

Other Defense Activities Energy Security and Assurance

Overview

Appropriation Summary by Program

(dollars in thousands)

	FY 2003 Comparable Appropriation	FY 2004 Original Appropriation	FY 2004 Adjust- ments	FY 2004 Comparable Appropriation	FY 2005 Request
Other Defense Activities					
Energy Security and Assurance	22,242	20,000	-117	19,883	6,100
Program Direction	3,800	2,472	-15	2,457	4,500
Subtotal, Energy Security and Assurance	26,042	22,472	-132	22,340	10,600
Use of Prior Year Balances	-52	0	-97	0	0
Total, Other Defense Activities, Energy Security and Assurance.....	25,990 ^a	22,472	-229	22,243	10,600

Preface

The Energy Security and Assurance Program (EA) contributes in cooperation with the Department of Homeland Security to the Federal government's effort to ensure a robust, secure, and reliable energy infrastructure in the new threat environment. EA fulfills the Secretary's core responsibilities for critical energy infrastructure protection and preparedness.

Within the Other Defense Activities appropriation, the Energy Security and Assurance Program has a single program consisting of six activities: Energy Disruptions and Preparedness, Coordination with the Private Sector, State and Local Government Support, Policy and Analysis Support, Criticality of Energy Assets, Technology Development and Application, and Program Direction. These activities accomplish specific requirements assigned to the Secretary by Congress and by the President in Homeland Security Presidential Directives (*Critical Infrastructure Identification, Prioritization, and Protection*, Homeland Security Presidential Directive 7 [HSPD-7] and *National Preparedness*, Homeland Security Presidential Directive 8 [HSPD-8]).

This Overview will describe Strategic Context, Mission, Benefits, and Significant Program Shifts. These items together put this appropriation in perspective.

^a FY 2003 includes funding of \$3,378,000 (whole dollars) that was expended for programs transferred to the Department of Homeland Security.

Strategic Context

Following publication of the Administration's National Energy Policy, the Department developed a Strategic Plan that defines its mission, four strategic goals for accomplishing that mission, and seven general goals to support the strategic goals. As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. Energy Security and Assurance performs critical functions which directly support the mission of the Department. These functions include working with other Federal agencies, States, local governments, and the private sector to guard against, respond to, and recover from energy emergencies and ensure the reliable delivery of energy.

Subsequent to the issuance of the *National Energy Policy*, the President issued HSPD-7 and HSPD-8 on December 17, 2003. These directives assign a wide range of responsibilities to the Department of Homeland Security (DHS) and other Federal agencies to lead and support domestic homeland security. HSPD-7 designates the Department of Energy as the Sector-Specific Federal Agency with primary Federal responsibility for facilitating protection of critical infrastructures and key assets in the energy sector including the production, refining, storage and distribution of oil and gas, and electric power except for commercial nuclear power facilities.

HSPD-8 establishes how Federal agencies will prepare for responding to disasters and incidents as authorized by the Stafford Disaster Relief and Emergency Act. As the Department lead for energy emergencies, EA provides technical support and assistance to FEMA during disasters and other major energy disruptions. EA activities directly support the National Response Plan.

Mission

The Energy Security and Assurance Program leads the Federal government's effort to ensure a robust, secure, and reliable energy infrastructure in the new threat environment that includes malevolent threats and increasing complexity due to interdependencies. EA works with States, local governments, and the private sector to coordinate protection activities and cultivate collaborative partnerships to assure public safety, public confidence, and service in the energy sector.

Benefits

The activities of the Energy Security and Assurance Program will engender direct and immediate benefits that will increase the security, reliability, and resiliency of U.S. energy infrastructures. Benefits include:

- **Improved public safety and reduced recovery time following an energy disruption** by assisting State and local governments to improve their energy assurance and response strategies, and supporting emergency operations.
- **Decreased vulnerability of critical energy assets** by conducting in-depth vulnerability assessments.

- **Mitigating the likelihood and impact of energy disruptions on the energy infrastructure and other critical infrastructures.**
- **Improved coordination on energy assurance and emergencies** by developing procedures and protocols to facilitate information sharing and coordinated planning among the energy sectors, States, and Federal agencies.
- **Motivating increased private investment in energy security** by raising awareness of energy assurance issues, and developing policies and strategies that encourage private investment.

Significant Program Shifts

On March 1, 2003, portions of the DOE Energy Security and Assurance program were transferred to the Department of Homeland Security (DHS) as part of a Federal government-wide reorganization of homeland security functions as outlined in the Homeland Security Act of 2002. HSPD-7, issued on December 17, 2003, clarifies DOE's role designating DOE as the Sector-Specific Federal agency responsible for critical infrastructure activities in the energy sector. In addition to critical infrastructure activities, EA retains responsibility for the energy emergency support function of the National Response Plan, which implements 42 USC 5121. These DOE responsibilities are distinct and complementary to those transferred to DHS.

In FY 2003, after transferring certain funds and personnel to the Department of Homeland Security (DHS) in accordance with the Determination Order process, Energy Security and Assurance implemented three program elements: (1) funds were provided to the Idaho National Energy and Environmental Laboratory to establish a Critical Infrastructure Testbed; (2) funds were provided to the National Energy Technology Laboratory (NETL) in West Virginia to assist Energy Security and Assurance to implement the program, and, (3) program direction funds were utilized to develop program plans and implementation strategies for the energy assurance program at DOE. Activities at the Idaho National Energy and Environmental Laboratory and the National Energy Technology Laboratory will continue with prior year funding.

In FY 2004, EA successfully conducted numerous programs to improve the security and reliability of the Nation's energy infrastructure. Select accomplishments include:

- Responding to Hurricane Isabel and working with FEMA, States, and utilities to expedite the restoration of power to the millions who suffered outages;
- Managing the energy emergency created by the August 14, 2003 power outage by gathering power system information, developing response actions, and coordinating recovery efforts. EA also served on the Security Working Group of the U.S./Canada Power System Outage Task Force, which investigated security implications of the power outage;
- Conducting energy emergency training simulations for State stakeholders; and
- Sponsoring demonstrations of new technologies and tools that will help protect the Nation's energy infrastructure from attack and help to determine its vulnerabilities.

In FY 2005, EA will support core program activities and personnel to accomplish key mission elements and responsibilities in energy assurance, critical infrastructure protection, and energy emergencies. These core activities include:

- **Energy Disruptions and Preparedness:** Conduct required emergency functions (including support to the Federal Emergency Management Agency under the Stafford Act and National Response Plan).
- **Criticality of Energy Assets:** Partner with industry to conduct in-depth vulnerability assessments, prioritize critical energy assets and nodes, and develop methodologies and energy asset assessment capabilities; build university-based energy assessment capabilities.
- **State and Local Government Support:** Work with States and local governments to coordinate energy disruption and preparedness and infrastructure protection activities.
- **Coordination with the Private Sector:** Partner with industry, States, and other Federal agencies to coordinate infrastructure protection activities and facilitate effective information exchange practices among public and private partners.
- **Policy and Analysis Support:** Develop and analyze energy assurance data and evaluate national policy implications; evaluate policy barrier and implications of assurance policies; develop program metrics and benchmark performance; and partner with industry to develop metrics and market incentives for enhancing energy assurance.

**Other Defense Activities
Energy Security and Assurance**

Funding by Site by Program

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Chicago Operations Office					
Argonne National Laboratory	2,200	00,000	00,000	+ 0,000	+ 0.0%
Brookhaven National Laboratory	40	00,000	00,000	+ 0,000	+ 0.0%
Total, Chicago Operations Office	2,240	00,000	00,000	+ 0,000	+ 0.0%
Idaho Operations Office					
Idaho National Engineering and Environmental Laboratory	3,243	00,000	00,000	+ 0,000	+ 0.0%
Total, Idaho Operations Office	3,243	00,000	00,000	+ 0,000	+ 0.0%
National Energy Technology Laboratory ...					
Total, National Energy Technology Laboratory	15,644	19,883	00,000	- 16,403	- 100.0%
Oak Ridge Operations Office					
Oak Ridge National Laboratory	630	00,000	00,000	+ 0,000	+ 0.0%
Total, Oak Ridge Operations Office	630	00,000	00,000	+ 0,000	+ 0.0%
Oakland Operations Office					
Lawrence Livermore National Laboratory	100	00,000	00,000	+ 0,000	+ 0.0%
Total, Oakland Operations Office	100	00,000	00,000	+ 0,000	+ 0.0%
Washington Headquarters	4,185	2,457	10,600	+ 4,663	+78.5%
Total, Energy Assurance Program	26,042	22,340	10,600	- 11,740	-52.6%

Site Description

Argonne National Laboratory (ANL)

Argonne National Laboratory (ANL) is one of the U.S. Department of Energy's largest research centers. It is also the Nation's first national laboratory, chartered in 1946. The laboratory has two campuses and more than 4,000 employees, including about 1,400 scientists and engineers. Argonne supports upwards of 200 research projects, ranging from studies of the atomic nucleus to global climate change research. Since 1990, Argonne has worked with more than 600 companies and numerous Federal agencies and other organizations.

ANL's specific activities for Energy Security and Assurance include vulnerability assessments and exercises and training.

Brookhaven National Laboratory (BNL)

Brookhaven National Laboratory is located in Upton, New York. The staff conducts research in the physical, biomedical, and environmental sciences, as well as in energy technologies. BNL's specific activities for Energy Security and Assurance include vulnerability assessments.

Idaho National Engineering and Environmental Laboratory (INEEL)

Idaho National Engineering and Environmental Laboratory (INEEL), located in Eastern Idaho, consists of an 890-square mile reservation located 32 miles west of Idaho Falls, Idaho. Research facilities and office buildings are also located in Idaho Falls. The Laboratory employs about 8,000 people at these two locations. The mission of the INEEL includes:

- Deliver science-based, engineered solutions to the challenges of DOE's mission areas, other Federal agencies, and industrial clients.
- Complete environmental cleanup responsibly and cost-effectively using innovative science and engineering capabilities.

Lawrence Livermore National Laboratory (LLNL)

Lawrence Livermore National Laboratory (LLNL) is a U.S. Department of Energy national laboratory operated by the University of California. LLNL was founded in September 1952 as a second nuclear weapons design laboratory to promote innovation in the design of our Nation's nuclear stockpile through creative science and engineering. Livermore has also become one of the world's premier scientific centers, where cutting-edge science and engineering in the interest of national security is used to break new ground in other areas of national importance, including energy, biomedicine, and environmental science.

Oak Ridge National Laboratory (ORNL)

Oak Ridge National Laboratory (ORNL) is a multiprogram science and technology laboratory. Scientists and engineers at ORNL conduct basic and applied research and development to create scientific knowledge and technological solutions that strengthen the Nation's leadership in key areas of science; increase the availability of clean, abundant energy; restore and protect the environment; and contribute to national security. ORNL's specific activities for Energy Security and Assurance include exercises and training.

National Energy Technology Laboratory (NETL)

NETL has campuses located in Morgantown, West Virginia, Pittsburgh, Pennsylvania, and Tulsa, Oklahoma. NETL's primary mission is to assure that U.S. fossil energy resources meet increasing demand for affordable energy without compromising the quality of life for future generations of Americans. NETL's major mission area is energy resources. NETL is a key resource in the development of science and technology needed to support DOE's mission of fostering "a secure and reliable energy system that is environmentally and economically sustainable."

NETL's specific activities for DOE's Energy Resources mission are:

- Shape, fund, and manage extramural RD&D programs.
- Conduct on-site research and technology development.
- Assess energy systems and conduct other studies to support energy policy development.
- Provide procurement and project management support for several programs.

**Other Defense Activities/ Energy Security and Assurance/
Funding by Site**

FY 2005 Congressional Budget

Energy Security and Assurance

Funding Profile by Subprogram

	FY 2003 Comparable Appropriation	FY 2004 Original Appropriation	FY 2004 Adjustments	FY 2004 Comparable Appropriation	FY 2005 Request
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Energy Security and Assurance ...	22,242 ^a	20,000	-117	19,883	6,100
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Public Law Authorizations:

P.L. 95-91 Department of Energy Organization Act (1977)

P.L. 106-390 Robert T. Stafford Disaster Relief and Emergency Assistance Act (2000)

P.L. 107-296 Homeland Security Act of 2002

Mission

Energy Security and Assurance (EA) leads the Federal government's effort to ensure a robust, secure, and reliable energy infrastructure in the new threat environment that includes malevolent threats and increasing complexity due to interdependencies.

Benefits

Within the Other Defense Activities appropriation, Energy Security and Assurance fully supports DOE's Energy Strategic Goal to improve energy security by providing for reliable delivery of energy and guarding against energy emergencies. This program works with States, local governments, and the private sector to coordinate protection activities and cultivate collaborative partnerships to assure public safety, public confidence, and service in the energy sector. To ensure a seamless Federal response in energy assurance, OEA coordinates its activities with the Department of Homeland Security and other Federal agencies, consistent with the Homeland Security Act of 2002 (Public Law 107-296) and HSPD-7 and HSPD-8.

^a This amount reflects FY 2003 funds including \$3,378,000 (whole dollars) expended for programs transferred to the Department of Homeland Security.

Detailed Justification

(dollars in thousands)

	FY 2003	FY 2004	FY 2005
Energy Security and Assurance	22,242	19,883	6,100

The *Homeland Security Act of 2002* reorganized the Federal government’s responsibilities to protect the United States from future terrorist attacks. Although some DOE security functions were moved to the Department of Homeland Security on March 1, 2003 as part of this reorganization, key functions and responsibilities remain with DOE and new important functions have been assigned. These include:

- Identify, monitor, and coordinate the protection of critical infrastructure and key resources
- Elevate awareness and understanding of threats and vulnerabilities to critical facilities, systems, and functions
- Identify and promote effective sector-specific risk management policies and protection practices and methodologies
- Expand voluntary, protection-related information sharing among private sector entities within the energy sector, as well as among government and private entities

In addition, DOE has responsibilities to identify critical facilities, systems, and functions within the energy sector; facilitate the development of energy sector protection plans; assess energy sector vulnerabilities; frequently assess the reliability, vulnerability, and threat environments of the Nation’s energy infrastructure.

DOE is also responsible for the Emergency Support Function for Energy as outlined in the National Response Plan (2003).

In FY 2005, EA will support core program activities and personnel to accomplish key mission elements and responsibilities in energy assurance, critical infrastructure protection, and energy emergencies. These core activities include:

- **Energy Disruptions and Preparedness:** Conduct required emergency functions (including support of the Federal Emergency Management Agency under the Stafford Act and National Response Plan).
- **Criticality of Energy Assets:** Partner with industry to conduct or facilitate in-depth vulnerability assessments and prioritize critical energy assets and nodes in oil, gas, and electricity sectors.
- **Coordination with the Private Sector:** Partner with industry, States, and other Federal agencies to coordinate infrastructure protection activities and facilitate effective information exchange practices among public and private partners.
- **State and Local Government Support:** Assist States with energy disruption plans, conduct energy assurance exercises, provide guidelines and tools to help States perform vulnerability assessments, and develop the Energy Emergency Assurance Coordinators (EEAC) system, a communications tool for State energy offices and DOE.

(dollars in thousands)

FY 2003	FY 2004	FY 2005
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Energy Security and Assurance

22,242 19,883 6,100

- **Policy and Analysis Support:** Develop and analyze energy assurance data and evaluate national policy implications; evaluate policy barrier and implications of assurance policies; develop program metrics and benchmark performance; and partner with industry to develop metrics and market incentives for enhancing energy assurance.

Explanation of Funding Changes

FY 2005 vs. FY 2004 (\$000)

Energy Security and Assurance

The FY 2004 **appropriation** was higher than the FY 2005 request due to a \$20 million Congressional earmark. However, the FY 2005 request is \$1.8 million or 30% more than the FY 2004 request due to the implementation of Homeland Security Presidential Directives 7 and 8.....

-13,783

Total Funding Change, Energy Security and Assurance

-13,783

Program Direction

Funding Profile by Category

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Headquarters					
Salaries and Benefits.....	2,200	1,992	3,000	+1,008	+50.6%
Travel	490	220	290	+ 70	+31.8%
Support Services	800	0	730	+ 730	+ 730.0%
Other Related Expenses	310	245	480	+ 220	+ 84.6%
Total, Program Direction.....	3,800	2,457	4,500	+2,043	+ 83.2%
Full Time Equivalents	9	13	20	+7	+ 53.8%

Mission

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of Energy Security and Assurance program.

As stated in the Departmental Strategic Plan, DOE's Strategic and General Goals will be accomplished not only through the efforts of the major program offices in the Department but with additional effort from offices which support the programs in carrying out the mission. Energy Security and Assurance performs critical functions which directly support the mission of the Department. These functions include working with other Federal agencies, States, local governments, and the private sector to respond to and guard against energy emergencies and ensure the reliable delivery of energy.

Detailed Justification

(dollars in thousands)

	FY 2003	FY 2004	FY 2005
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Salaries and Benefits **2,200** **1,992** **3,000**

Staff coordinates protection, operations planning, and energy assurance functions with 50 states, four territories, and 87,000 local jurisdictions. Staff coordinates critical infrastructure identification and prioritization activities with the oil, gas, and electricity sectors. Staff leads efforts to conduct and facilitate vulnerability assessments. Staff provides technical and analytical support to monitor the supply/demand of energy; respond to energy disruptions; and restore energy systems during disasters. Staff supports State and local governments in developing plans and preparing for energy disruptions.

Travel..... **490** **220** **290**

The estimate reflects regional meetings to coordinate energy assurance activities, participation in extended vulnerability assessments, required regional training and emergency exercises, participation in National Response Plan regional coordination meetings, and ongoing partnership development activities with States, local governments, and the private sector

Support Services..... **356** **0** **730**

Provide critical management services to EA including development of strategic and program plans, website development, support for EA emergency functions, stakeholder and contact database development, preparation of outreach and communication materials, support for program reviews, logistical support for meetings and conferences, development of program metrics, assistance with budget and financial requirements, and tracking of financial, travel, and procurement actions.

Provide critical technical services to EA including analysis of technology needs for the energy infrastructure, technical analysis, and review of methodologies to identify critical energy assets, development of criteria for prioritizing energy assets, identification of needs and approaches for training, and develop inventory of technical and scientific capabilities of the national laboratories.

Other Related Expenses..... **754** **245** **480**

Acquire the necessary services and equipment to accomplish FY 2004 and FY 2005 program including funds for rent, network support, desktop services, computer hardware, software, furniture, and communication equipment.

Total, Program Direction **3,800** **2,457** **4,500**

Explanation of Funding Changes

FY 2005 vs. FY 2004 (\$000)

Salaries and Benefits

- Increase in salaries and benefits is due to an increase of 6 FTEs required to implement enhanced FY 2005 activities in energy assurance, as well as general pay increases, promotions, and within-grade increases.
 +1,008

Travel

- Additional travel expenses reflect implementation of new FY 2005 program activities and escalating airfare and lodging costs.
 +70

Support Services

- Increase reflects required technical and management services to support expanded FY 2005 Energy Security and Assurance Program, such as strategic planning, website development, support for emergency functions, outreach and communications, logistical support for meetings and conferences, technical analysis of the energy infrastructure and R&D gaps, methodology review on identifying critical energy assets, development of criteria for prioritizing energy assets.
 +730

Other Related Expenses

- Increase reflects the cost of new computer software, hardware, network infrastructure, communications equipment, rent, and furniture to support planned staff additions.
 +235

Total Funding Change, Program Direction.....	+2,043
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Support Services by Category

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Technical Support					
Engineering and technical services ...	200	0	505	+ 505	+505.0%
Total, Technical Support	200	0	505	+ 505	+505.0%
Management Support					
Program management services	156	0	225	+ 225	+ 225.0%
Total, Management Support.....	156	0	225	+ 225	+ 225.0%
Total, Support Services	356	0	730	+ 730	+ 730.0%

Other Related Expenses by Category

(dollars in thousands)

	FY 2003	FY 2004	FY 2005	\$ Change	% Change
Equipment	474	20	150	+ 130	+ 650.0%
Working Capital Fund	280	225	330	+ 105	+ 46.7%
Total, Other Related Expenses	754	245	480	+235	+ 95.9%