Order Code RL32852

Energy and Water Development: Appropriations for FY2006

April 7, 2005

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The annual consideration of appropriations bills (regular, continuing, and supplemental) by Congress is part of a complex set of budget processes that also encompasses the consideration of budget resolutions, revenue and debt-limit legislation, other spending measures, and reconciliation bills. In addition, the operation of programs and the spending of appropriated funds are subject to constraints established in authorizing statutes. Congressional action on the budget for a fiscal year usually begins following the submission of the President's budget at the beginning of the session. Congressional practices governing the consideration of appropriations and other budgetary measures are rooted in the Constitution, the standing rules of the House and Senate, and statutes, such as the Congressional Budget and Impoundment Control Act of 1974.

This report is a guide to the regular appropriations bills that Congress considers each year. It is designed to supplement the information provided by the House and Senate Appropriations Subcommittees on Energy and Water Development. It summarizes the status of the bill, its scope, major issues, funding levels, and related congressional activity, and is updated as events warrant. The report lists the key CRS staff relevant to the issues covered and related CRS products.

NOTE: A Web version of this document with active links is available to congressional staff at [http://www.crs.gov/products/appropriations/apppage.shtml].

Energy and Water Development: Appropriations for FY2006

Summary

The Energy and Water Development appropriations bill in the past included funding for civil works projects of the Army Corps of Engineers (Corps), the Department of the Interior's Bureau of Reclamation (BOR), most of the Department of Energy (DOE), and a number of independent agencies. The Bush Administration requested $27.38 billion for these programs for FY2006, compared with $28.63 billion appropriated for FY2005 (P.L. 108-447).

Since the budget request was submitted, both the House and the Senate Appropriations Committees have reorganized their subcommittee structure and with it the content of the various FY2006 appropriations bills that will be introduced. In the case of Energy and Water Development, the only changes will be the consolidation of DOE programs that had previously been funded by the Interior and Related Agencies bill. When these programs are included, the requested amount for FY2006 Energy and Water Development totals $28.92 billion. For FY2005, $30.22 billion was appropriated for comparable programs.

Key budgetary issues involving these programs include:

- use of performance-based budgeting to determine Corps project funding (Title I);
- funding and progress of major water/ecosystem restoration initiatives such as Florida Everglades and California "Bay-Delta" (CALFED) (Title II);
- funding for the proposed national nuclear waste repository at Yucca Mountain, Nevada (Title III: Civilian Nuclear Waste);
- funding for developing nuclear warheads, in light of congressional action last year to cut funding for the Robust Nuclear Earth Penetrator and for a "Modern Pit Facility" to build nuclear weapons components (Title III: Nuclear Weapons Stockpile Stewardship); and
- plans to reduce the time necessary to prepare the Nevada Test Site to resume nuclear weapons testing (Title III: Nuclear Weapons Stockpile Stewardship).

This report will be updated as events warrant.

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Division abbreviations: RSI = Resources, Science, and Industry; FDT= Foreign Affairs, Defense, and Trade.

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Most Recent Developments

The Bush Administration's FY2006 budget request, released in February 2005, budgeted Energy and Water Development Programs at $27.38 billion, compared to $28.63 billion appropriated for the same programs for FY2005.

After the budget was submitted, both the House and the Senate Appropriations Committees voted to reorganize the subcommittee structure, and with it the programs included in specific appropriations bills. Under the reorganization, the Energy and Water Development appropriations bill acquired DOE programs that previously had been included in the appropriations bill for Interior and Related Agencies. The total appropriated for these programs for FY2005 was $1.75 billion, and the amount requested for FY2006 was $1.69 billion. Including these programs, the requested amount for FY2006 Energy and Water Development totals $28.92 billion. For FY2005, $30.22 billion was appropriated for comparable programs.

Status

Table 1. Status of Energy and Water Development Appropriations, FY2006

Subcommittee Markup		House Report	House Passage	Senate Report	Senate Passage	Conf. Report	Conference Report Approval		Public Law
House	Senate						House	Senate	

Overview

The Energy and Water Development bill has historically included funding for civil works projects of the U.S. Army Corps of Engineers (Corps), the Department of the Interior's Bureau of Reclamation (BOR), most of the Department of Energy (DOE), and a number of independent agencies, including the Nuclear Regulatory Commission (NRC) and the Appalachian Regional Commission (ARC). With the reorganization of the appropriations subcommittees, DOE programs that had been funded in the Interior and Related Agencies bill have been transferred to the Energy and Water Development bill. The Bush Administration's request was $28.916 billion for all of the programs now included in the Energy and Water bill for FY2006, compared with $30.218 billion appropriated for FY2005.

Table 2 includes budget totals for energy and water development appropriations enacted for FY1999 to FY2005 and the Administration's request for FY2006.

Table 2. Energy and Water Development Appropriations, FY1999 to FY2006

(budget authority in billions of current dollars)

FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06 (Req.)
21.2	21.2	23.9	25.2	26.1	26.7	30.2[a]	28.9[a]

Note: These figures represent current dollars, exclude permanent budget authorities, and reflect rescissions.

[a] Includes DOE programs transferred from Interior and Related Agencies Appropriations bill.

Table 3 lists totals for each of the four titles. The table also lists several "scorekeeping" adjustments of accounts within Titles II and III, reflecting various sources of revenue besides appropriated funds. These adjustments affect the total amount appropriated in the bill but are not included in the totals of the individual titles. The amounts listed for FY2005, in **Table 3** and throughout this report, reflect the 0.80% across-the-board recission applied to the omnibus FY2005 appropriations act, P.L. 108-447.

Table 3. Energy and Water Development Appropriations Summary

($ billions)

Title	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Title I: Corps of Engineers	5,040.4	4,513.0			
Title II: CUP & BOR	1,017.6	981.1			
Title III: Department of Energy	24,575.3	23,929.6			
Title IV: Independent Agencies	289.3	234.3			
E&W Subtotal	**30,921.8**	**29,658.0**			
Scorekeeping Adjustments					
Central Valley (Title II)	(46.4)	(43.9)			
Colorado River Basins, WAPA (Title III)	(23.0)	(23.0)			
Excess fees & recoveries, FERC (Title III)	(15.0)	(13.0)			
Uranium Fund (Title III)	(459.3)	(451.0)			
Hydropower Offset (Title II)	—	(30.0)			
Reclassification of PMA receipts (Title I)	—	(181.0)			
Clean Coal Technology	(160.0)				
E&W Total	**30,218.1**	**28,915.8**			

Source: Budget justifications from the President's budget request for FY2006.
Details may not add to totals due to rounding.

For the Corps in FY2006, the Administration requested $4.51 billion, a decrease of $527 million from the enacted appropriation for FY2005. It asked for $981 million for FY2006 for the Department of the Interior programs included in the Energy and Water Development bill — the Bureau of Reclamation and the Central Utah Project. This would be a decrease of $37 million from the FY2005 funding level.

The FY2006 request for DOE programs was $23.930 billion, about $646 million less than the previous year (not including adjustments). The major activities in the DOE budget are energy research and development, general science, environmental cleanup, and nuclear weapons programs. Also included in the DOE total is funding of DOE's programs for fossil fuels, energy efficiency, and energy statistics, which had historically been included in the Interior and Related Agencies appropriations bill. The FY2005 net appropriations for those programs was $1.752 billion. The FY2006 request was $1.693 billion.

The FY2006 request for funding the independent agencies in Title IV of the bill was $234 million, compared with $289 million appropriated for FY2005.

Tables 4 through 13 provide budget details for Title I (Corps of Engineers), Title II (Department of the Interior), Title III (Department of Energy), and Title IV (independent agencies) for FY2005-FY2006.

Title I: Corps of Engineers

The FY2006 request for the civil works program of the U.S. Army Corps of Engineers is $4.513 billion, a decrease of $155 million (3%) from the enacted appropriation of $4.668 billion for FY2005 (not including the $372.4 million in supplemental appropriations for storm damage in FY2005). The FY2006 request is distinct from previous years in that the Administration has proposed that electricity receipts from the Power Marketing Administrations (PMAs) reimburse the Corps directly for its operation and maintenance (O&M) activities at selected hydropower facilities. The request proposes to administratively reclassify the PMA receipts, $181.0 million for FY2006, from mandatory to offsetting collections. In previous fiscal years, these receipts were placed in the Treasury, and general Treasury appropriations were used to cover the Corps' expenses. Reclassifying the PMA receipts would reduce the requested Corps appropriation for FY2006 to $4.332 billion.

Table 4. Energy and Water Development Appropriations Title I: Corps of Engineers

($ millions)

Program	FY2005[a]	FY2006 Request	House H.R.	Senate S.	Conf.
Investigations and Planning	143.4	95.0			
Construction	1,844.6	1,637.0			
Flood Control, Mississippi River	328.0	270.0			
Operation and Maintenance	2,088.4	1,979.0			
Regulatory	144.0	160.0			
General Expenses	166.0	162.0			
FUSRAP[b]	164.0	140.0			
Flood Control and Coastal Emergencies	148.0	70.0			
Office of the Asst. Secretary of the Army	4.0	—			
Storm damage — emergency	10.0	—			
Subtotal Title I	**5,040.4**	**4,513.0**			
Reclassification of PMA Receipts	—	(181.0)			
Total	**5,040.4**	**4,332.0**			

Source: Administration budget request for FY2006.

a. Amounts include $372.4 million, from P.L.108-324, in storm damage-related emergency funding — $0.4 million for investigations; $62.6 million for construction; $6.0 million for flood control, Mississippi River; $145.4 for operation and maintenance; $148.0 million for flood control and coastal emergencies; and $10 million for storm damage.

b. "Formerly Utilized Sites Remedial Action Program."

Funding for the Corps' civil works program often has been a contentious issue between the Administration and Congress, with final appropriations typically providing more funding than requested, regardless of which political party controls the White House and Congress. The FY2004 and FY2005 appropriations bills added funds above the Administration's request; they were, respectively, $370 million (9%) and $548 million (13%) above the requested amounts.

Although this has been the historic trend, what will happen in FY2006 is unclear. The FY2006 budget request is higher than recent requests, such as the FY2004 request at $4.194 billion and the FY2005 request at $4.120 billion. According to the President's budget documents, the FY2006 request provides the Corps construction program "with an additional $200 million available for the highest performing projects contingent upon congressional adoption" of the Administration's performance-based budgeting initiative, which is described below.

Key Policy Issues — Corps of Engineers

The Corps has a backlog of authorized construction activities; estimates of the backlog's size vary from $11 billion to more than $50 billion depending on which projects are included. Most Corps policy issues in the President's FY2006 budget request are aimed at reducing the construction backlog, while making progress on Corps projects within current fiscal constraints and national priorities.

The Administration's argument for reducing the backlog appeared to be that as the Corps' workload grew in recent years, some projects faced construction delays and related cost overruns resulting from available appropriations being spread across an increasing portfolio of projects. Efforts similar to those proposed in the FY2006 request have been proposed in recent budget requests; most have not been enacted by Congress.

Performance-Based Budgeting and Limiting New Starts. The FY2006 request tackles the Corps construction backlog on a number of fronts. It limits the number of new activities started to only one construction project and three planning activities. The President's request would fund construction projects that could be completed in FY2006 and projects considered by the Administration to be priorities, similar to the President's FY2005 request. The nine national priority projects for FY2006 include the New York and New Jersey Harbor Deepening project, restoration projects in the Florida Everglades and the Upper Mississippi River system, and projects to meet environmental requirements in the Columbia River Basin and the Missouri River basin.

The FY2006 request was developed using a performance-based budgeting approach for determining which projects to fund for construction (and to a lesser extent maintenance), based on their economic and environmental returns. The construction projects selected for funding were chosen largely based on their having either a high ratio of remaining benefits to remaining costs, or, for environmental projects, a high cost-effectiveness. For example, these criteria were used to identify 35 active construction projects to be studied for possible suspension (i.e., to buy out current construction contracts, rather than to complete them). The FY2006 request would provide an $80 million fund with which to cancel contacts for these projects.

Most of the proposed suspension projects were included in the FY2005 request and have local project sponsors that have made investments and raised funds for their share of construction costs. The Administration's FY2006 request also proposes that the Corps reduce the federal government's future contract liability through changes to the types of contracts used, duration of contracts, and limiting clauses.

The budget request also focuses on the agency's three main mission areas — commercial navigation, flood and storm damage reduction, and aquatic ecosystem restoration. Consequently, the President requests no funds for studies and "environmental infrastructure" projects in the following non-traditional mission areas: wastewater treatment, irrigation water supply, and municipal and industrial water supply treatment and distribution. The Administration also had requested no funds for environmental infrastructure projects for FY2005; Congress, however, provided at least $44 million to environmental infrastructure projects for FY2005. This reinforced the general pattern since 1992 that the executive branch has generally been unsupportive of the Corps' involvement in environmental infrastructure, while Congress has provided authorizations and some appropriations for these activities.

As in the FY2005 budget request, the FY2006 budget request generally de-emphasizes maintenance of shallow draft harbors and waterways with low commercial use, based on the commercial cargo tons moved per mile. This results in the FY2006 request reducing maintenance funding from historic levels for some waterways, such as the Atlantic Intracoastal Waterway.

Federal Cost Policy Changes. The FY2006 request does not budget for the continued renourishment of shoreline storm damage reduction projects, indicating that it considers these costs as maintenance expenses to be borne by the non-federal project sponsors. If enacted, this policy change would reduce the Corps' involvement in renourishment, which has been at a 50% federal cost share. A similar proposal in the FY2005 request was rejected by the 108th Congress. Unlike the FY2005 budget request, the FY2006 request contains one renourishment exception — renourishment of beaches harmed by navigation; the Corps proposed that these expenses be paid 100% from the Harbor Maintenance Trust Fund. The Administration's FY2005 funding levels for navigation operation and maintenance and beach renourishment policy changes drew criticism from some stakeholders and support from others. Because of the similarities of the policy changes in the FY2005 and FY2006 requests, similar criticism and support for the FY2006 request is likely.

Ecosystem Restoration. A significant addition to the Corps' mission in recent years is a role in large environmental restoration programs, raising concerns that funding for these programs could displace funding for other traditional water resources activities. (See CRS Issue Brief IB10120, *Army Corps of Engineers Civil Works Program: Issues for Congress,* by Nicole T. Carter and Pervaze A. Sheikh, for more information.) The FY2006 request would provide $510 million for aquatic ecosystem restoration. The FY2006 request outlines three restoration goals — Florida Everglades ecosystem restoration ($137 million for construction-related activities), coastal Louisiana wetlands restoration ($20 million for continuing

studies), and Missouri River species protection (almost $83 million for fish and wildlife recovery investments).[1]

Everglades. The Corps plays a significant coordination role in the restoration of the Central and Southern Florida ecosystem. The President's request for FY2006 includes $137 million for the Corps' construction projects in the region, up from $130 million in the FY2005 request and $121.25 in the enacted FY2004 appropriations in P.L. 108-447. The FY2006 budget request supports the state of Florida's efforts to accelerate work on certain projects.

The President's request for the Everglades has drawn attention because of a proposed change in the funding of the Modified Water Deliveries Project.[2] The request called for the Corps to broaden its role in the project, by having the agency jointly fund it with the Department of the Interior, which previously had solely funded the project. This proposal has raised a question: Is the Corps authorized to receive appropriations to work on the project? The Corps' FY2006 request provides $35 million for the Modified Water project from the agency's $137 million for Everglades activities. The Administration's position is for the Corps to pay for $124 million of the remaining $191 million required to complete the project during FY2006 through FY2009.

In addition to funding for Corps activities through Energy and Water Development appropriations, federal activities in the Everglades are funded through Department of the Interior appropriations bills. For more information on Everglades funding for Interior agencies, see CRS Report RL32306, *Appropriations for FY2005: Interior and Related Agencies*, coordinated by Carol Hardy-Vincent and Susan Boren.

Paying for Recreation. The Corps is one of the largest federal providers of outdoor recreation services. The FY2006 budget request proposes a Corps recreation initiative to give the Corps authority to collect entrance fees, similar to other federal agencies. The Corps would use a portion of collections to upgrade recreation sites. The Administration's proposal also includes giving the Corps authority to conduct a limited number of demonstration projects, including public-private and local partnerships for making recreation improvements. For information on recreation on federal lands and this Corps recreation initiative, see CRS Issue Brief IB10140, *Recreation on Federal Lands*, coordinated by Kori Calvert and Carol Hardy-Vincent.

Proposed "Reforms" of Corps Processes and Procedures. During the 106th Congress, the Corps came under criticism for the way it evaluated and undertook projects. Although the issue received media attention in the 107th

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[1] For more information on coastal Louisiana, see CRS Report RL32673, *Coastal Louisiana: Attempting to Restore an Ecosystem*, by Jeffrey Zinn. For more information on the Missouri River, see CRS Issue Brief IB10120, *Army Corps of Engineers Civil Works Program: Issues for the109th Congress*, by Nicole T. Carter and Pervaze A. Sheikh.

[2] For more information on the Modified Waters Deliveries Project, see CRS Report RS21331, *Everglades Restoration: Modified Water Deliveries Project*, by Pervaze A. Sheikh.

Congress, it was not directly addressed through legislation. Corps reform was debated during consideration of Water Resource Development Act (WRDA) bills in the 108th Congress, but no legislation was enacted. No measures changing Corps planning and evaluation processes are included in the FY2006 request. For more information, see CRS Issue Brief IB10133, *Water Resources Development Act (WRDA): Army Corps of Engineers Authorization Issues in the 109th Congress*, coordinated by Nicole T. Carter.

Title II: Department of the Interior

For the Department of the Interior, the Energy and Water Development bill provides funding for the Central Utah Project Completion Account and the Bureau of Reclamation (BOR).

Table 5. Energy and Water Development Appropriations Title II: Central Utah Project Completion Account

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Central Utah Project Construction	30.6	31.7			
Mitigation and Conservation Activities	15.3	1.0			
Oversight & Administration	1.7	1.7			
Total, Central Utah Project	**47.6**	**34.4**			

Source: Budget justifications for FY2006 from the Bureau of Reclamation.

Table 6. Energy and Water Development Appropriations Title II: Bureau of Reclamation

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Water and Related Resources[a]	852.6	801.6			
Loan Program Account	—	—			
Policy & Administration	57.7	57.9			
CVP Restoration Fund	54.6	52.2			
Calif. Bay-Delta (CALFED)	—	35.0			
Working Capital Fund	—	—			
Drought Conditions, Nevada — emergency	5.0	—			
Gross Current Authority	**969.9**	**946.7**			
CVP Collections[b]	(46.4)	(43.9)			
Hydropower Direct Financing Offset	—	(30.0)			
Indian Water Rights	—	—			
Net Current Authority	**924.0**	**872.8**			

Total, Title II	**1,017.6**	**981.1**			

Source: Budget justifications for FY2006 from the Bureau of Reclamation.

a. Does not include supplemental appropriations of $5M for the Southern Nevada Water Authority authorized by P.L. 108-324.

b. In its request, the Bureau lists this as an “offset.”

Central Utah Project and Bureau of Reclamation: Budget In Brief

The Administration has requested $34.4 million for the Central Utah Project (CUP) Completion Account for FY2006, a decrease of $13.6 million (28%) from the FY2005 request and appropriation of roughly $48.0 million. The FY2006 request for the Bureau of Reclamation (BOR) totals $946.7 million in gross current budget authority. This amount is $23.2 million less than enacted for FY2005. The FY2006 request includes a $43.9 million "offset" for the Central Valley Project (CVP) Restoration Fund, and a Hydropower Direct Financing offset of $30.0 million (transferred from the Western Area Power Administration (WAPA) account in Title III), yielding a "net" current authority of $872.8 million for BOR — $51.2 million less than enacted for FY2005.

BOR's single largest account, Water and Related Resources, encompasses the agency's traditional programs and projects, including construction, operations and maintenance, the Dam Safety Program, Water and Energy Management Development, and Fish and Wildlife Management and Development, among others. The Administration has requested $801.6 million for the Water and Related Resources Account for FY2006. This amount is $51 million (nearly 6%) less than enacted for FY2005. The decreases appear to be fairly evenly spread among smaller projects, with more significant decreases for some larger projects, such as the Central Arizona Project and the Miscellaneous Project Programs of the Central Valley Project.

Key Policy Issues — Bureau of Reclamation

Background. Most of the large dams and water diversion structures in the West were built by, or with the assistance of, the Bureau of Reclamation (BOR). Whereas the Army Corps of Engineers built hundreds of flood control and navigation projects, BOR's mission was to develop water supplies, primarily for irrigation to reclaim arid lands in the West. Today, BOR manages hundreds of dams and diversion projects, including more than 300 storage reservoirs in 17 western states. These projects provide water to approximately 10 million acres of farmland and 31 million people. BOR is the largest wholesale supplier of water in the 17 western states and the second-largest hydroelectric power producer in the nation. BOR facilities also provide substantial flood control, recreation, and fish and wildlife benefits. At the same time, operations of BOR facilities are often controversial, particularly for their effect on sensitive fish and wildlife species and conflicts among competing water users.

CALFED. The Administration has requested $35 million for the California Bay-Delta Restoration Account (Bay-Delta, or CALFED) for FY2006. According to BOR, the requested funds will be used for implementation of Stage 1 activities, including the Environmental Water Account, water use efficiency, conveyance, ecosystem restoration, storage studies, and program administration.

Funds have not been appropriated for this account since FY2000, when the authorization for appropriations expired. However, funds were provided for FY2002,

FY2003, and FY2004 for activities that support the CALFED program — but not for the CALFED program account. The Administration requested $15 million for this account for FY2005, but the House Committee on Appropriations recommended that no funds be appropriated for CALFED, and no funds were included in the omnibus bill, P.L. 108-447. Consistent with past years, the committee noted it recommended "no funding (for CALFED) in the absence of authorizing legislation for this multi-year, multi-billion dollar effort." The conference agreement provided, however, a total of $8.5 million from the within the Water and Related Resources Account for certain activities that support the CALFED program. This amount includes $7.5 million for activities that support California Bay-Delta Restoration, as stated in the conference report, plus an "additional" $1.0 million for the Upper San Joaquin River Basin Storage investigation. Other activities receiving funding from the $8.5 million include $1.0 million for Sites Reservoir planning activities, $1.0 million for Shasta Dam enlargement evaluation, and $1.0 million for Los Vaqueros expansion planning.

Although the CALFED program was reauthorized and signed into law October 25, 2004 (H.R. 2888, P.L. 108-361), the appropriations language was not changed. It is not clear how much might be appropriated for the CALFED program account for FY2006 now that the program has been reauthorized. (For more information on CALFED, see CRS Report RL31975, *CALFED Bay-Delta Program: Overview of Institutional and Water Use Issues*, by Betsy A. Cody and Pervaze Sheikh.)

Security. The Administration requested $50 million for site security for FY2006. This amount is roughly $18 million more than enacted for FY2005. The bulk of the request is for facility operations/security. Funding covers such activities as administration of the security program (e.g. surveillance and law enforcement), anti-terrorism activities, and physical emergency security upgrades. (For more information, see CRS Report RL32189, *Terrorism and Security Issues Facing the Water Infrastructure Sector*, by Claudia Copeland and Betsy A. Cody.)

Beginning in FY2005 and continuing for FY2006, BOR has planned to assign a portion of site security costs to water users for repayment based on existing project cost allocations for operations and maintenance activities. However, conferees on the FY2005 appropriation noted concern over the plan and directed BOR to submit a report by May 1, 2005, on reimbursable and non-reimbursable security costs before implementation of the change, and stated that there should be no implementation of the change "until the Congress provides direct instruction to do so."

Title III: Department of Energy

Until this year, the Energy and Water Development bill has included funding for most of DOE's programs; some other DOE programs were funded in the Interior and Related Agencies bill. Major DOE activities historically funded by the Energy and Water bill include research and development on renewable energy and nuclear power, general science, environmental cleanup, and nuclear weapons programs. The Administration's FY2006 request for these DOE programs was $22.237 billion, about $586 million less than the amount appropriated for FY2005.

The subcommittee reorganization of the appropriations committees transferred DOE's programs for fossil fuels, energy efficiency, the Strategic Petroleum Reserve, and energy statistics, formerly included in the Interior and Related Agencies appropriations bill, to the Energy and Water Development bill. The Administration requested $1.69 billion for these programs, compared to $1.75 billion appropriated for FY2005. Including the transferred programs, the total request for Title III for FY2006 was $23.930 billion, compared to $24.575 billion appropriated for FY2005 (excluding the adjustments noted in **Table 3**).

Table 7 lists FY2005 appropriations and FY2006 figures for the DOE programs historically funded in the Energy and Water Development bill. **Table 8** lists funding for the DOE programs transferred from the Interior and Related Agencies bill.

Table 7. Energy and Water Development Appropriations Title III: Department of Energy

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Energy Supply R&D					
Solar and Renewable	386.0	353.6			
Electricity Transmission & Distribution	120.2	95.6			
Nuclear Energy	379.5	389.9			
Environment, Safety, Health	27.8	30.0			
Other	(12.0)	—			
Adjustments	30.9	33.5			
Total, Energy Supply	932.3	902.7			
Non-Defense Site Acceleration Completion[a]	157.3	172.4			
Non-Defense Environmental Services[a]	289.0	177.5			
Uranium Decontamination and Decommissioning Fund[a]	495.0	591.5			
Science					
High Energy Physics	736.4	713.9			
Nuclear Physics	404.8	370.7			

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Basic Energy Sciences	1,104.6	1,146.0			
Bio. & Env. R&D	581.9	455.7			
Fusion	273.9	290.6			
Advanced Scientific Computing	232.5	207.1			
Other	276.1	284.4			
Adjustments	(10.7)	(5.6)			
Total, Science	3,600.0	3,462.8			
National Nuclear Security Administration (NNSA)					
Weapons	6,583.4	6,630.1			
Nuclear Nonproliferation	1,422.1	1,637.2			
Naval Reactors	801.4	786.0			
Office of Administrator	357.1	343.9			
Total, NNSA	9,163.9	9,397.2			
Defense Environmental Management[a]					
Environ. Restoration Privatization	—	—			
Defense Site Acceleration Completion	5,725.9	5,183.7			
Defense Environmental Services	845.7	831.3			
Total, Defense Env. Man.	7,473.4	7,002.5			
Other Defense Activities	672.6	636.0			
Defense Nuclear Waste	229.2	351.5			
Total, Defense Activities	16,637.3	16,400.0			
Departmental Admin. (net)	119.3	130.3			
Office of Inspector General	41.2	43.0			
Power Marketing Administrations (PMAs) [b]					
Southeastern	5.2	—			
Southwestern	29.1	3.2			
Western	171.7	54.0			
Falcon & Armistad O&M	2.8	—			
Total, PMAs	208.8	57.1			
FERC (revenues)	210.0 (210.0)	220.0 (220.0)			
Civilian Nuclear Waste	343.2	300.0			
Subtotal, Title III	**22,823.0**	**22,236.9**			

Source: Budget justifications for FY2006 from the Department of Energy.

a. DOE's FY2005 "comparable" amounts for the five accounts that fund the Environmental Management Program reflect the proposed transfer of 7 sites to the National Nuclear Security Administration within DOE, as well as committee-directed transfer of funds to other accounts within DOE's budget subsequent to the enactment of P.L. 108-447.

b. The difference between the FY2005 and FY2006 appropriations for PMAs is that the FY2006 request proposes that PMAs use their electricity receipts to pay for PMA program direction and O&M activities, rather than having their receipts placed into the Treasury and appropriations made for these activities.

Table 8. Energy and Water Development Appropriations DOE Programs Transferred from Interior and Related Agencies

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Fossil Energy Research & Development	571.9	491.5			
Naval Petroleum & Oil Shale Reserves	17.8	18.5			
Elk Hills School Lands Fund	36.0	84.0			
Energy Conservation [b]	868.2	846.8			
Economic Regulatory Administration	—	—			
Strategic Petroleum Reserve	169.7	166.0			
Northeast Home Heating Oil Reserve	4.9	—			
Energy Information Administration	83.8	85.9			
Subtotal, Title III (Interior & Related Agencies Programs)	**1,752.3**	**1,692.7**			
Total Title III	**24,575.3**	**23,929.6**			

Source: Budget justifications for FY2006 from the Department of Energy.

Key Policy Issues — Department of Energy

DOE is the home of a wide variety of programs with different functions and missions. In the following pages, the programs are described, and major issues identified, in approximately the order in which they appear in the budget tables as listed in **Tables 7** and **8.**

Renewable Energy. The FY2006 budget request aims to "accelerate" the development of hydrogen-powered fuel cell vehicles. In particular, the Hydrogen program goal is to facilitate industry commercialization of infrastructure for fuel cell vehicles by 2015. Goals for other renewable energy technologies generally seek to improve energy production performance while reducing costs.

The request seeks $353.6 million for renewables, which is $26.7 million, or 7%, less than the FY2005 appropriation (excluding prior year balances). The main increases are for Hydrogen ($5.1 million) and Facilities ($4.9 million). The main cuts are for Biomass (-$30.5 million), Small Hydro (-$4.4 million), International Renewables (-$3.4 million), and for Tribal Energy (-$1.5 million). Further, at least $75.9 million in congressional earmarks would be reprogrammed or eliminated, including Hydrogen (-$37.6 million), Biomass (-$35.3), and Intergovernmental (-$3.0 million). Also, the request includes $95.6 million for the Office of Electricity Transmission and Distribution (OETD), a decrease of $23.0 million (excluding prior year balances), or 20%. The main decreases in OETD are for High Temperature Superconductivity R&D (-$9.6 million) and Transmission Reliability R&D (-$6.4 million).

Nuclear Energy. For nuclear energy research and development — including advanced reactors, fuel cycle technology, and nuclear hydrogen production — the Administration is requesting $389.9 million for FY2006, about $14.7 million above the FY2005 appropriation. In addition to that funding, the DOE Office of Nuclear Energy, Science, and Technology would receive $120.9 million under Other Defense Activities for defense-related management and security at the Idaho National Laboratory (INL), which has been transferred to the nuclear energy program from DOE's environmental management program. The Nuclear Energy office's total FY2006 funding request of $510.8 million is 5.2% above the comparable FY2005 level, according to DOE.

"The benefits of nuclear power as an emissions free, reliable, and affordable source of energy are an essential element in the Nation's energy and environmental future," according to DOE's budget justification. However, opponents have criticized DOE's nuclear research program as providing wasteful subsidies to an industry that they believe should be phased out as unacceptably hazardous and economically uncompetitive.

President Bush's specific mention of "safe, clean nuclear energy" in his 2005 State of the Union Address indicates the Administration's interest in encouraging construction of new commercial reactors — for which there have been no U.S. orders since 1978. DOE's efforts to restart the nuclear construction pipeline are focused on the Nuclear Power 2010 Program, which will pay up to half of the nuclear industry's costs of seeking regulatory approval for new reactor sites, applying for new reactor licenses, and preparing detailed plant designs. The program is intended to provide assistance for advanced versions of existing commercial nuclear plants that could be ordered within the next few years.

The Nuclear Power 2010 Program is helping three utilities seek NRC approval for potential nuclear reactor sites in Illinois, Mississippi, and Virginia. In addition, three industry consortia in 2004 applied for a total of $650 million over the next several years to design and license new nuclear power plants and conduct a feasibility study. DOE awarded an initial $13 million to the consortia in 2004. The FY2006 budget request includes $56.0 million for the program, a 12.9% boost over FY2005.

The nuclear license applications under the Nuclear Power 2010 program would test the "one step" licensing process established by the Energy Policy Act of 1992 (P.L. 102-486). Even if the licenses are granted by the Nuclear Regulatory Commission (NRC), the industry consortia funded by DOE have not committed to building new reactors. A DOE advisory group recommended in January 2005 that the federal government provide up to $4.2 billion in loan guarantees, power purchase agreements, accelerated depreciation, and investment and production tax credits to persuade the industry to build new U.S. nuclear plants.[3]

Advanced commercial reactor technologies that are not yet close to deployment are the focus of DOE's Generation IV Nuclear Energy Systems Initiative, for which $45.0 million is being requested for FY2006, about 12.5% above FY2005.

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[3] Hiruo, Elaine. "Special DOE Task Force Recommends $4.2-billion in New Reactor Aid." *Nucleonics Week*. January 13, 2005. p. 1.

The Generation IV program is focusing on six advanced designs that could be commercially available around 2020-2030: two gas-cooled, one water-cooled, two liquid-metal-cooled, and one molten-salt concept. Some of these reactors would use plutonium recovered through reprocessing of spent nuclear fuel. The Administration's May 2001 *National Energy Policy* report contends that plutonium recovery could reduce the long-term environmental impact of nuclear waste disposal and increase domestic energy supplies. However, opponents contend that the separation of plutonium from spent fuel poses unacceptable environmental risks and, because of plutonium's potential use in nuclear bombs, undermines U.S. policy on nuclear weapons proliferation.

The development of plutonium-fueled reactors in the Generation IV program is closely related to the nuclear energy program's Advanced Fuel Cycle Initiative (AFCI), for which the Administration is requesting $70.0 million — 3.8% above the FY2005 level. According to the budget justification, AFCI will develop and demonstrate nuclear fuel cycles that could reduce the long-term hazard of spent nuclear fuel and recover additional energy. Such technologies would involve separation of plutonium, uranium, and other long-lived radioactive materials from spent fuel for re-use in a nuclear reactor or for transmutation in a particle accelerator. The program includes longstanding DOE work on electrometallurgical treatment of spent fuel from the Experimental Breeder Reactor II (EBR-II) at INL.

In support of President Bush's program to develop hydrogen-fueled vehicles, DOE is requesting $20.0 million in FY2005 for the Nuclear Hydrogen Initiative, an increase of 124% from the FY2005 level. According to DOE's FY2005 budget justification, "preliminary estimates . . . indicate that hydrogen produced using nuclear-driven thermochemical or high-temperature electrolysis processes would be only slightly more expensive than gasoline" and result in far less air pollution.

An advanced reactor that would demonstrate co-production of hydrogen and electricity — the Next Generation Nuclear Plant (NGNP) — was allocated $25.0 million from DOE's Generation IV program by the FY2005 omnibus appropriations conference report. "The conferees expect the Department to submit a budget in fiscal year 2006 that is consistent with the goal of demonstrating hydrogen production and electricity generation by 2015 at the Idaho National Laboratory," according to the statement of managers. DOE's FY2006 budget justification for Generation IV says the research to be undertaken by the program "will help inform a decision on whether to proceed with a demonstration of the Next Generation Nuclear Plant."

DOE is again seeking no new funding specifically for the Nuclear Energy Research Initiative (NERI), which provides grants for research on innovative nuclear energy technologies. Instead, according to the budget justification, NERI projects will be pursued at the discretion of individual nuclear R&D programs. NERI received an appropriation of $2.5 million for FY2005. New funding also is not being requested for the Nuclear Energy Plant Optimization program (NEPO), which received $2.5 million in FY2005. The program supports cost-shared research by the nuclear power industry on ways to improve the productivity of existing nuclear plants.

Science. For FY2006, DOE has requested $3.463 billion for Science, a decrease of 4% from the FY2005 appropriation of $3.600 billion. The Office of

Science conducts basic research in six program areas: basic energy sciences, high-energy physics, biological and environmental research, nuclear physics, fusion energy sciences, and advanced scientific computing research. Through these programs, DOE is the third-largest federal supporter of basic research and the largest federal supporter of research in the physical sciences.[4]

The requested funding for the largest program, basic energy sciences, is $1.146 billion, a 4% increase above FY2005. Construction of the Spallation Neutron Source is expected to be completed in the third quarter of FY2006, so the request for this facility includes less funding for construction but for the first time includes the cost of operations. Operations will also begin at four of the five new Nanoscale Science Research Centers. (The fifth is still under construction and is expected to begin operations in FY2008.) Some have expressed concern that operations funding for these facilities will result in reduced grant funding for other research in the basic energy sciences program.

The request for fusion energy sciences is $291 million, a 6% increase. In 2003, the United States rejoined negotiations on construction of the International Thermonuclear Experimental Reactor (ITER), a fusion facility whose other participants include China, the European Union, Japan, Russia, and South Korea. The requested FY2006 budget for fusion energy sciences includes $50 million related to ITER and estimates that the total U.S. share of the project will be $1.1 billion through FY2013. When the FY2006 budget was released, the international partners remained split on where ITER should be located, a decision that was originally expected in November 2003.

The other four Office of Science programs would all be reduced in the FY2006 request. High-energy physics would receive $714 million, down 3%. Biological and environmental research would receive $456 million, down 22%. Nuclear physics would receive $371 million, down 8%. Advanced scientific computing research would receive $207 million, down 11%. Most of the decrease for biological and environmental research corresponds to the completion of congressionally directed one-time projects.

The FY2005 appropriations conference report (H.Rept. 108-792) encouraged DOE "to request sufficient funds for the Office of Science in fiscal year 2006 to operate user facilities for as much time as possible." For the facilities funded by four of the six Science programs, the FY2006 budget request includes "a reduction in operating hours due to funding limitations." The major facilities of the basic energy sciences program will be capable of operating for users for a total of 32,200 hours in FY2006, but only a total of 28,800 hours are scheduled. The Tevatron complex at Fermilab, funded by the high-energy physics program, will be capable of operating for 4,800 hours, but is scheduled for only 4,560. The four facilities of the nuclear physics program will be capable of operating for a total of 22,765 hours, but are scheduled for only a total of 14,695. The three fusion energy sciences facilities will

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[4] Based on 2003 data from Tables C-29 and C-22 of National Science Foundation, Division of Science Resources Statistics, *Federal Funds for Research and Development: Fiscal Years 2001, 2002, and 2003*, NSF 04-310 (March 2004).

be capable of operating for a total of 3,000 hours, but are scheduled for only 680. In each of these cases, the difference between optimal hours and scheduled hours was less in FY2005 than is requested in FY2006.

Nuclear Weapons Stockpile Stewardship. Congress established the Stockpile Stewardship Program in the FY1994 National Defense Authorization Act (P.L. 103-160) "to ensure the preservation of the core intellectual and technical competencies of the United States in nuclear weapons." The program is operated by the National Nuclear Security Administration (NNSA), a semiautonomous agency established by Congress in the FY2000 National Defense Authorization Act (P.L. 106-65, Title XXXII) within DOE. It seeks to maintain the safety and reliability of the U.S. nuclear stockpile.

Stockpile stewardship consists of all activities in NNSA's Weapons Activities account. The three main elements of stockpile stewardship, described next, are Directed Stockpile Work (DSW), Campaigns, and Readiness in Technical Base and Facilities (RTBF). **Table 9** presents funding for these elements. NNSA also manages two major programs outside of Weapons Activities: Defense Nuclear Nonproliferation, discussed in a subsequent section of this report, and Naval Reactors.

Several of the stockpile stewardship programs have been highly controversial. The Robust Nuclear Earth Penetrator and the Advanced Concepts Initiative, part of the Directed Stockpile Work program, were unfunded by the Congress for FY2005 and have been proposed again with some changes for FY2006. Funding for "Pit Manufacturing," in the Campaigns program, has also been subject to debate. DOE's proposal to reduce the time required to resume nuclear testing from 24 months to 18 months, also part of the Campaigns program, remains controversial. These and other programs are discussed below.

Most stewardship activities take place at the nuclear weapons complex, which consists of three laboratories (Los Alamos National Laboratory, NM; Lawrence Livermore National Laboratory, CA; and Sandia National Laboratories, NM and CA), four production sites (Kansas City Plant, MO; Pantex Plant, TX; Savannah River Site, SC; and Y-12 Plant, TN), and the Nevada Test Site. NNSA manages and sets policy for the complex; contractors to NNSA operate the eight sites.

Table 9. Funding for Weapons Activities

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
DSW	1,277.2	1,421.0			
Campaigns	2,294.5	2,080.4			
RTBF	1,786.5	1,631.4			
Other[a]	1,225.2	1,497.3			
Total	**6,583.4**	**6,630.1**			

Source: Budget justifications for FY2006 from the Department of Energy.
Details may not add to totals due to rounding.
a. Includes Secure Transportation Asset, Nuclear Weapons Incident Response, Facilities and Infrastructure Recapitalization Program, Environmental Projects and Operations, Safeguards and Security, and several adjustments.

The FY2006 request includes data from NNSA's Future Years Nuclear Security Program (FYNSP), which projects the budget and components through FY2010 (see **Table 10**).

Table 10. NNSA Future Years Nuclear Security Program

	FY2006	FY2007	FY2008	FY2009	FY2010
DSW	1,421.0	1,459.3	1,487.5	1,516.2	1,545.4
Campaigns	2,080.4	2,034.7	2,043.9	2,027.7	2,027.7
RTBF	1,631.4	1,745.5	1,817.1	1,915.8	2,000.1
Other[a]	1,497.3	1,540.8	1,573.0	1,617.6	1,688.4
Total	6,630.1	6,780.3	6,921.5	7,077.3	7,261.6

Source: Budget justifications for FY2006 from the Department of Energy.
Details may not add to totals because of rounding.
a. Includes Secure Transportation Asset, Nuclear Weapons Incident Response, Facilities and Infrastructure Recapitalization Program, Environmental Projects and Operations, Safeguards and Security, and several adjustments.

Directed Stockpile Work (DSW). This program involves work directly on nuclear weapons in the stockpile, such as monitoring their condition, maintaining them through repairs, refurbishment, life extension, and modifications; R&D in support of specific warheads; and dismantlement. The FY2006 DSW request would support life extension programs for three nuclear warheads: B61 (gravity bomb), W76 (for Trident I and II submarine-launched ballistic missiles), and W80 (for cruise missiles). It would fund surveillance and maintenance for nine warhead types, some work on retired warheads, and some management and technology work not linked to a specific warhead.

The FY2005 Consolidated Appropriations Act reduced DSW to $1,316.9 million (before adjustments), from $1,406.4 million requested. Probably the most noticed provisions were elimination of the $27.6 million request for the Robust Nuclear Earth Penetrator (RNEP), and transfer of the $9.0 million request for the Advanced Concepts Initiative (ACI) to a new program, Reliable Replacement Warhead. RNEP and ACI had been sharply debated in the FY2004 and FY2005 budget cycles.

RNEP is a study of the cost and feasibility of modifying existing nuclear bombs to enable them to penetrate into the ground before detonating, thereby magnifying their effect on a buried target. (See CRS Report RL32130, *Nuclear Weapon Initiatives: Low-Yield R&D, Advanced Concepts, Earth Penetrators, Test Readiness,* and CRS Report RL32347, *Robust Nuclear Earth Penetrator Budget Request and Plan, FY2005-FY2009*.) RNEP's supporters argue that it is needed to attack hard and deeply buried targets (such as leadership bunkers or chemical weapons production facilities) in countries of concern, thereby deterring or defeating such nations; critics reply that RNEP would lower the threshold for use of nuclear weapons and prompt other nations to develop nuclear weapons to deter U.S. attack.

Congressional concern about RNEP arose in part because the FY2005 NNSA request projected $484.7 million for the program for FY2005-FY2009. While RNEP was a study, this figure was provided in response to a congressional requirement that five-year costs be included in the budget request. The figure represented a projection based on experience with other programs, DOE indicated. It was not possible to provide a more precise number until the cost and feasibility study was completed. Further, the figure projected the cost based as if the program were to progress beyond the study stage into various development stages, although moving the program beyond the study stage would have required an Administration decision and congressional approval.

For FY2006, NNSA requests $4.0 million for the RNEP study, projects another $14.0 million for FY2007, and then projects no further funds. (The Department of Defense budget includes an additional $4.5 million for RNEP for FY2006.) The funds would be used to complete the study.

ACI was also controversial. Critics claimed that its purpose was to develop a low-yield "mini-nuke" that would make nuclear weapons more usable; supporters responded that NNSA was not working on a mini-nuke and that ACI would help develop and maintain weapons design expertise. The Administration requested $9.0 million for ACI for FY2005. The omnibus bill provided no funds for ACI; instead, the conference report stated that "the same amount is made available for the Reliable Replacement Warhead [RRW] program to improve the reliability, longevity, and certifiability of existing weapons and their components."

NNSA requests $9.5 million for RRW for FY2006. It states that the program "is to demonstrate the feasibility of developing reliable replacement components that are producible and certifiable for the existing stockpile" and to initially provide replacement pits (first-stage cores) "that can be certified without Underground Tests." It projects the following amounts: FY2007, $14.8 million; FY2008, $14.4 million; FY2009, $29.6 million; and FY2010, $29.0 million. It is important to note, however, that these out-year figures simply transfer the funds planned for ACI to RRW.

Campaigns. These are "multi-year, multi-functional efforts" that "provide specialized scientific knowledge and technical support to the directed stockpile work on the nuclear weapons stockpile." For FY2006, there are six campaigns, each of which has multiple components: Science; Engineering; Inertial Confinement Fusion and High Yield; Advanced Simulation and Computing; Pit Manufacturing and Certification; and Readiness.

The FY2005 omnibus bill contained $2,323.4 million for campaigns (before adjustments), vs. $2,393.8 million requested for FY2005. Conferees expressed considerable concern over a slip in the target date, from 2010 to 2014, for achieving ignition with the National Ignition Facility (NIF), a facility now under construction that will be the world's largest laser. NIF will be used for inertial confinement fusion research in support of stockpile stewardship and for other scientific research. Conferees directed several studies on this topic.

The FY2005 conferees also focused on the Pit Manufacturing and Certification Campaign, which is working to produce "pits" (the fissile core of the primary stage, or "trigger," of nuclear weapons) and to certify them for use in the stockpile. Conferees provided the amount requested, $132.0 million, for pit manufacturing and reduced funds for other components of the program. In particular, they reduced funds for the Modern Pit Facility (MPF), a proposed facility for pit manufacture that would become operational around 2021, from $29.8 million requested to $7.0 million, and barred use of funds to select a construction site for MPF in FY2005.

For FY2006, NNSA requests $2,080.4 million for campaigns, vs. $2,294.5 million appropriated for FY2005. Many items within campaigns have significance for policy decisions. As one example, the Science Campaign's goals include improving the ability to assess warhead performance without nuclear testing, improving readiness to conduct tests should the need arise, and maintaining the scientific infrastructure of the nuclear weapons laboratories.

The test readiness posture — the length of time between a presidential order to resume testing and the actual conduct of the test — has been controversial. In FY2004, the defense authorization conference report called for a posture of not more than 18 months, while the energy and water conference report called for NNSA "to focus on restoring a rigorous test readiness program that is capable of meeting the current 24-month requirement before requesting significant additional funds to pursue a more aggressive goal of an 18-month readiness posture." The FY2005 omnibus conference report did not address the topic, and for FY2006 NNSA requested $25.0 million for Test Readiness, part of the Science Campaign, "to continue improving the state of readiness to reach an 18-month test-readiness posture in FY 2006."

Another significant example is the Enhanced Surveillance program, for which NNSA requests $96.2 million for FY2006, in the Engineering Campaign, which seeks to develop "predictive capabilities for early identification and assessment of stockpile aging concerns ... to give NNSA a firm basis for determining when systems must be refurbished." This program is of interest to Congress because it is conducting experiments to determine the service life of pits based on plutonium aging characteristics; the result will bear on a decision to build the MPF.

Readiness in Technical Base and Facilities (RTBF). This program provides infrastructure and operations at the nuclear weapons complex sites. It has six subprograms. By far the largest is Operations of Facilities ($1,021.7 million appropriated for FY2005, $1,160.8 million requested for FY2006). Others include Program Readiness, which supports activities occurring at multiple sites or in multiple programs ($103.5 million appropriated for FY2005, $105.7 million requested for FY2006), and Material Recycle and Recovery, which recovers plutonium, enriched uranium, and tritium from weapons production and disassembly ($65.4 million appropriated for FY2005, $72.7 million requested for FY2006). Construction is a separate category within RTBF; the FY2005 appropriation was $275.2 million, and the FY2006 request is $2243.1 million.

The FY2005 omnibus bill provided $1,670.4 for RTBF. Most components were funded at the requested level; increases included $104.0 million for Operation of

Facilities, $50.0 million for a Highly Enriched Uranium Facility (Project 01-D-124) at the Y-12 Plant, and $37.8 million for the Microsystem and Engineering Science Applications (MESA) facility at Sandia.

Other Programs. Weapons Activities includes four smaller programs in addition to DSW, Campaigns, and RTBF.

- Secure Transportation Asset provides for the transport of nuclear weapons, components, and materials safely and securely. It includes special vehicles used for this purpose, communications and other supporting infrastructure, and threat response. The FY2005 appropriation was $199.7 million; the FY2006 request is $212.1 million.

- Nuclear Weapons Incident Response provides for use of DOE assets to manage and respond to a nuclear or radiological emergency within DOE, in the United States, or abroad. The FY2005 appropriation was $108.4 million; the FY2006 request is $118.8 million.

- Facilities and Infrastructure Recapitalization Program provides for deferred maintenance and infrastructure improvements for the nuclear weapons complex. In contrast, RTBF "ensure[s] that facilities necessary for immediate programmatic workload activities are maintained sufficiently," according to NNSA. The FY2005 appropriation was $313.7 million; the FY2006 request is $283.5 million.

- Safeguards and Security provides operations and maintenance funds for physical and cyber security, and related construction, to protect NNSA personnel and assets from terrorist and other threats. The FY2005 appropriation was $751.9 million; the FY2006 request is $740.5 million.

Nonproliferation and National Security Programs. DOE's nonproliferation and national security programs provide technical capabilities to support U.S. efforts to prevent, detect, and counter the spread of nuclear weapons worldwide. These nonproliferation and national security programs are included in the National Nuclear Security Administration (NNSA).

Funding for these programs in FY2005 was $1.422 billion. For FY2006, the Administration requested $1.637 billion.

In May 2004 DOE consolidated a number of programs, aimed at repatriating fresh and spent fuel containing highly enriched uranium (HEU) from research reactors around the world supplied by the United States and Russia, and converting reactors that use HEU fuel to operate on low-enriched uranium, into a single Global Threat Reduction Initiative (GTRI) within the Defense Nuclear Nonproliferation Program. Most of the funding for GTRI was redirected from Nonproliferation programs, but some came from Defense Environmental Management programs. DOE said that the target for completion of the program was 2010, and that it would

be funded at about $450 million. Funding for GTRI in FY2005 was calculated by DOE at $93.8 million. The request for FY2006 is $98.0 million.

The Nonproliferation and Verification R&D program, which received $224 million for FY2005, would be funded at $272.2 million in the Administration's FY2006 request. Nonproliferation and International Security programs would receive $80.2 million in the request, compared with $91.3 million in FY2005. These programs include international safeguards, export controls, and treaties and agreements. A major part of funding for the new GTRI came from the Nonproliferation and International Security programs.

International Materials Protection, Control and Accounting (MPC&A), which is concerned with reducing the threat posed by unsecured Russian weapons and weapons-usable material, would receive $343.4 million under the President's request, compared to $294.7 million appropriated for FY2005.

Two programs in the former Soviet Union, Initiatives for Proliferation Prevention (IPP) and the Nuclear Cities Initiatives (NCI), were combined for FY2005 into a single program called "Russian Transition Initiative," aimed at finding non-weapons employment for roughly 35,000 under-employed nuclear scientists from the former Soviet weapons complex. The FY2005 appropriation for the program was $40.7 million. For FY2006, $37.9 million was requested; the program has been renamed "Global Initiatives for Proliferation Prevention," to reflect expansion of the work to include retraining and redirection of scientists and technicians from other than the former Soviet Union.

Table 11. DOE Defense Nuclear Nonproliferation Programs

($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Nonproliferation & Verification R&D	224.0	272.2			
Nonproliferation & International Security[b]	91.3	80.2			
International Materials Protection, Control and Accounting (MPC&A)[b]	294.7	343.4			
Global Initiatives for Proliferation Prevention[a]	40.7	37.9			
Elimination of Weapons-Grade Plutonium Production	44.0	132.0			
HEU Transparency Implementation	20.8	20.5			
Fissile Materials Disposition	613.1	653.1			
Global Threat Reduction Initiative[b]	93.8	98.0			
Adjustments					
Total, Defense Nuclear Nonproliferation	**1,422.1**	**1,637.2**			

Source: Budget justifications for FY2006 from the Department of Energy.

a. Formerly called "Russian Transition Initiative."

b. GTRI funding redirected from other programs, primarily Nonproliferation and International Security and MPC&A.

Requested funding for the Fissile Materials Disposition program for FY2006 was $53.1 million, compared with $613.1 million in appropriated for FY2005. The program's goal is disposal of U.S. surplus weapons plutonium by converting it into fuel for commercial power reactors, including construction of a facility to convert the plutonium to reactor fuel at Savannah River, SC, and a similar program in Russia.

Environmental Management. The Environmental Management Program is the largest single function within DOE in terms of funding, representing approximately one-third of the Department's total budget. The primary purpose of the program is to manage radioactive and hazardous wastes, and to remediate contamination from such wastes, at former nuclear weapons sites across the country. The program also addresses waste management and remediation at sites where the federal government conducted civilian nuclear energy research. As such, DOE's Environmental Management Program is the largest waste management and environmental cleanup program throughout the federal government, with an annual budget of around $7 billion in recent years. In comparison, annual funding for the cleanup of contamination at Department of Defense sites has been less than $2 billion in recent years, and annual funding for the Environmental Protection Agency's cleanup of the nation's most hazardous private sector sites under the Superfund program has been around $1.25 billion.

The President's FY2006 budget includes $6.51 billion for DOE's Environmental Management Program, $548 million less than DOE's FY2005 "comparable" appropriation of $7.05 billion. The proposed funding decrease has received attention among states and environmental organizations concerned that reduced funding might result in slower and less stringent cleanup. However, the Administration asserts that the proposed cut would not result in a weaker cleanup effort. Rather, the Administration indicates that its proposed funding reflects:

- completion of certain cleanup activities;
- changes in scheduling of activities at some sites, such as purposefully slowing engineering and construction at Hanford due to uncertain design variables arising from considerations of seismic activity at that location;
- scaling back technology development as a federally funded programmatic activity, and instead allowing market forces to drive the development of more cost-effective technologies by contractors seeking to maximize profits; and
- safeguard and security cost savings from reduced infrastructure at some sites, such as the Idaho National Laboratory.

Historically, there have been many longstanding issues associated with DOE's Environmental Management Program. Much attention has focused on the amount of time and money needed to clean up environmental contamination, and to manage and dispose of radioactive and other hazardous wastes. DOE reports that in FY2006 there will be 107 geographic sites within the Environmental Management Program, which were contaminated from nuclear weapons production or civilian nuclear energy research. DOE has been responsible for 114 sites under this program, but

proposes to transfer 7 of these sites to the National Nuclear Security Administration within the Department.[5]

According to DOE, all response actions were complete at 76 sites as of the end of FY2003. Congress had appropriated approximately $70 billion through FY2003 for cleanup and site closure since the EM program was established in FY1989. DOE expects cleanup to be complete at 3 additional sites by the end of FY2005, and at 7 additional sites by the end of CY2006, yielding a total of 86 sites with cleanup complete.

Although cleanup is projected to be complete at many of the remaining sites within a decade, cleanup at the most contaminated sites is not expected to be complete until 2035. DOE's most recent estimate of future costs to complete its planned waste disposal and cleanup activities is $95 billion from FY2004 through final site closure in 2035. This is a substantially lower estimate than in past years, as a result of cost and time savings DOE expects from its cleanup reform initiative. DOE launched this initiative in FY2003 and signed letters of intent with the Environmental Protection Agency and the states to accelerate cleanup at its major sites. DOE also prepared Performance Management Plans for many of its sites, which outlined how cleanup would be accelerated and costs reduced.

In developing its plans to accelerate cleanup, DOE established baselines for the completion of its planned waste disposal and remedial actions, reflecting defined scope, costs, and schedules. According to DOE, its goals of faster and less costly cleanup are being accomplished through awarding competitive contracts, renegotiating existing contracts with performance-based incentives, working with regulators on more efficient technical and regulatory approaches, deploying innovative technologies, and coordinating with stakeholders and regulators to better define "end states" (i.e., the intended condition or use of each site once cleanup is complete).

DOE's cleanup reform initiative would continue in FY2006 under the President's budget, with funding provided under five accounts. These accounts include two for Site Acceleration Completion, one for Defense and one for Non-Defense, which fund efforts to complete cleanup and close contaminated facilities at a faster pace than previously scheduled. There also are two Environmental Services accounts, one for Defense and one for Non-Defense as well, which fund activities that indirectly support the mission of accelerated cleanup and closure, such as policy development and coordination, and the integration of mission activities across the complex of sites. A fifth account for the Uranium Enrichment Decontamination and Decommissioning Fund supports the cleanup of uranium enrichment plants and uranium and thorium processing sites.

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[5] These sites include (1) Nevada Test Site, (2) Sandia National Laboratory, (3) Separation Process Research Unit, (4) Kansas City Plant, (5) Lawrence Livermore National Laboratory Livermore Site, (6) Lawrence Livermore Laboratory Site 300, and (7) Pantex. In addition, operation of the low-level waste disposal site at the Nevada Test Site and newly generated waste management at Lawrence Livermore National Laboratory and the Y-12 site are also proposed for transfer from the Environmental Management Program to the National Nuclear Security Administration within DOE.

Defense sites have traditionally received most of the funding within the Environmental Management Program. Of the $6.51 billion FY2006 request, $5.18 billion would be allocated to the Defense Site Acceleration Completion Account, and $831 million would be allocated to the Defense Environmental Services Account. The Non-Defense Site Acceleration Completion Account would receive $172 million, and the Non-Defense Environmental Services Account would receive $178 million. The Uranium Enrichment Decontamination and Decommissioning Fund would receive $591 million. Although the total appropriation for these five accounts would be $6.96 billion, this amount would be offset by $451 million from the Uranium Enrichment Decontamination and Decommissioning Fund, yielding a total request of $6.51 billion.

Although there has been widespread concern about the amount of time and money needed to clean up nuclear waste sites, questions have been raised as to how DOE would accomplish its goals of faster and less costly cleanup without weakening environmental protection. Some have contended that more contamination may be left on site rather than removed. Because of the substantial amount of time required for certain types of radioactivity to decay, arguments have been raised that contamination left in place may migrate in unexpected ways over the long-term, and result in pathways of exposure that could not have been predicted when the remedy was originally selected. Others counter that completely removing radioactive contamination from all sites to permit unrestricted future land use, and eliminate all future pathways of exposure, would not be economically feasible, and in some cases would be beyond the capabilities of current cleanup technologies.

One of the more controversial issues regarding DOE's cleanup acceleration initiative has been how to dispose of radioactive and chemical wastes stored in underground tanks at the Hanford site in Washington State, the Savannah River site in South Carolina, and the Idaho National Laboratory. For FY2005, DOE proposed a new account to fund the classification of some of the tank wastes as "incidental to reprocessing," and to dispose of it as low-level waste or transuranic waste. The most contentious element of DOE's proposal was to leave some of the waste in the tanks, and to dispose of it as low-level waste by mixing and immobilizing it with a cement-like "grout" to seal it in place upon closure of the tank.

Some Members of Congress, states, environmental organizations, and communities opposed DOE's proposal, arguing that none of the tank wastes should be allowed to remain in place. Among the chief concerns was the possibility that the grout might not mix thoroughly with the residual waste to contain it safely and prevent leaks. However, others asserted that there would be limited environmental and public health risk benefit to be gained by removing all of the waste from the tanks. There also were concerns that removal of all of the waste would be technically difficult, pose a significant health and safety risk to the workers, and be very costly.

After considerable debate, the 108th Congress included authority in the Ronald W. Reagan National Defense Authorization Act for FY2005 (P.L. 108-375) for DOE to classify some of the tank wastes at the Savannah River site and the Idaho National Laboratory as other than high-level waste, and to dispose of some of the tank waste by grouting it in place if certain conditions are met. However, the authority was not extended to Washington State, where most of the tank waste is located at the Hanford

site. (For further discussion, see CRS Report RS21988, *Radioactive Tank Wastes: Disposal Authority in the Ronald W. Reagan National Defense Authorization Act for FY2005*, coordinated by David Bearden.)

The FY2006 request for the Environmental Management Program includes funding for the closing of one tank at the Idaho National Laboratory. Safely closing a tank involves numerous steps, such as removing and processing removed waste for disposal elsewhere, flushing of pipes, and sealing a tank in such a manner to ensure its structural integrity to prevent collapse. DOE's budget justification did not indicate the amount of waste in the tank slated for closure in Idaho, which may be classified as other than high-level pursuant to the authority in P.L. 108-375, and grouted in place upon tank closure. The FY2006 request also includes funding for the construction of waste treatment facilities at the Idaho National Laboratory and the Savannah River site that would be necessary for DOE to process the waste removed from the tanks prior to grouting any residual waste that may remain upon closure.

Related to the Environmental Management Program, the President's FY2006 budget also includes $79 million for DOE's Office of Legacy Management, slightly more than the FY2005 appropriation of $77 million. Of the request, $45 million would be allocated to former defense sites and related activities, and the remaining $34 million to non-defense sites. Congress provided the funding for DOE to establish this office in the Energy and Water Development Appropriations Act for FY2004 (P.L. 108-137). The primary functions of the Office of Legacy Management are to monitor and maintain remedial actions over the long-term once cleanup is complete, to ensure protection of human health and the environment, and to manage the pensions and benefits of former contractor personnel who performed the cleanup. DOE previously administered these responsibilities under multiple elements of its Environmental Management Program.

Civilian Nuclear Waste. Upon releasing the civilian nuclear waste program's FY2006 budget request, program officials announced that the opening of DOE's planned nuclear waste repository at Yucca Mountain, Nevada, would be delayed at least two years from the previous goal of 2010. The waste program's funding request of $651.4 million is about 14% above the FY2005 level but only about half the amount that last year's budget justification said would have been needed to open the repository by 2010. DOE officials also announced that a Yucca Mountain license application to the Nuclear Regulatory Commission (NRC) will be delayed by a year, to the end of 2005.

Funding for the program is provided under two appropriations accounts. The Administration is seeking $300.0 million from the Nuclear Waste Fund, which holds the fees paid by nuclear utilities. An additional $351.5 million is being requested under the Defense Nuclear Waste Disposal account, which pays for disposal of high-level waste from the nuclear weapons program in the planned Yucca Mountain repository. The waste program is run by DOE's Office of Civilian Radioactive Waste Management (OCRWM).

The FY2005 budget request for the nuclear waste program had assumed that Congress would enact legislation to offset most of the program's spending with revenue from a longstanding fee on nuclear power, which currently is not available

without appropriation. As a result, the net appropriation request was only $131 million, significantly less than the previous year's appropriation. However, Congress did not approve the funding offset proposal. Congressional appropriators then had to work to find additional appropriations for the nuclear waste program to prevent a large cut in the program. For FY2006, the Administration is again proposing that nuclear waste funding be offset by fees, but the budget request does not assume the proposal will be enacted and therefore includes full funding through appropriations.

One of the largest proposed increases in the civilian waste disposal budget request in FY2006 is for transportation, which would rise from $30.7 million in FY2005 to $85.4 million. The 178% increase is needed for developing a new branch rail line to Yucca Mountain and for preparing a national waste transportation system, according to the budget justification. Funding for waste disposal packages would triple under the budget request, to $14.5 million, and funding to develop a nuclear waste handling facility at Yucca Mountain would rise 45% to $30 million.

The Nuclear Waste Policy Act of 1982 (NWPA, P.L. 97-425), as amended, names Yucca Mountain as the sole candidate site for a national geologic repository. Congress passed an approval resolution in July 2000 (H.J.Res. 87, P.L. 107-200) that authorized the Yucca Mountain project to proceed to the licensing phase.

The new 2012 target for opening a permanent repository is nearly 15 years later than the Nuclear Waste Policy Act deadline of January 31, 1998, for DOE to begin taking waste from nuclear plant sites. Nuclear utilities and state utility regulators, upset over DOE's failure to meet the 1998 disposal deadline, have won two federal court decisions upholding the department's obligation to meet the deadline and to compensate utilities for any resulting damages. Utilities have also won several cases in the U.S. Court of Federal Claims. The nation's largest nuclear utility, Exelon Corporation, reached a breach-of-contract settlement with the federal government in August 2004 that may total $600 million if DOE does not begin taking spent fuel before 2015.

Further delays in the Yucca Mountain program could result from a July 2004 court decision that overturned a key aspect of the Environmental Protection Agency's (EPA's) regulations for the repository. A three-judge panel of the U.S. Court of Appeals for the District of Columbia Circuit ruled that EPA's 10,000-year compliance period was too short, but it rejected several other challenges to the standards. (For more information, see CRS Issue Brief IB92059, *Civilian Nuclear Waste Disposal*, by Mark Holt.)

Power Marketing Administrations. DOE's four Power Marketing Administrations (PMAs) — Bonneville Power Administration (BPA), Southeastern Power Administration (SEPA), Southwestern Power Administration (SWPA), and Western Area Power Administration (WAPA) — were established in response to the construction of dams and multi-purpose water projects operated by the Bureau of Reclamation and the Army Corps of Engineers. In many cases, conservation and management of water resources — including irrigation, flood control, recreation or other objectives — were the primary purpose of federal projects. However, these facilities often generated electricity to meet project needs; PMAs were established to market the excess power.

The PMAs sell power to electric utilities and federal agencies "at the lowest possible rates ... consistent with sound business practice," and priority for PMA power is extended to "preference customers," which include municipal utilities, co-ops and other "public" bodies. The PMAs do not own the generating facilities, but, with the exception of Southeastern, they own transmission facilities. The PMAs are responsible for covering their expenses and for repaying debt and the federal investment in the generating facilities.

The 104th Congress debated sale of the PMAs and, in 1995, authorized divestiture of one PMA (the Alaska Power Administration Act, P.L. 104-58). Since then, there has been no explicit interest in disposing of the remaining PMAs.

The FY2006 Administration request for the PMAs is sharply down from FY2005 levels — a reduction from the FY2005 appropriation of $208.8 million to a request for $57.1 for FY2006, an overall reduction of 72.6%. New appropriation language proposed by the Administration would extend authority to SEPA, SWPA, and WPA to credit a portion of their revenues to their appropriation accounts as offsetting collections for program and operating expenses. The FY2006 request of $57.1 million reflects a reduction of $117.8 million for WAPA and $26.0 million for Southwestern. Net appropriations for Southeastern, budgeted at roughly $5.2 million in FY2005, would be eliminated altogether.

BPA receives no annual appropriation, but funds some of its activities from permanent borrowing authority, which was increased in FY2003 from $3.75 billion to $4.45 billion (a $700 million increase). BPA is not requesting additional borrowing authority in FY2006. BPA intends to use $487 million of its borrowing authority in FY2006, up from $432 million in FY2005, for generation and transmission services, conservation, energy efficiency, fish and wildlife, and capital equipment programs.

Department of Energy Programs from Interior and Related Agencies Bill

Fossil Energy Research, Development, and Demonstration. The Bush Administration's FY2006 budget request of $491.5 million for fossil energy research and development is 14.1% less than the amount enacted for FY2005 ($571.9 million) and 25.4% less than the enacted amount for FY2004 ($659 million). Major funding categories and amounts include Coal and Other Power Systems ($351.0 million), Natural Gas Technologies ($10.0 million), Oil Technology ($10.0 million), and Program Direction and Management Support ($98.0 million).

DOE is proposing to terminate both the Natural Gas and Oil Technology programs based on a Program Assessment Rating Tool review which rated both programs ineffective. Congressional support of Natural Gas and Oil Technology programs has been significantly higher than the Bush Administration's request in previous years.

The Administration requests $68 million for its Clean Coal Power Initiative (CCPI), including $18 million for FutureGen, a project to demonstrate co-production

of electricity and hydrogen from coal with no emissions. According to DOE's budget justification, CCPI is a "cost-shared program between the government and industry to rapidly demonstrate emerging technologies in coal-based power generation and to accelerate their commercialization." Nearly $400 million has been appropriated since FY2002.

CCPI is along the lines of the Clean Coal Technology Program (CCTP), which began in the late 1980s. It has completed most of its projects and has been subject to rescissions and deferrals since the mid-1990s. The CCTP eventually is to be phased out.

Coal R&D other than CCPI and FutureGen would rise by 5.9% to $218 million, while nearly all other fossil fuel programs would be cut. Within the Coal R&D, the Administration's request for gasification research increased from $34.5 million in FY2005 to $56.4 million in FY2006. The FY2005 enacted level was $45.8 million. This level of increase is an indication of more commitment by the Administration and Congress to the integrated gasification combined cycle (IGCC) technology aimed at commercialization. There is sustained investment in IGCC because of its potential benefits from reduced NOx, SOx, mercury and fine particulate matter emissions. Moreover, lower CO2 emissions through greater plant efficiencies and/or potential sequestration could be substantial. Under the Administration's request, funding for DOE's Carbon Sequestration program would increase significantly — from $45.4 million in FY2005 to $67.2 million in FY2006.

In its report on the FY2005 funding bill, the House Appropriations Committee expressed disappointment with the emphasis of the Administration's request on funding new, long-term energy research efforts, such as FutureGen, at the expense of ongoing energy programs that could yield energy savings and emissions reductions over the next decade. The Committee recommended restoring many of the proposed reductions for research to improve fossil energy technologies, contending that it would be "fiscally irresponsible" to discontinue research in which major investments have been made before that research is concluded (H.Rept. 108-542, p.7-8).

Strategic Petroleum Reserve. The Strategic Petroleum Reserve (SPR), authorized by the Energy Policy and Conservation Act (P.L. 94-163) in late 1975, consists of caverns formed out of naturally occurring salt domes in Louisiana and Texas in which more than 680 million barrels of crude oil are stored. The purpose of the SPR is to provide an emergency source of crude oil which may be tapped in the event of a presidential finding that an interruption in oil supply, or an interruption threatening adverse economic effects, warrants a drawdown from the reserve. A Northeast Heating Oil Reserve (NHOR) was established during the Clinton Administration, housing 2 million barrels of home heating oil in above-ground facilities in Connecticut, New Jersey, and Rhode Island.

In mid-November 2001, President Bush ordered that the SPR be filled to capacity (700 million barrels) using royalty-in-kind (RIK) oil. This is oil turned over to the federal government as payment for production from federal leases. Acquiring oil for the SPR by RIK avoids the necessity for Congress to make outlays to finance direct purchase of oil; however, it also means a loss of revenues to the Treasury in so far as the royalties are paid in wet barrels rather than in cash. Deliveries of RIK

oil began in the spring of 2002 and are currently scheduled to continue through August 2005 when the capacity of the SPR should be filled. Some policymakers have objected to RIK fill, arguing that this oil should instead be released to tight markets. The Administration has argued that the volumes involved, varying between 65,000-200,000 barrels per day of deliveries to the SPR, are too small to have any discernible effect on crude and product prices.

The current program costs for the SPR are almost exclusively dedicated to maintaining SPR facilities and keeping the SPR in readiness should it be needed. The costs of transporting RIK oil to SPR sites are borne by the contractors, so no new money was requested for the SPR petroleum account beginning with FY2004.

Congress agreed to a funding level of $174.6 million for the program in FY2005, including $4.9 million for the NHOR. The Administration request for FY2006 for the SPR itself is $166.0 million, a reduction from the FY2005 appropriation of slightly more than $4 million. No new money is requested for the NHOR in FY2006, owing to the use of prior-year balances of $5.3 million.

For more information, see CRS Issue Brief IB87050, *The Strategic Petroleum Reserve*, by Robert Bamberger.

Energy Conservation. The FY2006 budget request (Appendix, p. 402) notes that the "Administration's energy efficiency programs have the potential to produce substantial benefits for the nation — both now and in the future — in terms of economic growth, increased energy security and a cleaner environment." In particular, the request aims to "accelerate" the development of hydrogen-powered fuel cell vehicles. The Hydrogen program aims to facilitate industry commercialization of infrastructure for those vehicles by 2015. Goals for other energy end-use and production technologies generally seek to improve energy efficiency and performance while reducing costs.

The Administration's FY2006 request seeks $846.8 million for energy efficiency, which is $21.5 million, or 2%, less than the FY2005 appropriation. The main increases are for Biomass/Biorefinery ($14.5 million) and Fuel Cells ($8.7 million). The main cuts are for Industrial programs (-$18.3 million), Advanced Combustion Vehicles (-$8.6 million), Buildings (-$7.5 million), Clean Cities (-$4.1 million), and State Energy Program (-$3.2 million). See **Table 12**, below.

Table 12. Energy and Water Development Appropriations DOE Energy Conservation

($ in millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Vehicle Technologies	165.4	165.9			
Fuel Cell Technologies	74.9	83.6			
Intergovernmental	309.0	298.2			
Weatherization Grants[a]	*228.2*	*230.0*			
Distrib. Energy Resources	60.4	56.6			

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Building Technologies	65.5	58.0			
Industrial Technologies	74.8	56.5			
Biomass/Biorefinery	7.3	21.8			
Federal Energy Management	17.9	17.1			
Program Management	93.0	89.0			
R&D Subtotal	595.8	575.8			
Grants Subtotal	272.4	271.0			
Total Appropriation	868.2	846.8			

Source: Budget Justifications for FY2006 from the Department of Energy.
a. Weatherization grants are included in the "Intergovernmental" account.

Title IV: Independent Agencies

Independent agencies that receive funding from the Energy and Water Development bill include the Nuclear Regulatory Commission (NRC), the Appalachian Regional Commission (ARC), and the Denali Commission.

Table 13. Energy and Water Development Appropriations
Title IV: Independent Agencies
($ millions)

Program	FY2005	FY2006 Request	House H.R.	Senate S.	Conf.
Appalachian Regional Commission	65.5	65.5			
Nuclear Regulatory Commission (Revenues) Net NRC	664.9 (536.8) 128.1	701.7 (567.1) 134.6			
Defense Nuclear Facilities Safety Board	20.1	22.0			
Nuclear Waste Technical Review Board	3.2	3.6			
TVA Inspector General [a]	—	—			
Denali Commission	66.5	2.6			
Delta Regional Authority	6.0	6.0			
Total	**289.3**	**234.3**			

Source: President's budget request for FY2006.

a. TVA Inspector General would receive $9 million from TVA revenues under the Administration's budget.

Key Policy Issues — Independent Agencies

Nuclear Regulatory Commission. The Nuclear Regulatory Commission (NRC) is requesting a total budget of $701.7 million for FY2006, including $8.3 million for the NRC inspector general's office. The request is about 4.8% above the FY2005 funding level. Major activities conducted by NRC include safety regulation and licensing of commercial nuclear reactors, licensing of nuclear waste facilities, and oversight of nuclear materials users.

In the wake of the September 11, 2001, terrorist attacks against the United States, NRC has focused additional attention on the security of nuclear power plants and other users of radioactive material. NRC's FY2006 budget request includes $61.0 million for activities related to homeland security, a 2% increase over FY2005. NRC oversees force-on-force security exercises at nuclear plants and is requiring revised security plans to reflect increased baseline threats. (For more information on protecting licensed nuclear facilities, see CRS Report RS21131, *Nuclear Power Plants: Vulnerability to Terrorist Attack,* by Carl E. Behrens.)

To begin reviewing an anticipated DOE license application for a national nuclear waste repository at Yucca Mountain, Nevada, NRC is requesting $69.1 million — a slight increase over FY2005 but more than double the FY2004 level. The budget request also includes safety testing of full-scale casks for transporting nuclear waste by rail and by truck.

Under the FY2001 Energy and Water Development Appropriations Act (P.L. 106-377), 90% of the NRC budget is to be offset by fees on licensees. Because $69.1 million in FY2006 is to be appropriated from the Nuclear Waste Fund to pay for waste repository licensing and another $2 million would be used for DOE defense waste oversight, the 90% fee requirement applies to about $630 million of the budget, leaving a net appropriation of about $63 million. Including the Nuclear Waste Fund and defense waste appropriation, NRC's total FY2006 net appropriations request is $134.6 million.

Denali Commission. The main difference between the FY2006 request for Title IV programs and the amount appropriated for FY2005 is a sharp reduction in funding for the Denali Commission, a regional economic development agency established in 1998. The Administration's proposed reduction is typical. FY2004 funding for the commission was $54.7 million; for FY2005 the Administration requested $2.5 million, and the House bill, H.R. 4614 (108th Congress) did not fund it at all, but the omnibus appropriations act, P.L. 108-447, appropriated $66.5 million.

For Additional Reading

CRS Issue Briefs

CRS Issue Brief IB10041. *Renewable Energy: Tax Credit, Budget, and Electricity Production Issues,* by Fred Sissine.

CRS Issue Brief IB10020. *Energy Efficiency: Budget, Oil Conservation, and Electricity Conservation Issues*, by Fred Sissine.

CRS Issue Brief IB92059. *Civilian Nuclear Waste Disposal,* by Mark Holt.

CRS Issue Brief IB10091. *Nuclear Nonproliferation Issues,* by Carl Behrens.

CRS Issue Brief IB10120. *Army Corps of Engineers Civil Works Program: Issues for Congress,* by Nicole T. Carter and Pervaze A. Sheikh.

CRS Issue Brief IB88090. *Nuclear Energy Policy,* by Mark Holt and Carl Behrens.

CRS Reports

CRS Report RS20702. *South Florida Ecosystem Restoration and the Comprehensive Everglades Restoration Plan,* by Nicole T. Carter and Pervaze A. Sheikh.

CRS Report RS20569. *Water Resource Issues in the 109th Congress*, by Betsy A. Cody and H. Steven Hughes.

CRS Report RS20866. *The Civil Works Program of the Army Corps of Engineers: A Primer,* by Nicole T. Carter and Betsy A. Cody.

CRS Report RL30478. *Federally Supported Water Supply and Wastewater Treatment Programs,* by the Resources, Science and Industry Division.

CRS Report RL32189. *Terrorism and Security Issues Facing the Water Infrastructure Sector,* by Claudia Copeland and Betsy A. Cody.

CRS Report RL31098. *Klamath River Basin Issues: An Overview of Water Use Conflicts,* coordinated by Betsy A. Cody.

CRS Report RL32131, *Phosphorus Mitigation in the Everglades*, by Pervaze A. Sheikh and Barbara Johnson.

CRS Report RL31975, *CALFED Bay-Delta Program: Overview of Institutional and Water Use Issues*, by Betsy A. Cody and Pervaze Sheikh.

CRS Report RL32130, *Nuclear Weapon Initiatives: Low-Yield R&D, Advanced Concepts, Earth Penetrators, Test Readiness,* by Jonathan Medalia.

CRS Report RL32347, *Robust Nuclear Earth Penetrator Budget Request and Plan, FY2005-FY2009*, by Jonathan Medalia.

CRS Report RL31993, *Nuclear Warhead 'Pit' Production: Background and Issues for Congress*, by Jonathan Medalia.

CRS Report RL32163, *Radioactive Waste Streams: An Overview of Waste Classification for Disposal*, by Anthony Andrews.

CRS Report RS21131, *Nuclear Power Plants: Vulnerability to Terrorist Attack*, by Carl E. Behrens.

CRS Report RS21442. *Hydrogen and Fuel Cell Vehicle R&D: FreedomCAR and the President's Hydrogen Fuel Initiative*, by Brent D. Yacobucci.

CRS Report RL32543. *Energy Saving Performance Contracts*, by Anthony Andrews.

CRS Report RS22080. *Power Marketing Administrations: Offsetting Collections in the President's FY2006 Budget Proposal*, by Kyna Powers.