order 13576 of June 13, 2011 to deliver an Efficient, Effective and Accountable Government. The Department is also supporting the OMB direction (July 9, 2012) to Accelerate efforts to Reduce Duplication, Overlap and Fragmentation; Pursue Cost Savings; and Enhance Revenues.

In support of the President's efforts, Secretary Chu released the DOE Strategic Plan in May 2011, which established a vision for transformational clean energy, science and security solutions that are significant, timely and cost effective. Secretary Chu indicated that successfully achieving this vision will require a sustained commitment to management and operational excellence (identified as one of the four strategic goals for the Department).

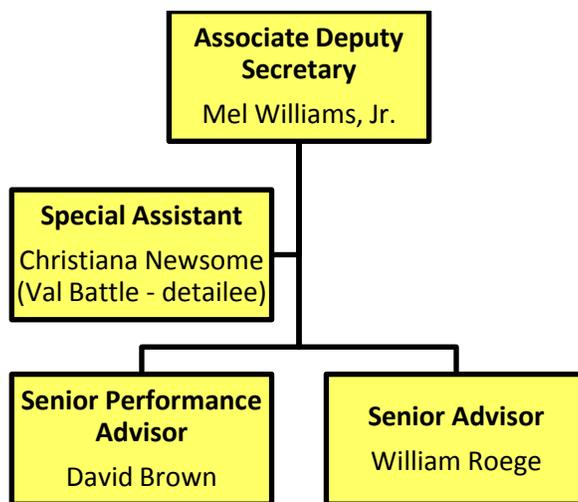
To achieve the Management and Operations goal within the DOE Strategic Plan, Secretary Chu established the Associate Deputy Secretary (ADS) position in February 2011. In support of the Secretary and Deputy Secretary, the Associate Deputy Secretary drives improvements in mission execution and ensures that they are efficiently and effectively implemented throughout the Department. The Associate Deputy Secretary reports directly to the Secretary and the Deputy Secretary, and is the primary point of contact for: Office of the Chief Human Capital Officer; Chief Information Officer; Economic Impact and Diversity; Management; Health, Safety and Security; and Hearings and Appeals.

In this capacity, the ADS ensures day-to-day activities managed by the Under Secretaries and Assistant Secretaries with the line management responsibility are efficiently and effectively implemented.

ASSOCIATE DEPUTY SECRETARY (ADS) KEY PERSONNEL

- Melvin G. Williams, Jr., Associate Deputy Secretary (PA)
- David S. Brown, Senior Performance Advisor (SES position, Schedule C)
- William H. Roege, Senior Advisor (SES detailee position)
- Christiana Newsome, Special Assistant (Schedule C) (departed Oct 2012, current fill – detailee)

ADS ORGANIZATIONAL CHART:



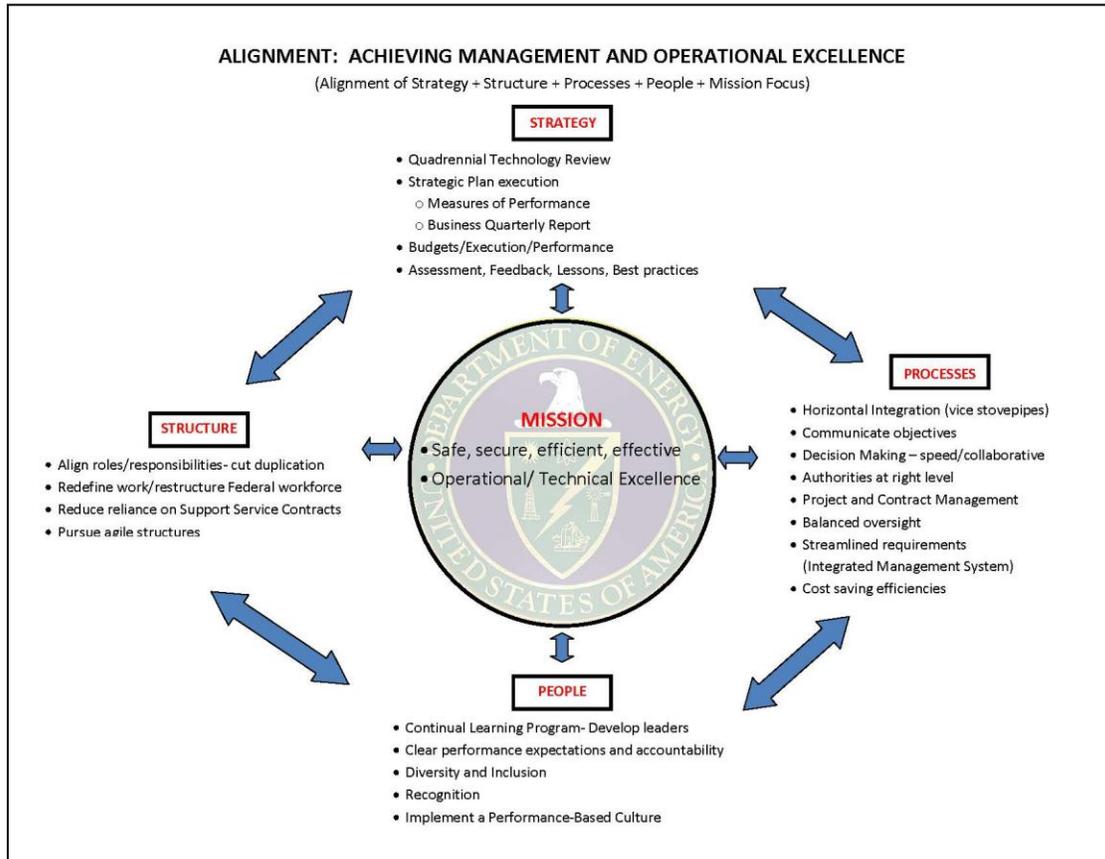
Management and Operations results/actions are tracked via 52 Measures of Performance (MOPs), which are aligned with the Department’s Strategic plan. The ADS conducts bi-monthly Management Reviews with leaders to ensure accountability in achieving desired performance results. The explanation of “why” and the “purpose” behind each Measure of Performance, and how each links to DOE’s higher strategy and mission is transparent and available to all DOE employees via the award winning Energy.Gov website as well as the DOE interactive Wikipedia site called Powerpedia.

Employees are encouraged to provide their ideas and real time feedback towards how the Department can be more efficient and effective. The Department is recognizing excellence, as the Secretary has been presenting “Secretarial Achievement Awards” to employees who have achieved real results. In the past year over 35 federal employees from the field and headquarters, as well as employees from DOE’s national laboratories have received recognition.

The ADS established “alignment” as the operating model designed to achieve Management and Operational Excellence. The ADS is collaborating with the Department’s leaders to take a *systems approach* to align DOE’s strategy, processes, structure and people such that they are better focused on mission. Alignment is the operating model and reaffirms the **DOE Management Principles**:

1. Our mission is vital and urgent.
2. Science and technology lie at the heart of our mission.
3. We will treat our people as our greatest asset.
4. We will pursue our mission in a manner that is safe, secure, legally and ethically sound and fiscally responsible.
5. We will manage risk in fulfilling our mission.
6. We will apply validated standards and rigorous peer review.

7. We will succeed only through teamwork and continuous improvement.



Per the DOE Strategic Plan, **Achieving Management and Operational Excellence** involves:

Achieving Operational and Technical Excellence, with six key points:

- Align Roles and Responsibilities Across the Complex.
- Develop the Most Highly-Qualified, Capable, and Flexible Federal Workforce.
- Assure Excellence in Research and Development (R&D) Management.
- Improve Contract and Project Management.
- Leverage Infrastructure to Support the Mission.
- Create a Regulatory Process that is Strategic and Efficient.

Implementing a Performance-Based Culture, with five key points:

- Cultivate a Performance-Based Framework.
- Improve Transparency.
- Transform our Approach to Safety and Security.
- Enable Missions Through Responsive Information Technology (IT) and Cyber Security.
- Refresh our Strategy Regularly.

Management and Operations 3 Priorities for 2011, 2012, and 2013:

1. Improve Mission Execution via “Alignment” and “Corporate” Horizontal Integration.
2. Capture Efficiencies While Achieving Excellence.
3. Institutionalize Effectiveness via Culture Change.

1. Improve Mission Execution via ‘Alignment’ and ‘Corporate’ Horizontal Integration.

Desired Outcomes – Collaborative Boards/Councils (Headquarters and Field, Federal and National laboratory, Line and Functional leaders) meet on a predictable and consistent schedule to make decisions, requirements, and recommendations towards improved mission execution. ***Achieve Management and Operational Excellence.***

Key Efforts- A. Reducing duplication, fragmentation, and overlap. B. Project and contract Management improvements.

The ADS oversees *routine decision making governance* which includes:

- a. Operations Management Council (line/Under Secretaries, functional leaders, field leaders, and ADS). (meets as directed by the Chief Operating Board needs).
- b. Chief Operating Officer Board (National Nuclear Security Administration [NNSA]/Science/Energy line career Senior Executive Service Chief Operating Officers (COO), functional leader of Directives Review Board, field leader, and ADS). (This Board also receives input from the *Senior Sustainability Steering Committee*, the *Nuclear Safety and Security Council*, the *Diversity and Inclusion Council*, the *Climate Adaptation Working Group*, the *Environmental Justice Working Group*, the *Working Capital Fund Board*, and the *Information Technology Council*). (meets every two weeks)
- c. Super 8 meeting (eight functional leaders- Management, Human Capital, CIO, Health Safety & Security, Economic Impact & Diversity, Hearings & Appeals, CFO, General Counsel; and ADS). (meets weekly).
- d. Directives Review Board (DOE requirements/directives are adjudicated. Board is comprised of line COOs, functional leaders, laboratory contractor representatives, and the ADS). (meets every two weeks).
- e. Nuclear Safety and Security Council (NNSA/Science/Energy Central Technical Authorities, Chief nuclear safety and security leaders, and ADS). (meets every two weeks).
- f. Secretary’s Weekly Operations meeting, which includes line COOs and ADS. (meets weekly).
- g. Engage our People and key stakeholders (Federal employees-listening, speaking events, mentoring, recognition; *Field Management Council* (meets quarterly); *National Laboratory Directors Council* (meets quarterly); *Energy Facilities Contractors Group* (meets quarterly); White House OMB; GAO; Congressional Staff, etc.).

Management and Operations (Priority 1) upcoming critical issues/events (FY 2013):

- The designation of the Associate Deputy Secretary role and responsibilities followed a recommendation by the National Academy of Public Administration (NAPA), whereby we are driving our management excellence agenda via collaborative boards and councils consisting of

the mission and mission support organizations that are chaired by the Associate Deputy Secretary, as also noted in DOE's strategy (Strategic Plan).

- Continue to chair collaborative boards/councils on a predictable and consistent schedule to make decisions, requirements, and recommendations towards improved mission execution and *Achieve Management and Operational Excellence*.
- Continue to address DOE IG items.
- Continue to integrate Real Property Management with NEPA, Environmental Justice, Sustainability, Asset Revitalization Initiative (Integrated Management System effort).
- Support OMB meetings on Cross Agency Functional Management.
- Engage with Field Management Council (quarterly).
- Engage with NLDC (quarterly).
- Engage with EFCOG (quarterly).
- Continue NLDC list and FMC list resolutions towards improved mission execution.
- Continue engagement with DNFSB.
- Continue engagement with OMB.
- Pursue improvements to National Laboratory efforts to support other Agencies ("Work for Others") policy.
- Capture lessons from nuclear safety events at the WTP project, and nuclear security event at Y 12 facility.
- ***Re-evaluate the Current Structure of the Department's Physical Security Apparatus*** (DOE IG identified as a top DOE Management Challenge for 2012 and 2013):

Background

The Department of Energy is responsible for some of the Nation's most sensitive sites, including a number of nuclear and defense-related facilities. It spends more than \$1 billion per year providing physical security for these facilities and related materials and data. Of this amount, nearly \$700 million per year is spent on a complex-wide protective force staff of nearly 4,000 highly trained professionals. Using what has been termed as a graded approach, the risks and vulnerabilities at each site and facility are evaluated to determine the level of "gates and guards" necessary to provide appropriate physical security.

Issue

The protective force staff is made up almost exclusively by contractor personnel. Their services are procured using three primary mechanisms. At some facilities, the facility management contract includes a provision for protective force services as part of the prime contract. At other locations, the protective force is procured through a stand-alone prime contract awarded by the Department. Under the third model, the protective force is procured through a subcontract to the prime facility management contractor. These arrangements, which lack uniformity and consistency, result in at least 25 separate contract instruments. In March 2010 testimony on this subject, GAO described this process as, "...not uniformly managed, organized, staffed, trained or compensated." In prior reports, the Office of Inspector General has noted the lack of consistency between sites in terms of the procurement of weapons and with regard to certain training procedures.

Key Question: Can the Department achieve significant savings in the over \$1 billion annual physical security budget by restructuring the way in which it obtains protective force support?

Path Forward

Although this general topic has been the subject of several reviews in recent years, the current budget situation makes a fresh look worthwhile. We think that all options should be on the table for consideration. These include, but are not limited to:

- Utilizing a "master contract" (i.e., a single contractor nationwide) to provide security at all or essentially all Department facilities;
- Consolidating protective force contracts, using region of the country, nature of the entity (NNSA vs. Science laboratories) or some other basis; and/or
- Federalizing the protective force.

There may be significant economy of scale cost benefits associated with protective force contract consolidation. Further, such action could encourage a more uniform and consistent approach to protective force organization, management, training, and equipment purchases. It could also improve the system for sharing security best practices and lessons learned between Department facilities, while providing the staff with greater career opportunities for advancement by allowing them to move between sites. Finally, consolidation would reduce the number of contracts, minimizing administrative costs and simplifying the process of contractor accountability. It is important that any analysis of protective force alternatives appropriately consider the full range of options, including those potentially involving significant paradigm shifts. To ensure that this goal is met, we believe that the Department should engage outside public sector security experts, such as the Center for Strategic and International Studies, to review the issue of the protective force configuration with an eye toward reigning in the Department's cost structure.

- ***Expand the Reach of the Quadrennial Technology Review Concept by applying it to the Department's entire Science and Technology portfolio***(DOE IG identified as a top DOE Management Challenge for 2012 and 2013):

Background

In September 2011, the Department released its inaugural QTR. Initiated by Secretary Chu and led by Under Secretary Koonin, the QTR was the first analysis of its kind undertaken by the Department. In his message prefacing the report, Secretary Chu referred to the hard budget choices and fiscal challenges facing the Department, concluding that the Department must find ways to intelligently choose between the many technically viable activities it could pursue. Secretary Chu advanced the QTR as a mechanism to guide these difficult choices. In his opening message, Under Secretary Koonin concluded that the QTR established a framework for investment in energy technology development paths against which the Department can be judged. Our view is that the outcome of the QTR, the quality of its analysis, and the richness of the information developed for the process surpassed expectations. According to the Department, this was the first time the energy technology component of the Department's science mission was analyzed in such a systematic way. Among its most notable conclusions regarding Department priorities going forward:

Limited resources demand thoughtful and consistent program choices to maximize impact.

- Fundamental R&D and emerging technologies must remain a part of the Department's portfolio.
- Currently, the Department focuses too much effort on researching technologies that are multiple generations away from practical use at the expense of other engineering research that could influence practice in the near term.

- The Department is underinvested in the transportation sector relative to the stationary sector.
- The Department is underinvested in activities supporting modernization of the electric power grid.

As beneficial as it may be, the QTR's scope was limited to the Department's energy-related technology sector.

Issue

Key Question: Can the performance of the Department's multi-billion dollar R&D portfolio be improved through an all-encompassing review of the science and technology program using the principles established in the QTR?

Path Forward

We concluded that the discipline of the QTR process should be applied to the Department's entire set of science and technology activities. In making this observation, we are cognizant of the fact that a strategic plan-style effort for a general science and technology portfolio may be decidedly more complex than looking at a more limited set of activities such as the energy technology sector. Forcing choices such as funding high performance computing versus biology is not easy. Nonetheless, in an environment of constrained resources, a broader QTR process would help to ensure that:

- The Department's R&D strategy, largely as executed through its laboratory system, is consistent with current policy;
- R&D assumptions, as paraphrased in the QTR, are harmonized across technologies;
- Metrics are in place that allow an objective evaluation of the performance of the R&D portfolio and of its component parts, most specifically the performance of the Department's laboratory system; and,
- The Departmental budgeting process, which is heavily science and technology driven, is better informed.

The QTR calls for the development of a strong internal capability to support the energy R&D strategy and to provide a sound basis for future QTRs. We concluded that this recommendation would serve as a platform for expanding the QTR process and applying it to the Department's entire R&D portfolio.

Results (Priority 1) - Functional leaders are working with the line Chief Operating Officers, the Field Management Council (FMC), the National Laboratory Directors Council (NLDC), the Energy Facilities Contractors Group (EFCOG) and other key decision making boards/councils resulting in “alignment” and “corporate” (horizontally integrated) solutions which are improving mission execution (in a safe, secure, efficient and effective manner) and which have measurably advanced the Department’s progress to achieve Management and Operational Excellence. Examples of results include:

- **Decision Making Speed/Collaboration** - Executive decision speed/quality was improved by a factor of ten. The Department developed and implemented a process to improve the flow of senior executive decision correspondence. This Collaborative Action Process (CAP) includes accountability (someone to track the decision to completion), the element of time (a set number of days to complete), a streamlined number of key stakeholders who review the proposed decision while also remaining transparent (information only to others), and the elimination of concurrence (i.e. reviewers either provide comment or no comment).

- **Human Capital** - Taking action to reduce the average time-to-hire for GS and equivalent positions by every HR Office (from initiation date to entry on duty date) from 174 days to an 80-day average (that includes a 50-day target to job offer). DOE was recognized by Federal Times (August 2011) for rising to the #2 position of all federal agencies in reducing the average time to hire by 45%. DOE is working to reduce SES/equivalent time to hire by more than 30% in FY12.
- **Management** - Achieved positive performance results in support of mission execution in helping to align authorities to the right level, streamlining requirements, developing a more efficient and effective executive decisions/correspondence process, leading efforts to improve project and contract management, and driving cost saving efficiencies.
- **Authorities at the Right Level** – Federal leaders and national laboratory contractors worked collaboratively in an expeditious manner (only five months to address complex topics) to resolve most of the authorities related policies and practices which the laboratory contractors indicated were burdensome to their contributions to mission effectiveness. Additionally, the Department is working with the Field Management Council (federal leaders at DOE field facilities) to address their recommendations towards improved mission execution. The Department is reviewing current directives, orders and memoranda and making recommendations toward delegating authorities to the lowest possible level. The Department is ensuring that leaders who are entrusted with additional authorities are given discretion to exercise their judgment, while being held accountable for performance and conduct consistent with DOE values, management principles and performance expectations. From an accountability stand-point, DOE is linking Strategic Plan related expectations into individual performance plans.
- **Pursue Agile Structures** – The Department has expanded the use of “other transactions authority” based on the pioneering effort led by Advanced Research Projects Agency-Energy in this area. This authority allows for flexibility and increased speed with respect to partnerships with industry for mission related activities. The Department is providing headquarters on-site procurement advisory support to the Office of Energy Efficiency and Renewable Energy in its execution of the Sunshot Program. This will help streamline headquarters review of Funding Opportunity Announcements.
- **Project and Contract Management** – DOE is measurably starting to improve performance in project and contract management. More effort will be required in this area. The Office of Science exceeded the target for completing more than 90% of capital asset projects at the original scope and within 110% of the cost baseline. In FY 2011, they achieved a 100% success rate -- a Departmental first. Projects baselined after the Root Cause Analysis Corrective Action Plan (after October 2007) met the project success metric in FY 2011 and are anticipated to meet it in 2012. Uses of certified Earned Value Management Systems remain above targets. In June 2012, the separate Office of Engineering and Construction Management (OECM) and the Office of Procurement and Assistance Management (OPAM) have been combined into a single collaborative Office of Acquisition and Project Management, which trains and works together towards improved mission performance.
In August 2012, the Deputy Secretary issued a policy memorandum, “Aligning Contract Incentives for Capital Asset Projects” towards improved acquisition planning and contract management.
- **Health, Safety and Security (HSS)** – Led an unprecedented effort to transform the Department’s approach to safety and security, which included streamlining/eliminating duplicative or no longer relevant requirements. As the Department’s independent oversight organization regarding Health, Safety and Security, they led the Department’s self-assessment, review and follow on actions following Japan’s reactor events in March 2011.

- **Streamlined Requirements** – While ensuring safe and secure mission performance, HSS eliminated or reduced about 50% of requirements which were determined to be duplicative or no longer relevant. For all HSS directives that have been revised (reduced from 107 safety and security directives to 55 directives), the reform effort has eliminated duplicative or conflicting requirements, delegated authority to the appropriate level, invoked external standards where possible and streamlined process requirements and decision-making. Each revised directive has been reviewed and validated by line programs and the National Laboratory Directors’ Council (NLDC). The Directives Review Board improved output by a factor of two times and improved efficiency by a factor of three times.
- **Economic Impact and Diversity** - Initiated action leading to the Secretary’s mandate that the Department work together to better achieve a culture which embraces diversity, creates an environment leading to DOE being an employer of choice, and ensures that all men and woman may contribute to the Department’s mission effectiveness while they are simultaneously able to realize their full potential.
- **Hearing and Appeals**- Led the effort to establish and implement an effective Alternative Dispute Resolutions process to address employee concerns via the most efficient and effective methods. This was particularly noteworthy in view of the many Management Reforms (i.e. changes) which are being pursued within the Department.
- **Office of Chief Information Officer** - Decisions and actions are being executed to help improve mission performance via a more responsive IT capability (enterprise wide approach) and a risk based cyber security capability. August 2012, a unified DOE/NNSA IT Strategy has been formulated in a white paper generated by the DOE CIO and NNSA CIO, approved by senior leadership and is being executed.
- **Office of Chief Financial Officer** - Leading efforts to increase the speed and effectiveness of funds distribution from headquarters to the field, to enable more efficient mission execution. Working closely with the Chief Information Officer and the line Chief Operating Officers, the OCFO is also working to improve system architectures and processes associated with administering financial grants.
- **Office of General Counsel** - Led significant efforts which culminated in the approval of the regulatory standards for America’s refrigerators. This effort will result in significant energy efficiencies. Additionally, OGC led the effort towards approval of revisions to the Department’s regulations implementing the National Environmental Policy Act. This will result in a more efficient and effective approach to meeting the Department’s environmental commitments.

2. **Capture Efficiencies while Achieving Excellence.**

Desired Outcomes – Being fiscally responsible, with excellence as our standard for mission performance.

Key Efforts- A. IT efficiencies. B. Strategic sourcing. C. Real property management.
D. Travel and Conferences

Management and Operations (Priority 2) upcoming critical issues/events (FY 2013):

- Continue strategic plan execution via achieving Measures of Performance targets.

- Bi-monthly Management Reviews in February, April, June, August, October, and December. Achieve \$1B in cost savings/avoidance FY13.
- Support DOE Business Quarterly Report (BQR) efforts.
- Improve the Department's "sustainability" efforts.
- Per DOE Strategic plan, ensure Departmental elements develop/execute implementation plans toward alignment.
- Execute WH/OMB Travel and conferences plan (post GSA event).
- Continue to engage Budget process: in the FY13 appropriations execution.
- Budget request, ensure aligned w/ Strategic Plan/ Energy QTR guidance.
- Collaboratively manage the Working Capital Fund as a 'corporate' asset.
- Continue Workforce restructuring efforts (eliminating duplication, etc.).
- Support the Office of Energy Management Reform efforts.
- Support t OMB initiative for DOE and 6 other Agencies: Strategic Sourcing Leadership Council.
- Continue to achieve the corporate effort to improve the efficiency/effectiveness of the Funds Distribution process.

Results (Priority 2)– The Department's cost saving/avoidance efficiencies (cutting waste) totaled \$1B in FY 2011, and about \$1B of cost savings/avoidance in FY 2012. Contributing elements and example results include:

Strategic Plan Execution

Developed and promulgated the first ever Energy Quadrennial Technology Review (QTR), which established a framework for thinking clearly about a necessary transformation of the Nation's energy system: 1) Increase vehicle efficiency, 2) Electrify the vehicle fleet, 3) Deploy alternative hydrocarbon fuels, 4) Increase building and industrial efficiency, 5) Modernize the electrical grid, and 6) Deploy clean electricity.

Developed and promulgated Secretary Chu's Strategic Plan for the Department. The Strategic Plan specified that one of the Department's 4 Strategic Goals is to Achieve Management and Operational Excellence.

Established Measures of Performance which are aligned with the Strategic Plan. Execution of the Measures of Performance is being reviewed bi-monthly, in support of mission.

Established a Business Quarterly Report which captures the results of DOE performance and provides the knowledge to the higher levels of government, as well as internally.

Budget formulation for FY 2013 (conducted in FY 2011) was influenced (alignment) by the strategy framework of the Quadrennial Technology Review and the Strategic plan. This continues with FY 2014 (conducted in FY 2012) budget formulation.

DOE is conducting performance assessments, receiving feedback, capturing lessons, sharing best practices and making changes to processes (alignment of strategy to processes).

Workforce Restructuring- All Departmental elements are taking action to redefine their work, and remove duplicative activities and streamline operations. The federal workforce should be restructured to reflect the redefined work. FY 2011-FY 2012 restructuring numbers are projected to be about 7% DOE wide.

Reduced Reliance on Support Service Contracts. The Department reduced this area by 28%, saving \$ 378 million in FY 2011.

Aligning Roles and Responsibilities Across the Complex (as directed in the DOE Strategic Plan, this contributes to the alignment of strategy and structure). The Department is implementing a management reform effort to cut waste by aligning roles and responsibilities across the complex, to benefit from a high-performing organizational construct which better contributes to mission effectiveness. For example, the Oak Ridge Office reorganized to clarify roles and responsibilities between headquarters and site offices. The Office of Environmental Management (EM) now reports to the Under Secretary for Nuclear Security. ARPA-E, the Office of Legacy Management (LM) and the Office of Fossil Energy (FE) are examples of more efficient and effective organizations as a result of their efforts to improve alignment of roles and responsibilities; for example, efforts to remove duplication, overlap and fragmentation while improving efficiency, effectiveness and saving money between FY 2011 and FY 2012. Additionally, LM executed management reforms and is being considered as a Government-wide “High Performing Organization”. FE executed the Business Review Assessment of a Vital Organization (BRAVO) construct towards continuous organizational efficiency and productivity. The Office of Energy Efficiency and Renewable Energy (EERE) executed Strengthening Operations through Accountability and Results (SOAR) as a comprehensive initiative to strengthen EERE’s organization, operations, human capital and project management. The Office of Electricity Delivery and Energy Reliability (OE) has realized an annual savings of \$649K via operational efficiencies. The Office of Nuclear Energy (NE) will reduce the vehicle Fleet in Idaho by 35% by the end of FY 2013, reduce travel costs by 30% and reduce office space at the Germantown facility.

Cost Savings/Avoidance-

DOE is Eliminating Duplicative and No Longer Relevant Requirements. In support of DOE’s safe, secure, efficient and effective mission execution as well as the strategy to “transform the approach to safety and security”, duplicative and no longer relevant requirements are being eliminated. During an 18-month period, DOE cut redundant and outdated health, safety and security requirements and consolidated 107 Directives down to a nearly 50% reduction.

DOE/NNSA Reduces Overhead Costs to Achieve Cost Savings. NNSA is combining the management of two nuclear production facilities to save an expected \$875 million over the next five years. A single management team will direct both NNSA’s Pantex Plant in Amarillo, TX and the Y-12 National Security Complex in Oak Ridge, TN. This will significantly streamline operations eliminating the need for duplicative support services. Cutting wasteful duplication will result in more resources being spent on critical mission work rather than for overhead expenses.

DOE/NNSA Reinvents Its Kansas City Site to Increase Efficiency and Effectiveness. NNSA launched the comprehensive transformation of its Kansas City plant by downsizing it to a new, smaller, more efficient facility modeled on a commercial industrial complex. The Plant, which manufactures non-nuclear components for nuclear weapons, will save by outsourcing manufacturing of parts to commercial suppliers. This will have the added benefit of creating more private sector job opportunities. Over the last five years, the Department has already avoided \$126 million in costs as a result of the transformation. When it is completed in FY 2015, the Plant’s footprint will have been reduced by 50% and operational costs by 25%.

DOE Reduced Wasteful Practices by Reducing the Need for and Cost of Travel. In FY 2011, the Department avoided \$3 million in costs by reducing travel through increased use of Video Teleconferencing (VTC) technology, reducing the frequency of conferences and encouraging the purchase of discounted, non-refundable airline tickets when travel schedules are not expected to change. This is expected to save 20% to 40% in the cost of airline tickets, translating into millions dollars saved. For FY 2012 and 2013, reduce overall travel expenses by 20% (while also reducing non-mission critical travel by 30%), relative to FY 2010 baseline. Contribute toward reduction of scope 3 greenhouse gas emissions. Estimated cost savings/avoidance is \$10M/yr. We are closely

managing conference costs and are realizing significant savings. Conference Cost Reduction – Cost savings of \$0.8 million in FY 2011, with \$4 million targeted per year.

DOE Strategic Procurement Savings Demonstrate Increased Efficiency. The Department expanded the use of bulk purchasing (i.e. Strategic sourcing) which provides a common approach to purchasing core supplies and services. The entire Department achieved over \$330M in savings in FY 2011. NNSA saved nearly \$150M, the Office of Science over \$130M, the Office of Environmental Management and other offices saved over \$50M.

Information Technology Devices. Ensure the appropriate distribution and use of information technology devices, resulting in cost savings/avoidance, the Department assessed current device inventories and usage and established controls to ensure that DOE is not paying for unused or underutilized information technology (IT) equipment, installed software, or services. DOE is limiting the number of IT devices (e.g., mobile phones, smart phones, desktop and laptop computers and tablet personal computers) issued to employees consistent with the Telework Enhancement Act of 2010, operational requirements (including continuity of operations) and initiatives designed to create efficiency through the effective implementation of technology

DOE IT Strategy. Effective August 2012, a unified DOE/NNSA IT strategy has been formulated in a white paper generated by the DOE CIO and NNSA CIO, approved by senior leadership, and is being executed. This is potentially transformative within the Department and will yield significant efficiencies and improve effectiveness. It is consistent with OMB's direction relating to the IT PortfolioStat effort for federal agencies.

IT Data Center Consolidation. To be more effective in the use of information technologies and free up building space (sustainability efforts), the Department is generating savings thru implementation of a 10% enterprise IT consolidation (e.g., servers) and a sustainability plan by FY 2012.

IT Services. To achieve cost savings/avoidance while being more efficient and effective in the execution of DOE's IT systems, the Department is developing and implementing an IT services business management and contracting strategy by FY 2012.

Commodity IT Services. To achieve cost savings/avoidance while being more efficient and effective in the execution of DOE's IT systems, the Department is building a plan to transform the delivery of commodity IT services (people and processes) to DOE federal and support service contractors in a secure manner (e.g., cloud computing), by September 2012.

Website Reform: DOE Reforms Its Websites to More Effectively Communicate and Increase Transparency. The Department streamlined its website infrastructure processes DOE-wide (November 2011) to centralize its online platform to provide clear, consistent and reliable information. GovLoop named the Department as their top pick for the best government agency website. GovLoop is an online social network for people in and around government. DOE consolidated 25% of their websites to the Energy.gov platform and plans to achieve a \$10M cost saving/avoidance in FY 2012.

Disposition of Excess Real Property. To reduce operations and maintenance costs by disposing of excess Real Property and contribute to the Department's sustainability efforts, the Department is synchronizing the efforts of the Office of Management for real property, the Sustainability Performance Office, the Asset Revitalization Initiative Office, the Office of Legacy Management (and Environmental Justice) and the General Counsel's NEPA Office to eliminate excess real property and buildings starting June 2011 (targeted to eliminate 1.3 million square feet in FY 2011 and 1.7 million square feet in FY 2012). The Department exceeded its FY 2011 target by over 3 million gross square feet, which is an estimated cost avoidance of \$11.3 million annually in operations and maintenance costs. The Department is supporting the President's plan (December 2,

2011 Memorandum) for “Implementation of Energy Savings Projects and Performance-Based Contracting for Energy Savings.”

Fleet Reduction. To contribute to DOE's sustainability efforts (reduction of scope 3 greenhouse gas emissions), while resulting in cost savings/avoidance: The Department is reducing the overall size of the fleet by 35% over the next three years (i.e., \$66 million targeted for FY 2011 – 2013). DOE achieved approximately 7% in FY 2011 and is targeting 15% in FY 2012 and 13% in FY 2013. Leading by example, the headquarters executive fleet was reduced by 40% in May 2011. The entire Washington DC area fleet was reduced by 35% in June 2011, saving \$168,000. The Department is also switching to hybrid vehicles, with more than 750 vehicles replaced in FY 2011. DOE is switching to fuel efficient hybrid or electric vehicles, with a target of 10% of the fleet by FY 2013.

3. Institutionalize Effectiveness via Culture Change.

Desired Outcomes – *Achieve a Performance-Based Culture* which sustains desired Organizational Effectiveness and Individual Fulfillment. A Performance-Based Culture consists of four principles: Clear performance expectations, clear accountability, responsible empowerment, timely and responsible performance assessment.

A performance-based culture involves improvements in mission execution via aligning and integrating efforts across organizational boundaries and making the best decisions through collaborative teamwork; it involves capturing efficiencies and sharing best practices; and it involves setting excellence as DOE's performance standard and is inclusive of DOE's diverse workforce. A performance-based culture will clearly link employee work to agency goals, will ensure employees understand their roles and responsibilities and holds employees accountable for meeting mission, and will appropriately reward employees for achieving positive results.

Key Efforts- A. Continual Learning (Leadership development). B. Integrated Management System. C. Diversity and Inclusion.

Management and Operations (Priority 3) upcoming critical issues/events (FY 2013):

- Continue efforts to *achieve a Performance-Based culture*.
- Support the Ombudsman efforts.
- Continue efforts to improve internal communications (e.g. Powerpedia, Plugged-In).
- Continue Diversity and Inclusion strategy execution.
- Continue Integrated Management System (IMS) execution: Includes institutionalizing Integrated Management System - consistent and quality processes, reaffirmation of Management Principles, employing Enterprise Risk Management Model in directives process - “PLAN” better via improved directives Justification Memorandum (requirements generation, Contractor HC/Federal HC, Real Property Management), “assess” better via periodic performance assessment of selected Directives collaboratively by FMC and NLDC, and employment of the Continuous Improvement Cycle.
- Continue STEM/HBCUs/Minority Serving Institution engagement and support.
- Engage to achieve DOE Small Business goals.
- Take action which results from NAPA study on DOE/National Laboratory performance.
- Execute improved DOE “on boarding program”.
- Communicate/training on “new” DOE SES performance grading (focus on leadership).
- Institutionalize Energy (S-3) COO capacity (similar to Science and NNSA COOs).
- Continue Continual Learning execution (leadership and management development).
- Continue recognizing employees for Management Reforms via Secretary's Awards.

- Execute DOE Honors Awards each October.
- Take action towards improved DOE Employee Viewpoint Survey results (Leadership, Diversity, and Teamwork).

Results (Priority 3) – There have been measurable advancements in the Department’s progress to achieve a performance-based culture:

Continual Learning: DOE enhanced its Continual Learning Program to ensure that DOE develops the most highly-qualified, capable and flexible Federal workforce, moving us towards a more performance-based culture. Key among them was implementation of a “managers-training-managers” professional development training module which clearly communicating performance expectations, and roles and responsibilities. This training employs a case study approach and is interactive. In FY12, 50% of DOE Senior Executives will have participated, with the goal being that all Senior Executives participate about every 3 years. Starting October 2012, we changed the Department’s Senior Executive Service (SES) performance plans to emphasize “leadership” (was 40%, now 60% weighted towards leadership) over “results” (was 60%, now 40% weighted towards results).

Integrated Management: The Department is working closely with senior leaders and contractors across the Department to investigate the potential benefits of integrating DOE’s various management systems; specifically, whether an integrated management system can eliminate redundancy and unnecessary requirements, and build on efforts to change DOE’s governance model to reflect reliance on strong federal line oversight and Contractor Assurance Systems that confirm performance without duplicating effort or unnecessarily validating results. We initiated an Integrated Management System (IMS) intended to improve consistency in our processes and mission execution with quality output. DOE Integrated Management System involves the implementation of a Department wide Enterprise Risk Management (ERM) model to inform decisions, the reaffirmation of the DOE Management Principles, and the use of a “corporate” continuous improvement cycle.

Diversity and Inclusion: We initiated actions to improve DOE’s efforts in the area of Diversity and Inclusion. A first ever Diversity and Inclusion Town Hall meeting with the Secretary and senior leaders was conducted in December 2011. Additional Town Hall sessions were conducted across major DOE sites. A DOE Diversity and Inclusion Council was established in January 2012, and reports to Senior Line leaders. A DOE Diversity and Inclusion Strategy was approved in March 2012 and is being executed. We conducted a Town Hall meeting with the Secretary (April 2012) to have an effective dialog on “Performance-based culture”. We established an Ombudsman position in March 2012, and the Ombudsman is achieving positive results as a resource for employees and groups to address leadership and management concerns. Morale and productivity of the Department improved as expressed by our employees in the Employee Viewpoint Survey results which revealed improvements in the Department’s “Best Places to work” scores. And finally, DOE is working corporately to achieve assigned Small Business goals.

FIELD MANAGEMENT COUNCIL

The Field Management Council (FMC) comprises Senior Executive field managers from all DOE program offices responsible for executing the Department's mission. The FMC links program elements, facilitates communication and knowledge sharing between organizations, and acts as a conduit for headquarters decision makers to share leadership perspectives.

The FMC is an integral component of DOE's strategic framework for achieving management and operational excellence, and works with DOE senior leadership, functional groups and stakeholders to maximize mission success. The FMC collaborates with the Office of the Associate Deputy Secretary to promote management excellence and represents the interests of the DOE field to ensure that field perspectives are considered to maximize mission effectiveness. Networking between the FMC and Departmental elements and stakeholders has expanded and increased over time, making the field an integral part of Departmental decision making.

Structure:

The FMC is led by a Chair under limited appointment and an Executive Committee (Excom) comprising six representatives from the major DOE program areas. The Executive Committee seeks input principally from the Chief Operating Officers (COOs), the Director of Office of Management, and the field representatives to the COOs.

Activity:

The full FMC meets twice annually in April and October and the FMC Excom meets twice annually in January and in July, in Washington DC. These meetings provide opportunities for the field to network, and provides integration and involvement with headquarters functional groups on key initiatives. Prior to and during the full board meetings, field managers are asked to propose recommendations for improvements. These items are discussed, and priority issues are assigned to a lead member of the FMC and tracked to closure. Focus on travel cost reductions has created increased interest in using innovative technologies to conduct networking opportunities. The use of PowerPedia, video teleconferencing, and IT mobile workstations will be expanded to make these networking modes more efficient and effective. The FMC Excom conducts calls every two weeks to discuss initiatives, provide status updates and coordinate action on upcoming events. These opportunities have expanded networking between the National Lab Directors Council COO working groups and the Energy Facility Contractors Group (EFCOG).

Highlights of Outcomes and Work in Progress:

The FMC has identified several targets for improvement. The first round of recommendations were resolved between November 2011-April 2012 and included Senior Executive Service (SES) hiring cycle times, drug testing protocols, National Environmental Policy Act integration with project management, foreign travel delegations, streamlining "Work for Others" and "Lab Directed R&D" approvals, necessary changes to Strategic Integrated Procurement Enterprise System (STRIPES), procurement business clearance, COR training, streamlining the 48/72 hour notification process, and improvement to PARS II project system management. These efforts resulted in positive changes to completing work in the field. The FMC is now considering a new round of improvement opportunities including revision of the drug testing order, improved performance on fleet, travel and printing reduction goals, improved cycle time for moving funds to other agencies, and improvements to the e-Performance system.

The FMC continues to expand its role within the operational framework and has recently appointed representatives to the Directives Review Board and EFCOG. In addition, the FMC is represented on the DOE Executive Steering Committees for STRIPES and Personal Property Management. This exemplifies the continuing effort to institutionalize cooperation between the FMC and the decision making groups within DOE's management framework.

STAFF AND SUPPORT OFFICES: SUMMARY

Staff and support offices provide for the Department's internal corporate support. As program offices (such as NNSA, EERE, PMAs, etc.) directly work towards the Department's missions, staff and support offices enable the Department to achieve its missions. Staff and support offices are responsible for issues and items such as: budgeting, security, litigation, staffing, contract management, project management, public relations, diversity and inclusion, and many others.

Chief Financial Officer

Number of Federal Employees ≈ 235 FY 2013 Budget Request ≈ \$51 Million Headed by: Political Appointee
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The mission of the Office of the Chief Financial Officer (CFO) is to assure the effective management and financial integrity of the Department's programs, activities and resources. The CFO develops, implements and monitors Department-wide policies and systems in the areas of financial operations and reporting, budget formulation and execution, program analysis and evaluation, internal controls, corporate systems and strategic planning. The CFO works toward the following goal: Institutionalize a fully integrated resource management strategy that supports mission needs and postures the Department for continuous business process improvement.

The CFO and its field office counterparts operate under extensive Federal law as well as Treasury and Office of Management and Budget (OMB) regulations and guidelines covering the full life cycle of budget formulation and financial execution transactions and reporting. In addition to laws, regulations and reporting requirements generally applicable to Federal business transactions, the CFO provides for fiscal management of Departmental activities that include reprogramming of funds, intradepartmental allocations of obligation authority, financing of management and operating contracts, the unique features of the power marketing administrations, recording and updating of estimates of environmental restoration liabilities, management of reimbursable activities in the national laboratory system, petroleum reserves acquisition and drawdown transactions, Working Capital Fund management and other matters pertaining to unique DOE activities. The CFO home page provides access to the DOE Accounting Handbook, budget formulation materials, DOE budget and performance data, Working Capital Fund reports and related policies and procedures (www.cfo.doe.gov).

CFO UPCOMING CRITICAL ISSUES/EVENTS

- Sequestration: Unless Congress passes legislation that modifies or repeals current law, the first automatic spending cuts under the BCA will take effect on January 2, 2013 with profound impacts on FY2013 2nd, 3rd and 4th quarter programmed funding levels.
- FY2013 Continuing Resolution: Under a six month FY 2013 CR, the Department will be provided with nearly half of the FY 2012 funding level. The Department is taking the additional step of reducing the amount available by an additional several percent, in light of FY 2013 funding uncertainties.
- Develop revised Administration FY 2014-2018 budget estimates as appropriate. Jan – Feb 2013
- Strategic Priorities and Planning: CFO supports development of DOE's Strategic Plan; First draft strategic goals due to OMB by summer 2013; Final Strategic Plan Feb 2014.
- Reduce uncosted/stale balances across the Department.

CFO KEY PERSONNEL

- Joanne Choi, Director, Office of Finance and Accounting (and Acting Deputy CFO)

- Christopher Johns, Director, Office of Budget
- Hugh Chen, Director, Office of Program Analysis and Evaluation
- April Stephenson, Director, Office of Financial Risk, Policy and Controls
- Lajos Grof-Tisza, Director, Office of Corporate Information Systems

Chief Human Capital Officer

Number of Federal Employees ≈ 157 FY 2013 Budget Request ≈ \$23.3 Million Headed by: Career Appointee (Political Appointee in some prior years)
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The Office of the Chief Human Capital Officer (OCHCO) advises and assists the Secretary and Deputy Secretary of Energy, and other agency officials, in planning, recruiting, developing, training, and managing a highly skilled, productive, and diverse federal workforce in accordance with Merit System Principles and all applicable statutory requirements.

CHCO Purview

- DOE Federal Workforce – In FY 2012, Congress enacted 15,309 full-time equivalents (FTE)
- *Excludes:*
 - 1,500 FTE of the Federal Workforce at Federal Energy Regulatory Commission² (FERC)
 - 92,419 DOE Contractor Workforce (e.g., National Laboratories, Environmental Management Clean-up Sites)

Applicable Laws and Regulations

- OCHCO is responsible for ensuring that all human capital operations for DOE's federal workforce are conducted within the applicable authorities and statutory requirements, including: Chief Human Capital Officers (CHCO) Act of 2002; 5 U.S.C Chapter 14, as implemented at 5 CFR Part 250; the annual Defense Authorization Act of 2012; and the DOE Organization Act, 42 U.S.C 7101 *et seq.*
- OCHCO is also tasked with ensuring the well-being of each federal employee and partners with various entities, including the Office of Administration and the Office of Health, Safety and Security, to achieve this objective.

Operating Environment

- Corporate Human Capital Policy
 - OCHCO is a headquarters staff and support office that provides policy, strategy, and audit functions at the corporate level
 - A significant factor in the DOE operating environment is that corporate human capital policy is implemented locally by 18 Human Resources (HR) Offices throughout DOE
- Decentralized Human Resources Operations:
 - As mandated by statute, the National Nuclear Security Administration has its own Office of Human Capital Management.
 - In addition, 17 other Human Resource (HR) Directors are delegated HR Authority (e.g., hiring, benefits, labor relations functions) through the Chief Human Capital Officer. These include the Office of Science, Bonneville Power Administration, Idaho, Richland and Savannah River Operations Offices to name a few.
- Audit Functions
 - All DOE Human Resources (HR) Directors report to the Chief Human Capital Officer (CHCO) on matters of human capital policy and compliance with applicable law.
 - The CHCO fulfills the corporate audit function through the Human Capital Management Accountability Program (HCMAP), which audits each HR office once every three years.
 - The risks of non-compliance with applicable law, such as violations of Merit Systems Principles and engaging in Prohibited Personnel Practices, include:

² FERC was created as an independent regulatory agency through the Department of Energy Organization Act of 1977. In performance of this function, the employees of FERC are not responsible or subject to the supervision or direction of any office or employee of any part of the Department of Energy.

- liability of the Secretary of Energy as the top DOE management official;
- the loss of hiring authority at the Departmental level; and
- liability of individual hiring managers, including grounds for removal.

CHCO UPCOMING CRITICAL ISSUES/EVENTS

The following bullets describe high-visibility operational and policy priorities:

Operational Priorities

1. **Strategic Partner** – Continue to improve CHCO’s capability as a go-to internal consultant to the Secretary and Senior Management, and as a provider of timely and effective solutions that are in accordance with law. This requires the cultural change from a process oriented organization to one that is focused on anticipating changes within DOE and developing recommended paths forward; inserting ourselves more actively into the serviced organizations to understand their needs and goals; and become partners with managers to provide proactive, rather than reactive, service. This approach will continue to require outreach efforts by the OCHCO staff to all levels of management and training for management on HC processes and the need for cooperation to recruit and retain the highest caliber employees.
2. **Hiring Reforms** – Improve quality not just efficiency. The key is transitioning from a process viewed by hiring managers as confusing, painful, and bottlenecked by bureaucracy to one that is more easily understood, simpler to navigate, and more effective in producing the desired results – while remaining in compliance with law.
 - a. General Schedule (GS)
 - o Goal is 80 days average time to hire (on-board) vice a baseline of 174 days in FY 2009. The FY 2012 average time to hire was 86 days.
 - o Continue to implement the hiring reforms of the President by simplifying, streamlining, and standardizing General Schedule (GS) hiring processes
 - b. Senior Executive Service (SES)
 - o Goal is 150 days average time to hire (on-board) vice baseline levels of 250 days in FY 2011 and 241 days in FY 2012.
 - o Continue to implement the executive hiring reforms of the President’s Management Council (PMC) and the President’s Management Advisory Board (PMAB) by simplifying, streamlining, and standardizing Senior Executive Service (SES) hiring processes
3. **Human Resources Information Technology Systems** – Modernize systems for greater efficiency and effectiveness at significant cost savings
 - o Learning Management System – moving system to a cloud computing environment
 - o Corporate Human Resources Information System – decide on moving to a shared service center model (known as HR Line of Business) or keeping service delivery and system management within the Department.
4. **Innovations in Recruitment** – Leverage technology and social media to increase effectiveness and reduce costs of recruitment efforts while attracting the best quality candidates
 - o Continue to innovate uses of social media and other cost effective recruitment strategies
 - o Implement new Federal Pathways Program to replace Federal Career Intern Program (FCIP)
 - o Further consolidate multiple recruitment websites into the single DOE Jobs One Portal website

5. **Continual Learning Program** – Potential ‘game changer’ towards achieving DOE Performance-Based Culture
 - Continue to deliver and refine the Leadership Learning Module (formerly “Rules of Thumb”) to help “Improve Mission Execution” by senior leaders throughout the complex
 - Further promote blended, virtual approaches to formal and informal learning, knowledge capture/transfer, and career development.
6. **Improved Use of Human Capital Metrics** – Continue to partner with the Performance Improvement Officer and the Associate Deputy Secretary to refine the use of human capital data and thereby improve decision support on issues related to human capital management
 - Refine human capital contributions to the Deputy Secretary’s Business Quarterly Review process, which is a requirement of the GPRA Modernization Act of 2010 for a more efficient, effective and accountable government
 - Implement a communications strategy that supports Under Secretaries and their organizations with similar data-driven, trends analyses and recommendations for leading and managing the workforce

Policy Priorities

1. **Strategic Partner** – Become a Strategic Partner in Human Capital Management for all of our customers by delivering timely, effective, and innovative policies that still comply with statute.
2. **HR Accountability** – Maintain and improve a comprehensive Human Capital Management Accountability Program that supports the following outcomes:
 - reduces the risk of DOE losing any of its personnel authorities
 - holds managers and servicing human resources staffs accountable for compliance with applicable laws, regulations and other directives
 - ensure that Human Resource Directors’ position descriptions and classifications, selections and performance plans and evaluations are appropriate, result in quality leadership and are consistent with audit findings
3. **DOE Strategic Plan** – achieving alignment with and making progress on the elements of the DOE Strategic Plan pertaining to human capital management (Management and Operational Excellence)
4. **DOE Performance-Based Culture** – the real-time reporting of compliance (and non-compliance) with employee performance management deadlines using the ePerformance system is a relatively new process (second year of implementation) for the Department. DOE organizations have started to improve their adherence to the frequency and timeliness of progress reviews; however, data indicates that the Department must continue to improve the quality and effectiveness of such reviews. At stake is a key element to the successful implementation of the Performance-Based Culture called for in the DOE Strategic Plan

CHCO KEY PERSONNEL

- Sara Bonilla – Deputy Chief Human Capital Officer
- Kenneth Venuto – Director, Human Capital Management

Chief Information Officer

Number of Federal Employees ≈ 129 FY 2013 Budget Request ≈ \$90 Million Headed by: Career Employee
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The Office of the Chief Information Officer (OCIO) leads the management of information technology (IT) for the Department; ensuring that the entire Department takes full advantage of IT as the office carries out its missions, at the lowest cost, in an energy efficient way, and effectively protecting its IT systems and information. It oversees a comprehensive, Department-wide IT management program that ensures that IT resources are acquired, managed, secured, and disposed of in a manner that supports DOE missions. This includes defining clear roles, responsibilities, and accountability for effective line management oversight of both federal and contractor organizations, as well as providing the backbone for a safe and secure IT environment. To achieve mission goals, the OCIO builds, modernizes and maintains components of the Department's headquarters IT infrastructure and promulgates strong cyber security policies to the entire Department to provide risk-based approaches to protect Departmental IT systems, resources and processes. The OCIO also supports the Department's efforts to implement a fully integrated resource acquisition and management strategy that leverages opportunities for cost savings, supports mission needs and postures the Department for continuous business process improvement. To ensure that the OCIO's workforce is capable of meeting the challenges of the 21st Century, the OCIO focuses on attracting, motivating and retaining a highly skilled and diverse workforce.

Mission and Goals

To enable the Department's urgent missions in energy, science and nuclear security through the power of information and technology, in a manner that balances risk with required outcomes in programs that span from open science available to the user community beyond DOE employees and contractors, to national security efforts that require the most powerful information protection for sensitive nuclear technology.

The strategic goals of the OCIO are to:

- Leverage existing information technology and expertise to maximize mission accomplishment and reduce costs.
- Identify and foster new and emerging information technology to maximize mission accomplishment and reduce costs.
- Provide Departmental IT governance, policy and oversight processes to ensure secure, efficient and cost effective use of resources.
- Strengthen enterprise situational awareness to foster near-real-time risk management and combat the advance persistent threat; forge interagency and sector partnerships to protect critical infrastructure, promote information sharing and advance technologies for cyber defenses.

The OCIO also works to empower the worker to increase productivity whether in the office or working remotely; facilitates collaboration within DOE; and develops and maintains interagency partnerships.

OCIO UPCOMING CRITICAL ISSUES/EVENTS

- Implementation of DOE's IT modernization strategy to unify the Federal IT environment. This includes deploying a comprehensive technical architecture and transitioning the Office of the CIO to be the Program, Staff, and Field Office's managing partner for shared IT services. Near term milestones and deliverables include:
 - Deploy Infrastructure-On-Demand broker and YourCloud infrastructure. Sep-2013

- Deploy Virtual Desktop Infrastructure (VDI) production environment to support 2000 users. Sep-2013
 - Deploy enterprise IT Service Management (ITSM) tool, ServiceNow, in the cloud. Feb-2013
 - Enable DOE wide area network capability in support of the OneNNSA Network Enterprise communications. Mar-2013
 - Migrate eCPIC to a GSA-provided shared service in the cloud. Dec-2012
 - Deploy Cloud-based Enterprise Email solution. Jun-2013
 - Migrate PKI to Entrust cloud-based Shared Service Provider. Jun-2013
 - Complete DOE review of Energy Savings Performance Contract (ESPC) Phase 1 Investment Grade Audit (IGA). Progress: DOE convened review board to assess IGA and provide recommendation to OCIO and MA senior management for approval. Nov-2012
- Maturing DOE’s cybersecurity risk management program to include policies, procedures, and protocols for Information & Communications Technology (ICT) supply chain risk management.
 - Full implementation of the Joint Cybersecurity Coordination Center (JC3) , a critical component of DOE cyber program which will consolidate disparate incident management capabilities, while providing for all-to-all cyber threat information sharing across DOE and in support of DOE's HSPD-7 responsibilities, and becoming the focal point for external communications on cyber events.
 - Execution of advanced enterprise cyber services such as the DOE Enhanced Cybersecurity Services (DEX) program which provides, in partnership with DHS, advanced, active defenses based on specialized information provided by DOD to DOE sites that subscribe to the service.
 - Expansion of the DOE Cyber Sciences Laboratory (CSL) which will be the Nation’s premier “virtual” laboratory performing long-term, transformative, and impactful R&D in support of DOE, NNSA, and National priorities. The CSL directly complements ongoing Government-funded Cybersecurity R&D activities, more efficiently and effectively supports the DOE missions, and enables revolutionary advances in the cyber sciences in support of the Federal Cybersecurity R&D strategies and policies.
 - Continuing directives reform to streamline requirements and align with existing government, national and industry standards where possible. This includes directives on Cybersecurity Incident Response, Records Management, Information Technology Management, Information Technology Project Management, and Identity Credentialing and Access Management (ICAM)

OCIO KEY PERSONNEL

- Robert Brese, Chief Information Officer (CIO)
- Vacant, Deputy CIO
- Sarah L. Gamage, Associate CIO for IT Corporate Management
- Theanne Gordon, Associate CIO for IT Planning, Architecture and eGovernment
- Gil Vega, Associate CIO for Cyber Security and Chief Information Security Officer
- Donald Adcock, Associate CIO for Energy IT Services
- Peter Tseronis, Chief Technology Officer
- David Jarrell, Chief Operating Officer
- Rick Lauderdale, Chief Architect

Congressional and Intergovernmental Affairs

Number of Federal Employees ≈ 27 FY 2013 Budget Request ≈ \$4 Million Headed by: Political Appointee
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The Office of Congressional and Intergovernmental Affairs (CI) leads the Department's relations with Members of Congress and with Governors of the 50 States and the U.S. Territories and with sovereign Tribal Nations.

CI works with the Secretary and senior Department officials to develop policy and outreach strategies to explain and encourage support within the Congress and among Governors for the Department's goals and missions. CI monitors legislation, articulates the Department's views to Members and key Committee staff and supports the Secretarial Officers in their Congressional hearings and meetings. CI also manages ongoing, interactive communication with Governors and Tribal leaders and assures that their views and concerns are appropriately represented in the Department's policy and program deliberations.

CI UPCOMING CRITICAL ISSUES/EVENTS

- FY 2013 Budget Rollout
- Key Congressional Hearings
- Congressional interest is expected in the following areas, addressed in more detail in Section 2, Upcoming Critical Issues:
 - Nuclear Waste Management
 - NNSA Governance and Facilities Moderation
 - PMA Grid Modernization
 - DOE Complex Security Issues
 - Environmental Management and Remediation
 - Advanced Computing
 - Carbon Capture and Storage
 - Future of High Energy Physics

CI KEY PERSONNEL

- Jeff Lane, Assistant Secretary
- Brad Crowell, Principal Deputy Assistant Secretary
- Chris Davis, Deputy Assistant Secretary for Congressional Affairs
- Clyde Henderson, Deputy Assistant Secretary for Intergovernmental Affairs
- Shari Davenport, Chief Operating Officer

Economic Impact and Diversity

Number of Federal Employees ≈ 33 FY 2013 Budget Request ≈ \$7.5 Million Headed by: Political Appointee
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The mission of the Office of Economic Impact and Diversity (ED) is to develop and execute Department-wide policies to implement applicable legislation and executive orders that strengthen diversity and inclusion goals affecting equal employment opportunities, small and disadvantaged businesses, minority educational institutions and historically under-represented communities.

The goal of ED is to identify and implement ways of ensuring that everyone is afforded an opportunity to participate fully in the Department of Energy's programs, opportunities and resources.

- Develops and administers the Departments efforts in partnering with students and programs at minority serving institutions, as well as other minority-owned and serving entities;
- Develops and administers efforts to increasing contracting opportunities for small and disadvantaged businesses through Departmental contracts and subcontracts;
- Advocate for equal employment opportunities, civil rights concerns and non-discriminatory practices;
- Create and sustain a high-performing inclusive workforce by leveraging diversity; and
- Through the Office of the Ombudsman, promotes early identification and resolution of issues in order to encourage the morale and productivity of the Department's federal workforce.

ED UPCOMING CRITICAL ISSUES/EVENTS

- Enhance Department's small and disadvantaged business policies in order to meet agency goals.
- Implement Department's Diversity and Inclusion 2012-2015 Strategic Plan.

ED KEY PERSONNEL

- Dot Harris, Director, Office of Economic Impact and Diversity
- Bill Valdez, Principal Deputy Director, Office of Economic Impact and Diversity
- Clay Middleton, Special Advisor, Office of Economic Impact and Diversity
- Annie Whatley, Deputy Director, Office of Minority Economic Impact
- John Hale III, Deputy Director, Office of Small and Disadvantage Business Utilization
- Neil Schuldenfrei, Acting Deputy Director, Office of Civil Rights
- Michael Colbert, Deputy Director, Office of Diversity and Inclusion
- Rita Franklin, Ombudsman, Office of the Ombudsman

General Counsel

Number of Federal Employees ≈ 189 (44 funded by other programs) FY 2013 Budget Request ≈ \$33 Million Headed by: Political Appointee

The Office of the General Counsel (GC) is responsible for providing comprehensive legal services to the Secretary, Deputy Secretary and all Departmental elements, except the Federal Energy Regulatory Commission (FERC), and for effectively representing the Department as counsel before Federal, State and other governmental agencies and (with the Department of Justice) courts. These services are intended to advance the missions and objectives of the Department through advice, negotiation, dispute resolution, rulemaking, legislation and, when necessary, litigation. GC is organized so as to provide each Departmental element (Fossil Energy, Science, etc.) with “program counsel” specifically skilled in its unique issues. Separate elements of GC provide specialized legal expertise for issues that affect many program offices, such as procurement, fiscal, regulatory and environmental law. As mandated by statute, the National Nuclear Security Administration has its own General Counsel. Two program offices, ARPA-E and the Loan Programs Office, have counsel that are part of those offices; however, the Chief Counsels of those offices report to the General Counsel for professional and performance purposes.

In addition to serving as program counsel to the program offices, GC performs special Department-wide responsibilities including:

- Administration of the Department’s ethics program;
- Liaison with the Office of the Federal Register for the publication of all notices in the daily Federal Register;
- Coordination with the Office of Information and Regulatory Affairs in OMB with regard to clearance of DOE rulemaking notices;
- Coordination with OMB with regard to clearance of, and comments on, legislative proposals;
- Establishing property rights in and licensing of intellectual property owned by DOE, resolving claims of patent and copyright infringement, and granting of all patent waivers, which determine contractor ownership of new inventions;
- Enforcing the energy conservation standards and associated regulations for consumer products and commercial equipment
- Programmatic responsibility for contractor labor standards and contractor labor relations issues across the Department;
- Managing standard used fuel disposal contracts between the Government and nuclear utilities under the Nuclear Waste Policy Act, including contract administration, administration of the settlements resulting from litigation over the government’s delay in performing under the contracts, management of the Nuclear Waste Fund, assessing the adequacy of the nuclear waste disposal fee and verifying the accuracy of fee payments received from utilities pursuant to these standard contracts;
- Providing policy, guidance, technical assistance and oversight to assure that DOE’s proposed actions comply with the National Environmental Policy Act and related environmental review requirements;
- Managing and directing the litigation of bid protests involving headquarters and field contract actions before the Government Accountability Office; and
- Acting on administrative claims filed pursuant to the Federal Tort Claims Act.

GC UPCOMING CRITICAL ISSUES/EVENTS

- Fee Adequacy Review: By January 18, 2013, the Department must complete a new evaluation of the adequacy of the Nuclear Waste Fund fee (paid by nuclear utilities to cover the costs of DOE's commercial waste disposal program) that complies with the decision by the D.C. Circuit Court of Appeals in *NARUC v. DOE* (June 1, 2012).
- In conjunction with the Department of Justice, DOE is defending litigation in the Court of Federal Claims relating to Yucca Mountain, including breach of contract actions brought by utilities based on the Department's inability to start disposing of their used nuclear fuel and high level waste due to the absence of a repository. Approximately 52 such breach of contract cases have been resolved and more than 30 remain pending.
- NEPA Document Completion: Senior management attention is needed to ensure timely issuance of key environmental impact statements (EISs), including the Greater-Than-Class C Waste Disposal Final EIS, Uranium Leasing Program Draft EIS, and Surplus Plutonium Disposition Supplemental Final EIS.
- Hanford Waste Treatment Plant -- On-going discussions and negotiations with the States of Washington and Oregon regarding compliance with the Consent Decree milestones associated with the Waste Treatment and Immobilization Project.
- Separations Process Research Unit (SPRU) -- EPA brought an enforcement action against DOE/Naval Reactors for violations of the Clean Air Act's air pollution standards for radioactive materials. DOE/Naval Reactors negotiated and executed a compliance order under which it is now cleaning up parts of the site. EPA has sought \$720,000 in fines and penalties. DOE is in the process of deciding to negotiate or challenge the fines and penalties.
- Tecom Legal Guidance. -- Preparing legal guidance on the applicability of the case of *Geran v. Tecom* to the Department's management and operating contracts. The *Tecom* case created a new standard of cost allowability with regard to the costs of proposed settlements associated with discrimination cases. The legal guidance will address the breadth of the discrimination-based causes of action implicated by the *Tecom* decision.
- DOE has been engaged in an effort to narrow and settle literally hundreds of cases in the Hanford "downwinders" litigation involving claims against former site contractors at DOE's Hanford site based on emissions of radioactive materials during plant operations in the 1940s and 1950s.
- In the *Cook* Rocky Flats class action involving a lawsuit against DOE's former contractors at Rocky Flats brought on behalf of local property owners alleging that releases of radioactive materials diminished their property values, the court of appeals reversed the trial court's nearly \$1 billion judgment in favor of the plaintiffs, and remanded the case to the district court with instructions to vacate the judgment and class certification order. The Supreme Court denied the plaintiffs' petition for a writ of certiorari on June 25, 2012, and the case has now returned to the district court for further proceedings consistent with the court of appeals' decision.
- In *American Public Gas Association v. DOE* (D.C. Cir), a case in which the petitioner challenges a direct final rule setting energy conservation standards for residential furnaces, the court has assigned a mediator to the matter and the parties will be engaged in mediation proceedings attempting to reach a resolution of the involved issues.
- Implement patent policies to address the changes in the U.S. patent system under the Leahy-Smith America Invents Act. In March 2013, the U.S. patent system switches to a first-to-file

system. The Department needs to finalize and implement any new patent prosecution policies within DOE and at the Labs that would affect pending invention disclosures, as well as ones DOE receives in the future.

GC KEY PERSONNEL

- Gregory H. Woods, General Counsel
- Eric J. Fygi, Deputy General Counsel

Health, Safety and Security

Number of Federal Employees: 350 FY 2013 Budget Request: \$245.5 Million Headed by: Career Employee

The Office of Health, Safety and Security (HSS) is responsible for providing corporate-level leadership and strategic vision to coordinate and integrate health, safety, environment and security programs throughout the Department. Working in partnership with site management, workers and other stakeholders, HSS maintains the expertise to develop and maintain safety and security policy, requirements and guidance; provide technical assistance, training and analysis; coordinate corporate-wide health, safety and security programs; and conduct rigorous independent oversight and regulatory required enforcement programs. The Chief Health, Safety and Security Officer reports directly to the Deputy Secretary and advises the Secretary and Deputy Secretary on all matters related to health, safety and security across the complex.

HSS UPCOMING CRITICAL ISSUES/EVENTS

The following bullets describe high-visibility critical decisions points and events:

- **Security Activities.** In response to the security breach at the Y-12 National Security Complex (Y-12), HSS conducted a comprehensive Independent Oversight security inspection at Y-12, including force-on-force performance testing. In collaboration with DOE Program Offices, HSS developed a schedule to conduct comprehensive Independent Oversight safeguards and security inspections at all DOE Category I Special Nuclear Material (SNM) sites by October 2013. Additionally, HSS is scheduled to conduct safeguards and security implementation reviews at all DOE Category I SNM sites by the end of December 2012 to determine whether issues identified at Y-12 are present at other DOE Category I SNM sites.
- **Safety Culture Reviews.** In January 2012, HSS published an Independent Oversight assessment of nuclear safety culture and management of nuclear safety concerns at the Hanford Site Waste Treatment and Immobilization Plant (WTP), a follow-up to the October 2010 HSS review of the WTP nuclear safety culture. As a result of this review and in response to a related Defense Nuclear Facilities Safety Board recommendation, HSS is scheduled to complete nuclear safety culture extent of condition reviews of similar nuclear facility construction projects and other nuclear operations by the end of December 2012 to determine if the safety culture issues identified at the WTP exist elsewhere within the Department.
- **Nuclear Construction Project Management Reviews.** Pursuant to a Congressional request within the Conference Report accompanying FY 2012 appropriations legislation, HSS conducted reviews of five nuclear facility construction projects, each with estimated total project costs in excess of one billion dollars, to determine whether they were being managed in a way that could pressure managers or contractors to meet project performance objectives at the expense of adherence to nuclear safety requirements. The results were published in a report to Congress in 2012. HSS will continue nuclear safety oversight reviews of high-hazard nuclear facility construction projects as directed in the FY 2012 Congressional Appropriation.
- **Fukushima Daiichi Nuclear Disaster Response.** As a follow-up to the actions and activities conducted in FY 2011, in FY 2012 HSS completed near term nuclear safety improvement actions identified in the report *Review of Requirements and Capabilities for Analyzing and Responding to Beyond Design Basis Events*. By the end of December 2012, HSS is scheduled to complete all nuclear safety improvement actions identified in the report.

HSS KEY PERSONNEL

- Glenn S. Podonsky, Chief Health, Safety, and Security Officer
- William A. Eckroade, Principal Deputy Chief for Mission Support Operations
- Dae Y. Chung, Principal Deputy Chief for Nuclear Safety and Technical Matters
- Lesley A. Gasperow, Principal Deputy Chief for Corporate Functions

Hearings and Appeals

Number of Federal Employees ≈ 21 FY 2013 Budget Request ≈ \$4.1Million Headed by: Career Employee

The Office of Hearings and Appeals (HG) is the quasi-judicial arm of DOE for conducting hearings and issuing initial Departmental decisions with respect to adjudicative proceedings which the Secretary has delegated to HG. Specifically, HG conducts security clearance eligibility and whistleblower hearings, and adjudicates appeals of Freedom of Information Act (FOIA) and other determinations reached by DOE officials. In addition, HG rules upon applications for exception and petitions for special redress filed by firms seeking relief from generally applicable requirements of a DOE rule, regulation or order.

HG conducts hearings and issues decisions under 10 CFR Parts 710 and 712. Both Parts 710 and 712 determine who may handle classified or nuclear material, or have access to nuclear facilities. HG exercises a similar role in promoting environmental responsibility. Under 10 CFR Part 708, HG investigates complaints, conducts hearings and considers appeals filed by contractor employees (“whistleblowers”) who claim reprisal as a result of making a protected disclosure (e.g., reporting a matter related to public health and safety). HG promotes overall management excellence by virtue of its delegated authority to consider various appeals, applications and petitions, filed by individuals and firms seeking redress from DOE actions, orders, rules and regulations.

In addition, HG administers the Department’s conflict prevention and alternative dispute resolution (ADR) programs. In this regard, HG provides ADR training to diffuse potential conflicts at the earliest stage and conducts mediations and fact-findings with regard to matters already in dispute. HG also supports and helps coordinate the work of the Technology Transfer Ombudsman, a position created to help prevent and resolve barriers to technology transfer of DOE’s scientific discoveries to private commercial application.

HG UPCOMING CRITICAL ISSUES/EVENTS

The following bullets describe high-visibility critical decisions points and events:

- None to report. While HG undertakes high-visibility critical issues and events in the discharge of its adjudicatory function, these issues and events cannot be forecast with any degree of certainty.

HG KEY PERSONNEL

- Poli Marmolejos, Director
- Fred Brown, Deputy Director

Inspector General

Number of Federal Employees ≈ 279 FY 2013 Budget Request ≈ \$43.4 Million Headed by: Political Appointee
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The mission of the Office of the Inspector General (IG) is to promote the effective, efficient and economical operation of the Department's programs through audits, investigations, inspections and other reviews to detect and prevent waste, fraud, abuse and violations of law.

Operating independently under the Inspector General Act of 1978, the IG has the following responsibilities and functions:

- Conduct audits, investigations and inspections to prevent and detect fraud and abuse in Department, National Nuclear Security Administration and Federal Energy Regulatory Commission programs and operations;
- Monitor and provide oversight related to the Department's expenditure of American Recovery and Reinvestment Act (Recovery Act) funds;
- Keep the Secretary of Energy and Congress informed of findings concerning fraud and other serious problems, abuses and deficiencies relating to the administration of Department programs and operations;
- Develop recommendations to remedy these problems;
- Receive and investigate complaints from employees regarding mismanagement, abuse of authority, danger to public health and safety or violations of law, rules or regulations;
- Investigate Whistleblower complaints from employees reporting waste, fraud or abuse connected to the use of Recovery Act funds;
- Conduct, supervise and coordinate relationships between the Department and other Federal, state and local agencies concerning the identification and prosecution of criminal and civil violations of law; and,
- Review and comment upon legislation and regulations relating to Department programs and make recommendations concerning the impact of such legislation or regulations on Departmental economy and efficiency.

As such, the Office of Inspector General's goal is to operate a robust review program and provide timely performance information and recommendations to improve the Department's programs and operations.

IG UPCOMING CRITICAL ISSUES/EVENTS

The following bullets describe high-visibility critical decisions points and events:

- Special Report on Management Challenges at the Department of Energy – a list of current significant management challenges facing the Department. 2013

IG KEY PERSONNEL

- Gregory H. Friedman, Inspector General
- Rickey R. Hass, Deputy Inspector General for Audits and Inspections
- John R. Hartman, Deputy Inspector General for Investigations
- Linda J. Snider, Deputy Inspector General for Management and Administration

Intelligence and Counterintelligence

Number of Federal Employees \approx 199 FY 2013 Budget Request: Classified Headed by: Career Employee (with concurrence of the Director of National Intelligence (DNI))

The Department is a member of the U.S. Intelligence Community (IC) and is represented in the IC by the Office of Intelligence and Counterintelligence (IN). IN supports the national security missions of the Department by providing the Secretary, the Secretary's staff and other DOE and U.S. Government (USG) policymakers with timely, technically-based intelligence analyses of foreign nuclear/terrorist activities, and the disposition and security of nuclear materials worldwide.

As an important complement to these national security missions, IN also plays a central role in the protection of the entire DOE complex from cyber threats. Furthermore, IN provides critical support to the Department's goals in energy technologies and science and engineering, through analyses of strategic science and technology (S&T) surprise and global energy security issues.

IN protects the Department's personnel, technologies, facilities and intellectual property from foreign penetration through a comprehensive Counterintelligence program designed to impose risk and consequence on the nation's adversaries, to include foreign intelligence services, terrorist and transnational criminal organizations and malicious insiders. Counterintelligence awareness and education within the DOE complex is an important element of this program. In coordination with OCIO, IN has led the Department's response to recently heightened cyber threats, and has provided counsel to leadership on cyber research, security and policy.

DOE's nationwide complex of laboratories and plants is a vital resource for addressing national security challenges, both within DOE and beyond. IN's reimbursable Intelligence Work (IW) Program matches the needs of various U.S. Government organizations with the capabilities and expertise of the Department's world class scientists and engineers by producing highly specialized solutions to the toughest national security technical challenges. The total volume of IW and the customer base is classified, but it is quite a bit larger than IN's appropriated budget, and it represents a very sizable portion of the total reimbursable work performed in the Department's laboratory complex.

The Department is increasingly recognized as a key player in the IC. Within the IC, the executive branch and the Congress, IN is valued for its expertise in all things nuclear, energy, science and technology and cyber.

UPCOMING CRITICAL ISSUES/EVENTS

IN recommends classified briefings on the following issues, in the first calendar quarter of 2013:

1. Espionage threat to the DOE Complex.
2. Foreign nuclear developments.
3. Foreign energy-related developments.
4. Cyber issues (possibly a joint briefing with OCIO).

Internal Management:

- IN-1 position.

Legal:

- FNCR EO12333/privacy matters.

Infrastructure:

- SCIF management across the complex.
- SCI clearances.

IN KEY PERSONNEL

- Edward Bruce Held, Director
- Steven K. Black, Principal Deputy Director
- John Gerrard, Deputy Director for Intelligence Analysis
- Charles Durant, Deputy Director for Counterintelligence
- Tom Woods, Deputy Director for Cyber Intelligence

Management

Number of Federal Employees ≈ 259 FY 2013 Budget Request ≈ \$53 Million Headed by: Career Employee
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The Office of Management's (MA) primary functions include policy development and oversight for the Department's \$81.4 billion project management portfolio, approximately \$25 billion in annual procurement obligations, \$85 billion real property inventory and \$74 million for the aviation fleet. MA also provides procurement services to DOE headquarters organizations. Administrative functions include the management of headquarters facilities, executive correspondence control, Secretarial scheduling and advance, management of Departmental directives, and the delivery of other services critical to the Department. MA also fulfills the statutory responsibilities of the Chief Freedom of Information Officer, Chief Acquisition Officer, and the Department's Senior Procurement Executive.

The following offices are under the MA administrative umbrella:

- Office of Acquisition and Project Management (APM): The mission of APM is to provide corporate oversight, managerial leadership and assist in the development and implementation of Department of Energy (DOE) wide policies, procedures, programs, and management systems pertaining to procurement and financial assistance, property management, contract and project management, professional development, and related activities to provide procurement services to Headquarters elements.
- Office of Administration: The mission of the Office of Administration is to provide to Headquarters employees the most expeditious and efficient administrative services, including a variety of facilities and logistics services, in a safe and healthy environment and to achieve the highest possible customer satisfaction in accordance with Federal Management Regulations.
- Office of Information Resources: The mission of the Office of Information Resources is to develop and oversee implementation of policies and procedures for processing directives and Freedom of Information Act (FOIA) requests.
- Office of Aviation Management: The Office of Aviation Management's mission is to establish aviation policies, aviation program oversight, and program management that ensure the delivery of effective, efficient, secure and safe aviation services to support accomplishment of the Department's programmatic goals and objectives. The Department's aviation fleet includes 24 aircraft valued at \$74.4 million.
- Office of the Executive Secretariat: The mission of the Office of Executive Secretariat is to provide direct support to the Secretary, Deputy Secretary, Under Secretaries, and the Heads of Departmental Elements to ensure timely and coordinated responses to correspondence, Congressionally-mandated reports, and legislative requirements. The Secretariat uses its electronic document tracking and reporting systems to monitor the flow of critical documents and executive commitments, to gather statistical data, and to share pertinent information with Departmental principals.
- Office of Scheduling: The mission of the Office of Scheduling is to manage the official calendar for the Secretary of Energy and to provide support for all official travel by the Secretary and Deputy Secretary of Energy, both foreign and domestic.

MA UPCOMING CRITICAL ISSUES/EVENTS

- Forrestal Re-development - The GSA plans to issue a Request for Information in early October for private-sector parties to identify opportunities to re-develop multiple GSA properties in the SW area to meet federal office space needs. The Forrestal Building is being studied by the GSA for redevelopment as part of this effort. The current plan would completely demolish the Department of Energy's James Forrestal building, replacing it with a smaller structure and thus a much reduced square foot per person office space. Replacement will be disruptive and DOE must closely engage so any new facilities solutions fully support mission requirements, including location of the replacement facility (remain on Independence Avenue) and incorporate energy efficient technology.
- Upcoming Energy Systems Acquisition Advisory Board (ESAAB) - ESAAB members advise the Senior Acquisition Executive based on their various functional organizational perspectives on Critical Decisions related to Major System Projects and Performance Baseline deviation dispositions. There are four potential ESAAB meetings during the remainder of FY2013 including:
 - Waste Treatment Plant (WTP) – baseline change proposal (date to be determined)
 - Salt Waste Processing Facility (SWPF) – baseline change proposal (December 2012)
 - Mixed Oxide Fuel Fabrication Facility (MOX) – baseline change proposal (February 2013)
 - Uranium Processing Facility (UPF) – Critical Decision 1(CD-1) alternative selection and cost range reaffirmation (September 2013)
- Major contract awards expected during the remainder of FY2013 –
 - Pantex/Y-12 combined contract
 - Strategic Petroleum Reserve Office Management & Operating contract
 - Paducah Gaseous Diffusion Plant contract
 - National Energy Technology Laboratory Support Service contract
 - Chief Financial Office iManage Support Service contract (HQ)

MA KEY PERSONNEL

- Director, Ingrid Kolb
- Chief of Staff, Laurie Morman
- Director, Acquisition and Project Management/Senior Procurement Executive, Paul Bosco
- Director, Administration, Peter O’Konski
- Director, Information Resources, Kevin Hagerty
- Director, Aviation Management, Glen Wattman
- Director (Acting), Executive Secretariat, Carol Matthews
- Director, Scheduling, Tony Rediger

Number of Federal Employees ≈ 106 FY 2013 Budget Request ≈ \$29 Million Headed by: Political Appointee
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Policy and International Affairs

The Office of Policy and International Affairs (PI) delivers advice to the Department's leadership on existing and prospective energy-related policies, based on integrated and well-founded data and analysis. PI has primary responsibility for the Department's international energy activities including international emergency management, national and energy security and international cooperation in science and technology. PI has primary responsibility for coordinating the efforts of diverse elements in the Department to ensure a unified voice in policy and international affairs. PI works closely with organizational elements within the Department, other Federal agencies, the White House, national and international organizations and institutions and the private sector to coordinate and align national energy policy and international energy policy, activities and agreements, including those related to energy technology exports. PI coordinates DOE initiatives on climate change impacts and mitigation, including greenhouse gas reduction activities, and serves as the Secretariat for, and leads multiple initiatives in, the Clean Energy Ministerial (CEM). PI has the DOE lead for carrying out the U.S.-China Clean Energy Research Center, a five-year bilateral initiative of joint research on clean vehicles, advanced coal technology and clean vehicles. PI is also the steward of key bilateral dialogues, supporting the leadership of the Secretary and Deputy Secretary in engagements with countries such as Brazil, the Russian Federation, Kazakhstan, Korea, Japan, South Africa and Canada.

The Assistant Secretary for PI is the primary policy advisor to the Secretary, Deputy Secretary and Under Secretary on domestic and international policy analysis, development, evaluation and implementation. PI provides Departmental leadership strategies to implement national energy policy. PI represents the Department and the United States Government in interagency processes, intergovernmental forums and bilateral and multilateral proceedings that address matters relating to the development and implementation of national and international energy policies, strategies and objectives.

PI UPCOMING CRITICAL ISSUES/EVENTS

- 44th and 45th APEC Energy Working Group meetings, November 2012 and March 2013
- U.S.-Brazil Strategic Energy Dialogue, November 2012
- U.S.-EU Energy Council meeting, Brussels, November 2012
- U.S.-Japan Clean Energy Dialogue, December 2012
- U.S.-Korea Energy Policy Dialogue, December 2012
- International Energy Agency Governing Board meeting, December 2012
- US-Canada Fall Forum - December 2012.
- U.S.-Australia High Level Group on Energy Cooperation and Innovation, January 2013
- Near Zero Zone- Technical Workshops January 2013
- CEM4 Preparatory Meeting in Seoul, Korea on January 2013
- DOE will be asked to comment on a Supplemental Environmental Impact Statement for the permit application by TransCanada to build an oil pipeline (early 2013)
- The Secretary of Energy will be asked by the Secretary of State for DOE's views on whether it would be in the national interest to grant permission to TransCanada to construct the Keystone XL pipeline from Canada into the U.S.(2013).
- Plenary meeting of the U.S.-Russia Energy Working Group (S1) Early 2013
- Iraq JCC January 2013
- ECPA Ministerial - First Quarter 2013
- Saudi Bilats February 2013

- South Africa Bilats March 2013
- CEM4 in Delhi, India in April 2012 or May 2013.
- Angola Bilats (with State) Spring 2013
- Nigeria Bilats (with State) Spring 2013
- Israel Bilats Summer 2013
- Kazakhstan Bilats Fall 2013
- Implementation of the ITRSHRA provisions (effective Feb 6, 2013) tightening sanctions on Iran (e.g., communicating with oil consuming countries, deciding how to consolidate exceptions, etc.)
- Being prepared to respond with actions that calm oil markets in the event of military actions by and/or between Iran and Israel (e.g., SPR release, IEA collective actions, discussions with major oil producers)

PI KEY PERSONNEL

- David Sandalow, Assistant Secretary for Policy and International Affairs
- Jonathan Elkind, Principal Deputy Assistant Secretary for Policy and International Affairs
- Andrea Lockwood, Deputy Assistant Secretary for the Middle East, Africa and Eurasia
- Dr. Phyllis Yoshida, Deputy Assistant Secretary for Asia, Europe and the Americas
- Dr. Carmen Difiglio, Deputy Assistant Secretary for Policy Analysis
- Lametia Browne, Acting Director, Resource Management Office
- Vacant, Deputy Assistant Secretary for Climate Change Policy and Technology

Public Affairs

Number of Federal Employees ≈ 24 FY 2013 Budget Request ≈ \$3.6 Million Headed by: Political Appointee
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The Office of Public Affairs (PA) communicates information about the Department's work in a timely, accurate and accessible way to the news media and the general public. PA performs critical functions which directly support the mission of the Department and the Secretary.

These functions include:

- Communicating the Departmental message, policies, initiatives and information to the news media and the general public;
- Managing and coordinating public affairs activities for Headquarters, field offices and sites and DOE laboratories;
- Serving as primary spokesperson for the Department;
- Responding to requests for information from the public and the news media;
- Arranging interviews with the news media;
- Providing speechwriting services to the Secretary, Deputy Secretary and Under Secretary;
- Preparing written press releases about Departmental activities and sharing Departmental highlights with the news media and the general public.

PA UPCOMING CRITICAL ISSUES/EVENTS

- Legacy/Emerging Public Affairs Issues -- Briefing senior leadership about "hot topic" public affairs issues that are either legacies from the previous four years or will emerge in 2013.

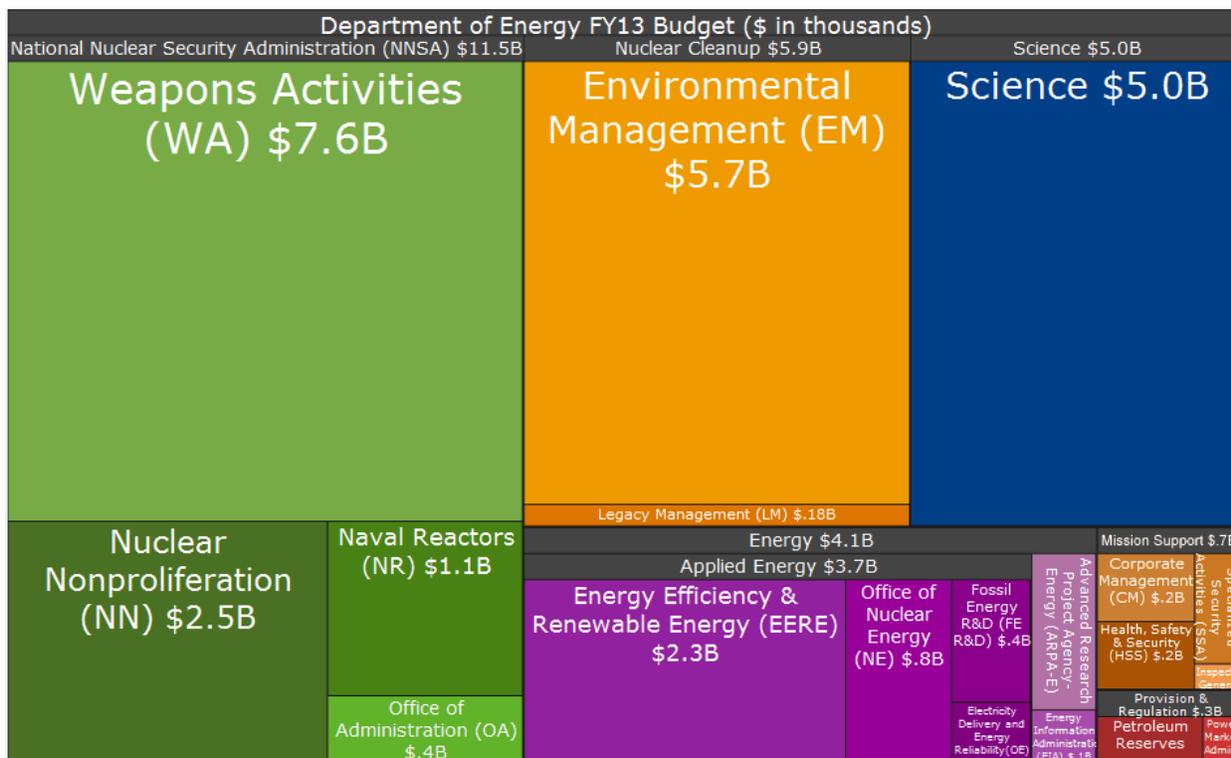
PA KEY PERSONNEL

- Dan Leistikow, Director of Public Affairs
- Damien LaVera, Deputy Director of Public Affairs

SECTION SEVEN

BUDGET OVERVIEW

This section discusses the recent history of the Department’s budget, the Fiscal Year (FY) 2013 budget request, appropriations by state and by national laboratory, and recent funding histories of DOE major initiatives. Included is a discussion of the budget timeline, Continuing Resolution (CR) operations, American Recovery and Reinvestment Act (ARRA) funding status, and DOE assets and liabilities.



The DOE FY 2013 budget request is \$27.2 billion. The Department’s budget is composed of both defense and non-defense discretionary accounts. In the FY 2013 request, defense accounts totaled \$17.8 billion and include funding for the National Nuclear Security Administration, Environmental Management, Health, Safety and Security, Intelligence, and Idaho Safeguards and Security. Non-defense accounts totaled \$9.3 billion and include funding for Science, ARPA-E, the applied energy programs, and Departmental Administration. The chart above shows the relative distribution of DOE’s budget across program areas.

The Department’s budget is appropriated by the House and Senate Energy and Water Development appropriations subcommittees and their associated bills. Adjusted for inflation and leaving out the significant increases enacted in FY 2009 as part of the ARRA, the Department’s appropriated budget has remained relatively flat, averaging \$26.5 billion per year.

Fiscal Year 2013 Budget Request

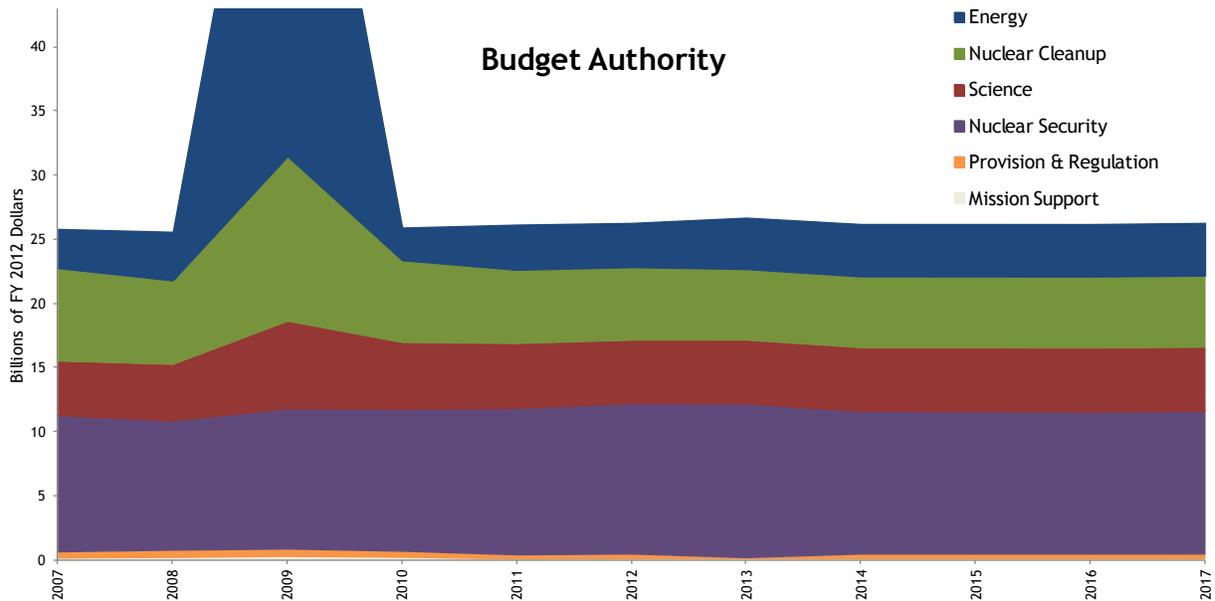
The FY 2013 budget request addresses six broad areas (percent of total):

- Energy: \$4.1 billion (15%)
- Nuclear Cleanup: \$5.9 billion (22%)

- Science: \$5.0 billion (18%)
- Nuclear Security: \$11.2 billion (41%)
- Provision and Regulation: \$0.3 billion (1%)
- Mission Support: \$0.7 billion (3%)

DOE Discretionary Funding: **FY 2013 Request**

FY 2007–2012 (Historical) | FY 2013–2017 (President's FY 2013 Budget)



Energy

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

- \$2.3 billion for developing renewable energy sources and conversion technologies in areas such as hydrogen technology, solar energy, biomass and biorefinery systems, and energy efficient vehicle and building technologies
- \$134 million to modernize the electric grid, enhance the reliability of the energy infrastructure, and facilitate recovery from disruptions to the energy supply
- \$276 million for the development of advanced coal technologies, including cost-effective carbon capture and storage
- \$770 million for nuclear energy activities, including licensing of new nuclear power plants and developing advanced, proliferation-resistant nuclear fuel technologies
- \$350 million for the Advanced Research Projects Agency – Energy (ARPA-E) to identify and promote early-stage research and development projects with the promise to make scientific and technological breakthroughs
- \$116 million for the Energy Information Administration which provides non-partisan energy information, analysis, and forecasting

Nuclear Cleanup

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

- \$5.65 billion to clean up radioactive waste and contamination resulting from defense activities during the Cold War and civilian nuclear activities conducted by the Atomic Energy Commission
- \$178 million to support DOE's long-term stewardship responsibilities of remediated sites and payment of pensions and benefits for former contractor workers after site closure

Science

DOE supports basic research and technological capabilities that underpin the Department's mission areas. The Office of Science FY13 Congressional Request included:

- \$2.2 billion for basic research activities at universities and DOE national laboratories
- \$2.4 billion for operation and construction of state-of-the-art national scientific user facilities including \$150 million for the international ITER project, an experiment to study and demonstrate the scientific and technical feasibility of fusion power
- Additional items totaling \$301 million

Nuclear Security

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

- \$5.3 billion to ensure the operational readiness of the nuclear weapons in the stockpile
- \$2.3 billion for operation, maintenance, and construction of the nuclear weapons complex facilities
- \$920 million for programs to prevent the spread of weapons of mass destruction
- \$1.5 billion to disposition legacy fissile materials and conduct nuclear non-proliferation research and development
- \$1.1 billion for development, operation, and disposal of all naval nuclear reactors
- Additional items totaling \$1 billion

Provision and Regulation

Provision and Regulation includes funding for the Power Marketing Administrations and the nation's petroleum reserves. The request includes:

- \$85 million for the Power Marketing Administrations to promote a diverse supply and delivery of reliable, affordable, and environmentally sound energy
- \$236 million for facility development, operations, and program management activities of the strategic petroleum reserve

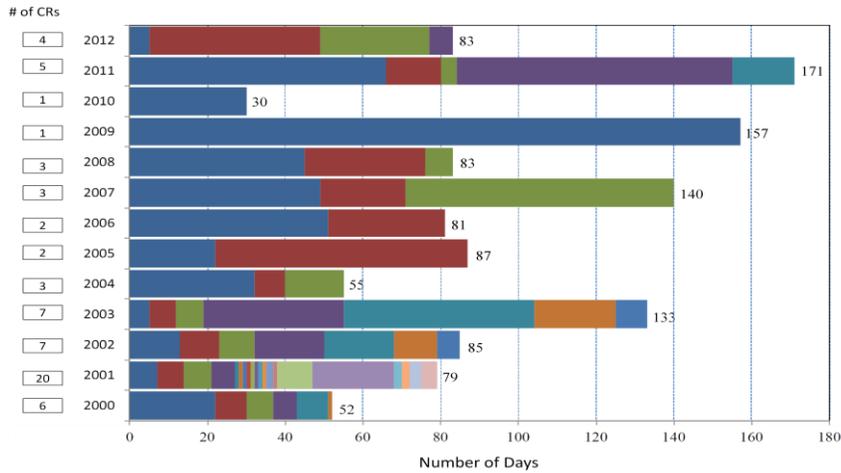
Mission Support

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

- \$246 million for management organizations of the Department
- \$433 million for health, safety, and security of DOE work environments and the surrounding communities
- \$43 million for the activities of the Inspector General to provide independent oversight of DOE management and operations

Operating Under a Continuing Resolution

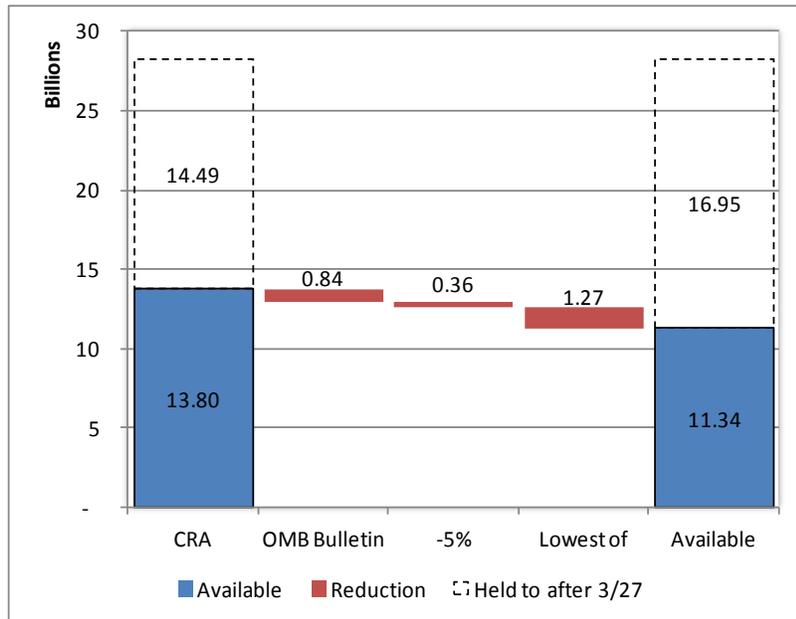
Continuing resolutions (CRs) are a common occurrence and typically affect operations in the first quarter or longer, as seen in the chart below. A CR is an appropriation act that provides budget authority for federal agencies, specific activities, or both to continue in operation when Congress and the President have not completed action on the regular appropriation acts by the beginning of the fiscal year. CRs typically restrict the activities that programs undertake; for instance, new activities cannot be initiated and ongoing activities cannot be terminated under a CR. In addition, CR legislation typically directs government operations to proceed at a minimal rate.



Under the Continuing Resolution signed into law on September 28, 2012, the Department is operating at 40% of the fiscal year 2012 funding level through March 27, 2013. The FY 2012 appropriated budget was \$25.3 billion.

Initially, reductions to the annual rate of spending were made as follows:

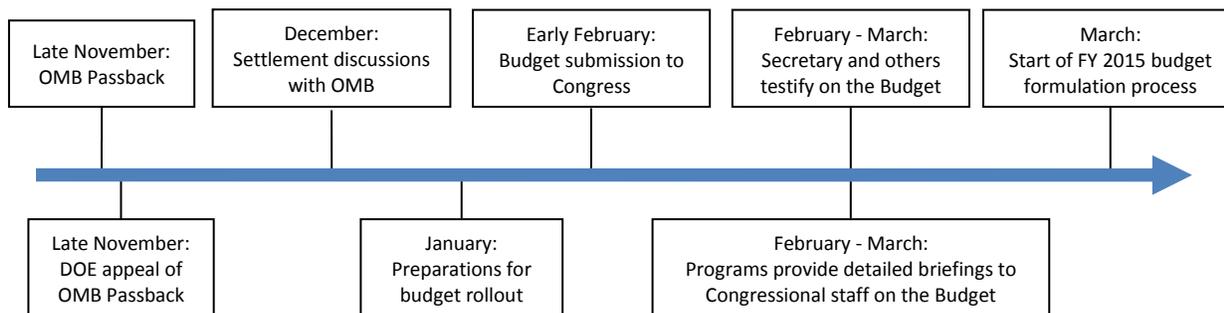
- -51.2% for the 178-day period of the CR, per statute
- -3% for historically low rates of obligations during this time period, per OMB
- -5% for holdback for further potential impacts to funding
- -1.3% to set spending at the activity level to the lower of FY 12 funding, House mark, Senate mark, or historical rate of obligations



The CFO, in cooperation with program offices, has exercised its legal authority to add money back from these last two categories to address significant programmatic shortfalls.

Budget Timeline and Critical Activities

Budget issues are typically high on the agenda from November through March, starting with the Office of Management and Budget's feedback on our annual request, continuing with the delivery of the that request to Congress, and ending with the Secretary's and other senior leaders' appearances before Congressional committees to defend the request. Below is a timeline showing some of the key milestones and deliverables associated with the budget during this period.



OMB Passback:

- DOE submitted its proposed FY 2014 budget to OMB in mid-September.
- OMB provides feedback (“Passback”) typically on the Monday after Thanksgiving
- DOE will have 72 hours to appeal OMB decisions; deliverable typically a letter from the Secretary to the OMB Director outlining priorities and requesting adjustments to specific program funding levels.
- Discussions between the Department and OMB typically go on for another two to three weeks, depending on the issues involved.
- OMB “locks” the budget in the first or second week of January.

Budget Rollout:

- Rollout of the Department’s Congressional Budget Request involves multiple offices within DOE (CF, CI, PA, Secretary, Deputy Secretary, and Under and Assistant Secretaries) and is closely coordinated with White House offices.
- Rollout preparations begin in December at the staff level
- Rollout day is typically the first Monday in February
- Rollout day typically involves a briefing to Congressional staff, presentations to the press and stakeholders by the Secretary, breakout sessions for individual program offices, and a reception.

Congressional Hearings:

- The Secretary testifies on the budget before the following Committees: Senate Energy and Water Appropriations; Senate Energy and Natural Resources; House Energy and Water Appropriations;

House Space, Science, and Technology; House Energy and Commerce; and (sometimes) the House and Senate Budget Committees.

- The Under Secretary for Nuclear Security typically testifies before House and Senate Energy and Water Appropriations and House and Senate Armed Services.
- The Under Secretary for Science or the Director of the Office of Science, along with the Assistant Secretaries for Fossil Energy, Electricity Delivery and Energy Reliability, Nuclear Energy, and Energy Efficiency and Renewable Energy and the Directors of ARPA-E and the Loan Programs Office testify before House Energy and Water Appropriations.

**American Recovery and Reinvestment Act:
Current Status and Projections**

DOE received \$35.2 billion through the American Recovery and Reinvestment Act of 2009 (ARRA). Included in this total:

- Weatherization Grants: \$10.9 billion
- Renewable Energy Technology Demonstration: \$5.8 billion
- Grid Modernization and Smart Grid Technologies: \$4.5 billion
- Environmental Cleanup: \$6.0 billion
- Clean Coal Demonstration Projects: \$3.4 billion
- Clean Energy Loan Guarantees: \$2.5 billion
- Basic Science Facilities and Infrastructure: \$1.7 billion
- ARPA-E Start-up Funding: \$0.4 billion
- Other Items: \$0.2 billion

DOE has spent \$26.3B (75%) of its \$35.2B ARRA Appropriation (through August 2012)					
Program	Total Funding	Cum. Obs	Cum. Deobs	Cum. Pays	Plan Post '13 Pays
Weatherization	10,863	10,862	1	9,955	10
Renewable Energy	5,804	5,736	67	3,999	492
Cleanup	5,989	5,988	1	5,845	0
Grid	4,488	4,479	8	3,039	366
Clean Coal	3,379	3,227	153	748	1,459
Loans	2,470	1,901	17	889	344
Science	1,669	1,669	0	1,413	117
ARPA-E	387	380	7	277	13
Other	161	153	0	139	2
Total	35,210	34,395	255	26,304	2,804

Additional information on DOE’s Recovery Act Spending:

- Recovery Act expenditures \$26.3B (75%) to date, and DOE is on plan to spend \$32.4B (92%) by end of FY13 - \$2.8B post FY13
- Department leads all Federal agencies in Recovery Act job creation
- Programs have proactively complied with OMB M-11-34 to accelerate payments, submitting waivers for \$3.4B
- Generally, programs have been successful achieving their planned goals – in monitoring , analysis, corrective actions

Recovery Act accomplishments Include:

- Weatherized 770K homes (121% of plan)
- Installed nearly 3.4 million kW of renewable energy systems
- Reduced environmental cleanup footprint by 74%
- Installed 12.6 million Smart Meters

- Issued Loans to 26 projects renewable energy projects
- \$266M in private sector follow-on funding
- At least 34 patent applications and 48 technical articles as of Q1 2012

Organizations Summary (Discretionary \$ in thousands)	FY2011		FY2012		FY2013					
	Enacted	Current	Enacted	Current	President's Budget	%Δ FY13 Request vs FY12	%Δ House		%Δ Senate	
						Enacted	House vs Pres Bud	Senate vs Pres Bud		
Energy	3,819,243	3,794,349	3,737,094	3,682,601	4,154,338	+11.2%	3,300,639	-20.5%	3,837,773	-7.6%
Applied Energy	3,364,556	3,339,662	3,351,094	3,296,601	3,678,973	+9.8%	2,994,639	-18.6%	3,400,408	-7.6%
EERE	1,825,641	1,801,471	1,819,547	1,790,457	2,337,000	+28.4%	1,450,960	-37.9%	1,985,735	-15.0%
OE	144,710	141,770	139,103	136,178	143,015	+2.8%	123,000	-14.0%	143,015	---
FE R&D	584,530	585,052	533,703	524,074	428,513	-19.7%	536,938	+25.3%	468,513	+9.3%
NE	809,675	811,369	858,741	845,892	770,445	-10.3%	883,741	+14.7%	803,145	+4.2%
ARPA-E	179,640	179,640	275,000	275,000	350,000	+27.3%	200,000	-42.9%	312,000	-10.9%
LPO	179,638	179,638	6,000	6,000	9,000	+50.0%	6,000	-33.3%	9,000	---
EIA	95,409	95,409	105,000	105,000	116,365	+10.8%	100,000	-14.1%	116,365	---
Science	4,857,665	4,912,283	4,873,634	4,934,980	5,001,156	+2.6%	4,834,035	-3.3%	4,918,104	-1.7%
NNSA	10,624,219	10,697,491	11,021,000	11,021,667	11,535,886	+4.7%	11,329,000	-1.8%	11,510,886	-0.2%
WA	6,946,397	6,983,551	7,214,120	7,214,634	7,577,341	+5.0%	7,577,341	---	7,577,341	---
NN	2,318,653	2,328,421	2,316,880	2,317,033	2,458,631	+6.1%	2,283,024	-7.1%	2,458,631	---
NR	960,176	986,526	1,080,000	1,080,000	1,088,635	+0.8%	1,086,635	-0.2%	1,088,635	---
OA	398,993	398,993	410,000	410,000	411,279	+0.3%	382,000	-7.1%	386,279	-6.1%
Nuclear Cleanup	5,860,960	5,862,043	5,883,417	5,883,382	5,850,069	-0.6%	5,776,146	-1.3%	5,935,055	+1.5%
EM	5,689,339	5,690,422	5,713,817	5,713,782	5,672,123	-0.7%	5,602,200	-1.2%	5,757,109	+1.5%
LM	171,621	171,621	169,600	169,600	177,946	+4.9%	173,946	-2.2%	177,946	---
Provision & Regulation	313,495	306,188	277,278	277,278	295,636	+6.6%	295,636	---	295,636	---
Petroleum Reserves	243,373	243,373	217,732	217,732	236,217	+8.5%	236,217	---	236,217	---
PMAs	99,233	99,276	85,080	85,080	85,242	+0.2%	85,242	---	85,242	---
FERC	-29,111	-36,461	-25,534	-25,534	-25,823	+1.1%	-25,823	---	-25,823	---
Mission Support	712,807	712,807	728,414	728,414	723,819	-0.6%	712,131	-1.6%	713,819	-1.4%
CM	137,109	137,109	130,142	130,142	127,396	-2.1%	127,396	---	117,396	-7.8%
IG	42,764	42,764	42,000	42,000	43,468	+3.5%	43,468	---	43,468	---
Other Defense Activities	539,010	539,010	560,414	560,414	557,756	-0.5%	546,068	-2.1%	557,756	---
Hearings & Appeals	6,076	6,076	4,142	4,142	4,801	+15.9%	4,801	---	4,801	---
Defense Related Admin. Support	106,001	106,001	118,836	118,836	118,836	---	112,170	-5.6%	118,836	---
HSS	263,233	263,233	250,737	250,737	245,500	-2.1%	241,097	-1.8%	245,500	---
SSA	163,700	163,700	186,699	186,699	188,619	+1.0%	188,000	-0.3%	188,619	---
Subtotal, NNSA	10,522,519	10,525,965	11,000,000	11,000,667	11,535,886	+4.9%	11,257,000	-2.4%	11,510,886	-0.2%
Subtotal, Non-NNSA	15,153,070	15,166,868	15,299,547	15,309,889	15,619,186	+2.1%	14,742,255	-5.6%	15,567,855	-0.3%
Offsets - Non-NNSA	-411,100	-420,802	-200,290	-196,766	-405,832	+102.6%	-176,332	-56.6%	-132,532	-67.3%
Offsets -- NNSA	-101,700	-171,526	-21,000	-21,000	0	-100.0%	-72,000	---	0	---
DOE	25,675,589	25,692,833	26,299,547	26,310,556	27,155,072	+3.3%	25,999,255	-4.3%	27,078,741	-0.3%

Organizations Summary	FY2011		FY2012		FY2013					
	Enacted	Current	Enacted	Current	President's Budget	%Δ FY13 Request vs FY12 Enacted	House	%Δ House vs Pres Bud	Senate	%Δ Senate vs Pres Bud
(Discretionary \$ in thousands)										
Energy	3,819,243	3,794,349	3,737,094	3,682,601	4,154,338	+11.2%	3,300,639	-20.5%	3,837,773	-7.6%

Applied Energy	3,364,556	3,339,662	3,351,094	3,296,601	3,678,973	+9.8%	2,994,639	-18.6%	3,400,408	-7.6%
EERE	1,825,641	1,801,471	1,819,547	1,790,457	2,337,000	+28.4%	1,450,960	-37.9%	1,985,735	-15.0%
Biomass & Biorefinery RD&D	182,695	179,979	199,276	194,995	270,000	+35.5%	203,000	-24.8%	200,000	-25.9%
Geothermal Tech.	38,003	36,992	37,862	36,979	65,000	+71.7%	30,000	-53.8%	65,000	---
Hydrogen & Fuel Cell Tech.	98,000	95,847	103,624	101,326	80,000	-22.8%	82,000	+2.5%	104,000	+30.0%
Solar Energy	263,500	259,556	288,951	284,702	310,000	+7.3%	155,000	-50.0%	293,000	-5.5%
Water Power	30,000	29,201	58,787	58,076	20,000	-66.0%	45,000	+125.0%	59,000	+195.0%
Wind Energy	80,000	78,834	93,254	91,813	95,000	+1.9%	70,000	-26.3%	95,000	---
Advanced Manufacturing	0	0	0	0	290,000	---	150,000	-48.3%	168,635	-41.9%
Industrial Technologies	108,241	105,899	115,580	112,692	0	-100.0%	0	---	0	---
Building Technologies	210,500	207,310	219,204	214,706	310,000	+41.4%	125,000	-59.7%	220,000	-29.0%
Federal Energy Management	30,402	30,402	29,891	29,891	32,000	+7.1%	18,000	-43.8%	30,000	-6.3%
Vehicle Technologies	300,000	293,151	328,807	320,966	420,000	+27.7%	335,000	-20.2%	330,000	-21.4%
Weatherization & Intergovernmental Activities	231,300	231,300	128,000	128,000	195,000	+52.3%	86,560	-55.6%	205,000	+5.1%
Facilities & Infrastructure	51,000	51,000	26,311	26,311	26,400	+0.3%	26,400	---	26,400	---
Program Direction	170,000	170,000	165,000	165,000	164,700	-0.2%	115,000	-30.2%	164,700	---
Strategic Programs (Program Support)	32,000	32,000	25,000	25,000	58,900	+135.6%	10,000	-83.0%	25,000	-57.6%
OE	144,710	141,770	139,103	136,178	143,015	+2.8%	123,000	-14.0%	143,015	---
Electricity Systems Hub	0	0	0	0	20,000	---	0	-100.0%	20,000	---
Clean Energy Transmission & Reliability	26,000	25,272	25,414	24,665	24,000	-5.6%	24,000	---	24,000	---
Grid Equipment R&D	0	0	0	0	0	---	0	---	0	---
Smart Grid R&D	29,000	28,188	23,909	23,203	14,400	-39.8%	14,400	---	14,400	---
Advanced Grid Components	0	0	0	0	0	---	0	---	0	---
Cyber Security	30,000	29,160	29,889	29,007	30,000	+0.4%	30,000	---	30,000	---
Energy Storage	20,000	19,440	19,924	19,336	15,000	-24.7%	15,000	---	15,000	---
Permitting, Siting & Analysis	6,000	6,000	6,976	6,976	6,000	-14.0%	6,000	---	6,000	---
Infra. Security & En. Restoration	6,100	6,100	5,981	5,981	6,000	+0.3%	6,000	---	6,000	---
Program Direction	27,610	27,610	27,010	27,010	27,615	+2.2%	27,600	-0.1%	27,615	---
FE R&D	584,530	585,052	533,703	524,074	428,513	-19.7%	536,938	+25.3%	468,513	+9.3%
Coal	400,166	389,688	368,395	359,320	275,869	-25.1%	384,294	+39.3%	301,622	+9.3%
Carbon Capture	0	0	68,898	66,986	60,438	-12.3%	68,938	+14.1%	60,438	---
Carbon Storage	0	0	115,410	112,208	95,477	-17.3%	115,345	+20.8%	95,477	---
Advance Energy Systems	0	0	99,942	97,169	55,193	-44.8%	110,000	+99.3%	80,946	+46.7%
Cross Cutting Research	0	0	49,134	47,946	29,750	-39.5%	55,000	+84.9%	29,750	---
NETL in-house R&D	0	0	35,011	35,011	35,011	---	35,011	---	35,011	---
Innovations for Existing Plants	64,870	63,162	0	0	0	---	0	---	0	---
Advance Integrated GCC	52,894	51,501	0	0	0	---	0	---	0	---
Advanced Turbines	30,920	30,106	0	0	0	---	0	---	0	---
Organizations Summary	FY2011	FY2012	FY2012	FY2013						

(Discretionary \$ in thousands)					%Δ FY13 Request vs President's FY12 Budget		%Δ House vs Pres Bud		%Δ Senate vs Pres Bud	
	Enacted	Current	Enacted	Current	Enacted	Current	House	Senate	House	Senate
Carbon Sequestration	142,057	138,316	0	0	0	---	0	---	0	---
Fuels	11,976	11,661	0	0	0	---	0	---	0	---
Fuels Cells	49,835	48,522	0	0	0	---	0	---	0	---
Advanced Research	47,614	46,420	0	0	0	---	0	---	0	---
Fuels and power systems	0	0	0	0	0	---	0	---	0	---
Natural Gas Technologies	0	0	14,991	14,575	17,000	+13.4%	17,000	---	22,000	+29.4%
Unconventional FE Technologies	0	0	4,997	4,859	0	-100.0%	0	---	5,000	---
Program Direction	153,725	164,725	119,929	119,929	115,753	-3.5%	115,753	---	120,000	+3.7%
Plant & Capital Equipment	19,960	19,960	16,794	16,794	13,294	-20.8%	13,294	---	13,294	---
FE Environmental Restoration	9,980	9,980	7,897	7,897	5,897	-25.3%	5,897	---	5,897	---
Special Recruitment Programs	699	699	700	700	700	---	700	---	700	---
NE	809,675	811,369	858,741	845,892	770,445	-10.3%	883,741	+14.7%	803,145	+4.2%
Nuclear Energy	732,125	722,617	765,391	752,542	770,445	+0.7%	790,391	+2.6%	803,145	+4.2%
Nuclear Energy Enabling Tech.	51,383	50,891	74,670	71,307	65,318	-12.5%	75,000	+14.8%	65,318	---
Used Nuclear Fuel Disposition	0	0	0	0	0	---	0	---	0	---
Integrated University	0	0	5,000	5,000	0	-100.0%	5,000	---	0	---
LWR SMR Licensing Techn'l Supp.	0	0	67,000	67,000	65,000	-3.0%	114,000	+75.4%	65,000	---
Reactor Concepts RD&D	168,535	164,706	114,871	110,652	73,674	-35.9%	126,660	+71.9%	73,674	---
Fuel Cycle R&D	187,615	182,428	186,260	180,993	175,438	-5.8%	138,716	-20.9%	193,138	+10.1%
Int'l Nuclear Energy Coop.	2,994	2,994	2,983	2,983	3,000	+0.6%	3,000	---	3,000	---
Radiological Facility Mgmt.	51,715	51,715	69,510	69,510	51,000	-26.6%	51,000	---	66,000	+29.4%
Idaho Facilities Management	183,604	183,604	154,097	154,097	152,000	-1.4%	162,000	+6.6%	152,000	---
Program Direction	86,279	86,279	91,000	91,000	90,015	-1.1%	90,015	---	92,015	+2.2%
Idaho Sitewide S&S	0	0	0	0	95,000	---	0	-100.0%	93,000	-2.1%
Nuclear Waste Disposal	0	0	0	0	0	---	25,000	---	0	---
Use of Nuclear Waste Fund Balances	0	0	0	0	0	---	0	---	0	---
Other Defense Activities	77,550	88,752	93,350	93,350	0	-100.0%	93,350	---	0	---
ARPA-E	179,640	179,640	275,000	275,000	350,000	+27.3%	200,000	-42.9%	312,000	-10.9%
LPO	179,638	179,638	6,000	6,000	9,000	+50.0%	6,000	-33.3%	9,000	---
EIA	95,409	95,409	105,000	105,000	116,365	+10.8%	100,000	-14.1%	116,365	---

Organizations Summary (Discretionary \$ in thousands)	FY2011		FY2012		FY2013					
	Enacted	Current	Enacted	Current	President's Budget	%Δ FY13 Request vs FY12 Enacted	House	%Δ House vs Pres Bud	Senate	%Δ Senate vs Pres Bud
Science	4,857,665	4,912,283	4,873,634	4,934,980	5,001,156	+2.6%	4,834,035	-3.3%	4,918,104	-1.7%
ASCR	421,997	410,317	440,868	428,304	455,593	+3.3%	442,000	-3.0%	455,593	---
BES	1,678,195	1,638,511	1,688,093	1,644,767	1,799,592	+6.6%	1,657,146	-7.9%	1,712,091	-4.9%
BER	611,823	595,246	609,557	592,433	625,347	+2.6%	542,000	-13.3%	625,347	---
FES	375,462	367,257	400,996	392,957	398,324	-0.7%	474,617	+19.2%	398,324	---
HEP	795,420	775,578	790,860	770,533	776,521	-1.8%	776,521	---	781,521	+0.6%
NP	540,114	527,684	547,387	534,642	526,938	-3.7%	547,938	+4.0%	539,938	+2.5%
WDTS	22,600	22,600	18,500	18,500	14,500	-21.6%	14,500	---	14,500	---
SLI	125,748	125,748	111,800	111,800	117,790	+5.4%	112,313	-4.6%	117,790	---
S&S	83,786	83,786	80,573	80,573	84,000	+4.3%	82,000	-2.4%	83,000	-1.2%
SC PD	202,520	202,520	185,000	185,000	202,551	+9.5%	185,000	-8.7%	190,000	-6.2%
SBIR/STTR	0	163,036	0	175,471	0	---	0	---	0	---
NNSA	10,624,219	10,697,491	11,021,000	11,021,667	11,535,886	+4.7%	11,329,000	-1.8%	11,510,886	-0.2%

WA	6,946,397	6,983,551	7,214,120	7,214,634	7,577,341	+5.0%	7,577,341	---	7,577,341	---
Directed Stockpile Work	1,885,359	1,905,078	1,873,694	1,868,694	2,088,274	+11.5%	2,069,147	-0.9%	2,078,274	-0.5%
Stockpile assessment		0	0	0	0	---	136,252	---	0	---
Life Extension Programs		248,357	479,098	382,087	543,931	+13.5%	589,000	+8.3%	543,931	---
Stockpile Systems		651,333	486,123	582,296	590,409	+21.5%	454,157	-23.1%	590,409	---
WD&D		57,968	56,591	55,881	51,265	-9.4%	51,265	---	51,265	---
Stockpile Services		947,420	851,882	848,430	902,669	+6.0%	838,473	-7.1%	892,669	-1.1%
Science Campaign	362,519	366,167	332,958	332,958	350,104	+5.1%	377,104	+7.7%	350,104	---
Engineering Campaign	140,932	142,010	142,636	142,636	150,571	+5.6%	158,571	+5.3%	150,571	---
ICF Campaign	477,601	478,105	474,812	474,812	460,000	-3.1%	480,000	+4.3%	460,000	---
ASC Campaign	610,995	613,620	618,076	618,076	600,000	-2.9%	600,000	---	620,000	+3.3%
Readiness Campaign	98,592	91,695	128,406	128,406	130,095	+1.3%	120,000	-7.8%	130,095	---
RTBF	1,837,287	1,842,519	2,004,785	2,004,785	2,239,828	+11.7%	2,239,828	---	2,239,828	---
Secure Transportation Asset	247,549	251,806	242,802	243,116	219,361	-9.7%	219,361	---	219,361	---
Defense Programs	5,660,834	5,691,000	5,818,169	5,813,483	6,238,233	+7.2%	6,264,011	+0.4%	6,248,233	+0.2%
NCTIR	231,005	232,503	220,969	221,169	247,552	+12.0%	225,446	-8.9%	247,552	---
FIRP	93,296	93,574	96,120	96,120	0	-100.0%	0	---	0	---
Site Stewardship	104,622	104,727	78,581	78,581	90,001	+14.5%	79,581	-11.6%	88,249	-1.9%
Defense Nuclear Security	713,498	717,722	695,679	695,679	798,307	+14.8%	823,303	+3.1%	798,307	---
Cyber Security	123,348	124,231	126,370	131,370	0	-100.0%	0	---	0	---
Science, Technology & Engineering Capability	19,794	19,794	0	0	0	---	0	---	0	---
National Security Applications	0	0	10,000	10,000	18,248	+82.5%	0	-100.0%	10,000	-45.2%
Legacy Contractor Pensions	0	0	168,232	168,232	185,000	+10.0%	185,000	---	185,000	---
NN	2,318,653	2,328,421	2,316,880	2,317,033	2,458,631	+6.1%	2,283,024	-7.1%	2,458,631	---
Nonprolif. & Verification R&D	360,986	355,407	354,150	347,905	548,186	+54.8%	528,186	-3.6%	418,186	-23.7%
Nonprolif. & Int'l Security	147,494	147,494	153,594	153,594	150,119	-2.3%	134,459	-10.4%	150,119	---

Organizations Summary (Discretionary \$ in thousands)	FY2011		FY2012		FY2013					
	Enacted	Current	Enacted	Current	President's Budget	%Δ FY13 Request vs FY12 Enacted	House	%Δ House vs Pres Bud	Senate	%Δ Senate vs Pres Bud
INMP&C	571,994	578,633	569,927	570,872	311,000	-45.4%	311,000	---	368,000	+18.3%
Fissile Materials Disposition	802,198	802,198	685,386	685,386	921,305	+34.4%	747,379	-18.9%	921,305	---
GTRI	435,981	444,689	498,000	503,453	466,021	-6.4%	500,000	+7.3%	539,021	+15.7%
Legacy Contractor Pensions	0	0	55,823	55,823	62,000	+11.1%	62,000	---	62,000	---
NR	960,176	986,526	1,080,000	1,080,000	1,088,635	+0.8%	1,086,635	-0.2%	1,088,635	---
Operations & Maintenance	887,721	914,071	1,000,100	1,000,100	995,833	-0.4%	995,833	---	995,833	---
Naval reactors operations and infrastructure		0	358,300	358,300	366,961	+2.4%	366,961	---	366,961	---
Naval reactors development		914,071	421,000	421,000	418,072	-0.7%	418,072	---	418,072	---
S8G Prototype refueling		0	99,500	99,500	121,100	+21.7%	121,100	---	121,100	---
Ohio replacement reactor systems development		0	121,300	121,300	89,700	-26.1%	89,700	---	89,700	---
Program Direction	39,920	39,920	40,000	40,000	43,212	+8.0%	43,212	---	43,212	---
Construction	32,535	32,535	39,900	39,900	49,590	+24.3%	47,590	-4.0%	49,590	---
OA	398,993	398,993	410,000	410,000	411,279	+0.3%	382,000	-7.1%	386,279	-6.1%
Nuclear Cleanup	5,860,960	5,862,043	5,883,417	5,883,382	5,850,069	-0.6%	5,776,146	-1.3%	5,935,055	+1.5%

EM	5,689,339	5,690,422	5,713,817	5,713,782	5,672,123	-0.7%	5,602,200	-1.2%	5,757,109	+1.5%
Brookhaven National Laboratory	13,833	13,833	8,185	13,085	7,840	-4.2%	7,840	---	7,840	---
Carlsbad	215,714	215,714	213,334	213,334	198,010	-7.2%	203,000	+2.5%	208,896	+5.5%
Energy Technology Engineering Center	6,466	6,466	10,679	6,279	9,460	-11.4%	9,460	---	9,460	---
Idaho	403,448	403,448	389,800	389,800	405,397	+4.0%	405,397	---	405,397	---
Los Alamos National Laboratory	191,800	191,800	188,561	188,161	239,143	+26.8%	219,230	-8.3%	239,143	---
Lawrence Livermore National Laboratory	822	822	873	2,173	1,484	+70.0%	1,484	---	1,484	---
Moab	30,938	32,594	31,000	30,068	30,941	-0.2%	30,941	---	30,941	---
Undistributed (Small Sites)	0	0	0	0	0	---	36,000	---	30,000	---
Nevada	62,510	62,510	65,545	65,145	64,641	-1.4%	64,641	---	64,641	---
Oak Ridge	383,842	383,842	399,265	399,265	402,433	+0.8%	383,433	-4.7%	434,433	+8.0%
Paducah	134,407	134,407	133,647	133,647	133,570	-0.1%	133,570	---	133,570	---
Portsmouth	240,173	240,173	238,115	238,115	178,094	-25.2%	178,094	---	178,094	---
Richland	969,643	970,849	952,746	952,746	966,027	+1.4%	955,956	-1.0%	978,127	+1.3%
River Protection	1,135,597	1,134,197	1,181,800	1,182,010	1,172,113	-0.8%	1,163,000	-0.8%	1,172,113	---
Savannah River	1,172,384	1,172,384	1,187,782	1,187,782	1,181,516	-0.5%	1,148,583	-2.8%	1,181,516	---
Stanford Linear Accelerator Center	7,711	7,711	2,435	2,935	3,800	+56.1%	3,800	---	3,800	---
West Valley Demonstration Project	57,666	57,666	64,735	64,735	47,862	-26.1%	47,862	---	47,862	---
Sandia National Laboratory	3,014	3,014	3,014	2,814	5,000	+65.9%	3,014	-39.7%	5,000	---
All Other Sites	175	175	14,703	14,703	1,990	-86.5%	1,990	---	1,990	---
Separations Process Research Unit	50,895	50,895	24,000	23,700	24,000	---	24,000	---	24,000	---
Program Direction	320,007	320,007	321,628	321,628	323,504	+0.6%	315,607	-2.4%	323,504	---
Safeguards & Security	247,780	247,945	250,968	250,968	237,019	-5.6%	237,019	---	237,019	---
Program Support	21,101	21,101	20,380	20,380	18,279	-10.3%	18,279	---	18,279	---
UED&D Fund Contribution	0	33,633	0	0	463,000	---	0	-100.0%	0	-100.0%

Organizations Summary (Discretionary \$ in thousands)	FY2011		FY2012		%Δ FY13 Request vs FY12		FY2013		%Δ Senate vs Pres Bud	
	Enacted	Current	Enacted	Current	President's Budget	Enacted	House	%Δ House vs Pres Bud	Senate	Bud
Technology Development & Deployment	19,413	18,869	10,622	10,309	20,000	+88.3%	10,000	-50.0%	20,000	---
Transfer payment from Defense ER&WM	0	-33,633	0	0	-463,000	---	0	-100.0%	0	-100.0%
LM	171,621	171,621	169,600	169,600	177,946	+4.9%	173,946	-2.2%	177,946	---
Provision & Regulation	313,495	306,188	277,278	277,278	295,636	+6.6%	295,636	---	295,636	---
Petroleum Reserves	243,373	243,373	217,732	217,732	236,217	+8.5%	236,217	---	236,217	---
Naval Petroleum & Oil Shale	22,954	22,954	14,909	14,909	14,909	---	14,909	---	14,909	---
Elk Hills School Lands Fund	0	0	0	0	15,580	---	15,580	---	15,580	---
Strategic Petroleum	209,441	209,441	192,704	192,704	195,609	+1.5%	195,609	---	195,609	---
Northeast Home Heating Oil Reserve	10,978	10,978	10,119	10,119	10,119	---	10,119	---	10,119	---
PMAs	99,233	99,276	85,080	85,080	85,242	+0.2%	85,242	---	85,242	---
Southeastern Power Administration	0	0	0	0	0	---	0	---	0	---
Southwestern Power Administration	13,050	13,050	11,892	11,892	11,892	---	11,892	---	11,892	---
Western Area Power Administration	86,183	86,226	73,188	73,188	73,350	+0.2%	73,350	---	73,350	---
FERC	-29,111	-36,461	-25,534	-25,534	-25,823	+1.1%	-25,823	---	-25,823	---
Mission Support	712,807	712,807	728,414	728,414	723,819	-0.6%	712,131	-1.6%	713,819	-1.4%
CM	137,109	137,109	130,142	130,142	127,396	-2.1%	127,396	---	117,396	-7.8%
Office of the Secretary	5,383	5,383	5,030	5,030	4,986	-0.9%	4,986	---	4,986	---
Chief Information Officer	92,953	92,953	85,928	84,628	90,575	+5.4%	89,575	-1.1%	90,575	---
Chief Financial Officer	57,598	57,598	53,204	53,204	51,043	-4.1%	51,043	---	51,043	---
Management	68,673	68,673	62,693	61,993	53,257	-15.1%	53,257	---	43,257	-18.8%
Human Capital Management	25,308	25,308	23,089	25,089	23,286	+0.9%	23,286	---	23,286	---
Congr. & Intergov. Affairs	4,430	4,430	4,690	4,690	4,076	-13.1%	4,076	---	4,076	---
Indian Energy Policy & Programs	1,477	1,477	2,000	2,000	2,506	+25.3%	2,506	---	2,506	---
Public Affairs	4,131	4,131	3,801	3,801	3,310	-12.9%	3,310	---	3,310	---
General Counsel	32,014	32,014	33,053	33,053	33,256	+0.6%	32,014	-3.7%	33,256	---
Policy & Int'l Affairs	27,770	27,770	26,961	26,961	27,281	+1.2%	22,457	-17.7%	27,281	---
Economic Impact & Diversity	6,282	6,282	7,473	7,473	7,506	+0.4%	7,906	+5.3%	7,506	---
Cost of Work for Others	30,516	30,516	48,537	48,537	48,537	---	48,537	---	48,537	---
Defense Related Admin. Support	-106,001	-106,001	-118,836	-118,836	-118,836	---	-112,170	-5.6%	-118,836	---
Miscellaneous Revenues	-119,501	-119,501	-111,623	-111,623	-108,188	-3.1%	-108,188	---	-108,188	---
IG	42,764	42,764	42,000	42,000	43,468	+3.5%	43,468	---	43,468	---
Other Defense Activities	539,010	539,010	560,414	560,414	557,756	-0.5%	546,068	-2.1%	557,756	---
Hearings & Appeals	6,076	6,076	4,142	4,142	4,801	+15.9%	4,801	---	4,801	---
Defense Related Admin. Support	106,001	106,001	118,836	118,836	118,836	---	112,170	-5.6%	118,836	---
HSS	263,233	263,233	250,737	250,737	245,500	-2.1%	241,097	-1.8%	245,500	---
SSA	163,700	163,700	186,699	186,699	188,619	+1.0%	188,000	-0.3%	188,619	---

<i>Subtotal, NNSA</i>	10,522,519	10,525,965	11,000,000	11,000,667	11,535,886	+4.9%	11,257,000	-2.4%	11,510,886	-0.2%
<i>Subtotal, Non-NNSA</i>	15,153,070	15,166,868	15,299,547	15,309,889	15,619,186	+2.1%	14,742,255	-5.6%	15,567,855	-0.3%
Offsets - Non-NNSA	-411,100	-420,802	-200,290	-196,766	-405,832	+102.6%	-176,332	-56.6%	-132,532	-67.3%

Organizations Summary (Discretionary \$ in thousands)	FY2011		FY2012		FY2013					
	Enacted	Current	Enacted	Current	President's Budget	%Δ FY13 Request vs FY12 Enacted	House	%Δ House vs Pres Bud	Senate	%Δ Senate vs Pres Bud
Offsets - NNSA	-101,700	-171,526	-21,000	-21,000	0	-100.0%	-72,000	---	0	---
SPR Rescission of balances	0	0	0	0	-291,000	---	0	-100.0%	0	-100.0%
Rescission of Prior Year Balances	-512,800	-512,800	-217,909	-217,909	-75,667	-65.3%	-181,167	+139.4%	-75,667	---
Transfers from state department	0	1,850	0	3,524	0	---	0	---	0	---
Use of Prior Year Balances	0	-81,378	0	0	-17,042	---	-17,042	---	-34,742	+103.9%
DOE	25,675,589	25,692,833	26,299,547	26,310,556	27,155,072	+3.3%	25,999,255	-4.3%	27,078,741	-0.3%

Appropriations by State
(dollars in thousands)

State	FY 2011	FY 2012	FY 2013 Request
Alabama	\$42,017	\$69,600	\$100,020
Alaska	\$2,666	\$394	\$2,105
All Other (Foreign)	\$2,108	\$135	\$135
American Samoa	\$348	\$142	\$272
Arizona	\$135,875	\$128,865	\$117,470
Arkansas	\$11,131	\$6,606	\$8,558
California	\$2,563,621	\$2,435,555	\$2,389,017
Colorado	\$952,996	\$1,016,035	\$1,086,531
Connecticut	\$38,326	\$13,081	\$14,820
Delaware	\$5,782	\$3,323	\$2,729
District Of Columbia	\$2,660,271	\$3,412,305	\$4,751,175
Florida	\$38,615	\$26,432	\$24,783
Georgia	\$100,559	\$115,753	\$98,335
Guam	\$359	\$148	\$281
Hawaii	\$2,781	\$2,315	\$2,256
Idaho	\$1,225,327	\$1,194,232	\$1,141,510
Illinois	\$1,317,942	\$1,295,102	\$1,295,276
Indiana	\$26,700	\$16,563	\$20,966
Iowa	\$68,103	\$48,647	\$48,473
Kansas	\$7,501	\$11,047	\$9,292
Kentucky	\$164,086	\$161,311	\$168,159
Louisiana	\$166,293	\$148,098	\$151,939
Maine	\$3,310	\$1,105	\$2,950
Maryland	\$83,504	\$84,622	\$87,124
Massachusetts	\$99,379	\$72,751	\$67,385
Michigan	\$47,669	\$22,978	\$25,702
Minnesota	\$38,356	\$20,066	\$20,707
Mississippi	\$3,089	\$1,283	\$2,240
Missouri	\$583,525	\$574,899	\$599,072
Montana	\$55,149	\$51,331	\$48,089
Nebraska	\$44,896	\$26,703	\$23,741
Nevada	\$506,595	\$489,049	\$507,911
New Hampshire	\$3,407	\$1,828	\$1,913
New Jersey	\$110,474	\$98,662	\$85,378
New Mexico	\$4,470,225	\$4,472,701	\$4,400,796
New York	\$1,242,529	\$1,275,321	\$1,222,678
North Carolina	\$36,865	\$20,107	\$17,671
North Dakota	\$111,853	\$85,783	\$64,601
Northern Mariana Islands	\$348	\$141	\$272
Ohio	\$370,836	\$348,211	\$301,953
Oklahoma	\$31,571	\$30,595	\$32,018
Oregon	\$12,679	\$7,079	\$6,611
Pennsylvania	\$550,555	\$528,513	\$528,215
Puerto Rico	\$2,146	\$1,411	\$1,907
Rhode Island	\$8,015	\$4,956	\$7,822
South Carolina	\$2,422,962	\$2,206,109	\$2,415,061
South Dakota	\$41,227	\$47,973	\$49,068
Tennessee	\$2,650,066	\$2,653,594	\$2,764,071
Texas	\$679,040	\$716,307	\$679,965

State	FY 2011	FY 2012	FY 2013 Request
Undesignated State	\$372,626	\$483,263	\$488,726
Utah	\$75,920	\$66,306	\$63,880
Vermont	\$1,623	\$561	\$1,352
Virgin Islands	\$378	\$153	\$289
Virginia	\$220,523	\$195,863	\$185,612
Washington	\$2,816,040	\$2,855,696	\$2,792,260
West Virginia	\$413,898	\$273,023	\$297,461
Wisconsin	\$59,695	\$47,346	\$50,005
Wyoming	\$28,386	\$20,964	\$22,618
Total Department of Energy	\$27,732,935	\$27,892,942	\$29,301,226

*Includes Work For Others funded by other agencies and outside entities

DOE Appropriations by Laboratory
(dollars in thousands)

	FY 2011 Appropriation	FY 2012 Appropriation	FY 2013 Request
Ames Laboratory	\$30,769	\$24,867	\$27,419
Ames Site Office	\$546	\$545	\$561
Argonne National Laboratory	\$621,743	\$596,369	\$597,114
Argonne Site Office	\$3,608	\$3,974	\$4,433
Berkeley Site Office	\$4,345	\$3,954	\$4,072
Bettis Atomic Power Laboratory	\$475,070	\$456,100	\$464,000
Brookhaven National Laboratory	\$589,778	\$593,399	\$530,897
Brookhaven Site Office	\$4,876	\$4,870	\$5,027
Carlsbad Area Office	\$39,956	\$14,509	\$14,200
Chicago Operations Office	\$1,071,917	\$896,099	\$858,164
Consolidated Business Center	\$45,181	\$41,231	\$40,453
East Tennessee Technology Park (K25)	\$249,031	\$221,374	\$239,755
Energy Technology Engineering Center	\$6,466	\$9,379	\$9,562
Fermi National Accelerator Laboratory	\$415,455	\$385,465	\$365,652
Fermi Site Office	\$2,148	\$2,243	\$2,310
Fernald Site	\$17,654	\$15,102	\$15,287
General Atomics Site	\$23,700	\$23,300	\$0
Golden Field Office	\$327,130	\$419,569	\$504,368
Grand Junction Office	\$30,239	\$32,314	\$34,011
Hanford Site	\$1,040,343	\$1,002,444	\$1,022,617
Idaho National Laboratory	\$1,115,461	\$1,014,920	\$973,020
Idaho Operations Office	\$101,948	\$172,554	\$160,355
Kansas City Plant	\$503,804	\$500,225	\$522,771
Kansas City Site Office	\$7,125	\$6,937	\$7,468
Knolls Atomic Power Laboratory	\$388,595	\$478,178	\$498,700
Lawrence Berkeley National Laboratory	\$613,240	\$556,713	\$567,504
Lawrence Livermore National Laboratory	\$1,260,875	\$1,240,287	\$1,125,494
Livermore Site Office	\$19,407	\$19,822	\$20,208
Los Alamos National Laboratory	\$2,166,975	\$1,951,269	\$1,894,198
Los Alamos Site Office	\$19,036	\$19,157	\$19,416
Moab Site	\$32,594	\$31,000	\$30,941
Morgantown Office	\$11,463	\$14,435	\$15,457
Mound Site	\$0	\$11,311	\$21,281
National Energy Technology Lab	\$752,956	\$551,021	\$497,043
National Renewable Energy Laboratory	\$306,629	\$271,355	\$282,376
Naval Petroleum Reserve No 1	\$5,784	\$4,480	\$4,280
Naval Petroleum Reserve No 3	\$15,444	\$9,179	\$9,179
Naval Research Laboratory	\$27,169	\$24,920	\$25,996

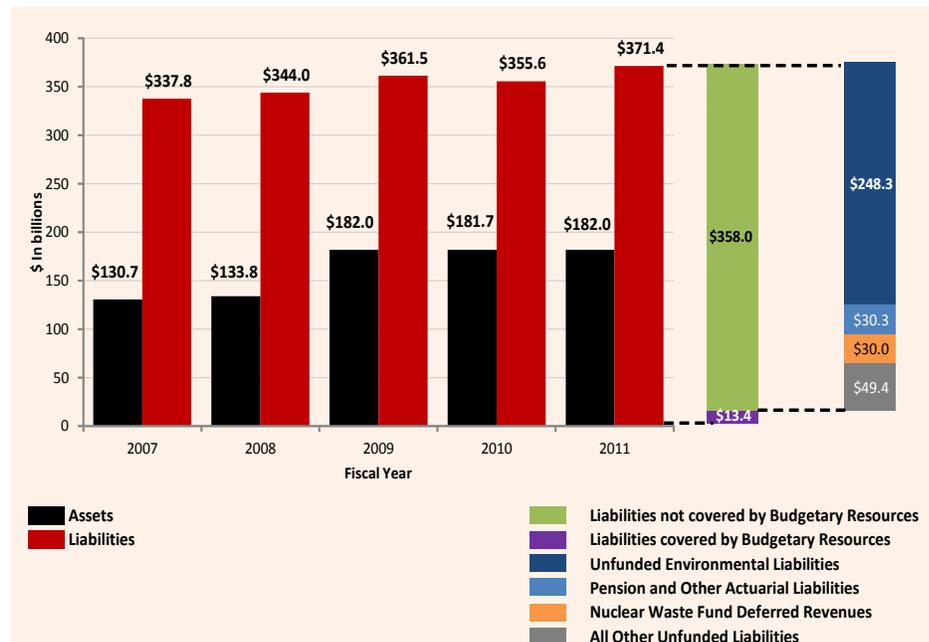
	FY 2011 Appropriation	FY 2012 Appropriation	FY 2013 Request
Nevada National Security Site	\$373,202	\$352,589	\$367,767
Nevada Operations Office	\$244	\$244	\$244
Nevada Site Office	\$118,898	\$123,143	\$117,524
New Brunswick Laboratory	\$7,223	\$7,078	\$7,274
NNSA Albuquerque Complex	\$594,434	\$792,045	\$478,543
Oak Ridge Institute for Science & Education	\$48,168	\$33,425	\$28,022
Oak Ridge National Laboratory	\$1,183,544	\$1,099,56	\$1,044,04
Oak Ridge National Laboratory Site Office	\$4,355	\$3,998	\$5,949
Oak Ridge Operations Office	\$105,288	\$96,642	\$97,040
Oak Ridge Reservation	\$46,430	\$85,900	\$109,470
Oak Ridge Reservation (Off-Site)	\$0	\$6,409	\$4,500
Office of River Protection	\$1,163,584	\$1,208,19	\$1,202,59
Office of Scientific & Technical Information	\$14,457	\$10,773	\$10,823
Ohio Field Office	\$203	\$28	\$203
Pacific Northwest National Laboratory	\$519,343	\$536,627	\$470,087
Pacific Northwest Site Office	\$5,321	\$5,170	\$5,330
Paducah Gaseous Diffusion Plant	\$147,570	\$146,157	\$145,379
Paducah Site Office	\$30	\$230	\$30
Pantex Plant	\$576,732	\$622,876	\$590,574
Pantex Site Office	\$13,970	\$14,331	\$14,674
Pinellas Site	\$7,996	\$6,071	\$6,668
Portsmouth Gaseous Diffusion Plant	\$277,512	\$274,777	\$206,153
Princeton Plasma Physics Laboratory	\$80,369	\$73,586	\$61,840
Princeton Site Office	\$1,661	\$1,763	\$1,816
Radiological & Envir. Sciences Lab	\$5,498	\$5,256	\$5,312
Remote Sensing Laboratory	\$4,742	\$4,784	\$3,322
Richland Operations Office	\$60,506	\$82,307	\$74,557
Rocky Flats Site	\$78,037	\$67,981	\$59,460
Sandia National Laboratories	\$1,435,337	\$1,451,70	\$1,767,98
Sandia Site Office	\$22,360	\$26,062	\$26,446
Savannah River National Laboratory	\$70,206	\$7,632	\$7,268
Savannah River Operations Office	\$645,180	\$590,860	\$786,547
Savannah River Site	\$1,694,632	\$1,625,16	\$1,677,17
Savannah River Site Office	\$6,567	\$6,765	\$5,753
Separations Process Research Unit	\$50,895	\$24,000	\$24,000
SLAC National Accelerator Laboratory	\$338,453	\$323,878	\$406,033
Southeastern Power Administration	\$78,444	\$108,590	\$96,428
Southwestern Power Administration	\$82,918	\$85,010	\$85,200
Stanford Site Office	\$2,855	\$2,565	\$2,641
State of California	\$0	\$0	\$15,580
Strategic Petroleum Reserve - Bayou Choctaw	\$32,477	\$11,425	\$10,812

	FY 2011 Appropriation	FY 2012 Appropriation	FY 2013 Request
Strategic Petroleum Reserve - Big Hill	\$17,681	\$20,968	\$19,333
Strategic Petroleum Reserve - Bryan Mound	\$21,220	\$16,925	\$18,127
Strategic Petroleum Reserve - West Hackberry	\$32,026	\$21,069	\$32,218
Strategic Petroleum Reserve Project Office	\$95,209	\$111,183	\$103,513
Thomas Jefferson National Accelerator Facility	\$166,916	\$157,573	\$137,394
Thomas Jefferson Site Office	\$2,147	\$1,911	\$1,969
University of California	\$0	\$10,000	\$0
University of Rochester	\$63,185	\$62,433	\$60,600
Washington Headquarters	\$3,009,419	\$3,747,530	\$5,272,261
Waste Isolation Pilot Plant	\$189,822	\$213,334	\$198,010
West Valley Demonstration Project	\$59,588	\$66,300	\$49,877
Western Area Power Administration	\$841,622	\$824,119	\$744,773
Y-12 National Security Complex	\$756,275	\$869,769	\$1,027,603
Y-12 Site Office	\$229,724	\$217,952	\$187,487
Yucca Mountain Site Office	\$0	\$1,400	\$1,400
Total Department Of Energy	\$27,732,935	\$27,892,942	\$29,301,226

*Includes Work For Others funded by other agencies and outside entities

ASSETS AND LIABILITIES

Total Assets and Liabilities with Breakdown of FY 2011 Liabilities



In addition to annual appropriations (approximately \$30 billion in FY 2011), the Department’s resources include unobligated and uncosted carryover appropriated balances from prior years and other capitalized assets. The Department’s audited financial statements identify these assets totaling \$182 billion. The Department’s financial statements also include \$371 billion of liabilities, most of which are for environmental cleanup from past activities that will require future funding. Below is an explanation of DOE’s primary assets and liabilities.

DOE’s assets, indicated in black on the chart above, include Intragovernmental Assets, Inventory, General Property, Plant and Equipment, and other categories. Intragovernmental Assets primarily include DOE’s investments into the Nuclear Waste Fund (NWF) and the Uranium Enrichment Decontamination and Decommissioning (D&D) Fund. Fees paid by owners and generators of used nuclear fuel and high-level radioactive waste and fees collected from domestic utilities are deposited into the respective funds. Funds in excess of those needed to pay current program costs are invested in Treasury securities. In FY 2011, these investments had a net value of approximately \$31 billion.

Assets include:

- Nuclear Waste Fund and D&D Fund ≈ \$31 Billion
- Strategic Petroleum and Home Heating Oil Reserves ≈ \$21 Billion
- Nuclear Materials ≈ \$22 Billion
- General Property, Plant, Equipment ≈ \$32 Billion

Inventory assets include stockpile materials consisting of crude oil held in the Strategic Petroleum Reserve (SPR) and the Northeast Home Heating Oil Reserve, nuclear materials, highly enriched uranium, and other inventory consisting primarily of operating materials and supplies. The SPR consist of crude oil stored in salt domes, terminals, and pipelines. As of September 2011, SPR contained crude oil with a historical cost of approximately \$21 billion. The Northeast Home Heating Oil Reserve contained heating oil in the New England, New York, and New Jersey geographic areas with a historical cost of \$138 million. Nuclear materials include weapons and related components, including those in the custody of

Department of Defense, and materials used for research and development purposes. DOE has excess Uranium inventories amounting to a total of 15,298 metric tons of natural uranium hexafluoride as of the end of FY 2011. Decisions for most nuclear materials will be made through analysis of the economic benefits and costs, and the environmental impacts of the various use and disposition alternatives. All of the Department's nuclear materials total approximately \$22 billion in FY 2011.

General Property, Plant, and Equipment assets include the Department's land and land rights, structures and facilities, internal use software, equipment, natural resources, and construction work in process. Assets in this category total to approximately \$32 billion in FY 2011.

DOE's liabilities, indicated by the red bars in the chart, totaled approximately \$371 billion in FY 2011, and only four percent of this total was covered by budgetary resources through authorized appropriations. The remaining 96 percent are liabilities for which appropriations have not been enacted; they are unfunded liabilities. DOE has significant unfunded liabilities that will require future appropriations to fund. The most significant of these represent ongoing efforts to clean up environmental contamination resulting from past operations of the nuclear weapons complex. The FY 2011 environmental liability estimate totaled \$251 billion (of which \$248 billion is unfunded) 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 Department also has unfunded liabilities for contractor pension and post-retirement benefits plans. Most of the Department's management contractors have defined benefit pension plans. DOE's cost under the contracts includes reimbursement of annual contractor contributions to these pension plans. The Department's contractors also sponsor post-retirement benefits other than pensions (PRB) consisting of predominantly post-retirement health care benefits. Increasing costs and liabilities associated with contractor employee pension and other post-retirement benefits (mostly retiree medical benefits) compete with programmatic activities for limited funds. In FY 2011, the Department's unfunded liability for contractor pension and post-retirement benefit plans totaled approximately \$30 billion.

Source: DOE's FY 2011 Agency Financial Report (AFR). This discussion will be updated with FY 2012 asset and liability numbers when the FY 2012 AFR is final.

SECTION EIGHT

FEDERAL AND CONTRACTOR STAFFING

Section Eight is divided into two sections: Federal Employee Staffing and Contractor Employee Staffing. The Federal section describes DOE's federal employees' numbers by program and by site, demographics, retirement projections and union membership. The Contractor section discusses recent trends in the number of DOE's contractor employees and numbers by site.

FEDERAL EMPLOYEE STAFFING

DOE's Human Capital Management programs and policies facilitate the creation of a Department-wide performance culture and attract, motivate and retain a highly skilled and diverse workforce capable of meeting the challenges of the 21st Century.

The Department requires a highly technical and specialized workforce to accomplish its scientific and technological missions. There is increasing competition for individuals with the knowledge, skills and competencies that the Department needs. As a result, recruitment and retention of critical staff is more difficult. The Department continues to explore the use of corporate recruitment and retention strategies, especially through the use of recruitment, retention, relocation and student loan incentives.

The Department's federal workforce consists of about 16,000 DOE employees, including NNSA, Power Marketing Administrations and the Federal Energy Regulatory Commission (FERC). The number of FTEs requested each year is approximately 16,000.

In terms of demographics, 61.9 percent of DOE's 2012 federal workforce is male, and 75.4 percent is white. From 2008 to 2012, the proportion of males has stayed nearly the same (from 62.2 percent to 61.9 percent), and the proportion of white males in the DOE federal workforce has remained nearly the same. Currently, in 2012, 24.5 percent of DOE's federal workforce is of minority race, and 38 percent is female.

DOE's federal workforce is highly educated because DOE is a science and technology agency. One-third of DOE's 2012 federal workforce has an education level of a Master's degree or higher. Out of all DOE federal employees, those with Bachelor's degrees make up the largest proportion, at 36 percent. Thirty four percent of DOE federal employees are in scientific and technical occupations, and 25 percent are in management and administration occupations.

The Department's federal workforce is aging and presenting a significant retirement challenge that threatens to rob the organization of critical skills. The average employee age is over 48 years and a significant number (32 percent) will be eligible to retire in the next four years. In 2009, retirements exceeded historical trends and attrition reached 7.8 percent. The attrition rate for 2012 has climbed, to 9.4 percent. A continuation of this trend can deprive the organization of the skills needed to perform its mission.

The following charts illustrate DOE's federal staffing numbers by office and by site, demographics, retirement eligibilities and union membership.

DOE'S FEDERAL EMPLOYEES BY PROGRAM

The following Staffing Analysis Charts display DOE's number of FTEs by program over the last five years. The data is shown in reporting organization format referred to as Program Secretarial Officer (PSO). The first chart displays FTE totals for Staff and Support Offices. The next chart displays subtotals

for FTEs reporting to the Under Secretary and the Under Secretary for Science. The last chart shows subtotals for the Under Secretary for Nuclear Security, the Power Marketing Administrations (PMAs) and the Federal Energy Regulatory Commission (FERC). FERC was created as an independent regulatory agency through the Department of Energy Organization Act of 1977. In performance of this function, the employees of FERC are not responsible or subject to the supervision or direction of any office or employee of any part of the Department of Energy. The grand totals for the entire Department are displayed at the end of the last chart.

Note that a lack of data over different periods indicates a Departmental re-organization through actions such as office closures, re-structuring, or consolidations. These areas have been footnoted. The end of year (EOY) on-board employee totals are provided for a comparison for Fiscal Year (FY) 2008. This is done to show any trends by organization that may not be evident by the use of FTEs, such as increased hiring late in the year, high levels of attrition or other downsizing since the FTE usage would be an average over the year.

Staffing Analysis Chart 1: Staff and Support Offices (SSO) have 2422 Employees on board at the end of FY 2012.

September 18, 2012							
DOE - Five Year Organizational FTE Analysis							
(Organizations are shown in Under Secretary Reporting Relationship)							
		FY 2012*		FY 2011	FY 2010	FY 2009	FY 2008
		On Board	Projected	Actual	Actual	Actual	Actual
	Organization	25-Aug-12	FTE Usage				
Departmental Staff & Support Offices							
HQ	Ofc of the Secretary	34	32.0	30.9	35.1	30.5	28.5
HQ	Secretary's Advisory Board	8	-	-	-	-	-
HQ	ARPA-E	26	25.0	21.7	10.1	1.0	-
HQ	ARRA	-	0.9	5.3	9.0	-	-
HQ	Chief Financial Officer	210	212.9	239.9	281.2	241.9	210.3
HQ	Indian Energy Policy & Programs	2	2.0	1.0	-	-	-
HQ	Loan Program Office	91	88.9	88.2	18.5	134.7	-
HQ	Chief Information Officer	126	123.9	122.6	132.4	18.6	113.4
HQ	Congress'l & Intg'v't Affairs	27	27.9	27.3	20.9	27.2	25.7
HQ	Economic Impact & Diversity	32	29.4	29.1	27.7	366.8	26.6
HQ	Energy Information Admin	360	352.8	361.7	364.3	1.0	352.5
HQ	General Counsel	185	176.2	186.1	174.9	162.7	160.7
HQ	Hearings & Appeals	20	21.9	22.4	21.8	21.8	21.9
HQ	Ofc of Human Capital Officer	164	165.2	163.7	166.2	158.6	134.0
HQ	Health, Safety & Security	308	314.8	332.4	338.9	342.4	347.8
HQ/Field	Inspector General	276	269.6	276.5	255.0	243.6	233.5
HQ	Intelligence & Counterintell	172	168.7	168.5	176.8	161.1	135.0
HQ	Management	263	264.0	287.6	265.3	239.9	231.8
HQ	Policy & International Affairs	92	93.2	101.8	99.8	90.5	92.3
HQ	Public Affairs	26	21.4	20.2	18.2	17.2	20.9
	Sub-Total SSO	2,422	2,390.7	2,486.9	2,416.1	2,259.5	2,134.9

Staffing Analysis Chart 2: The Under Secretary offices have 2,053 Employees on board at the end of FY 2012. The Under Secretary for Science offices have 1,114 Employees on board at the end of FY2012.

September 18, 2012							
DOE - Five Year Organizational FTE Analysis							
(Organizations are shown in Under Secretary Reporting Relationship)							
		FY 2012*		FY 2011	FY 2010	FY 2009	FY 2008
		On Board	Projected	Actual	Actual	Actual	Actual
	Organization	25-Aug-12	FTE Usage				
<u>The Under Secretary</u>							
HQ	Civilian Radioactive Waste Mgmt			0.4	158.6	200.8	189.1
HQ	Electricity Del & Energy Reliability	80	62.1	65.8	62.2	52.2	58.9
HQ	Energy Eff & Renew Energy	562	513.6	480.5	412.1	304.8	290.2
Field	Golden Field Office	154	157.0	240.7	264.3	142.6	120.9
HQ	Fossil Energy	140	121.1	130.2	127.1	125.6	133.7
Field	Nat'l Energy Tech Lab	588	600.4	668.7	678.0	620.7	579.7
Field	NPOSR	8	9.4	12.8	14.0	13	11.8
Field	Strategic Petroleum Reserve	90	89.4	92.7	92.7	90.9	88.8
HQ	Nuclear Energy	175	157.2	161.9	140.9	143.4	149.0
Field	Idaho Ops Office	238	248.8	260.3	271.3	266.4	273.4
Field	NE-Oak Ridge Site	18	4.2	-	-	-	-
	<i>Sub-Total US</i>	2,053	1,963.2	2,114.0	2,221.2	1,960.4	1,895.5
<u>The Under Secretary for Science</u>							
HQ	Office of Science	496	363.1	373.3	362.4	336.6	313.3
Field	Chicago Office	201	199.5	214.2	220.9	221.3	217.2
Field	Ames Site Office	3	3.0	3.6	3.5	4	3.5
Field	Argonne Site Office	22	21.8	24.8	23.9	24.4	26.3
Field	Berkeley Site Office	22	22.2	22.0	22.1	23.2	21.2
Field	Brookhaven Site Office	27	27.0	25.7	25.3	25.5	23.0
Field	Fermi Site Office	14	15.6	15.4	15.1	15	15.3
Field	Pacific Northwest Site Ofc	34	34.7	33.2	34.4	33.6	34.4
Field	Princeton Site Office	11	10.6	9.8	11.5	11.8	12.0
Field	SLAC Site Office	14	14.2	15.1	15.7	15.8	14.2
Field	Oak Ridge Office	217	331.5	381.7	384.4	379.8	384.9
Field	Thomas Jefferson Site Office	11	12.2	12.6	12.6	13	11.7
Field	ORNL Site Office	42	9.5	-	-	-	-
	<i>Sub-Total USS</i>	1,114	1,064.9	1,131.4	1,131.8	1,104.0	1,077.0

Staffing Analysis Chart 3:

The Under Secretary for Nuclear Security (including NNSA) has 4,178 Employees on board at the end of FY 2012.

September 18, 2012							
DOE - Five Year Organizational FTE Analysis							
(Organizations are shown in Under Secretary Reporting Relationship)							
		FY 2012*		FY 2011	FY 2010	FY 2009	FY 2008
		On Board	Projected	Actual	Actual	Actual	Actual
	Organization	25-Aug-12	FTE Usage				
The Under Secretary for Nuclear Security							
HQ	NNSA - Ofc of Administrator	23	25.1	66.5	82.9	78.4	78.5
Field	Emergency Operations	94	94.9	98.1	95.1	89.0	87.5
HQ	Def Nuclear Security	101	100.4	19.9	25.2	21.7	22.8
HQ	Counter-Terrorism	14	10.8	84.4	38.7	38.3	31.3
HQ	Infras & Operation	7	0.8	40.2	-	-	-
HQ	External Affairs	16	15.9	6.1	-	-	-
HQ	General Counsel	44	42.8	11.8	-	-	-
HQ	Acquisition & Project Mgmt	154	138.7	29.5	-	-	-
HQ	Management & Budget	254	275.5	93.1	170.6	155.2	140.2
HQ	Info Mgmt & Chief Information	41	38.9	13.8	-	-	-
HQ	Safety & Health	46	45.6	10.5	-	-	-
Field	NNSA Service Center	-	-	411.4	481.3	469.9	439.5
HQ	Deputy Admin for DP	778	772.2	753.2	754.4	739.7	719.6
Field	Y-12 Site Office	-	53.2	77.9	77.7	81.3	81.9
Field	Pantex Site Office	-	51.3	79.4	79.0	76.5	76.6
Field	NNSA Production Office	149	51.2	-	-	-	-
Field	Sandia Site Office	82	89.6	82.4	81.7	83.2	82.1
Field	Kansas City Site Office	40	41.0	41.6	37.1	39.4	42.7
Field	Los Alamos Site Office	102	106.6	107.8	103.6	108.8	103.1
Field	Nevada Site Office	96	95.7	95.1	92.6	90.8	94.7
Field	Livermore Site Office	94	95.4	95.6	95.5	93.4	95.7
Field	Savannah River Site Office	33	31.7	29.5	31.3	35.7	32.9
HQ	Deputy Admin for NN	257	260.0	252.6	243.9	223.6	223.3
HQ	DA Naval Reactors	128	113.8	110.9	107.6	95.6	71.3
Field	NR Lab Research Center	118	116.9	118.2	110.0	109.9	119.3
Sub-Total NNSA		2,671	2,668.0	2,729.5	2,708.2	2,630.4	2,543.0
HQ	Environmental Mgmt	383	391.6	409.4	413.1	414.5	362.4
Field	Carlsbad Field Office	57	57.4	57.9	54.0	45.0	40.8
Field	Consolidated Business Ctr	193	184.0	198.8	230.8	217.7	171.0
Field	Portsmouth and Paducah	50	51.2	51.3	49.8	47.0	41.2
Field	Richland Ops Office	260	269.8	275.9	273.9	267.3	218.8
Field	Ofc River Protection	138	135.1	135.1	135.1	135.1	135.0
Field	Savannah River Ops	291	303.4	321.8	338.3	327.0	307.3
Field	EM-Oak Ridge Site	77	17.5	-	-	-	-
HQ	Legacy Management	58	57.4	54.1	47.9	50.7	53.8
Sub-Total		1,507	1,467	1,504.3	1,542.9	1,504.3	1,330.3
Subtotal USNS		4,178	4,135	4,233.8	4,251.1	4,134.7	3,873.3

Staffing Analysis Chart 3:

Power Marketing Administrations (PMAs) have 4,775 Employees on board at the end of FY2012. Federal Energy Regulatory Commission (FERC) has 1,485 Employees on board at the end of FY 2012. DOE has a total of 16,207 Employees on-board as of the end of FY 2012, including FERC.

September 18, 2012							
DOE - Five Year Organizational FTE Analysis							
(Organizations are shown in Under Secretary Reporting Relationship)							
	Organization	FY 2012*		FY 2011	FY 2010	FY 2009	FY 2008
		On Board 25-Aug-12	Projected FTE Usage	Actual FTE Usage	Actual FTE Usage	Actual FTE Usage	Actual FTE Usage
Field	Bonneville Power Admin	3,101	3,037.6	3,057.9	3,042.6	3021.2	2,924.2
Field	Southeastern Pwr Admin	41	41.2	43.8	40.9	37.5	36.5
Field	Southwestern Pwr Admin	184	173.7	174.4	176.9	176.9	166.2
Field	Western Area Pwr Admin	1,449	1,432.3	1,421.8	1,407.6	1,383.9	1,339.9
	Subtotal PMAs	4,775	4,684.8	4,697.9	4,668.0	4,619.5	4,466.8
	DOE Total	14,542	14,239	14,664.0	14,688.2	14,078.1	13,447.5
HQ	FERC	1,485	1,468.7	1,466.7	1,419.6	1,396.2	1,281.5
	TOTAL	16,027	15,707.7	16,130.7	16,107.8	15,474.3	14,729.0
* Can be updated after end of Year							

FEDERAL STAFFING DEMOGRAPHICS AND SKILLS

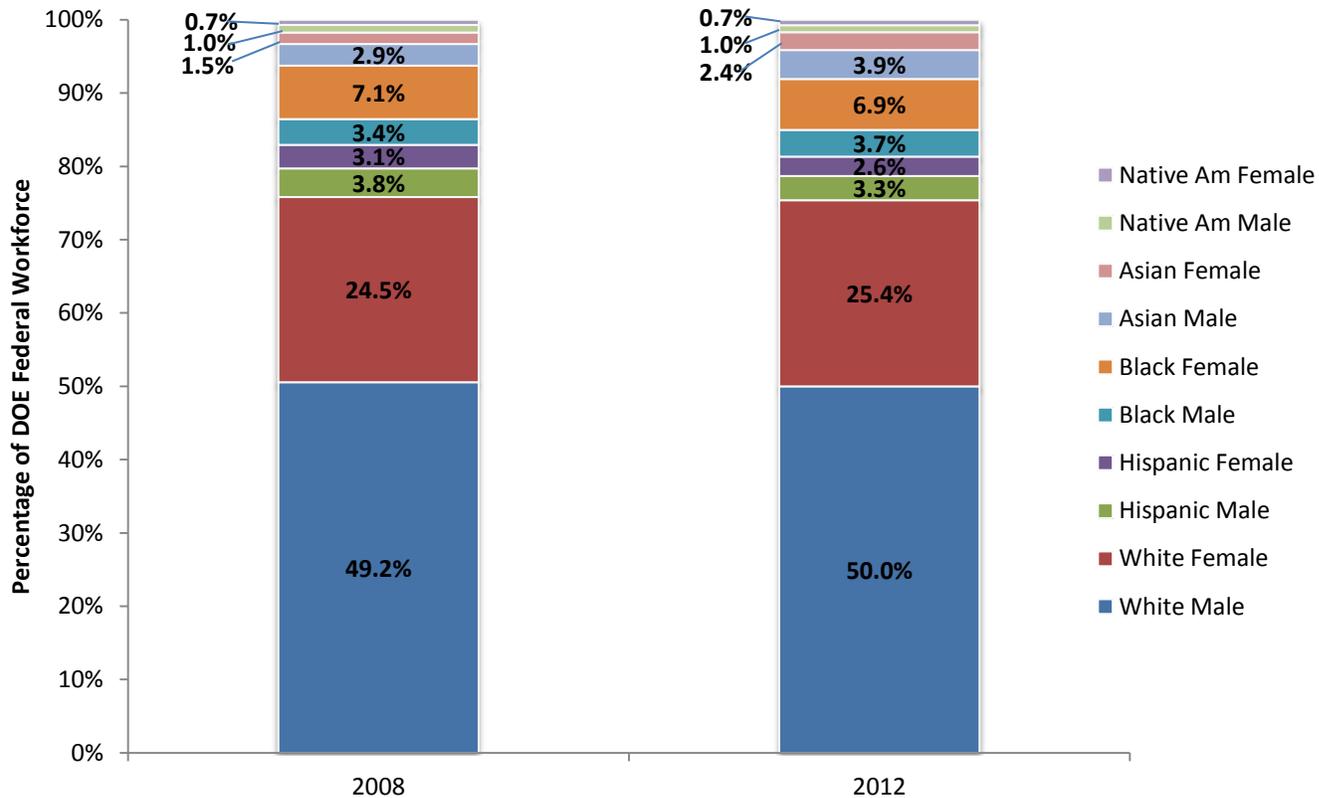
Gender and Race

The chart below shows the change in the diversity of DOE's federal workforce from FY 2008 to FY 2012. Progress towards a more diverse workforce has been moderate. The charts show a slight decrease in the proportion of white males and modest increases in females and the other races.

Regarding gender, 62.2 percent of DOE's workforce was male in FY 2008. The proportion decreased a small amount, to 61.9 percent in FY 2012.

Gender and Race

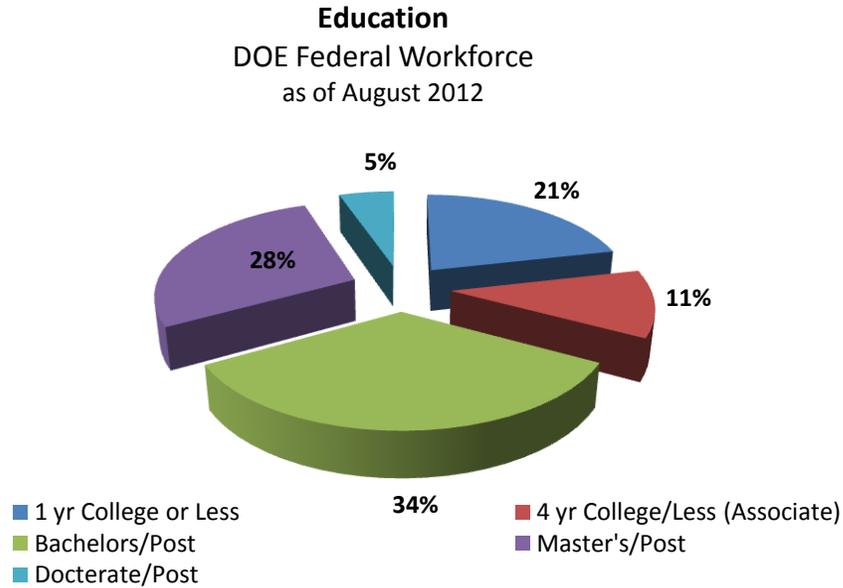
DOE Federal Workforce



FEDERAL STAFFING DEMOGRAPHICS AND SKILLS, CONTINUED

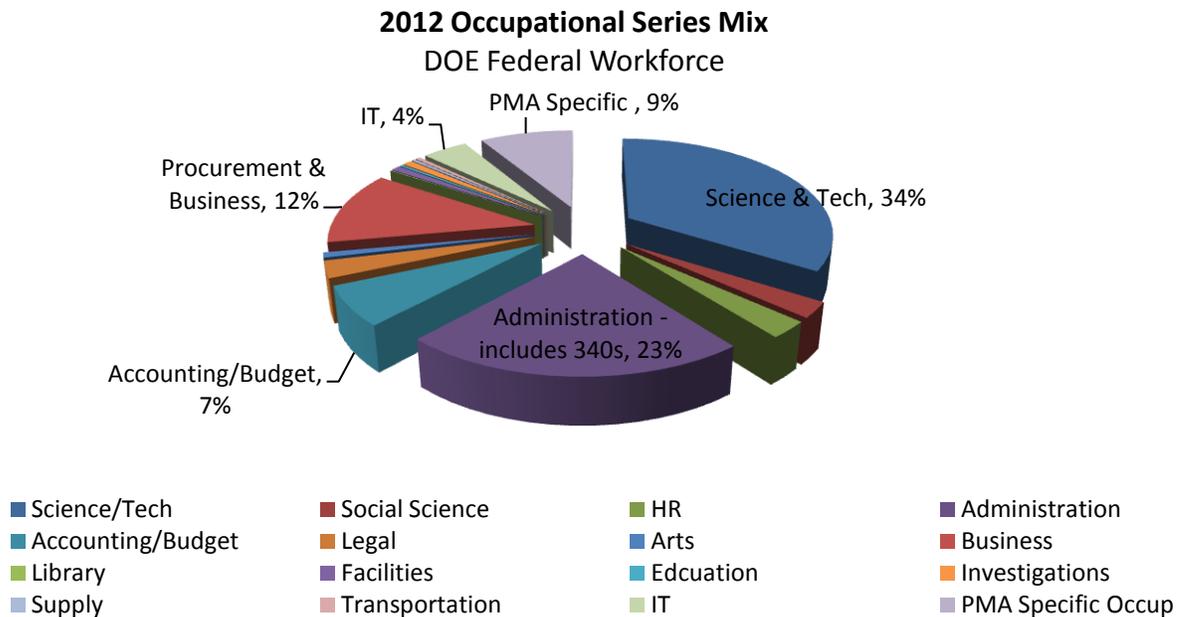
Education

The pie chart below indicates a highly educated workforce with most employees having earned a Bachelors Degree or higher. This is not unexpected in a science and technology agency.



Occupational Mix

The pie chart below displays the occupational makeup of DOE’s federal workforce. The pie slices are groupings of different categories of occupations, called Occupational Series (OS). The Scientific and Technical workforce makes up 34 percent of DOE’s workforce.



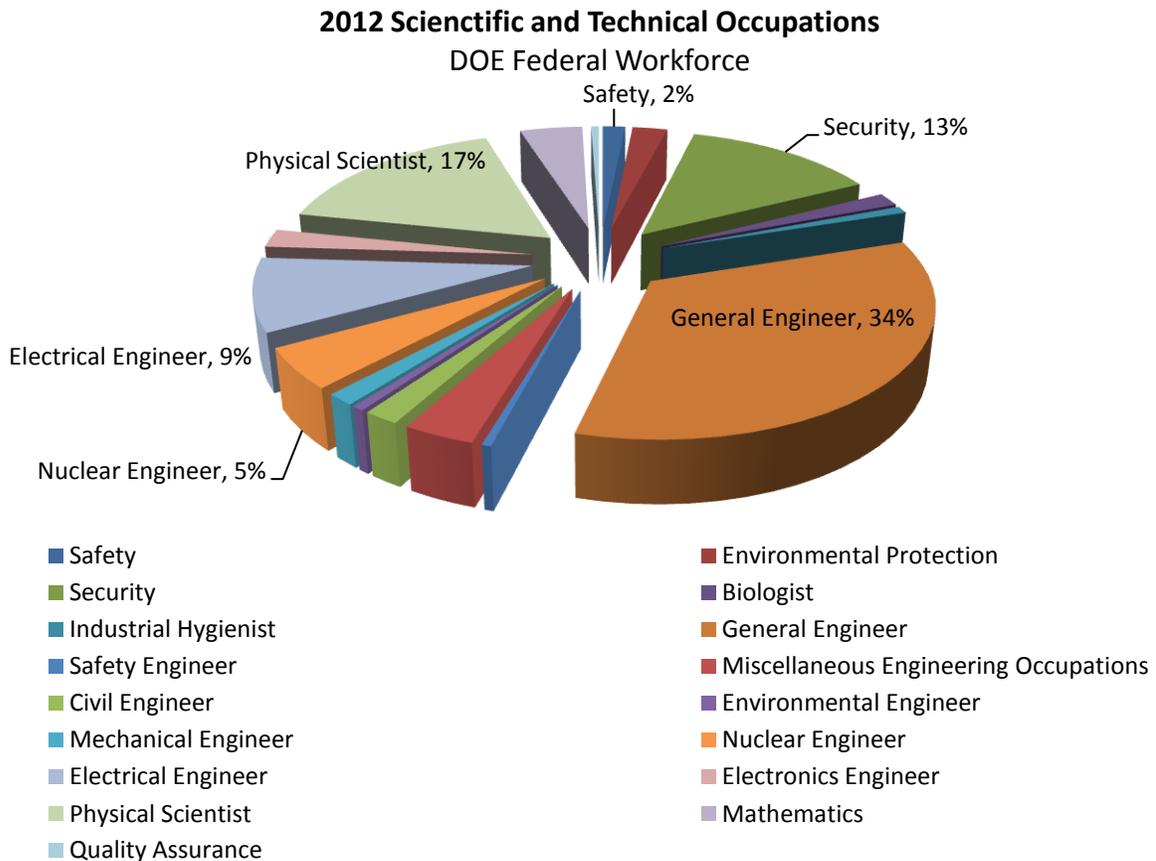
FEDERAL STAFFING DEMOGRAPHICS AND SKILLS, CONTINUED

Scientific and Technical Workforce Breakdown

As indicated in the chart above, DOE's scientific and technical workforce makes up 34% of DOE's total workforce. A breakdown of this workforce is shown in the chart below.

The Scientific and Technical workforce is defined as the Engineering, Physical Science, Safety & Occupational Health Manager, Safety Technicians, Environmental Protection Specialists, Fire Protection and Fire Prevention Specialist, Industrial Hygienists, Environmental Health Technicians, Quality Assurance Specialists and all Excepted Service Employees (Pay Plan EK) hired under the National Defense Authorization Act.

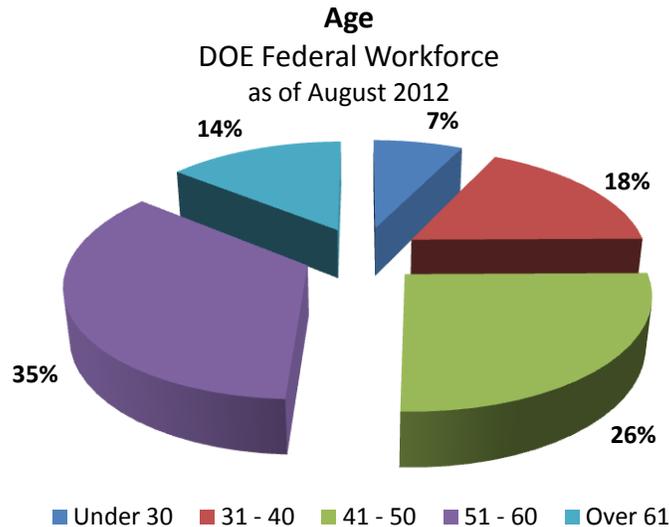
The chart below shows that General Engineers, Electrical Engineers, and Nuclear Engineers together make up nearly two-thirds of DOE's federal scientific and technical workforce. Several engineering series that have small populations are combined into a "miscellaneous engineers" category.



FEDERAL STAFFING RETIREMENT

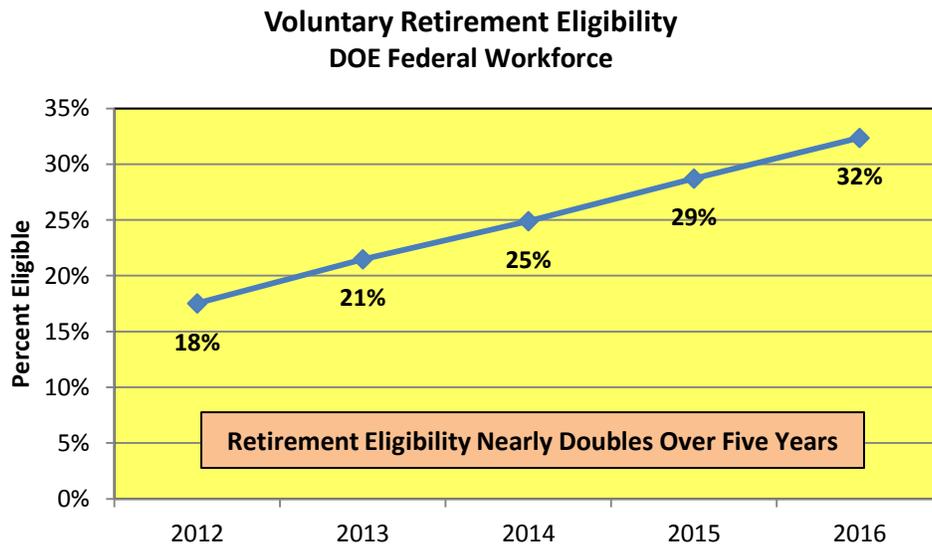
Age

DOE's federal workforce is aging. The pie chart below displays the current age distribution of DOE's federal workforce. Over the last five years, has remained relatively static with slight increases in the 31 – 40 and over 61 Age Ranges offset by decreases in the 41 thru 60 populations.



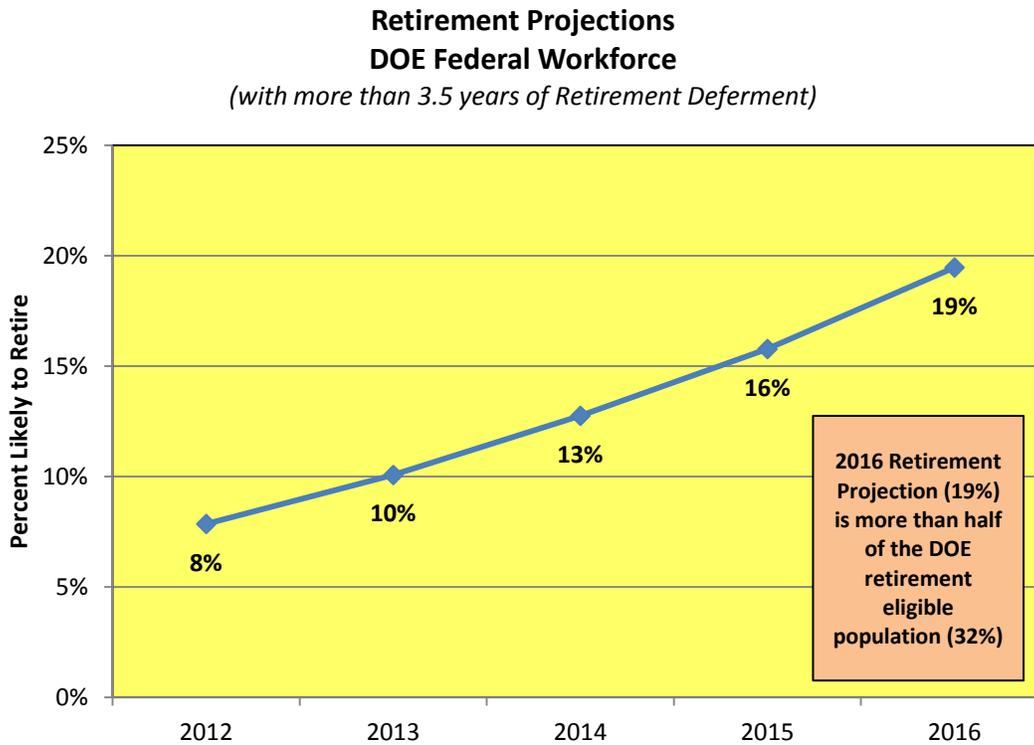
Retirement Eligibility

The Department's retirement prognosis, coupled with the aging workforce, presents a significant human capital challenge to DOE. This chart below shows the percentage of the present population that will be eligible to retire over the next four years. This is simply an eligibility chart, not a prediction of what will happen. Even so, this chart indicates that 32 percent of the current federal employee population will be eligible to retire by the end of 2016.



Retirement Projections

Based on historical data when employees usually retire, the chart below shows a somewhat different view of retirement. DOE's retirement projection model uses data on employees three and one half years after eligibility and/or 60 years of age. This data currently shows a projection of 8 percent of the workforce actually retiring as opposed to 18 percent eligible in FY 2012, and a projection of 19 percent retiring in FY 2016 as opposed to eligible retirements of 32 percent.



FEDERAL EMPLOYEE UNION

Department of Energy Headquarters, Labor Relations

The National Employees Treasury Union (NTEU) has had bargaining recognition with DOE Headquarters (HQ) since 1979. Colleen Kelly is the current national President of NTEU. Jared Gross is the NTEU national representative for the NTEU HQ Chapters.

There are two NTEU Chapters:

- Chapter 213 covers 1,220 bargaining unit employees in the immediate Washington D.C area. President: Carolyn Haylock; Executive Vice President: Jeff Egan.
- Chapter 228 covers 586 bargaining unit employees in the Germantown Complex. President: Barry Clark; Executive Vice President: Mary Haughey.

Bargaining unit employees are employees of the Agency not excluded by Statute, i.e. managers, supervisors or confidential employees, who are entitled to representation by a recognized labor organization and are covered by a collective bargaining agreement. Bargaining unit employees may elect to pay dues or not pay dues. As of September 2008, 6,299 DOE employees, located at eight sites Department-wide, are included in bargaining units.

The Collective Bargaining Agreement (CBA) is the written document incorporating the agreed-to conditions of employment affecting bargaining unit employees. Conditions of employment subject to bargaining include, but are not limited to, personnel policies, practices and matters such as hours of work, leave administration, performance management, awards, merit promotions, hours of work, discipline.

The union has an obligation to represent all bargaining unit employees whether they pay dues or not. Representation includes collective bargaining, grievances, formal meetings, responses to proposed disciplinary actions, and third party representation.

The union has a right to be present and invited to comment or speak during formal meetings with bargaining unit employees. Generally a meeting is formal when held with a supervisor or higher level manager; has a scheduled time and place; an established agenda; is mandatory, may have a note taker; and discusses changes in personnel policies and procedures, and other conditions of employment. It is not an operational staff meeting.

Bargaining unit employees are entitled to representation during investigatory meetings or interviews. Known as *Weingarten Rights*, the employee may request union representation during any examination by an Agency representative in connection with an investigation if the employee reasonably believes that the examination may result in disciplinary action against the employee. In accordance with the CBA, DOE HQ bargaining unit employees who may be subject to discipline as a result of the investigation will be apprised of their *Weingarten Rights* at the beginning of the investigatory interview.

NTEU is the most visible union due to its location at headquarters. However, The American Federation of Government Employees (AFGE) is the largest union within the department. AFGE is located at most of DOE's field sites. Below is a list of all federal labor unions within DOE:

- **BONNEVILLE POWER ADMINISTRATION**
Columbia Power Trades Council (CPTC)
 - International Brotherhood of Electrical Workers (IBEW), Local 125 (Portland, OR)
 - International Association of Machinists and Aerospace Workers (IAMAW), District Lodge 24 (Portland, OR)
 - International Brotherhood of Painters and Allied Trades (Painters), Painters District Council

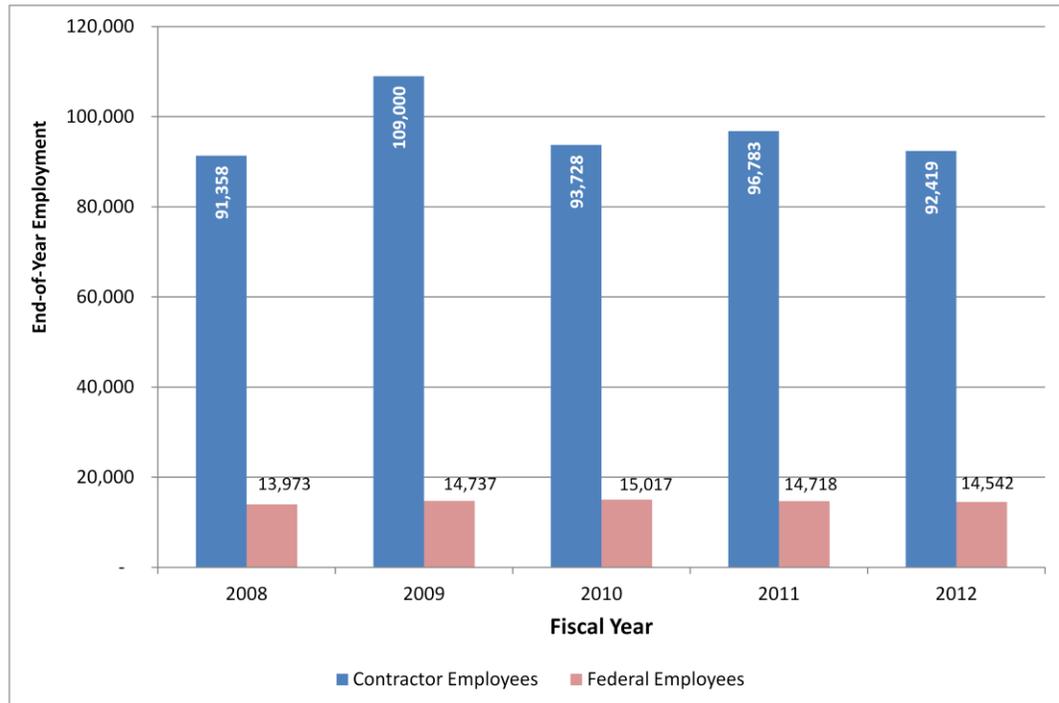
- 55, Local 360 (Portland, OR)
- International Union of Operating Engineers, Local 701 (Gladstone, OR)
- Sheet Metal Workers International Association, Local 16 (Portland, OR)
- United Association of Journeymen & Apprentices of the Plumbing & Pipefitting Industry of the United States and Canada, Local 290 (Tualatin, OR)
- International Brotherhood of Teamsters, Chauffeurs, Warehousemen, and Helpers of America, Local 58 (Vancouver, WA)
- Laborers International Union of North America (LIUNA), Local 335 (Vancouver, WA)
- American Federation of Government Employees (AFGE), Local 928 (Portland, OR)
- **FEDERAL ENERGY TECHNOLOGY CENTERS**
 - American Federation of Government Employees (AFGE), Local 1995 (Morgantown, WV)
 - American Federation of Government Employees (AFGE), Local 1916 (Pittsburgh, PA)
 - American Federation of Government Employees (AFGE) Local 1104 (Albany, OR)
- **HEADQUARTERS, DEPARTMENT OF ENERGY**
 - NTEU, Local 213 (Washington, DC)
 - NTEU, Local 228 (Germantown, MD)
- **IDAHO OPERATIONS OFFICE**
 - International Federation of Professional and Technical Engineers (IFPTE), Local 94 (Idaho, ID)
- **OAK RIDGE OFFICE**
 - Office of Professional Employees International Union (AFL-CIO), Local 2001 (Oak Ridge, TN)
- **RICHLAND OPERATIONS OFFICE**
 - National Federation of Federal Employees (NFFE), Local 181 (Richland, WA)
- **SOUTHWESTERN POWER ADMINISTRATION**
 - International Brotherhood of Electrical Workers (IBEW), Local 1002 (Tulsa, OK)
- **WESTERN AREA POWER ADMINISTRATION**
 - American Federation of Government Employees (AFGE), Locals 3824 (Loveland, CO) & Local 3807 (Watertown, SD)
 - International Brotherhood of Electrical Workers (IBEW), Locals 640 (Phoenix, AZ), 1245 (Folsom, CA), 1795 (Loveland, CO), 1959 (Sioux Falls, SD), & 2159 (Montrose, CO)

For further guidance and assistance, please contact the DOE HQ Employee and Labor Relations Division, extension 6-1542.

DOE CONTRACTOR STAFFING

Across the DOE complex, there are far more DOE contractor employees than federal employees. Contractor employees are critical for carrying out the work at DOE's nationwide complex of headquarters and field organizations, national laboratories, power marketing administrations, and special purpose offices, and its vast array of energy programs. As shown in the graph below, since FY 2008, the number of DOE contractor employees has remained at approximately 93,000 contractors.

DOE Federal and Contractor Employees



The chart below displays the projected number of DOE contractor employees by the end of FY 2012 by program and by site. The National Nuclear Security Administration (NNSA), labeled in the chart as Defense Programs (DP), Defense Nuclear Nonproliferation (NN), and some other DOE Programs are projected to employ the most contractor employees, at approximately 23,556. The Office of Environmental Management (EM) is projected to employ the second highest number of contractor employees, at roughly 18,135 contractor employees. The Office of Science (SC) follows with approximately 14,000 contractor employees. Work for Others (WFO) is also projected to employ a large number of contractor employees, at approximately 16,234 contractor employees. WFO takes place at DOE’s national laboratories. This work is performed for entities other than DOE, including work for other federal agencies such as DOD and DHS.

Geographically, the Hanford area of Washington State, which has a national laboratory and large EM cleanup projects, is projected to employ the highest number of contractor employees. This area, which includes the Hanford Site, the Office of River Protection, and the Pacific Northwest National Laboratory, is projected to employ over 12,000 contractor employees. DOE’s Oak Ridge, Tennessee facilities, which also have large EM cleanup projects and a national laboratory, are projected to have the next highest number of contractor employees. The Oak Ridge facilities, including the Y-12 National Security Complex, are projected to have a total of approximately 11,000 contractor employees by the end of FY 2012.

FY 2011 DATA CALL - PROGRAM ESTIMATED HEADCOUNTS BY END OF FY 2012

SITE	NNSA DP	EM	NE	SC	EERE	NNSA DNN	Other DOE	Non- DOE	Total
Ames Lab				235	40	4	20	45	344
Argonne National Lab – East	32	73	87	1485	309	109	58	519	2672
Bechtel Marine Prop (PA/NY/ID) - NRFLO							7015		7015
Brookhaven National Lab	6	2	13	2880	22	30	16	203	3172
East Tennessee Tech Prk (fmr K-25,ORGDP)	0	501	0	0	0	0	16	88	605
Fermi National Accelerator Lab				1907					1907
Hanford Site (ORP)		3233							3233
Hanford Site (RL)		4229							4229
Idaho Natl Engr & Environ Lab	65	1924	2649	35	134	145	45	1010	6007
Jefferson National Laboratory	0	0	0	770	0	0	9	49	828
Kansas City Plant	1431	0	0	0	0	33	448	978	2890
Las Vegas Operations	1107	224	0	0	0	428	81	541	2381
Lawrence Berkeley Natl Lab		17		2259	367		132	662	3437
Lawrence Livermore Natl Lab	4186	6	47	162	55	282	221	1222	6181
Los Alamos National Lab	4000	609	135	406	172	551	757	892	7522
National Renewable Energy Lab				144	1385		48	48	1625
Oak Ridge Complex-Wide	580	126		132					838
Oak Ridge Inst for Science & Education	110	36	2	110	18	4	67	409	756
Oak Ridge National Lab	26	57	179	2598	422	323	294	846	4745
Pacific Northwest National Lab-OR	96	326	65	796	531	776	443	1791	4824
PADUCAH Site	0	453	0	0	0	0	0	0	453
Pantex Plant	3408								3408
PORTSMOUTH		2267							2267
Princeton Plasma Physics Lab				439					439
Sandia National Labs – Albuquerque	4171	53	48	209	230	613	206	3760	9290
Savannah River Plant	609	3189	19	17	14	498	40	105	4491
Stanford Linear Accelerator Center		6		1650					1656
Strategic Petroleum Reserves							0		0
Waste Isolation Pilot Plant – Carlsbad		612							612
West Valley Demonstration Project - EMCBC		192							192
Y-12 Plant	3729					264	7	400	4400
Total	23556	18135	3244	16234	3699	4060	9923	13568	92419

Legend: **DP:** NNSA Defense Programs
DNN: NNSA Defense Nuclear Nonproliferation
WFO: Work for Others

SECTION NINE

DOE CONTRACT MANAGEMENT

DOE primarily accomplishes its work in the field. This section describes DOE's history and strategies with managing its contracts.

DOE Contracting Facts

In carrying out its mission, DOE manages a vast array of energy programs and a nationwide complex of headquarters and field organizations, national laboratories, power marketing administrations and special purpose offices. Contracting is critical to DOE's mission accomplishment. Historically, annual procurement obligations represent 85 percent of DOE's total annual obligations. Refer to DOE's prime award spending data on USASpending.gov to view profiles by instrument type, number and total obligations.

The \$43.6 billion in FY 2010 includes the remaining American Recovery and Reinvestment Act (ARRA) funding authorized for DOE administration. DOE received over \$36 billion in ARRA funding and continues to report on those funds provided to awardees. Improving management of DOE contracts continues to be a high priority to which end the DOE has established and executed several management initiatives. One measure of success would be DOE's removal from the GAO High-Risk List in contract management. GAO has since recognized DOE's progress in this arena but there remains more work to do.

DOE Major Site and Facility Contracts

DOE contracts run the gamut from providing routine supplies and services to the acquisition of research and development. The most significant aspect of the Department's contracting is its unique one-of-a-kind cutting-edge Management and Operating (M&O) contracts. Under this form of contracting, for-profit and not for-profit organizations, including academic institutions, manage DOE's research and development laboratories, nuclear weapons laboratories, the production and dismantlement of nuclear weapons and nuclear waste management operations.

Developed by the Manhattan Project and subsequently by the Atomic Energy Commission, M&O contractors have a separate regulatory base and were established to meet mission objectives in concert with the operation of a government-owned facility. Most of the M&O contracts are for the operation of national laboratories that are Federally Funded Research and Development Centers (FFRDCs), as defined by the statute. The relationship of FFRDCs to the Government is viewed as closer than the typical "arms-length" relationship with contractors. Funding is provided by DOE via letter of credit. The M&O contractor does not provide working capital. The number of DOE M&O contracts has declined from 41 in 1994 to 24 today.

Historically, DOE did not compete its M&O contracts. However, beginning in late 1996, DOE established competition as the norm, following government-wide competition requirements. Section 301 of the Energy and Water Development Appropriations Acts and the Energy Policy Act of 2005 require the Department to compete M&O contracts unless the Secretary personally grants a waiver and notifies Congress. All M&O contracts are now subject to competition using standard Federal Acquisition Regulation procedures. Since 1996, 24 M&O contracts have been completed and 3 have been awarded pursuant to waivers, i.e. without a competitive process.

DOE also utilizes award term (or the earning of additional time vice award fee dollars) in all of its Office Science and NNSA sponsored laboratory contracts that have been competed. Award term provides

extended performance periods rather using a large fee or profit for an incentive. Award term is not used in the M&O contracts that are extended by the Secretary. Extending the term of performance with a small performance fee for the contractors that deliver excellent performance in supporting Science and NNSA initiatives at these laboratories has been a successful incentive. In FY 2011, the Department led the federal government in competition, competing 89 % of its contracting dollars. Below is a list of DOE's M&O contracts with their associated FY 2011 obligations.

Sponsor	DOE Site/Facility	M&O Contractor	FY 2011 Obligations
EE	National Renewable Energy Laboratory	Alliance for Sustainable Energy	\$ 368,828,125
EM	Waste Isolation Pilot Plant	Washington TRU Solutions	\$ 134,739,992
EM	Savannah River Site (includes Savannah River National Laboratory)	Savannah River Nuclear Solutions	\$ 735,114,987
FE	Strategic Petroleum Reserve	Dyn McDermott Petroleum Operations Company	\$ 141,372,964
NE	Idaho National Laboratory	Battelle Energy Alliance	\$ 840,196,739
NNSA	Pantex Plant	B&W Pantex LLC	\$ 547,424,468
NNSA	Y-12 Plant	B&W Y-12 LLC	\$ 822,889,514
NNSA	Kansas City Plant	Honeywell International	\$ 970,231,466
NNSA	Lawrence Livermore National Laboratory	Lawrence Livermore National Security	\$ 1,574,807,076
NNSA	Los Alamos National Laboratory	Los Alamos National Security	\$ 2,504,962,182
NNSA	Nevada Test Site	National Security Technologies	\$ 510,921,392
NNSA	Sandia National Laboratories	Sandia Corporation	\$ 2,383,268,916
NNSA/NR	Knolls/Bettis Atomic Power Laboratory	Bechtel Marine Propulsion	\$ 769,553,374
RW	Civilian Radioactive Waste Repository (Yucca)	USA-Repository Services	\$ 0
SC	Ames Laboratory	Iowa State University	\$ 32,495,458
SC	Argonne National Laboratory	University of Chicago Argonne, LLC	\$ 692,812,690
SC	Brookhaven National Laboratory	Brookhaven Science Associates	\$ 634,829,355
SC	Fermi National Accelerator Laboratory	Fermi Research Alliance, LLC	\$ 407,501,195
SC	Lawrence Berkeley National Laboratory	University of California	\$ 1,574,807,076
SC	Oak Ridge National Laboratory	University of Tennessee – Battelle, LLC	\$ 1,168,522,366
SC	Pacific Northwest National Laboratory	Battelle Memorial Institute	\$ 720,384,839
SC	Princeton Plasma Physics Laboratory	Princeton University	\$ 81,395,918
SC	SLAC National Accelerator Laboratory	Stanford University	\$ 333,992,841
SC	Thomas Jefferson National Accelerator Laboratory	Jefferson Science Associates, LLC	\$ 152,085,903

In FY 2012, the Department competitively awarded an M&O contract to the Nuclear Waste Partnership, LLC for the management and operation of the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico with an estimated value of \$1.3 billion over 5 years. In FY 2011 and FY 2012, several M&O contracts were extended non-competitively via Secretarial waivers. The Secretary waived competition for the Brookhaven National Laboratory, SLAC National Accelerator Laboratory and Pacific Northwest National Laboratory. Waivers for the SLAC National Accelerator Laboratory and the Pacific Northwest National Laboratory were granted in early FY 2011. A new competitive M&O contract is expected to be awarded in the second quarter of FY 2013 for the Strategic Petroleum Reserve.

Facility Management Contracts and Other Types of Contracts

In addition to its M&O contracts, DOE manages other types of major site and facility management contracts (FMCs). These non-M&O FMCs evolved from former M&O contracts due to a change in the mission of the facility (e.g. from production to environmental remediation). Below is the list of non-M&O FMC contracts with their associated FY 2011 obligations:

Sponsor	DOE Site/Facility	FMC Contractor	FY 2011 Obligations
EM	Environmental Management at Oak Ridge (New Award ETTP)	Bechtel Jacobs Co. LLC	\$ 215,514,232
EM	Waste Treatment Plant (Hanford)	Bechtel National	\$ 733,779,593
EM	Tank Operations Contract (ORP)	Washington River Protection Solutions.	\$ 419,285,419
EM	Idaho Cleanup Project at Idaho National Laboratory	CH2M WG Idaho LLC	\$ 243,192,722
EM	Portsmouth Facility Support Services for the Gaseous Diffusion Plant	Wastren-Energx Mission support	\$ 18,846,869
EM	West Valley Demonstration Project	West Valley Environmental Services, B&W, CH2MHill	\$ 52,856,326
EM	Paducah Remediation	LATA Environmental Services of Kentucky	\$ 81,023,816
EM	Portsmouth Remediation Project	LATA/Parallax Portsmouth LLC	\$ 62,028,452
EM	Paducah Infrastructure	Swift and Staley Mechanical Contractors Inc.	\$ 13,526,353
EM	River Corridor Closure (Hanford)	Washington Closure Hanford	\$ 235,043,001
EM	Plateau Remediation (Hanford)	CH2M Hill Plateau Remediation	\$ 312,527,363
EM	Mission Support (Hanford)	Mission Support Alliance	\$ 311,156,328
EM	Savannah River Liquid Waste Disposition	Savannah River Remediation Services	\$ 483,451,510
EM	Portsmouth D&D	Flour-B&W Portsmouth	\$ 83,603,382
EM	East Tennessee Tech Park (OR)	URS/CH2M Hill Oak Ridge (new)	\$ 91,269,932

Several competitive non-M&O contracts were awarded in FY 2011, including a contract for environmental remediation at the East Tennessee Technology Park in Oak Ridge, Tennessee, with an estimated value of \$2.39 billion over a ten year performance period, and a second for environmental remediation (West Valley Demonstration Project) in New York, with an estimated value at award of \$334 million for an eight year performance period.

Energy Facility Contractors Group (EFCOG)

EFCOG is an organization of DOE contractors working together to improve the performance and cost-effectiveness of DOE sites, facilities and missions through an ongoing exchange of lessons learned and best practices. It provides recommendations on new DOE initiatives, collects and evaluates information across DOE, and provides assistance on a broad range of operational challenges across the DOE complex. EFCOG facilitates multiple forums for open communication, providing constructive feedback and propose solutions that result in continuous improvement.

EFCOG is directed by senior executives from DOE contractors and is supported by DOE officials who serve as sponsors from program offices at the leadership and working group level. This has created a very powerful partnership between contractor and federal organizations in support of DOE's mission goals. There are approximately 120 member companies that make up EFCOG, including DOE prime management contractors and organizations that support a DOE prime contractor as a subcontractor, vendor or consultant.

EFCOG sponsors interactive forums to exchange proven techniques and other management and technical information among member contractors through working groups in the following topical areas:

- Business Management
- Contractor Assurance
- Decontamination & Decommissioning/Facility Engineering
- Enforcement Coordination
- Engineering Practices
- Environmental Safety & Health
- Integrated Safety Management & Quality Assurance
- Project Management
- Safety Analysis
- Safeguards & Security
- Sustainability & Infrastructure
- Waste Management

Examples of activities include the following:

- Developed safety culture principles, and currently supporting DOE's implementation
- Prepared work planning and controls guidelines and implementation plans
- Conducted material control and accountability security assessments
- Performed assessments of contract incentives and small business contracting approaches
- Conceptualized contractor assurance leading indicators
- Collaborated on waste management and disposition requirements and guidance
- Benchmarked best business practices to increase efficiency and reduce costs.
- Developed approaches to DOE Order and DOE Guide implementation
- Conducted workshops on Price-Anderson Act compliance, energy efficiency, facility maintenance and safety basis
- Performed strategic workforce planning evaluations
- Conceptualized, validated and disseminated broad-based best practices documentation

SECTION TEN

DOE PROJECT MANAGEMENT

The Department's project portfolio is large, complex and technically challenging. Many of the projects are unique, first-of-a-kind initiatives that involve cutting-edge technology. This section describes the Department's strategy for managing projects.

DOE Project Management Summary

The Department of Energy's over \$80 billion portfolio of contracts and projects demands a sophisticated and flexible structure to manage contract and project risks systematically; control cost, schedule and scope baselines; acquire, develop and retain contract and project management personnel; optimize use of available resources; and transfer new technologies and management practices efficiently between projects.

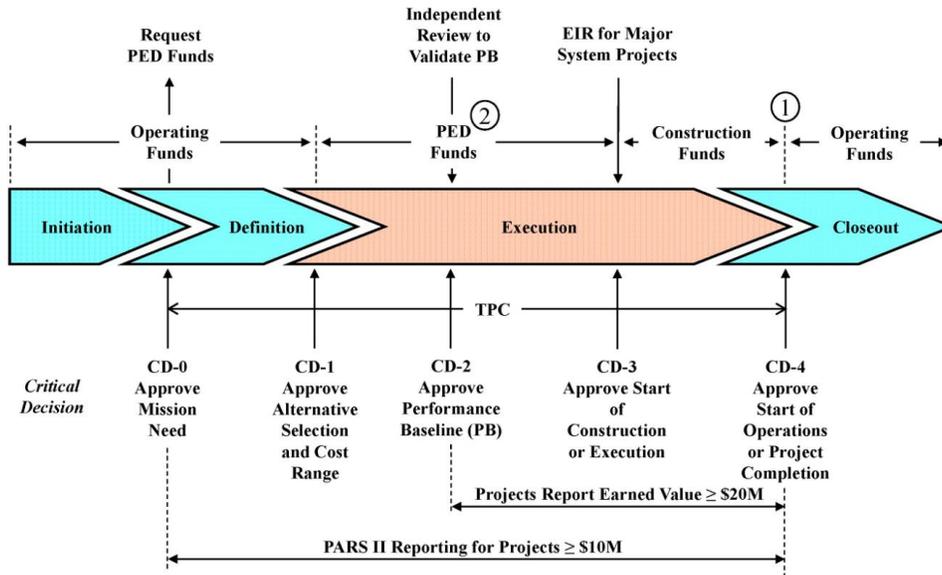
The portfolio represents the diverse nature of DOE missions, encompassing energy systems and research, nuclear weapons development and stewardship, environmental restoration, contaminated and complex facility deactivation and decommissioning, waste management and basic and applied energy and scientific research.

DOE Project Management Framework

The DOE Acquisition Management System, as defined in DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, establishes principles and processes that translate user needs and technological opportunities into reliable and sustainable facilities, systems and assets that provide a required mission capability. The system is organized by project phases based on a gated and formal decision-making process (defined as Critical Decisions or CDs) modeled after the approach used within The Department of Defense (DoD) for acquisition of major weapons systems.

The Department's ultimate objective is to deliver every project at the original Performance Baseline, on schedule, within budget and fully capable of meeting mission performance, safeguards and security, quality assurance, sustainability and environmental, safety and health requirements. The authority and accountability for any project, including its costs, is vested firmly in the hands of the Federal Project Director (FPD), who is responsible to the authorizing Acquisition Executive (AE).

Within DOE, projects typically progress through five CDs, which serve as major milestones approved by the SAE or AE. Each CD (except CD-4 or project completion) marks an authorization to increase the commitment of resources by DOE and requires successful completion of the preceding phase or CD. While the amount of time between CDs will vary, they progress from broadly-stated mission needs into well-defined requirements resulting in operationally effective, suitable and affordable facilities, systems and other products.



NOTES:

- 1. Operating Funds may be used prior to CD-4 for transition, startup, and training costs.
- 2. PED funds can be used after CD-3 for design.

Earned Value Management System: DOE Order 413.3B requires that an Earned Value Management System (EVMS) that is compliant with national standards such as ANSI/EIA-748 be employed by the contractor for projects with a total project cost (TPC) greater than or equal to \$20 million. Projects having a TPC between \$20 million and \$50 million must have an Earned Value Management System that is self-certified by the contractor as ANSI/EIA-748 compliant. Projects having a TPC greater than or equal to \$50 million require an ANSI/EIA-748 compliant system certified by the Program Offices' Project Management Support Offices. Projects having a TPC greater than or equal to \$100 million require an ANSI/EIA-748 compliant system certified by DOE's Office of Acquisition and Project Management.

DOE Project and Contract Management Concerns

The Department of Energy has been on the Government Accountability Office (GAO) High Risk List since the inception of the list for inadequate project and contract management and contractor oversight. As a result, the Department has been under increased scrutiny from Congress, GAO and the Office of Management and Budget over its project and contract management practices. While progress has been made, many of DOE's high visibility, high cost and technically complex projects have continued to encounter significant cost increases and schedule delays.

The Department conducted a root cause analysis (RCA) workshop in October 2007 to identify the systemic challenges of planning and managing DOE projects. The Department identified the 10 most significant issues DOE faces in managing contracts and projects in an April 2008 DOE report entitled, *U.S. Department of Energy Contract and Project Management Root Cause Analysis*.³ In 2008, Congress directed DOE to develop an action plan to be removed from the High Risk List, and to specifically address technology readiness and seismic risk mitigation.

³ <http://energy.gov/management/office-management/operational-management/project-management/root-cause-analysis-rca>

By an overwhelming margin, DOE's top challenge was that DOE does not complete front-end planning (to include project requirements definition) to an appropriate level before establishing project baselines. Other key issues included the lack of an adequate number of federal contracting and project personnel with the appropriate skills (e.g., cost estimating, scheduling, risk management and technical expertise) to plan, direct and oversee project execution, and failure to request and obtain full or planned incremental funding which results in increased risk of project failure.

DOE Project and Contract Management Improvements

In July 2008, in a report entitled *U.S. Department of Energy Contract and Project Management Root Cause Analysis Corrective Action Plan (CAP)*¹, DOE began addressing the root causes and most significant issues hindering effective project and contract management via a series of corrective measures and associated actions. The major improvements in DOE's project and contract management practices resulting from these efforts were documented in the *U.S. Department of Energy Contract and Project Management Root Cause Analysis and Corrective Action Plan Closure Report*¹ in February 2011. Following is a summary:

- Improved front-end planning by: requiring sufficient design maturity prior to establishing performance baselines; using industry standard practices such as Technology Readiness Assessment and Project Definition Rating Index tools to determine projects' readiness for baselining; and dividing large programs/projects into smaller, stand alone projects, as appropriate, to improve project definition, reduce risk and stabilize funding.
- Developed a Departmental project team staffing model and guide to help determine and assess project staff size and required skill set across the project life.
- Established project funding stability by approving funding profiles at Critical Decision 2, requiring Acquisition Executive approval of any subsequent changes to the profile, and ensuring affordability and adherence to baseline funding profiles for incrementally funded projects in annual budget requests.
- Strengthened DOE Order 413.3B, which includes new independent cost estimating requirements, along with revisions or development of associated supporting Guides (e.g., cost estimating, risk management and change control).
- Enhanced the Project Management Career Development Program and the Acquisition Career Management Program to improve the training and qualifications of project and contract management personnel.
- Exported a successful best practice employed by the Office of Science by implementing Project Peer Reviews across the complex to better monitor project development and execution and foster sharing of design, procurement and construction lessons learned. Project Peer Reviews leverage federal and contractor staff from across the complex that have knowledge, skills and experience for particular projects, disciplines and phases.
- Improved the Project Assessment and Reporting System (PARS II) to keep leadership aware of project status and effect appropriate corrective actions in a timely manner.

While significant project improvements have been realized, the DOE recognizes that further improvements are necessary. Accordingly, the Department is identifying and implementing project and contract management continuous improvement initiatives. Some of the continuing challenges which DOE is currently addressing include using project priorities to improve alignment of funding and drive budget

decisions; maintaining alignment of project baselines with contracts through proper change control; and improving DOE's ability to hold federal employees and contractors accountable for project performance.

Project Status and Stages

The tables on the following pages provide a snapshot of the Department's portfolio of all its construction and environmental management (EM) cleanup projects, their estimated costs, and current performance status as of September 26, 2012. Currently, the Department's portfolio of capital asset projects consists of 63 projects in pre Critical Decision-2 (CD-2) planning with a total estimated value ranging up to \$54.8 billion, and 59 projects in post CD-2 execution with an estimated total project cost of \$28.5 billion. The completion dates on these construction projects extends out to 2020.

The status column identifies the project performance status using the following criteria:

- Green – Project is expected to meet its Performance Baseline (scope, cost and schedule).
- Yellow – Project is at risk of breaching its Performance Baseline.
- Red – Project is expected to breach its Performance Baseline.

While there are a total of 8 capital asset projects coded RED or YELLOW, four of them are on a watch list for closer management attention. These four include the Waste Treatment Plant (WTP) project (WA), the Salt Waste Processing Facility (SWPF) project (SC), the Waste Solidification Building (WSB) project (SC) and the Mixed Oxide Fuel Fabrication Facility (MOX) project (SC). Also being closely monitored as it progresses through planning and design prior to setting its Performance Baseline is the Uranium Processing Facility (UPF) project (TN).

Portfolio Performance Status as of September 26 2012

Program	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Total Project Count	Pre-CD2 Count	Post-CD2 Total Count	Post CD2 RED Count	Post CD2 YELLOW Count	Post CD2 GREEN Count
Office of Energy Efficiency (EE)	\$241.5	\$240.2		5		5			5
Office of Environmental Management Construction Portfolio (EM-L)	\$6,681.0	\$13,602.0	\$17,060.0	5	3	2	2		
Office of Fossil Energy (FE)	\$72.8	\$72.8		1		1			1
National Nuclear Security Administration (NNSA)	\$6,013.3	\$6,098.7	\$8,351.8	26	12	14	3	1	10
Office of Nuclear Energy (NE)	\$17.4	\$17.4	\$3,405.0	8	7	1			1
Office of Science (SC)	\$2,286.5	\$2,286.5	\$8,566.4	44	25	19			19
DOE Construction Portfolio Total	\$15,312.6	\$22,317.5	\$37,383.2	89	47	42	5	1	36
Office of Environmental Management Clean Up Portfolio (EM-C)	\$5,122.1	\$6,157.1	\$17,450.0	33	16	17	2		15
DOE Total Portfolio (Construction and Clean Up)	\$20,434.7	\$28,474.6	\$54,833.2	122	63	59	7	1	51

Portfolio Performance Status as of September 26 2012

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
EE	10-EE-05003	User Test Bed Facility (UTBF)	LBNL	3	0	\$15.9	\$15.9		G
EE	08-EE-01	Energy System Integration Facility (ESIF)	NREL	3	0	\$135.0	\$135.0		G
EE	10-EE-01	South Table Mountain (STM) Ingress/Egress & Traffic Capacity Upgrades	NREL	3	0	\$44.0	\$44.0		G
EE	10-EE-05001	Carbon Fiber Technology Facility	ORNL	3	1	\$30.0	\$28.6		G
EE	10-EE-05002	Maximum Energy Efficiency Building (MAXLAB)	ORNL	3	1	\$16.6	\$16.7		G
EM-C	ORP-0014.C1	Secondary Waste/ETF Construction	ORP	0	0			\$194.0	N/A
EM-C	ORP-0014.C2	Interim Hanford High-Level Waste Storage and Shipping Construction	ORP	0	0			\$360.0	N/A
EM-C	RL-0013C.C2	Obtaining Processing Capabilities for Large-Package Waste and Remote-Handled Waste (M-91)	Richland	0	0			\$400.0	N/A
EM-C	VL-LANL-0030.C	Soil and Water Remediation - LANL	LANL	1	0			\$700.4	N/A
EM-C	VL-LANL-0040D.C	D&D - DP Site and TA-54	LANL	1	0			\$163.0	N/A
EM-C	VL-LANL-0013.C	RH and CH TRU Waste Retrieval	LANL	1	0			\$154.3	N/A
EM-C	OR-0013B.C1	Sludge Processing Facility Buildouts	Oak Ridge	1	0			\$42.0	N/A
EM-C	IFDP	Integrated Facility Disposition Project (IFDP)	Oak Ridge	1	0			\$14,500.0	N/A
EM-C	OR-0040.C	Nuclear Facility D&D - ETTP	Oak Ridge	1	0			\$336.6	N/A
EM-C	OR-0042.C	Nuclear Facility D&D - ORNL	ORNL	1	0			\$50.3	N/A
EM-C	PO-0040.C	Nuclear Facilities D&D - Portsmouth Gaseous Diffusion Plant	Portsmouth	1	0			\$16.1	N/A
EM-C	SR-0014C.C4	Canister Shipping Facility	SRS	1	0			\$95.0	N/A

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
EM-C	12-D-403	Savannah River Glass Waste Storage Building #3	SRS	1	0			\$103.0	N/A
EM-C	SR-0014C.C3	Saltstone Disposal Units	SRS	1	0			\$227.5	N/A
EM-C	SR-0014C.C2	Tank 48 Waste Processing	SRS	1	0			\$94.0	N/A
EM-C	OR-0041.C	Nuclear Facility D&D - Y-12	Y-12	1	0			\$13.8	N/A
EM-C	CH-BRNL-0040	Nuclear Facility D&D - Brookhaven Graphite Research Reactor (BGRR)	BNL	3	2	\$53.8	\$74.6		G
EM-C	OR-0040.C1	K-25 D & D	ETTP	3	1	\$479.4	\$1,397.0		G
EM-C	ID-0040B	Nuclear Facility D&D - INL	INL	3	1	\$753.0	\$796.4		G
EM-C	ID-0030B.C1	Soil and Water Remediation - 2012 - Idaho	INL	3	0	\$742.7	\$742.7		G
EM-C	ID-0030B/C-C003	Accelerated Retrieval Project (ARP) VIII	INL	3	0	\$49.1	\$49.1		G
EM-C	VL-SPRU-0040.C1	Nuclear Facility D&D - Special Process Research Unit	KAPL	3	0	\$78.6	\$78.6		R
EM-C	VL-SPRU-0040.C2	Building G2 & H2 D&D	KAPL	3	0	\$37.0	\$37.0		R
EM-C	VL-LANL-0030.C1	Corrective Actions - Canon de Valle	LANL	3	0	\$52.9	\$52.9		G
EM-C	VL-LANL-0030.R1.1	DP Site - MDA-B	LANL	3	1	\$110.5	\$136.6		G
EM-C	OR-0040.R1.3	K-33 Slab and Soil Removal	Oak Ridge	3	0	\$22.9	\$22.9		G
EM-C	OR-0042.R1.4	Facility Demolition-Hot Cells	ORNL	3	1	\$14.5	\$33.8		G
EM-C	OR-0042.NEW.R2.7	4500 Gaseous Reconfiguration and Stabilization Project Buy Back	ORNL	3	0	\$12.7	\$12.7		G
EM-C	PA-0040.C1	Nuclear Facility D&D - Paducah Gaseous Diffusion Plant	Paducah	3	1	\$29.6	\$37.4		G
EM-C	RL-0011.R1	Plutonium Finishing (PFP) Plant Decontamination and Dismantlement	Richland	3	1	\$330.2	\$330.2		G

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
EM-C	RL-0041.C1	Nuclear Facility D&D - River Corridor Closure Project	Richland	3	0	\$2,251.5	\$2,251.5		G
EM-C	SR-0011C.C2	Purification Area Vault	SRS	3	0	\$27.3	\$27.3		G
EM-C	SR-0014C.C3.2	Saltstone Disposal Units 3&5	SRS	3	0	\$76.5	\$76.5		G
EM-L	ID-0012B.C1	Idaho Spent Fuel Facility (ISFF) Project	INL	0	0			\$560.0	N/A
EM-L	ID-0014B.C2	Calcine Disposition Project (CDP)	INL	0	0			\$16,000.0	N/A
EM-L	08-D-414	Plutonium Preparation Project (prev Disposition Project)	SRS	1	0			\$500.0	N/A
EM-L	01-D-416	Waste Treatment and Immobilization Plant (WTP)	ORP	3	1	\$5,781.0	\$12,263.0		R
EM-L	05-D-405	Salt Waste Processing Facility (SWPF)	SRS	3	1	\$900.0	\$1,339.0		R
FE	BC-102	Bayou Choctaw Cavern Replacement	Bayou Choctaw (LA)	3	0	\$72.8	\$72.8		G
NA		NNSA Albuquerque Complex Project	KAFB	0	0			\$95.0	N/A
NA		Electrical Infrastructure Upgrades (LANL and LLNL)	LLNL	0	0			\$55.4	N/A
NA	13-D-XXX	Device Assembly Facility (DAF) Fire Suppression System Lead-In Pipes	NNSS	0	0			\$42.5	N/A
NA		High Explosive (HE) Science Technology and Engineering (ST&E)	Pantex	0	0			\$97.0	N/A
NA	PTX-PREP	Pantex Renewable Energy Project (PREP)	Pantex	0	0			\$28.0	N/A
NA	OPS-12-NNSA-DCS	Dynamic Compression Sector (DCS) at the Advanced Photon Source (ANL-APS)	ANL	1	0			\$30.0	N/A
NA	12-D-XXX	TRU Waste Facilities	LANL	1	0			\$124.0	N/A

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
NA	04-D-125	Chemistry & Metallurgy Research Facility Replacement -- NF (CMRR)	LANL	1	0			\$975.0	N/A
NA	07-D-220	Radioactive Liquid Waste Treatment Facility (RLWTF)	LANL	1	0			\$104.0	N/A
NA	11-D-801C	TA-55 Infrastructure Reinvestment, Phase II, Phase C	LANL	1	0			\$99.9	N/A
NA	09-D-402	Los Alamos Neutron Science Center Refurbishment (LANSCE-R)	LANL	1	0			\$201.0	N/A
NA	06-D-141	Uranium Processing Facility (UPF)	Y-12	1	0			\$6,500.0	N/A
NA	11-D-601	Sanitary Effluent Reclamation Facility	LANL	3	0	\$16.1	\$16.1		G
NA	04-D-125B	Chemistry & Metallurgy Research Facility Replacement Project (CMRR) - PHASE B Radiological Laboratory Utility Office Building (RLUOB) Equipment Installation	LANL	3	0	\$199.4	\$199.4		G
NA	11-D-801A	TA-55 Infrastructure Reinvestment Project, TRP II (Phase A)	LANL	3	1	\$19.5	\$13.7		G
NA	11-D-801B	TA-55 Infrastructure Reinvestment Project, TRP II (Phase B)	LANL	3	1	\$18.2	\$11.2		G
NA	08-D-701	Nuclear Materials Safeguards and Security Upgrades Project (NMSSUP) Phase II	LANL	3	1	\$245.2	\$213.1		R
NA	08-D-801	High Pressure Fire Loop (HPFL)	Pantex	3	3	\$35.0	\$42.4		G
NA	08-D-802	High Explosive Pressing Facility (HEPF)	Pantex	3	2	\$80.6	\$145.3		G
NA	09-D-404	Test Capabilities Revitalization (Phase II)	SNL	3	2	\$52.7	\$57.8		G

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
NA	99-D-143	Mixed Oxide Fuel Fabrication Facility (MOX)	SRS	3	1	\$4,814.3	\$4,857.1		R
NA	99-D-141-02	Waste Solidification Building (WSB)	SRS	3	0	\$344.5	\$344.5		R
NA	08-Y12MIE-1	Oven Consolidation	Y-12	3	4	\$22.7	\$28.9		G
NA	08-Y12MIE	Microwave Deployment	Y-12	3	5	\$17.7	\$21.8		Y
NA	10-D-501	Nuclear Facility Risk Reduction (NFRR)	Y-12	3	0	\$75.8	\$75.8		G
NA	05-D-170-2	Security Improvements Project (SIP)	Y-12	3	0	\$71.7	\$71.7		G
NE	FNTC	Fast Neutron Test Capability (FNTC)	INL	0	0			\$95.0	N/A
NE		Resumption of Transient Testing of Nuclear Fuels (TREAT)	TBD	0	0			\$75.0	N/A
NE	NGNP	Next Generation Nuclear Plant (NGNP)	TBD	0	0			\$2,430.0	N/A
NE		Advanced Post Irradiation Examination (PIE) Capability	TBD	0	0			\$395.0	N/A
NE	Pu-238	Pu-238 Consolidation (Pu-238)	TBD	0	0			\$230.0	N/A
NE		Reestablish Pu-238 Production Capability	TBD	0	0			\$85.0	N/A
NE	ID-RHLLW	Remote-Handled Low-Level Waste Disposal	INL	1	0			\$95.0	N/A
NE	08-D-702	Material Security and Consolidation Project (MSCP)	INL	3	0	\$17.4	\$17.4		G
SC	SC-30YB	LHC CMS Detector Upgrade		0	0			\$34.0	N/A
SC		LHC ATLAS Detector Upgrade		0	0			\$34.0	N/A
SC		Coordinated Second-Generation Dark Matter Experiments (DM-G2)		0	0			\$38.0	N/A
SC		Mid-Scale Dark Energy Spectroscopic Instrument (MSDESI)		0	0			\$42.0	N/A
SC	ANL-MDL	Materials Design Laboratory (MDL)	ANL	0	0			\$96.0	N/A

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
SC	SC-30YC	Muon g-2 Project at Fermi National Accelerator Laboratory (FNAL)	FNAL	0	0			\$60.0	N/A
SC	11-SC-40	Long Baseline Neutrino Experiment (LBNE)	FNAL	0	0			\$940.0	N/A
SC	bs-sc-xx	Seismic Upgrades, Modernization & Replace of General Purpose Buildings - Phase 3 (LBNL)	LBNL	0	0			\$93.3	N/A
SC	MIE-12-SC-TEAMII	Transmission Electron Aberration-corrected Microscope II (Team-II)	LBNL	0	0			\$18.0	N/A
SC	TBD ORNL	ORNL Site Modernization	ORNL	0	0			\$89.6	N/A
SC	12-R-123	SNS Second Target Station	ORNL	0	0			\$1,500.0	N/A
SC		Chemical Sciences and Imaging Laboratory (CSIL)	PNNL	0	0			\$95.0	N/A
SC	12-SC-71	Science and Technology Infrastructure Upgrade (PPPL)	PPPL	0	0			\$59.5	N/A
SC	xx-SC-xxx-NGLS	Next Generation Light Source (NGLS)	TBD	0	0			\$1,500.0	N/A
SC	MIE-12-SC-APSU	Advanced Photon Source Upgrade (APS-U)	ANL	1	0			\$450.0	N/A
SC	NEXT	NSLS II Experimental Tools (NEXT)	BNL	1	0			\$90.0	N/A
SC	11-SC-41	Muon to Electron Conversion Experiment (Mu2e)	FNAL	1	0			\$310.0	N/A
SC	11-SC-70	Utilities Upgrade (FNAL)	FNAL	1	0			\$36.0	N/A
SC	61PA	US Contribution to ITER (US ITER)	ORNL	1	0			\$2,200.0	N/A
SC	07PUP	SNS Power Upgrade (07PUP)	ORNL	1	0			\$96.1	N/A
SC	MIE-21-XB	Next Generation B Factory Detector Systems	PNNL	1	0			\$15.0	N/A
SC	SC-25-11-LSST	LSST Camera	SLAC	1	0			\$175.0	N/A

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
SC	12-SC-70	Science and User Support Building (SUSB)	SLAC	1	0			\$65.0	N/A
SC	13-SC-10	Linac Coherent Light Source (LCLS) II	SLAC	1	0			\$500.0	N/A
SC	11-SC-71	Utilities Infrastructure Modernization (UIM)	TJNAF	1	0			\$29.9	N/A
SC	SC-BER-2010-1035070	High Resolution and Mass Accuracy Capability Development Project	PNNL	2	0	\$17.5	\$17.5		G
SC	10-SC-70	Research Support Building (RSB) & Infrastructure Modernization Project	SLAC	2	0	\$97.4	\$97.4		G
SC	10-SC-71	Energy Sciences Building (ESB)	ANL	3	0	\$96.0	\$96.0		G
SC	SC-25-09-01	Accelerator Project Upgrade to the Large Hadron Collider (LHC) (APUL)	BNL	3	0	\$11.4	\$11.4		G
SC	07-SC-06	National Synchrotron Light Source-II (NSLS-II)	BNL	3	0	\$912.0	\$912.0		G
SC	09-SC-73	Interdisciplinary Science Building - Phase I	BNL	3	0	\$66.8	\$66.8		G
SC	10-SC-72	Renovate Science Labs-Phase II (RSL-II)	BNL	3	0	\$50.8	\$50.8		G
SC	MIE01VB	STAR Heavy Flavor Tracker	BNL	3	0	\$16.7	\$16.7		G
SC	SC-25-09-04	Micro Booster Neutrino Experiment (MicroBooNE)	FNAL	3	0	\$19.9	\$19.9		G
SC	SC-25-06-1	NUMI Off-axis Neutrino (ν) Appearance (NO ν A)	FNAL	3	0	\$278.0	\$278.0		G
SC	NERSC-7	Next Generation High Performance Production Computing System Project (NERSC-7)	LBNL	3	0	\$18.3	\$18.3		G
SC		NERSC Relocation Project	LBNL	3	0	\$20.0	\$20.0		G

Program	Project Number	Project Name	Site	Critical Decision Status	Number of Post CD2 BCPs	Original Post CD2 Approved Total Project Cost	Current Post CD2 Approved Total Project Cost	Pre-CD2 Cost Range High	Status
SC	09-SC-HEP-BELLA	Advanced Plasma Accelerator Facility (ATAF)-BELLA	LBNL	3	0	\$27.2	\$27.2		G
SC	09-SC-72	Seismic Safety Phase 2	LBNL	3	1	\$97.1	\$97.0		G
SC	07SING2	SNS Instruments - Next Generation II	ORNL	3	0	\$60.0	\$60.0		G
SC	MIE-NSTX-U	National Spherical Torus Experiment (NSTX) Upgrade	PPPL	3	0	\$94.3	\$94.3		G
SC	MIE-91UJ	Matter in Extreme Conditions Instrument (MECI)	SLAC	3	0	\$20.0	\$20.0		G
SC	06-SC-01	12 GeV Continuous Electron Beam Accelerator Facility (CEBAF) Upgrade	TJNAF	3	0	\$310.0	\$310.0		G
SC	09-SC-74	Technology & Engineering Development Facility (TEDF)	TJNAF	3	0	\$73.2	\$73.2		G

SECTION ELEVEN

CONGRESSIONAL JURISDICTION, REPORTS AND RULEMAKINGS

This section addresses Congressional committees with jurisdiction over DOE, reports due to Congress, DOE Inspector General (IG) and U.S. Government Accountability Office (GAO) reports of interest, and high-visibility rulemakings, included in two parts.

Part 1: Congressional Jurisdiction and Oversight

Congressional Committees

Major Reports Due to Congress after Inauguration

Part 2: Upcoming Reports and Rulemakings

GAO and DOE-IG Reports of Interest

High-Visibility DOE Rulemakings

PART 1: CONGRESSIONAL JURISDICTION AND OVERSIGHT

DOE falls within the jurisdiction of several Congressional authorization committees and appropriations subcommittees. Following the list of committees is a table that highlights the high-visibility reports that are due to Congress within six months after Inauguration Day.

CONGRESSIONAL ACTIVITIES

DOE activities fall within the jurisdiction of several Congressional authorization committees and appropriations subcommittees. Each year the Secretary, Deputy Secretary, Under Secretaries and other senior Departmental officials interact with these various congressional committees, starting with briefings and hearings on the President's Budget Request for the Department and continuing with program and oversight hearings and meetings throughout the year.

Department officials provide written and oral testimony and discuss the Administration's proposed policies and budget with Members of Congress in open sessions and in Questions for the Record (QFRs), which become part of the Official Hearing Record. Senior officials also interact personally with Members and key staff on committees of jurisdiction and from States particularly interested in and/or affected by DOE activities.

Within the Department, the Assistant Secretary for Congressional and Intergovernmental Affairs (CI) manages overall relations with Members of Congress and supports the Secretary in all Congressional interactions. Additionally, the National Nuclear Security Administration (NNSA) provides congressional liaison for its programs, in coordination with CI, and the Chief Financial Officer provides support to the Senate and House Energy and Water Development Appropriations Subcommittees, also in coordination with CI. The Assistant Secretary for CI also manages the Department's relations with Governors of the States and Territories and with sovereign Tribal Nations.

DOE Congressional Committees of Jurisdiction

SENATE COMMITTEES

Appropriations

Committee on Appropriations

Subcommittee on Energy and Water Development

Jurisdiction: All Department programs

Authorization

Committee on Armed Services

Jurisdiction: All NNSA programs • National security aspects of nuclear energy • Defense environmental management (including nuclear waste disposal) • Naval petroleum reserves (except those in Alaska)

Subcommittee: Emerging Threats and Capabilities

Jurisdiction: Nonproliferation programs • Counterterrorism programs • Homeland Defense technology

Subcommittee: Strategic Forces

Jurisdiction: Nuclear forces • Intelligence programs including the National Intelligence Program • Oversight of DOE officials: NNSA and Assistant Secretary for Environmental Management

Committee on Energy and Natural Resources

Jurisdiction: Coal production, distribution and utilization • Energy policy • Energy regulation and conservation • Energy related aspects of deepwater ports • Energy research and development • Extraction of minerals from oceans and Outer Continental Shelf lands • Naval petroleum reserves in Alaska • Non-military development of nuclear energy • Energy technology research, development, demonstration and transfer • Power Marketing Administrations • DOE National Laboratories • Energy Information Administration

Subcommittee: Energy

Jurisdiction: Nuclear & fossil fuels • DOE National Laboratories • Global climate change • New technologies R&D • Commercialization of new technologies • Energy conservation programs • Energy information

Subcommittee: Water and Power

Jurisdiction: Power Marketing Administrations • Energy development impacts on water resources • Hydropower • Energy related aspects of deepwater ports

Committee on Environment and Public Works

Jurisdiction: Non-military environmental regulation and control of nuclear energy

Subcommittee: Clean Air and Nuclear Safety

Jurisdiction: Nuclear regulation

Committee on Homeland Security and Governmental Affairs

Jurisdiction: Organization and management of U.S. nuclear export policy

Subcommittee: Federal Financial Management, Government Information, Federal Services and International Security

Jurisdiction: The effectiveness of present national security methods and arms proliferation • Organization and management of U.S. nuclear export policy

Select Committee on Intelligence

Jurisdiction: All intelligence matters

HOUSE COMMITTEES

Appropriations

Committee on Appropriations

Subcommittee on Energy and Water Development, and Related Agencies

Jurisdiction: All Department programs

Authorization

Committee on Armed Services

Jurisdiction: All NNSA programs • Defense environmental management (including nuclear waste disposal) • Conservation, development and use of naval petroleum and oil shale reserves • Military applications of nuclear energy including all DOE national security programs

Committee on Energy and Commerce

Jurisdiction: Interstate energy compacts • Measures relating to the exploration, production, storage, supply, marketing, pricing and regulation of energy resources and other nonconventional energy resources • Measures relating to the general management of DOE, and the management and all functions of the Federal Energy Regulatory Commission • General national energy policy • Regulation of the domestic nuclear energy industry, including regulation of research and development reactors and nuclear research • Oversight of all laws, programs and governmental activities relating to nuclear and other energy

Subcommittee: Energy and Air Quality

Jurisdiction: National Energy Policy • Fossil Energy • Renewable Energy Resources and Synthetic Fuels • Energy Conservation • Energy Information • Energy Regulation and Utilization • Utility Issues and Regulation of Nuclear Facilities • Interstate Energy Compacts • Nuclear Energy and Waste • The Clean Air Act • All laws, programs and government activities affecting such matters

Subcommittee: Oversight and Investigations

Jurisdiction: Oversight of all Department programs within the Committee's jurisdiction, and investigations of such programs

Committee on Natural Resources

Jurisdiction: Measures and matters concerning the transportation of natural gas from and within Alaska, and the Trans-Alaska Oil Pipeline except ratemaking

Subcommittee: Energy and Mineral Resources

Jurisdiction: Conservation of U.S. uranium supply • Conservation and development of oil and gas reserves of the Outer Continental Shelf • Trans-Alaska Oil Pipeline

Subcommittee: Water and Power

Jurisdiction: Generation and marketing of electric power from federal water projects by federally chartered or federal regional power marketing authorities

Committee on Science and Technology

Jurisdiction: All energy research, development, and demonstrations and projects, and all federally owned or operated non-military energy laboratories • Measures related to the commercial application of energy technologies • Science scholarships

Subcommittee: Energy and Environment

Jurisdiction: Legislative jurisdiction and general and special oversight and investigative authority on all matters relating to energy and environmental research, development, and demonstration for the Department • Oversight of National Laboratories and science activities • Energy conservation and building performance • Alternate fuels for and improved efficiency of vehicles • Distributed power systems and industrial process improvements • Scientific issues related to environmental policy, including climate change

Subcommittee: Research and Science Education

Jurisdiction: Legislative jurisdiction and general and special oversight and investigative authority on all matters relating to science and technology policy and science education

Permanent Select Committee on Intelligence

Jurisdiction: All intelligence matters.

REPORTS AND OTHER MILESTONES DUE TO CONGRESS

Congress often enacts legal requirements for DOE to prepare reports on a variety of topics as well as requesting reports in the Committee reports accompanying legislation. The DOE Executive Secretariat Executive Commitments System (ESCS) is used to monitor such statutory reporting requirements for the Department. When the statute or report specifies a deadline, ESCS lists the due dates for these reports as the specified date. When a due date is not specified in statute, a tentative due date is set by the Office of the Executive Secretariat. All program offices have access to the ESCS system and are required to update the status information on a weekly basis.

MAJOR DOE REPORTS/MILESTONES DUE TO CONGRESS AFTER INAUGURATION January 20 – June 30, 2013

REPORT	RESPONSIBLE DOE PROGRAM OFFICE	DATE DUE	REPORT REQUIREMENT
Comprehensive Printing Program Plan (ESCS-0358)	Office of Management	February 16, 2013	Joint Committee on Printing letters dated 9/23/85 and 8/27/87
Freedom of Information Activities Annual Report to the Department of Justice (ESCS-0106)	Office of Management	March 3, 2013	Report – 5 U.S.C. 552(e)
Report on the Nuclear Test Readiness Postures (ESCS-4916)	National Nuclear Security Administration	March 4, 2013	FY 2001 National Defense Authorization Act (Conference Report H.R. 106-945, Section 3192)
Report on Stockpile Assessments (ROSA) (ESCS-4916)	National Nuclear Security Administration	March 12, 2013	FY 2003 National Defense Authorization, P.L. 107-314, Section 3141)
Report Describing Projects Supported by ARPA-E during the previous Fiscal Year(ESCS-5114)	Advanced Research Projects Agency	March 15, 2013	FY12 Appropriation House Report 112-118 (p. 118) 42 U.S.C. § 16538(h)(1)
Semi-annual Report to the Secretary on Review of Coordination of Planned Refinery Outages (ESCS-4341)	Energy Information Administration	April 30, 2013	Report – Energy Independence and Security Act
Report on Naval Petroleum Reserves (ESCS-0074)	Fossil Energy	April 30, 2013	An Act to Codify Title 32 of the U.S. Code, dated 8/10/56 (PL 84-1028), Section 7341© amended by Naval Pet. Reserves Production Act (PL 94-248), Sec 201 (13)
Report (Condition 9) on any Resource Shortfall as it pertains to ratification of the treaty between U.S. and Russia on measures for the Further Reduction and Limitation of Strategic Offensive Arms, the New START Treaty (ESCS-5119)	National Nuclear Security Administration	May 1, 2013	Subparagraph(B) of Condition (0(of the 1/22/10 U.S. Senate Resolution of Advice and Consent 9failure of resource requirements set forth in the President’s 10-year plan)
Report on Advanced Supercomputer Sales to Certain Foreign Countries (ESCS-1615)	National Nuclear Security Administration	June 1, 2013	FY 98 National Defense Authorization Act (P.L. 105-85, Section 3147 (d))
Report on evaluation of the success of voluntary commitments to reduce industrial energy intensity (ESCS-3024)	Energy Efficiency and Renewable Energy	June 30, 2013	FY 2005 Energy Policy Act, Section 106(f)

NOTE: The above table is not a comprehensive list of all actions due to Congress. This list contains the highest priority actions which will require the attention of the new Administration during its first six months.

If access is needed for the ESCS system, please contact Shena Kennerly, 202-586-0577, Administration and Executive Commitments, Office of the Executive Secretariat.

PART 2: UPCOMING REPORTS AND RULEMAKINGS

Part 2 contains a list of upcoming reports from the Government Accountability Office (GAO) and DOE's Inspector General (IG). A list of DOE's upcoming high-visibility rulemakings follows.

SIGNIFICANT AUDIT REPORTS

Background

Department of Energy programs are responsible for responding to DOE Inspector General (IG) and Government Accountability Office (GAO) audit reports, including identifying and implementing corrective actions to address audit recommendations.

The DOE Office of the Chief Financial Officer, Office of Financial Risk, Policy and Controls, coordinates the corporate audit resolution and follow-up program for the Department and maintains the Departmental Audit Report Tracking System (DARTS) to monitor and report on the status of audits. Provided below is a listing of significant audits currently reported in DARTS. Significant audits have been selected based on impact, sensitivity and/or relation to key programs or initiatives of interest.

Office of the Inspector General Reports of Interest			
Departmental Element	Title of Audit Report	Projected Impact or Sensitivity	Corrective Action Completion
Department-wide	Management Challenges at the Department of Energy – Fiscal Year 2013 (IG-0874, October 2012)	On an annual basis, the OIG identifies what it considers to be the most significant management challenges facing DOE, with a goal to enhance the effectiveness of DOE programs and operations.	Pending Completion of Management Action
National Nuclear Security Administration	Inquiry into the Security Breach at the National Nuclear Security Administration's Y-12 National Security Complex (IG-0868, August 2012)	The review of the security breach at the Y-12 National Security Complex represented multiple system failures on several levels. Given the unprecedented nature of this security event, prompt and effective corrective actions are essential.	Pending Completion of Management Action
National Nuclear Security Administration	The National Security Administration Contractors' Disability Compensation and Return-to-Work Programs (IG-0867 / June 2012)	By increasing its oversight of contractor disability programs and implementing its consultant's recommendations, NNSA could save more than \$3.3 million annually.	Pending Completion of Management Action
Office of Science	Extended Assignments at Princeton Plasma Physics Laboratory (IG-0864, May 2012)	We questioned the Department's cost reimbursement of \$1.04 million to Princeton for lodging subsidies incurred by two employees who were on extended assignments of 14 years and 9 years, respectively. While existing Laboratory policy permitted temporary assignments, the duration of these particular assignments appeared to be excessive and inconsistent with Department policies. Recommendations were made to strengthen internal controls.	Pending Completion of Management Action

Office of the Inspector General Reports of Interest			
Departmental Element	Title of Audit Report	Projected Impact or Sensitivity	Corrective Action Completion
Office of Environmental Management	The Department of Energy's \$12.2 Billion Waste Treatment and Immobilization Plant – Quality Assurance of Black Cells Vessels (IG-0863 / April 2012)	Inadequate quality assurance records for the black cell processing vessels at the Waste Treatment and Immobilization Plant could impact operability of WTP, including the Department's ability to efficiently complete WTP's mission. In addition, the Department paid the contractor a \$15 million fee for a vessel that did not conform to contract requirements.	Pending Completion of Management Action
Department-wide	The Department's Unclassified Cyber Security Program – 2011 (IG-0856 / October 2011)	Addressing the identified cyber security issues will have a positive impact on efforts to resolve the Cyber Security Leadership Challenge reported in the Agency Financial Report.	Pending Completion of Management Action
Office of Environmental Management	The Department of Energy's K-25 Building Decontamination and Decommissioning Project (IG-0854 / July 2011)	Failure to properly address the problems in contract and project management of the K-25 Project could result in further delays in achieving overall site closure goals, increased safety risks to Project workers and the environment, and continued increases in cost, which were \$717 million through 2010.	Pending Completion of Management Action
Loan Guarantee Program Office	The Department of Energy's Loan Guarantee Program for Clean Energy Technologies (IG-0849 / March 2011)	This report addresses concerns with the Loan Program's lack of a comprehensive records management system. The lack of contemporaneous records may adversely affect the Department's ability to manage loans. There is significant Congressional and media interest	Pending Completion of Management Action
Office of Health, Safety and Security	Management Controls over Selected Aspects of the Department of Energy's Human Reliability Program (OAS-M-10-01 / November 2009)	This audit is significant to ensure that personnel security requirements are consistently implemented and that impaired employees are not serving in critical positions.	Pending Completion of Management Action

Government Accountability Office Audits			
Lead Departmental Element	Title of Audit Report	Projected Impact or Sensitivity	Corrective Action Completion
Chief Financial Officer	Government Accountability Office (GAO) High Risk Series: An Update (GAO-11-278 / February 2011)	GAO continues to characterize the Department's Contract and Project Management as a high-risk area. The GAO High Risk series has high visibility in Congress and OMB.	The Office of Management has developed a root cause analysis and continues to track associate corrective actions to address GAO's contract and project management concerns.
Office of Environmental Management	NUCLEAR WASTE: Uncertainties and Questions about Costs and Risks Persist With DOE's Tank Waste Cleanup Strategy at Hanford (GAO-09-913/September 2009)	This report raised questions regarding DOE's cleanup strategy at Hanford that may be revisited during the current GAO review. Specifically, the report questions whether the cleanup strategy is proportional to the reduction in risk that cleanup is intended to achieve.	Completed
Office of Environmental Management	Statement of Facts: Hanford Waste Treatment Plant (GAO-13-38/September 2012)	GAO is assessing the steps that DOE is taking to address the causes of any estimated cost increases and schedule delays. Given the visibility and political sensitivity of the Hanford cleanup effort, the results of this review will likely draw Congressional and public interest.	Statement of Facts report in review/comment phase by the Department
Office of Environmental Management	DOE Nuclear Waste: Better Information Needed on Waste Storage at DOE Sites as a Result of Yucca Mountain Shutdown (GAO-11-230/March 2011)	GAO has issued a series of reports relating to the controversial shutdown of Yucca Mountain. This report discusses the potential need for additional temporary storage at other DOE sites as a result of delays in constructing a permanent waste repository.	Completed
Office of Health, Safety & Security	NUCLEAR SAFETY: DOE Needs To Determine The Costs and Benefits of Its Safety Reform Effort (GAO-12-347/April 2012)	GAO questioned the independence of DOE's safety oversight function. The independence of DOE's oversight functions has received significant Congressional scrutiny after the recent Y-12 security breach.	Completed

Government Accountability Office Audits			
Lead Departmental Element	Title of Audit Report	Projected Impact or Sensitivity	Corrective Action Completion
National Nuclear Security Administration	MODERNIZING THE NUCLEAR SECURITY ENTERPRISE: New Plutonium Research Facility at Los Alamos May Not Meet All Mission Needs (GAO-12-337/March 2012)	The Department's deferral of work on the Chemistry and Metallurgy Research Replacement (CMRR) Nuclear Facility was controversial in Congress. The GAO report, written before the deferral of the CMRR project, questioned whether the planned replacement met all mission objectives and also discussed project management issues.	Completed
Chief Financial Officer	Review of the Department of Energy's (DOE) Work for Others (WFO) Program (361429)	The Department performs approximately \$4 billion per year of work for other agencies and third parties at its sites and laboratories; this includes a substantial percentage of the work performed at some sites. Any findings from this review may be sensitive given the reliance of some sites on 3 rd party work.	Ongoing GAO Review— Report Not Yet Issued

CRITICAL RULEMAKINGS TO BE ISSUED BY DOE THROUGH EARLY 2013

Energy Efficiency and Renewable Energy

Residential and Commercial Equipment Energy Conservation Standards:

Final Rules:

Distribution Transformers

A final rule establishing revised standards for distribution transformers is required by October 1, 2012, to comply with a settlement agreement and court order. DOE published a proposed rule on February 10, 2012. This rule would revise existing energy conservation standards for liquid-immersed, medium voltage dry-type and low voltage dry-type transformers. These transformers step-down line voltage as electricity is transmitted. The key issue in this rulemaking is the point at which the type of steel needed to make the transformer shifts as efficiency levels increase.

Battery Chargers and External Power Supplies

DOE was required by statute to issue a final rule prescribing energy conservation standards for battery chargers and external power supplies, by July 1, 2011. DOE published a proposed rule on March 27, 2012. Additionally, California published final energy conservation standards for battery chargers, with which manufacturers will have to comply starting in February, 2013. The California standards for most types of battery chargers are more stringent than those proposed by DOE. A final rule published by DOE will preempt the California standard but not until the compliance date for DOE's standard.

Proposed Rules:

Walk-in Coolers/Freezers – At OIRA

DOE was required by statute to issue a final rule, no later than January 1, 2012, setting performance-based standards for walk-in coolers and freezers (WICFs). WICFs are commercial equipment used in supermarkets, restaurants, etc., to store perishable items. The key issue in this rulemaking is that WICFs typically consist of parts produced by different manufacturers and assembled in the field rather than being sold as a finished item.

Commercial Refrigeration Equipment – At OIRA

DOE is required by statute to issue by January 1, 2013, a final rule establishing revised energy conservation standards for commercial refrigeration equipment (CRE). CRE includes commercial ice-cream freezers; self-contained and remote-condensing commercial refrigerators, commercial freezers, and commercial refrigerator-freezers with and without doors.

Metal Halide Lamp Fixtures – At OIRA

DOE was required by statute to issue by January 1, 2012, a final rule establishing revised energy conservation standards for metal halide lamp fixtures. Metal halide lamps are a type of high-intensity lamp typically used in large “box-stores,” roadways and sports stadiums. The key issue in this rulemaking is that DOE would be regulating both the lamp and ballast as a fixture.

Federal Energy Management Program:

Final Rules:

Sustainable Design Standards for Federal Buildings - At OIRA

DOE was required by statute to issue by December 19, 2008, a final rule that establishes sustainable design principles for the siting, design and construction of new Federal buildings and major renovations, and provides criteria for green buildings rating systems should an agency choose to green rate a building. DOE published a proposed rule on May 28, 2010.

Fossil Fuel Generated Energy Reductions for Federal Buildings - At OIRA

DOE was required by statute to issue by December 19, 2008, a final rule that establishes maximum allowable fossil fuel use based on statutorily mandated percentage levels, as well as a methodology to determine compliance, and procedures for petitioning DOE for a downward adjustment to the numerical reduction requirements applicable to certain new Federal buildings and Federal buildings undergoing major renovations. By statute, beginning FY 2030, buildings

subject to this rule must be designed to consume no fossil fuel generated energy. DOE published a proposed rule on October 15, 2010.

Federal Buildings Standards Update to ASHRAE 90.1-2010 – At OIRA

DOE was required by statute to issue by October 28, 2011, a final rule that amends the baseline Federal building energy efficiency standards for Federal commercial buildings based on consideration of the increased energy efficiency and cost-effectiveness of the most recent revised voluntary standard, ASHRAE 90.1-2010. This rule also addresses a statutory requirement that revised Federal building energy efficiency performance standards for new Federal buildings that are commercial buildings be designed to achieve energy consumption levels that are at least 30 percent below the levels established in ASHRAE 90.1, if life-cycle cost-effective.

Federal Buildings Standards Update to 2012 IECC

DOE was required by statute to issue by May 31, 2011, a final rule that amends the baseline Federal building energy efficiency standards for Federal residential buildings based on consideration of the increased energy efficiency and cost-effectiveness of the most recent revised voluntary standard, 2012 IECC. This rule also addresses a statutory requirement that revised Federal building energy efficiency performance standards for new Federal buildings that are residential buildings be designed to achieve energy consumption levels that are at least 30 percent below the levels established in 2012 IECC, if life-cycle cost-effective.

Petroleum Reduction and Alternative Fuel Consumption Requirements for Federal Fleets

DOE was required by statute to issue by June 18, 2009, a final rule to implement mandatory reductions in fossil fuel consumption and mandatory increases in alternative fuel use by Federal fleets. DOE published a proposed rule March 12, 2011.

Building Technology:

Proposed Rule:

Energy Efficiency Standards for Manufactured Housing – At OIRA

DOE was required by statute to issue by December 19, 2011, a final rule that establishes energy efficiency standards for manufactured housing. Based on the Department of Housing and Urban Development's definition, manufactured housing is a permanent chassis dwelling, of at least 320 square feet, that is not a self-propelled vehicle. Unless found not cost-effective, DOE's standards are to be based on the most recent version of the International Energy Conservation Code. The 2012 IECC was published in July 2011.

Vehicle Technology:

Final Rule:

Electric-drive Vehicle Credits

DOE was required by statute to issue by January 31, 2009, a final rule to allocated credits for the purchase of certain electric-drive vehicles and related investments, under the State and alternative fuel provider fleet program. DOE issued a notice of proposed rulemaking October 31, 2011.

National Nuclear Security Administration

Proposed Rule:

Assistance to Foreign Atomic Energy Activities

Pursuant to the Atomic Energy Act of 1954, as amended by section 302 of the Nuclear Non-Proliferation Act of 1978, it is unlawful for any person to engage or participate directly or indirectly in the development or production of special nuclear material outside the United States unless authorized to do so by the Secretary of Energy, after a determination that such activity will not be inimical to the interest of the United States. On September 7, 2011, DOE published a proposed rulemaking to update the regulations implementing this statute, which had not been substantially modified since 1986. DOE received comments from about 40 entities, generally falling into three categories: comments about which countries should be "generally authorized"

to receive nuclear technology or assistance; comments about which activities should be exempt, “generally authorized” or “specifically authorized”; and concerns about the efficiency of the authorization process.

Office of the General Counsel

Proposed Rule:

Convention on Supplementary Compensation for Nuclear Damage Contingent Cost Allocation – At OIRA

DOE will propose regulations, under section 934 of the Energy Independence and Security Act of 2007, to establish a retrospective risk pooling program by which nuclear suppliers will reimburse the United States government for any contribution it is obliged to make to an international supplementary fund under the Convention on Supplementary Compensation for Nuclear Damage in the event of certain nuclear incidents not covered by the Price-Anderson Act. The risk pooling program will involve a premium to be assessed retrospectively (i.e., a deferred payment made only if a nuclear incident occurs) based on a risk-informed formula taking into account specified risk factors and exclusionary criteria to provide a fair and equitable proration of costs among U.S. nuclear suppliers benefited by the Convention on Supplementary Compensation for Nuclear Damage.