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SENATE

{ REPORT
115-132

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS
BILL, 2018

JULY 20, 2017.—Ordered to be printed

Mr. ALEXANDER, from the Committee on Appropriations, submitted
the following

REPORT

[To accompany S. 1609]

The Committee on Appropriations reports the bill (S. 1609) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2018, and for other purposes, reports favorably thereon and recommends that the bill do pass.

New obligatory authority

Total of bill as reported to the Senate	\$39,267,376,000
Amount of 2017 appropriations	38,450,000,000
Amount of 2018 budget estimate	34,188,515,000
Bill as recommended to Senate compared to—	
2017 appropriations	+ 817,376,000
2018 budget estimate	+ 5,078,861,000

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PURPOSE

The purpose of this bill is to provide appropriations for fiscal year 2018, beginning October 1, 2017, and ending September 30, 2018, for energy and water development, and for other related purposes. It supplies funds for water resources development programs and related activities of the Corps of Engineers' civil works program in title I; for the Department of the Interior's Bureau of Reclamation and Central Utah Project in title II; for the Department of Energy's energy research and development activities, including environmental restoration and waste management, and atomic energy defense activities of the National Nuclear Security Administration in title III; and for independent agencies and commissions, including the Appalachian Regional Commission, Delta Regional Authority, Denali Commission, Northern Border Regional Commission, and the Nuclear Regulatory Commission in title IV.

SUMMARY OF ESTIMATES AND RECOMMENDATIONS

The fiscal year 2018 budget estimates for the bill total \$34,188,515,000 in new budget (obligational) authority. The recommendation of the Committee totals \$39,267,376,000. This is \$5,078,861,000 above the budget estimates and \$817,376,000 above the enacted appropriation for the current fiscal year.

SUBCOMMITTEE HEARINGS

The Appropriations Subcommittee on Energy and Water Development held four sessions in connection with the fiscal year 2018 appropriations bill. Witnesses included officials and representatives of the Federal agencies under the subcommittee's jurisdiction.

The recommendations for fiscal year 2018, therefore, have been developed after careful consideration of available data.

INTRODUCTION

The Appropriations Subcommittee on Energy and Water Development's allocation totals \$38,400,000,000 of net budget authority for fiscal year 2018, including adjustments, which represents an increase of \$629,000,000 over fiscal year 2017. Within the amount recommended, \$21,000,000,000 is classified as defense (050) spending and \$17,400,000,000 is classified as non-defense (non-050) spending.

The Committee's constitutional responsibility to oversee the Federal Government's expenditure of taxpayer dollars requires setting priorities and ensuring these funds are executed as Congress has directed. To develop this recommendation, the Committee held four budget hearings in June 2017 to examine the budget requests for the Corps of Engineers, Bureau of Reclamation, Department of Energy, National Nuclear Security Administration, and the Nuclear

Regulatory Commission. The hearings provided officials from the agencies with an opportunity to present the administration's most pressing priorities to the Committee. The Committee also invited and received recommendations from Senators and outside witnesses.

The Committee's recommendation reflects that process and includes funding for the highest priority activities across the agencies funded in the bill. The recommendation includes funds for critical water infrastructure, including our Nation's inland waterways, ports, and harbors; agricultural water supply and drought relief in the West; groundbreaking scientific research and development, including world-class supercomputing; support for the Nation's nuclear weapons, non-proliferation, and nuclear Navy programs; and critical economic development. The Committee did not recommend funding for low-priority programs, and rescinded unused funds from prior years.

Oroville Dam and Dam Safety Evaluations.—The Committee is concerned that the failure of the auxiliary and emergency spillways at Oroville Dam in California may be indicative of a broader flaw in Federal and state evaluations of dam safety. The Committee understands that the Oroville Dam Spillway Incident Forensic Investigation Team report is expected to be released this fall. Within 90 days of the release of this report, the Army Corps of Engineers, the Bureau of Reclamation, and the Federal Energy Regulatory Commission shall jointly brief the Committee on efforts to incorporate lessons learned from Oroville into dam inspection protocols across all three agencies and their state partners, including an analysis of: the Forensic Investigation Team report examining the causes of the Oroville Dam spillway failures; the utility of a subsequent independent panel to evaluate whether the Corps, the Bureau and the Commission should revise their dam safety procedures in light of lessons learned from the Oroville incident; whether additional safety inspections should be required after large storms; whether the projected effects of climate change and atmospheric rivers are appropriately considered in safety requirements and testing protocols; whether new non-invasive structural health monitoring technologies have the potential to improve safety inspections; and whether additional actions should be taken to ensure the safety of dams without emergency spillways, such as Trinity Dam in California.

TITLE I
CORPS OF ENGINEERS—CIVIL
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS—CIVIL
OVERVIEW OF RECOMMENDATION

The Committee recommends \$6,166,400,000 for the Corps of Engineer [Corps], an increase of \$1,164,400,000 from the budget request.

The Committee recommendation sets priorities by supporting our Nation's water infrastructure. Specifically, the Committee recommendation provides adequate appropriations to utilize all of the estimated fiscal year 2018 revenues from the Inland Waterways Trust Fund and meets the target prescribed in the Water Resources Reform and Development Act [WRRDA] of 2014, as amended, for the Corps projects eligible for Harbor Maintenance Trust Funds.

INTRODUCTION

The Corps' civil works mission is to provide quality, responsive engineering services to the Nation in peace and war. Approximately 23,000 civilians and about 290 military officers are responsible for executing the civil works mission. This bill only funds the civil works functions of the Corps.

The Corps maintains our inland waterways, keeps our ports open, manages a portion of our drinking water supply, provides emission free electricity from dams, looks after many of our recreational waters, helps manage the river levels during flooding, provides environmental stewardship, and provides emergency response to natural disasters. The annual net economic benefit generated by the Corps' civil works mission is estimated to be \$109,830,000,000, which equates to a return of about \$16.60 for every \$1 expended.

The Corps' responsibilities include:

- navigation systems, including 13,000 miles of deep draft channels, 12,000 miles of inland waterways, 239 lock chambers, and 1,067 harbors which handle over 2.3 billion tons of cargo annually;
- flood risk management infrastructure, including 709 dams, 14,700 miles of levees, and multiple hurricane and storm damage risk reduction projects along the coast;
- municipal and industrial water supply storage at 136 projects spread across 25 States;
- environmental stewardship, infrastructure, and ecosystem restoration;

- recreation for approximately 370 million recreation visits per year to Corps' projects;
- regulation of waters under Federal statutes; and
- maintaining hydropower capacity of nearly 24,000 megawatts at 75 projects.

DEEP DRAFT NAVIGATION

The budget request this year fails to adequately fund our Nation's harbors. The Committee is disappointed the administration's budget only proposes to spend \$965,000,000 from the Harbor Maintenance Trust Fund [HMTF], \$375,000,000 below the spending target established by the WRRDA 2014, as amended.

For fiscal year 2018, the Committee recommends an estimated \$1,340,000,000 for HMTF-related activities meeting the spending target established by WRRDA 2014, as amended, which is \$375,000,000 above the budget request.

INLAND WATERWAYS SYSTEM

The Committee notes that the budget request only proposed to spend \$26,250,000 of the \$105,000,000 estimated to be deposited in fiscal year 2018 into the Inland Waterways Trust Fund [IWTF]. This would leave an estimated \$78,750,000 of fiscal year 2018 deposits unspent. The budget request also only proposes to fund a single project, Olmsted Lock, and eliminates funding for the other three ongoing projects that are already under construction and received funding last year. The Committee does not support the administration's proposal to reform inland waterways financing by increasing the amount paid by commercial navigation users of inland waterways, particularly when the administration does not propose to spend the funding already collected.

ADDITIONAL FUNDING

The Committee has recommended funding above the budget request for Investigations, Construction, Operations and Maintenance, and Mississippi River and Tributaries. Except for funds proposed for new starts, this funding is for additional work that either was not included in the administration's request or was inadequately budgeted. A study or project may not be excluded from evaluation for being "inconsistent with administration policy."

The administration is reminded these funds are in addition to its budget request, and administration budget metrics shall not be a reason to disqualify a study or project from being funded. The focus of the allocation process shall favor the obligation, rather than the expenditure, of funds for work in fiscal year 2018.

Funding associated with each category may be allocated to any eligible study or project, as appropriate, within that category; funding associated with each subcategory may be allocated only to eligible studies or projects, as appropriate, within that subcategory.

Work Plan.—Not later than 60 days after the date of enactment of this act, the Corps shall provide to the Committees on Appropriations of both Houses of Congress a work plan consistent with the following general guidance, as well as the specific direction the Committee provides within each account: (1) a detailed description

of the rating system(s) developed and used to evaluate studies and projects; (2) delineation of how these funds are to be allocated; (3) a summary of the work to be accomplished with each allocation, including phase of work; and (4) a list of all studies and projects that were considered eligible for funding but did not receive funding, including an explanation of whether the study or project could have used funds in fiscal year 2018 and the specific reasons each study or project was considered as being less competitive for an allocation of funds. The Corps is directed not to obligate any funding above the budget request for studies or projects until the Committees have approved the work plan for fiscal year 2018.

The work plan shall include a single group of new starts for Investigations and Construction. None of the funds may be used for any item for which the Committee has specifically denied funding.

New Starts.—The recommendation includes six new study starts and five new construction starts to be distributed across the three main mission areas of the Corps. Of the new study starts, two shall be for navigation studies, two shall be for flood and storm damage reduction studies, one shall be for an additional navigation or flood and storm damage reduction study, and one shall be for an environmental restoration study. Of the new study starts for navigation, one shall be for a Small, Remote, or Subsistence Harbor. Of the new construction starts, two shall be for navigation projects, one shall be for a flood and storm damage reduction project, one shall be for a coastal storm damage reduction project, and one shall be for an environmental restoration project.

Consideration of studies and projects for selection as new starts shall not be limited to only those proposed in the administration's budget request. As all new starts are to be chosen by the Corps, all shall be considered of equal importance, and the expectation is that future budget submissions will include appropriate funding for all new starts selected.

The Corps shall consider preconstruction engineering and design [PED] phase work as a continuation of the investigations and by definition, a study is not completed until PED is completed. No new start or new investment decision shall be required when moving from feasibility to PED. When evaluating proposals for new feasibility studies, the Corps is encouraged to give priority to those studies with executed Feasibility Cost Sharing Agreements and a sponsor with the ability to provide any necessary cost share for the study phase. The Corps is encouraged to support opportunities to restore critical habitat and enhance the Nation's economic development, job growth, and international competitiveness.

A new construction start shall not be required for work undertaken to correct a design deficiency on an existing Federal project; it shall be considered ongoing work.

ASIAN CARP

The Corps is directed to provide quarterly updates to the Committees on Appropriations of both Houses of Congress on the progress and status of efforts to prevent the further spread of Asian carp as well as the location and density of carp populations, including the use of emergency procedures.

The Corps shall collaborate with the U.S. Coast Guard, the State of Illinois, and members of the Asian Carp Regional Coordinating Committee to institute navigation protocols identified by the U.S. Fish and Wildlife Service to reduce the risk of vessels inadvertently carrying aquatic invasive species, including Asian carp, through the Electric Dispersal Barrier near Romeoville, Illinois and locks and dams in the Illinois River. The Committee directs the Corps to institute these navigation protocols within a year of enactment of this act. The Committee is aware that the Corps and other Federal and State agencies are conducting ongoing research on potential solutions.

REPROGRAMMING

The Committee is retaining the reprogramming legislation provided in the Energy and Water Development and Related Agencies Appropriations Act, 2017.

SAVINGS AND SLIPPAGE

Savings and slippage [S&S] is a budgetary term that recognizes that nothing ever goes completely as planned. The Committee recognizes that many changes may occur between the Corps' budget formulation—beginning 22 months before it is submitted to the Committee—and when funds are actually appropriated. Although the Committee has attempted to identify and address changes through coordination with the Corps, the Committee realizes that actual appropriations may not be enacted until later in the year. Accordingly, the Committee has included, as in prior years, a reasonable percentage of S&S within Investigations, Construction, and Operations and Maintenance as a way to accommodate additional project needs, even if funding is insufficient. Upon applying the S&S amounts, normal reprogramming procedures shall be undertaken to account for schedule slippages, accelerations, or other unforeseen conditions.

CONGRESSIONALLY DIRECTED SPENDING

The Committee did not accept or include congressionally directed spending, as defined in section 5(a) of rule XLIV of the Standing Rules of the Senate. However, the Committee has recommended additional programmatic funds for Investigations, Construction, Operations and Maintenance, and Mississippi River and Tributaries to address deficiencies in the budget request. In some cases, these additional funds have been included within defined categories, as in prior years, and are described in more detail in their respective sections below.

REPORTING REQUIREMENT

The Corps shall provide a monthly report to the Committees on Appropriations of both Houses of Congress, which includes the total budget authority and unobligated balances by year for each program, project, or activity, including any prior year appropriations.

The Assistant Secretary of the Army (Civil Works) shall provide a monthly report to the Committees on Appropriations of both Houses of Congress, which includes the total budget authority and

unobligated balances by year for each activity funded in the Office of the Assistant Secretary of the Army (Civil Works) account, including any prior year appropriations.

INVESTIGATIONS

Appropriations, 2017	\$121,000,000
Budget estimate, 2018	86,000,000
Committee recommendation	113,465,000

The Committee recommends \$113,465,000 for Investigations, an increase of \$27,465,000 from the budget request. The Committee’s recommendation allows the Corps to begin six new feasibility study starts.

INTRODUCTION

Funding in this account is used to develop feasibility and PED studies to address the Nation’s water infrastructure needs, in support of project authorization. The Committee recognizes that the administration’s budget does not provide adequate funding for Investigations, and specifically PED funding to allow many of America’s most important waterways to move efficiently from planning to construction. The Committee therefore recommends additional funding to be used to seamlessly continue feasibility studies into the PED study phase.

NEW STARTS

The Corps is directed to designate new starts in accordance with the direction in the front matter under the heading “Additional Funding”. The Committee is disappointed the fiscal year 2017 work plan only utilized one of the six new study starts provided in the Energy and Water Development and Related Agencies Appropriations Act, 2017. Because the administration’s budget request includes funding to complete 26 studies in fiscal year 2018—15 more than was recommended in the fiscal year 2017 budget request—the Committee directs the Corps to utilize all of the new starts provided by Congress in fiscal year 2018.

COMMITTEE RECOMMENDATION

The table below displays the budget request and the Committee’s recommendation for Investigations. Funding is classified as either for feasibility or PED studies, as indicated in the columns, to provide greater transparency in the study phases.

CORPS OF ENGINEERS—INVESTIGATIONS

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	FEAS	PED	FEAS	PED
ALABAMA				
VILLAGE CREEK, AL	288	.....	288	.....
ALASKA				
KOTZEBUE SMALL BOAT HARBOR, AK	370	.....	370	.....
LOWELL CREEK TUNNEL FLOOD DIVERSION, AK	950	.....	950	.....

CORPS OF ENGINEERS—INVESTIGATIONS—Continued
 [In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	FEAS	PED	FEAS	PED
SAINT GEORGE HARBOR IMPROVEMENT, AK	362	.....	362	.....
UNALASKA (DUTCH) HARBOR, AK	950	.....	950	.....
ARIZONA				
LITTLE COLORADO RIVER (WINSLOW), AZ	414	.....	414	.....
LOWER SANTA CRUZ RIVER, AZ	250	.....	250	.....
ARKANSAS				
THREE RIVERS, AR	270	.....	270	.....
CALIFORNIA				
ALISO CREEK MAINSTEM, CA	100	.....	100	.....
CORTE MADERA CREEK, CA	682	.....	682	.....
DRY CREEK (WARM SPRINGS) RESTORATION, CA	260	.....	260	.....
EAST SAN PEDRO BAY ECOSYSTEM RESTORATION, CA	194	.....	194	.....
PORT OF LONG BEACH NAV IMP, CA	327	.....	327	.....
SACRAMENTO RIVER BANK PROTECTION (PHASE 3) (GRR), CA	482	.....	482	.....
YUBA RIVER FISH PASSAGE, CA (ENGBRIGHT & DAGUERRE POINT DAMS)	819	.....	819	.....
COMMONWEALTH NORTHERN MARIANAS				
ROTA HARBOR MODIFICATIONS, CNMI	513	.....	513	.....
TINIAN HARBOR MODIFICATIONS, CNMI	514	.....	514	.....
DELAWARE				
DELAWARE INLAND BAYS AND DELAWARE BAY COAST, DE	700	.....	700	.....
GEORGIA				
PROCTOR CREEK WATERSHED, FULTON COUNTY, GA	450	.....	450	.....
SWEETWATER CREEK, GA	750	.....	750	.....
ILLINOIS				
DU PAGE RIVER, IL	300	.....	300	.....
INTERBASIN CONTROL OF GREAT LAKES- MISSISSIPPI RIVER AQUATIC NUISANCE SPECIES, IL, IN, OH & WI (BRANDON ROAD)	1,850	.....	1,850	.....
IOWA				
GRAND RIVER BASIN, IA & MO	1,000	.....	1,000	.....
MARYLAND				
CITY OF BALTIMORE, MD	200	.....	200	.....
NEW JERSEY				
NEW JERSEY BACKBAYS, NJ	448	.....	448	.....
NEW MEXICO				
ESPANOLA VALLEY, RIO GRANDE AND TRIBUTARIES, NM	65	.....	65	.....
NEW YORK				
HUDSON RIVER HABITAT RESTORATION, NY	800	.....	800	.....
NORTH DAKOTA				
SOURIS RIVER, ND	400	.....	400	.....
OKLAHOMA				
ARKANSAS RIVER CORRIDOR, OK	235	.....	235	.....
OREGON				
COLUMBIA RIVER TREATY 2024 IMPLEMENTATION	9,500	.....	9,500	.....

CORPS OF ENGINEERS—INVESTIGATIONS—Continued
 [In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	FEAS	PED	FEAS	PED
PUERTO RICO				
SAN JUAN HARBOR CHANNEL IMPROVEMENT, PR	400	.....	400	.....
RHODE ISLAND				
RHODE ISLAND COASTLINE, RI	300	.....	300	.....
TEXAS				
COASTAL TEXAS PROTECTION AND RESTORATION STUDY, TX	2,175	.....	2,175	.....
GIWW— BRAZOS RIVER FLOODGATES & COLORADO RIVER LOCK, TX	900	.....	900	.....
HOUSTON SHIP CHANNEL, TX	1,500	.....	1,500	.....
JEFFERSON COUNTY SHORE PROTECTION, TX	516	.....	516	.....
MATAGORDA SHIP CHANNEL, TX	800	.....	800	.....
RESACAS AT BROWNSVILLE, TX	251	.....	251	.....
VIRGINIA				
ATLANTIC INTRACOASTAL WATERWAY BRIDGE REPLACEMENT AT NORTH LANDING, VA	600	.....	600	.....
CITY OF NORFOLK, VA	700	.....	700	.....
SUBTOTAL, ITEMS UNDER STATES	32,585	.....	32,585	.....
REMAINING ITEMS				
ADDITIONAL FUNDING FOR ONGOING WORK:				
FLOOD AND STORM DAMAGE REDUCTION .....	.....	.....	3,545	.....
FLOOD CONTROL .....	.....	.....	2,500	.....
SHORE PROTECTION .....	.....	.....	1,500	.....
NAVIGATION .....	.....	.....	5,000	.....
COASTAL AND DEEP-DRAFT .....	.....	.....	5,000	.....
INLAND .....	.....	.....	1,500	.....
OTHER AUTHORIZED PROJECT PURPOSES .....	.....	.....	1,000	.....
ENVIRONMENTAL RESTORATION OR COMPLIANCE .....	.....	.....	2,000	.....
COORDINATION STUDIES WITH OTHER AGENCIES:				
ACCESS TO WATER DATA	360	.....	360	.....
COMMITTEE ON MARINE TRANSPORTATION SYSTEMS	50	.....	50	.....
OTHER COORDINATION PROGRAMS:				
COORDINATION WITH OTHER WATER RESOURCE AGENCIES	400	.....	400	.....
INTERAGENCY AND INTERNATIONAL SUPPORT	400	.....	400	.....
INTERAGENCY WATER RESOURCE DEVELOPMENT	100	.....	100	.....
INVENTORY OF DAMS	400	.....	400	.....
SPECIAL INVESTIGATIONS	1,000	.....	1,000	.....
FERC LICENSING	100	.....	100	.....
PLANNING ASSISTANCE TO STATES	5,000	.....	5,000	.....
COLLECTION AND STUDY OF BASIC DATA:				
AUTOMATED INFORMATION SYSTEMS SUPPORT TRI-CADD	250	.....	250	.....
COASTAL FIELD DATA COLLECTION	1,000	.....	1,000	.....
ENVIRONMENTAL DATA STUDIES	80	.....	80	.....
FLOOD DAMAGE DATA	230	.....	230	.....
FLOOD PLAIN MANAGEMENT SERVICES	15,000	.....	15,000	.....
HYDROLOGIC STUDIES	500	.....	500	.....
INTERNATIONAL WATER STUDIES	125	.....	125	.....
PRECIPITATION STUDIES	200	.....	200	.....
REMOTE SENSING/GEOGRAPHIC INFORMATION SYSTEM SUPPORT	75	.....	75	.....
SCIENTIFIC AND TECHNICAL INFORMATION CENTERS	50	.....	50	.....
STREAM GAGING	550	.....	550	.....
TRANSPORTATION SYSTEMS	1,000	.....	1,000	.....
RESEARCH AND DEVELOPMENT	16,145	.....	23,000	.....
OTHER—MISCELLANEOUS:				
DISPOSITION OF COMPLETED PROJECTS	1,000	.....	1,000	.....
NATIONAL FLOOD RISK MANAGEMENT PROGRAM	5,000	.....	5,000	.....

CORPS OF ENGINEERS—INVESTIGATIONS—Continued
 [In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	FEAS	PED	FEAS	PED
NATIONAL SHORELINE MANAGEMENT STUDY	400	.....	400	.....
PLANNING SUPPORT PROGRAM	3,500	.....	3,500	.....
TRIBAL PARTNERSHIP PROGRAM	500	.....	1,500	.....
SUBTOTAL, REMAINING ITEMS	53,415	.....	83,315	.....
SAVINGS AND SLIPPAGE .....	.....	.....	-2,435	.....
TOTAL	86,000	.....	113,465	.....
GRAND TOTAL .....	.....	86,000	.....	113,465

Arctic Deep Draft Port Study.—The Committee encourages the Corps to continue to thoroughly evaluate the proposed deep draft port in Nome, taking into account the wide range of economic benefits the project would bring to the region, the expansion of search and rescue capabilities it would provide, and the national security reasons for its construction. The Committee supports the creation of an Arctic port network north of Dutch Harbor.

Aquatic Invasive Species Dispersal Barrier.—The Corps is encouraged to consider the feasibility of a dispersal barrier to mitigate Champlain Canal as a vector for invasive species, as authorized in section 5146 of the Water Resources Development Act of 2007 (Public Law 110–114).

Central Everglades Planning Project Validation Study.—The Committee recognizes the importance of restoring America’s Everglades, and urges the Corps to expedite the required validation report for the Central Everglades Planning Project.

Disposition of Completed Projects.—The Committee recommendation includes funding for Disposition of Completed Projects and intends that these funds be used for the studies already underway or in the budget request. The Corps shall notify the Committees on Appropriations of both Houses of Congress before it deviates from this direction. The Committee understands the Corps will be making a “no action” recommendation for the Upper Monongahela and Allegheny River studies. No funds provided may be used to take any action on the recommendations from the Upper Monongahela and Allegheny River studies.

Economic Impact Studies.—The Committee recognizes there are authorized unfunded projects in need of an updated economic impact study. In order to properly show the economic benefits of such authorized projects, the Committee recommendation includes additional funding in this account to update economic impact studies where appropriate.

Planning Assistance to States.—The Committee encourages the Corps to prioritize ongoing studies which consist of master plan development to address city water, sanitary sewer, and stormwater infrastructure needs.

North Atlantic Coast Comprehensive Study.—The Corps is encouraged to fund the nine focus areas identified in the North Atlantic Coast Comprehensive Study.

Optimal Dredge Fleet Scheduling.—The Committee applauds the research efforts by the Corps' Engineer Research and Development Center to support a dredge fleet scheduling optimization approach. With limited Federal resources to perform the extensive maintenance dredging needs across the Nation, it is imperative the Corps considers contracting methods that are regional or system-wide. This approach can achieve efficiencies that could be realized by sequencing the work such that mobilization costs are minimized between jobs while also observing the various environmental work windows. Along with the Regional Sediment Management Program in the Operation and Maintenance account, which utilizes strategies that link sediment management actions across multiple authorized Corps projects, costs may be significantly reduced allowing limited funding to reach more projects in need. Within 120 days of enactment of this act, the Corps shall brief the Committees on Appropriations of both Houses of Congress on the status of ongoing demonstration projects, the development of long-term strategies to implement these approaches nationally, and any policy or operational challenges associated with carrying out such efforts.

Research and Development.—The Committee recommends additional funding for increasing collaboration research partnerships to advance the capacity to evaluate methods for restoring ecosystem conservation.

Research and Development, Additional Topic—Urban Flood Damage Reduction and Stream Restoration in Arid Regions.—The Committee recommendation includes \$1,500,000 for the Corps' research and development [R&D] program to continue its focus on the management of water resources projects that promote public safety, reduce risk, improve operational efficiencies, reduce flood damage in arid and semi-arid regions, sustain the environment, and position our water resource systems to be managed as systems and adaptable due to the implications of a changing climate. The R&D program should also continue its focus on science and technology efforts to address needs for resilient water resources infrastructure.

Salton Sea.—The Committee urges the Corps to expedite completion of the feasibility analysis for the Salton Sea Restoration Program and to closely coordinate its planning efforts with the Natural Resources Conservation Service.

South Atlantic Coastal Study.—The Committee encourages the Corps to conduct, at full Federal expense, a study of the coastal areas in the South Atlantic Division to identify the risks and vulnerabilities of those areas to increased hurricane and storm damage as authorized in section 1204 of the Water Infrastructure Improvements for the Nation [WIIN] Act.

Upper Connecticut River Basin.—The Corps is encouraged to work with interested local sponsors to identify wetland and ecosystem restoration projects in the Upper Connecticut River Basin for the purposes of habitat protection restoration, streambank stabilization, fish passage, water quality improvement, and restoration of stream stability through structural and non-structural work.

Upper Mississippi River-Illinois Waterway System.—Unfortunately, the bipartisan support for the Navigation and Ecosystem Sustainability Program [NESP], spanning almost a decade, has not resulted in NESP's implementation. Last year, the Corps provided

Congress with a report concluding that an updated economic analysis of the project is necessary before it can be considered as part of the Civil Works budget. While the Committee disagrees with this conclusion, if the Secretary determines it is necessary, the Corps is encouraged to fund an economic re-evaluation that will provide a benefit cost ratio and inform how to move forward with the project. Such a re-evaluation should include a multi-modal transportation evaluation and consideration of the ecological benefits.

Water Quality and Salinity Impacts on Oyster Reefs.—The Committee encourages the Corps, when conducting or reviewing environmental assessments or environmental impact statements for navigation or coastal restoration projects in areas where oyster reefs exist, to consider water quality and salinity impacts on those reefs and, when appropriate, to mitigate any negative impacts. The Committee also looks forward to the Corps' completion of the congressionally required assessment and report on the beneficial use of dredged material as substrate for oyster reef development.

Additional Funding for Ongoing Work.—The Committee recommendation includes \$27,465,000 in additional funds for Investigations. From these additional funds, the Corps is authorized to begin six new feasibility studies. The Corps is directed to allocate these additional funds in accordance with the direction in the front matter under the heading "Additional Funding". Of the additional funds provided in this account, the Committee encourages the Corps to allocate \$1,000,000 for the development of a hydraulic model that will assist no fewer than five States along a major navigable waterway with making regional strategic flood risk management decisions at 100 percent Federal cost. Of the additional funding recommended in this account for Coastal and Deep Draft Navigation, the Corps shall allocate not less than \$2,194,000 for the continuation of ongoing General Reevaluation Reports. Additionally, the Corps shall comply with the following direction in allocating funds made available for Investigations:

- When evaluating ongoing studies for funding, the Corps shall consider completing or accelerating ongoing studies which will enhance the Nation's economic development, job growth, and international competitiveness; studies located in areas that have suffered recent natural disasters; or studies for areas where revisions to flood frequency flow lines may result in existing infrastructure failing to meet the requirements under the National Flood Insurance Program.
- The Corps shall include appropriate requests for funding in future budget submissions for PED and new feasibility studies initiated in fiscal year 2018. The Corps shall prepare the budget to reflect study completions, as defined as completion of PED.
- Funding shall be available for existing studies, including studies in the PED phase, and the updating of economic analyses and cost estimates for studies that have received appropriations for PED that were either not included in the budget request or for which the recommendation in the budget request was inadequate. Ongoing studies that are actively progressing and can utilize the funding in a timely manner are eligible for these additional funds.

CONSTRUCTION

Appropriations, 2017	\$1,876,000,000
Budget estimate, 2018	1,020,000,000
Committee recommendation	1,703,150,000

The Committee recommends \$1,703,150,000 for Construction, an increase of \$683,150,000 from the budget request. The recommendation includes a rescission of \$35,000,000 of unobligated balances from fiscal year 2011 and prior resulting in a net appropriation of \$1,668,150,000. The Committee's recommendation allows the Corps to select five new construction starts to begin in fiscal year 2018.

INTRODUCTION

Funding in this account is used for construction, major rehabilitation, and related activities for water resources development projects having navigation, flood and storm damage reduction, water supply, hydroelectric, environmental restoration, and other attendant benefits to the Nation. Funds to be derived from the Harbor Maintenance Trust Fund will be applied to cover the Federal share of the Dredged Material Disposal Facilities Program.

The Committee is concerned that the budget request is inadequate to meet the needs of projects that depend on funding from this account. Consequently, the recommendation includes \$648,150,000 in additional funding for ongoing work.

NEW STARTS

The Corps is directed to designate new starts in accordance with the direction in the front matter under the heading "Additional Funding".

COMMITTEE RECOMMENDATION

The table below displays the budget request and Committee's recommendation for Construction:

CORPS OF ENGINEERS—CONSTRUCTION

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CALIFORNIA		
AMERICAN RIVER COMMON FEATURES, NATOMAS BASIN, CA	20,550	20,550
AMERICAN RIVER WATERSHED (FOLSOM DAM RAISE), CA	5,775	5,775
HAMILTON CITY, CA	8,325	8,325
ISABELLA LAKE, CA (DAM SAFETY)	58,000	58,000
SACRAMENTO RIVER BANK PROTECTION PROJECT, CA	2,780	2,780
SANTA ANA RIVER MAINSTEM, CA	40,000	40,000
YUBA RIVER BASIN, CA	12,400	12,400
FLORIDA		
HERBERT HOOVER DIKE, FL (SEEPAGE CONTROL)	82,000	82,000
SOUTH FLORIDA ECOSYSTEM RESTORATION (EVERGLADES), FL	76,500	76,500
GEORGIA		
SAVANNAH HARBOR EXPANSION, GA	50,060	50,060

CORPS OF ENGINEERS—CONSTRUCTION—Continued
 [In thousands of dollars]

Item	Budget estimate	Committee recommendation
ILLINOIS		
OLMSTED LOCKS AND DAM, OHIO RIVER, IL & KY	175,000	175,000
UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI	33,170	33,170
IOWA		
MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	30,000	30,000
KENTUCKY		
ROUGH RIVER LAKE, KY	25,000	25,000
MARYLAND		
POPLAR ISLAND, MD	36,250	36,250
MASSACHUSETTS		
BOSTON HARBOR DEEP DRAFT IMPROVEMENTS, MA	58,000	58,000
NEW JERSEY		
RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	20,000	20,000
OREGON		
COLUMBIA RIVER AT THE MOUTH, OR & WA	22,000	22,000
PENNSYLVANIA		
EAST BRANCH CLARION RIVER LAKE, PA	50,100	50,100
TENNESSEE		
CENTER HILL LAKE, TN	28,930	28,930
TEXAS		
BUFFALO BAYOU AND TRIBUTARIES, TX	16,500	16,500
WASHINGTON		
COLUMBIA RIVER FISH MITIGATION, WA, OR & ID (CRFM)	70,000	70,000
MUD MOUNTAIN DAM, WA	33,600	33,600
WEST VIRGINIA		
BLUESTONE LAKE, WV	4,425	4,425
SUBTOTAL, ITEMS UNDER STATES	959,365	959,365
REMAINING ITEMS		
ADDITIONAL FUNDING:		
FLOOD AND STORM DAMAGE REDUCTION		150,000
FLOOD CONTROL		125,000
SHORE PROTECTION		50,000
NAVIGATION		211,200
INLAND WATERWAYS TRUST FUND REVENUES		111,750
OTHER AUTHORIZED PROJECT PURPOSES		10,000
ENVIRONMENTAL RESTORATION OR COMPLIANCE		40,000
ENVIRONMENTAL INFRASTRUCTURE		60,000
AQUATIC PLANT CONTROL PROGRAM		11,000
CONTINUING AUTHORITIES PROGRAM:		
AQUATIC ECOSYSTEM RESTORATION (SECTION 206)	6,500	9,000
BENEFICIAL USES OF DREDGED MATERIAL (SECTION 204)	500	1,000
EMERGENCY STREAMBANK AND SHORELINE PROTECTION (SECTION 14)		5,000
FLOOD CONTROL PROJECTS (SECTION 205)	1,000	1,000
MITIGATION OF SHORE DAMAGES (SECTION 111)		500
NAVIGATION PROGRAM (SECTION 107)		7,200
PROJECT MODIFICATIONS FOR IMPROVEMENT OF THE ENVIRONMENT (SECTION 1135)	1,000	3,000
SHORE PROTECTION (SECTION 103)		500
DAM SAFETY AND SEEPAGE/STABILITY CORRECTION PROGRAM	34,300	34,300

CORPS OF ENGINEERS—CONSTRUCTION—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
EMPLOYEES COMPENSATION	17,000	17,000
INLAND WATERWAYS USERS BOARD—BOARD EXPENSE	60	60
INLAND WATERWAYS USERS BOARD—CORPS EXPENSE	275	275
RESTORATION OF ABANDONED MINES		2,000
SUBTOTAL	60,635	849,785
SAVINGS AND SLIPPAGE		— 106,000
RESCISSION		— 35,000
TOTAL	1,020,000	1,668,150
APPROPRIATIONS	1,020,000	1,703,150
RESCISSIONS		— 35,000

Advanced Project Partnership Agreements.—The Committee notes the importance of partnerships with local sponsors who advance money beyond their non-Federal share in an effort to reduce the overall cost of construction for deep-draft navigation projects. Keeping projects on schedule to meet increasing demands for larger ships calling U.S. ports is critical. Therefore, the Committee directs the Corps to allow local sponsors who have signed Advanced Project Partnership Agreements to receive construction funds in Work Plans submitted by the Corps to Congress.

Alternative Financing.—The Committee directs the Assistant Secretary of the Army (Civil Works) to report, within 180 days of the date of enactment of this act, on how to calculate the total return on Federal investment for projects that use alternative financing such as public-private partnerships. The report shall identify the viability of using total return on Federal investment as a metric for analyzing projects with alternative financing.

Aquatic Plant Control Program.—Of the funding recommended for the Aquatic Plant Control Program, \$5,000,000 shall be for nationwide research and development to address invasive aquatic plants. The Committee encourages the Corps to support cost-shared aquatic plant management programs. The funding recommendation includes \$6,000,000 for watercraft inspection stations, early detection monitoring, and rapid response as authorized by section 1178(b) of the WIIN Act. Within this amount, the Corps is also directed to undertake control of the flowering rush.

Chicago Sanitary and Ship Canal Dispersal Barrier, Illinois.—The issue of hydrologic separation should be fully studied by the Corps and vetted by the appropriate congressional authorizing committees and specifically enacted into law. No funds provided in this act may be used for construction of hydrologic separation measures.

Comprehensive Everglades Restoration Plan [CERP]—Indian River Lagoon-South.—The Committee recognizes the importance of restoring America's Everglades, and eliminating discharges from Lake Okeechobee that help fuel harmful algal blooms in the St. Lucie River and Indian River Lagoon. The Committee urges the Corps to expedite preparations for design work on the C-23 and C-24 South Reservoirs that, along with the C-44 Reservoir, will serve

as crucial elements of the Indian River Lagoon-South CERP project to collect and clean discharges before they enter the Lagoon.

Continuing Authorities Program.—The Committee recommends \$27,200,000 for the Continuing Authorities Program [CAP], an increase of \$18,200,000 from the budget request. CAP is a useful tool for the Corps to undertake small localized projects without being encumbered by the lengthy study and authorization phases typical of most Corps projects. The standing CAP authorities are: flood control (section 205), emergency streambank and shoreline protection (section 14), beach erosion control (section 103), mitigation of shore damages (section 111), navigation projects (section 107), snagging and clearing (section 208), aquatic ecosystem restoration (section 206), beneficial uses of dredged material (section 204), and project modifications for improvement of the environment (section 1135). The Committee recommends funding eight of the nine sections rather than only the four sections proposed in the budget request. The Committee does not recommend funding for section 208, as these projects can be accommodated under the authority of section 205. Within the CAP and to the extent already authorized by law, the Corps is encouraged to consider projects that enhance coastal and ocean ecosystem resiliency. The management of CAP should continue consistent with direction provided in previous fiscal years.

The Committee urges the administration to execute CAP as laid out by the Committee and include sufficient funding for this program in future budget requests. The Corps shall continue the ongoing processes for initiating, suspending, and terminating projects. Suspended projects shall not be reactivated or funded unless the sponsor reaffirms in writing its support for the project and establishes its willingness and capability to execute its project responsibilities. The Corps shall provide an annual report within 60 days of the end of each fiscal year detailing the progress made on the backlog of projects. The report shall include the completions and terminations as well as progress of ongoing work.

Dalles Dam.—The Committee is aware of the Corps' legal analysis, which finds that a new tribal village can be constructed pursuant to section 204 of the Flood Control Act of 1950, which authorized construction of The Dalles Dam. A January 3, 2017 memorandum directed the Corps to create a Village Development Plan which would be eligible for construction funding upon completion. The Corps is encouraged to complete the Village Development Plan in consultation with affected Columbia River tribes and the Bureau of Indian Affairs. The Committee further urges the Corps to issue implementation guidance for section 1178(c) of the WIIN Act.

Enhanced Options for Sand Acquisition for Beach Renourishment Projects.—The Committee urges the Corps to provide states with guidance and recommendations to implement cost effective measures and planning for sand management.

Environmental Infrastructure.—The Committee recommends an additional \$60,000,000 in the Construction account for environmental infrastructure. The Corps is encouraged to give priority to projects in rural areas, projects with greater economic impact, projects in counties or parishes with high poverty rates, projects owed past reimbursements, and projects that will provide substan-

tial benefits to water quality improvement. The Committee encourages the Corps to evaluate projects under section 592 of the Water Resources Development Act of 1999 and section 5113 of the Water Resources Development Act of 2007 and allocate resources made available by Congress to meet the needs and projects identified under those sections.

Levee Safety Program.—The Committee is concerned that the Corps has not taken steps to implement the levee safety initiatives required under WRRDA 2014. The Committee directs the Corps, after consulting with the Federal Emergency Management Agency, to develop a plan of action within 90 days of the date of enactment of this act that includes tangible milestones for how the Corps will meet the requirements under Public Law 113–121, section 3016.

McCook and Thornton Reservoirs, Illinois.—The Committee is again disappointed by the Corps’ failure to provide funding for McCook Reservoir in the budget and deeply concerned by the Corps’ decision to reject congressional intent and its own history on this project. Congressional intent has been clear since its authorization in 1988, and in subsequent modification. Congress recently reiterated its support for the project when it ordered the Corps to expedite the project’s completion in the WIIN Act. The project is 91 percent complete, and the Committee strongly urges the Corps to complete the project. The McCook Reservoir was authorized for flood risk management and constructed to help alleviate flooding problems in the Metropolitan area of Chicago, Illinois.

Metro East Saint Louis, Illinois.—The Committee is disappointed by the lack of funding provided to the Metro East levee system. This levee rehabilitation project will help protect communities in the Metro East region from rising waters on the Mississippi River. The Committee urges the Corps to include funding for the Metro East levee system in the Corps’ Fiscal Year 2018 Work Plan.

Mid-Chesapeake Bay Island.—The Committee understands that the Corps must complete and approve its Baltimore Harbor and Channels Dredged Material Management Plan Update prior to budgeting for the Mid-Chesapeake Bay Island Project (James and Barren Islands). When the Dredged Material Management Plan is approved, the Committee encourages the Corps to provide funding for PED for this project through the annual budget process or from undesignated funds.

Monitoring and Adaptive Management.—The Committee commends the Corps for completion of and progress on a number of large scale ecosystem restoration projects, which have produced significant wetland and habitat restoration, beneficial reuse of dredged material, and additional public access. Many of these restoration projects provide multiple benefits to wildlife and surrounding communities, yet are not adequately studied for quantifiable benefits. Additionally, where the Corps performs mitigation measures, success rates are not adequately monitored to ensure replication and use of best practices. The Committee encourages the Corps to expand monitoring and adaptive management efforts in order to better measure the return on investment of large scale ecosystem restoration projects and mitigation project performance.

Mud Mountain Dam.—The Committee commends the Corps for initiating construction to support the October 2014 Mud Mountain

Biological Opinion (BiOp) and mitigate the impact of the ongoing operation of Mud Mountain Dam on species listed under the Endangered Species Act [ESA] by replacing the barrier structure and building a new fish passage facility. The Committee encourages the Corps to uphold the agency's ESA and tribal treaty responsibilities by requesting sufficient funding in future budgets to implement the BiOp requirements and complete construction by 2020.

Murrieta Creek California.—The Committee is aware that the Corps has been working on a Limited Reevaluation Report [LRR] to detail a re-scoped project for a more cost-effective solution while it proceeds with construction. The Committee urges the Corps to complete and approve the LRR and move into the next phase of construction.

Oyster Restoration.—The Committee supports the Chesapeake Bay Oyster Restoration Project and encourages the Corps to provide sufficient funding in future budget submissions or the fiscal year 2018 work plan.

Prioritization of the Corps Projects in Drought Stricken Areas.—The Committee urges the Corps to prioritize any authorized projects that would alleviate water supply issues in areas that have been afflicted by severe droughts in the last 3 fiscal years, to include projects focused on the treatment of brackish water.

Puget Sound.—The Committee encourages the Corps to proceed with the tiered implementation strategy using all existing authorities as outlined in the Puget Sound Nearshore Ecosystem Restoration Project Feasibility Study, Completion Strategy Guidance dated June 2015. The Corps is directed to recognize the Puget Sound Nearshore Study as the feasibility component for the purposes of section 544 of the Water Resources Development Act of 2000. The Committee notes the WIIN Act authorized construction of the Puget Sound Nearshore Ecosystem Restoration Project, and the Committee encourages the Corps to initiate PED.

South San Francisco Bay Shoreline.—The Committee was deeply disappointed by the lack of a new construction start in the fiscal year 2018 budget for the first phase of the South San Francisco Bay Shoreline Project or funding for the feasibility study for the next phase of the project. This project provides critical flood protection to communities, businesses, and municipal structures in Santa Clara County, California. In addition, this project will restore approximately 2,900 acres of former salt production ponds to tidal marsh habitat and improve recreational access to surrounding communities. The Committee strongly urges the Corps to prioritize progress on this project.

South Florida Ecosystem Restoration Comprehensive Federal-State Cost-Share Transparency.—The Committee recognizes the importance of the 50/50 partnership between the State of Florida and the Federal Government in efforts to restore America's Everglades. Key to this partnership is an accurate and transparent accounting of all spending for all South Florida Ecosystem Restoration [SFER] projects, including CERP projects, associated with the Federal-State cost-share. The Committee directs the Corps to make publicly available a comprehensive snapshot of all SFER cost-share accounting down to the project level for fiscal year 2018 by September 30, 2018.

Additional Funding for Ongoing Work.—The Committee recommendation includes \$648,150,000 in additional funds for Construction above the budget request. The Corps shall allocate these additional funds in accordance with the direction in the front matter under the heading “Additional Funding”. Of the additional funds provided in this account for flood and storm damage reduction, flood control, and environmental restoration or compliance, the Corps shall allocate not less than \$15,400,000 for hurricane and storm damage risk reduction and environmental restoration projects as authorized in section 7002 of Public Law 113–121 with both structural and nonstructural project elements. Of the additional funds recommended in this account for flood and storm damage reduction and flood control, the Corps shall allocate not less than \$20,000,000 to continue construction of projects which principally include improvements to rainfall drainage systems that address flood damages. Of the additional funds recommended in this account for flood and storm damage reduction, navigation, and other authorized project purposes (excluding environmental infrastructure), the Corps shall allocate not less than \$15,000,000 to authorized reimbursements for projects with executed project partnership agreements and that have completed construction or where non-Federal sponsors intend to use the funds for additional water resource development activities. Of the additional funds recommended in this account for CAP Flood Control Projects (section 205), the Corps is encouraged to give priority to projects that have been impacted by flood events in 2017, which resulted in legal action against the local sponsor. Of the additional funds recommended in this account for CAP Emergency Streambank and Shoreline Protection (section 14), the Corps shall allocate not less than \$600,000 to complete ongoing feasibility studies and initiate construction on projects that address erosion problems jeopardizing box culvert crossings on public roadways. Additionally, the Corps shall comply with the following direction in allocating funds recommended for Construction:

- For Flood Risk Management and Flood Control projects, the Corps is strongly urged to prioritize funding for dam safety projects where progression toward failure is confirmed to be taking place under normal operations, and the dam is almost certain to fail under normal operations within a few years without intervention.
- Additional considerations include whether the project is positioned to permit award of funding for significant items of construction, achieve necessary milestones, or otherwise realize notable construction progress in fiscal year 2018; and the project sponsor expended funds under an existing project partnership agreement for creditable work, including acquisition of rights-of-way.
- None of these funds shall be used for CAP projects.
- Funding may be for all categories including periodic beach nourishments and reimbursements.
- Funding may be made available to projects for which the sponsor is awaiting reimbursement from the Federal Government to continue with construction of remaining authorized project features.

MISSISSIPPI RIVER AND TRIBUTARIES

Appropriations, 2017	\$362,000,000
Budget estimate, 2018	253,000,000
Committee recommendation	375,000,000

The Committee recommends \$375,000,000 for Mississippi River and Tributaries, an increase of \$122,000,000 over the budget request. Funds recommended in this account are for planning, construction, and operations and maintenance activities associated with water resource projects located in the lower Mississippi River Valley from Cape Girardeau, Missouri to the Gulf of Mexico.

The table below displays the budget request and Committee's recommendation:

MISSISSIPPI RIVER AND TRIBUTARIES

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CONSTRUCTION		
CHANNEL IMPROVEMENT, REVETMENTS, AR, IL, KY, LA, MS, MO & TN	65,501	65,501
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	25,750	25,750
CHANNEL IMPROVEMENT, DIKES, AR, IL, KY, LA, MS, MO & TN	14,610	14,610
ATCHAFALAYA BASIN, LA	1,500	1,500
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA	650	650
SUBTOTAL, CONSTRUCTION	108,011	108,011
OPERATION AND MAINTENANCE		
CHANNEL IMPROVEMENT, REVETMENTS, AR, IL, KY, LA, MS, MO & TN	41,371	41,371
CHANNEL IMPROVEMENT, DREDGING, AR, IL, KY, LA, MS, MO & TN	14,923	14,923
CHANNEL IMPROVEMENT, DIKES, AR, IL, KY, LA, MS, MO & TN	2,600	2,600
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	9,917	9,917
HELENA HARBOR, PHILLIPS COUNTY, AR	915	915
INSPECTION OF COMPLETED WORKS, AR	421	421
LOWER ARKANSAS RIVER, NORTH BANK, AR	235	235
LOWER ARKANSAS RIVER, SOUTH BANK, AR	158	158
ST FRANCIS BASIN, AR & MO	5,900	5,900
TENSAS BASIN, BOEUF AND TENSAS RIVERS, AR & LA	1,987	1,987
WHITE RIVER BACKWATER, AR	900	900
INSPECTION OF COMPLETED WORKS, IL	27	27
INSPECTION OF COMPLETED WORKS, KY	20	20
ATCHAFALAYA BASIN, LA	13,639	13,639
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA	1,807	1,807
BATON ROUGE HARBOR, DEVIL SWAMP, LA	543	543
BAYOU COCODRIE AND TRIBUTARIES, LA	36	36
BONNET CARRE, LA	1,960	1,960
INSPECTION OF COMPLETED WORKS, LA	725	725
LOWER RED RIVER, SOUTH BANK LEVEES, LA	398	398
MISSISSIPPI DELTA REGION, LA	381	381
OLD RIVER, LA	6,384	6,384
TENSAS BASIN, RED RIVER BACKWATER, LA	2,608	2,608
GREENVILLE HARBOR, MS	1,000	1,000
INSPECTION OF COMPLETED WORKS, MS	180	180
VICKSBURG HARBOR, MS	750	750
YAZOO BASIN, ARKABUTLA LAKE, MS	5,610	5,610
YAZOO BASIN, BIG SUNFLOWER RIVER, MS	135	135
YAZOO BASIN, ENID LAKE, MS	5,145	5,145
YAZOO BASIN, GREENWOOD, MS	644	644
YAZOO BASIN, GRENADA LAKE, MS	4,794	4,794
YAZOO BASIN, MAIN STEM, MS	943	943
YAZOO BASIN, SARDIS LAKE, MS	5,901	5,901
YAZOO BASIN, TRIBUTARIES, MS	773	773

MISSISSIPPI RIVER AND TRIBUTARIES—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
YAZOO BASIN, WILL M WHITTINGTON AUX CHAN, MS	307	307
YAZOO BASIN, YAZOO BACKWATER AREA, MS	369	369
YAZOO BASIN, YAZOO CITY, MS	584	584
INSPECTION OF COMPLETED WORKS, MO	165	165
WAPPAPELLO LAKE, MO	4,206	4,206
INSPECTION OF COMPLETED WORKS, TN	33	33
MEMPHIS HARBOR, MCKELLAR LAKE, TN	1,666	1,666
SUBTOTAL, OPERATION AND MAINTENANCE	141,060	141,060
REMAINING ITEMS		
ADDITIONAL FUNDING FOR ONGOING WORK DREDGING		5,000
FLOOD CONTROL		67,000
OTHER AUTHORIZED PURPOSES		50,000
COLLECTION AND STUDY OF BASIC DATA	2,700	2,700
MAPPING	1,139	1,139
MISSISSIPPI RIVER COMMISSION	90	90
SUBTOTAL, REMAINING ITEMS	3,929	125,929
REDUCTION FOR SAVINGS AND SLIPPAGE		
TOTAL, MISSISSIPPI RIVER AND TRIBUTARIES	253,000	375,000

Additional Funding for Ongoing Work.—When allocating the additional funding recommended in this account, the Corps shall consider giving priority to completing or accelerating ongoing work that will enhance the Nation's economic development, job growth, and international competitiveness, or to studies or projects located in areas that have suffered recent natural disasters. While this funding is shown under remaining items, the Corps shall use these funds in investigations, construction, and operation and maintenance, as applicable. When allocating the additional funding recommended in this account, the Corps shall allocate not less than \$30,000,000 for additional flood control construction projects outside of the Lower Mississippi River Main Stem. Of the additional funds recommended in this account for other authorized project purposes, the Corps shall allocate not less than \$2,000,000 for operation and maintenance of facilities that are educational or to continue land management of mitigation features. Of the additional funds recommended in this account, the Corps shall allocate not less than \$5,000,000 for dredging of ports and harbors. Of the additional funds recommended in this account for flood control and other authorized project purposes, the Corps shall allocate not less than \$300,000 to initiate a feasibility study to evaluate the need for improvements for flood control, ecosystem restoration, water quality and related purposes associated with storm water runoff and management.

OPERATION AND MAINTENANCE

Appropriations, 2017	\$3,149,000,000
Budget estimate, 2018	3,100,000,000
Committee recommendation	3,481,475,000

The Committee recommends \$3,481,475,000 for Operation and Maintenance, an increase of \$381,475,000 over the budget request.

INTRODUCTION

Funding in this account is used to fund operations, maintenance, and related activities at water resource projects that the Corps operates and maintains. These activities include dredging, repair, and operation of structures and other facilities, as authorized in the various river and harbor, flood control, and water resources development acts. Related activities include aquatic plant control, monitoring of completed projects where appropriate, removal of sunken vessels, and the collection of domestic waterborne commerce statistics.

COMMITTEE RECOMMENDATION

The table below displays the budget request and Committee's recommendation for Operation and Maintenance.

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
ALABAMA		
ALABAMA RIVER LAKES, AL	15,392	15,392
BLACK WARRIOR AND TOMBIGBEE RIVERS, AL	27,217	27,217
GULF INTRACOASTAL WATERWAY, AL	6,534	6,534
INSPECTION OF COMPLETED WORKS, AL	210	210
MOBILE HARBOR, AL	24,450	24,450
PROJECT CONDITION SURVEYS, AL	149	149
SCHEDULING RESERVOIR OPERATIONS, AL	83	83
TENNESSEE—TOMBIGBEE WATERWAY WILDLIFE MITIGATION, AL & MS	1,751	1,751
TENNESSEE—TOMBIGBEE WATERWAY, AL & MS	29,499	29,499
WALTER F GEORGE LOCK AND DAM, AL & GA	9,653	9,653
WATER/ENVIRONMENTAL CERTIFICATION, AL	80	80
ALASKA		
ANCHORAGE HARBOR, AK	10,260	10,260
CHENA RIVER LAKES, AK	8,038	8,038
CHIGNIK HARBOR, AK	150	150
DILLINGHAM HARBOR, AK	850	850
DOUGLAS HARBOR, AK	300	300
HOMER HARBOR, AK	600	600
INSPECTION OF COMPLETED WORKS, AK	200	200
NINILCHIK HARBOR, AK	550	550
NOME HARBOR, AK	2,365	2,365
PROJECT CONDITION SURVEYS, AK	750	750
ARIZONA		
ALAMO LAKE, AZ	2,027	2,027
INSPECTION OF COMPLETED WORKS, AZ	85	85
PAINTED ROCK DAM, AZ	1,139	1,139
SCHEDULING RESERVOIR OPERATIONS, AZ	102	102
WHITLOW RANCH DAM, AZ	784	784
ARKANSAS		
BEAVER LAKE, AR	8,907	8,907
BLAKELY MT DAM, LAKE OUACHITA, AR	7,803	7,803
BLUE MOUNTAIN LAKE, AR	1,883	1,883
BULL SHOALS LAKE, AR	11,427	11,427
DEGRAY LAKE, AR	7,060	7,060
DEQUEEN LAKE, AR	1,708	1,708

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
DIERKS LAKE, AR	1,778	1,778
GILLHAM LAKE, AR	1,527	1,527
GREERS FERRY LAKE, AR	8,016	8,016
HELENA HARBOR, AR	15	15
INSPECTION OF COMPLETED WORKS, AR	458	458
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	47,467	47,467
MILLWOOD LAKE, AR	7,362	7,362
NARROWS DAM, LAKE GREESON, AR	5,908	5,908
NIMROD LAKE, AR	2,068	2,068
NORFORK LAKE, AR	9,549	9,549
OSCEOLA HARBOR, AR	515	515
OUACHITA AND BLACK RIVERS, AR & LA	10,548	10,548
PROJECT CONDITION SURVEYS, AR	1	1
WHITE RIVER, AR	25	25
YELLOW BEND PORT, AR	115	115
CALIFORNIA		
BLACK BUTTE LAKE, CA	2,905	2,905
BUCHANAN DAM, HV EASTMAN LAKE, CA	2,318	2,318
CHANNEL ISLANDS HARBOR, CA	6,400	6,400
COYOTE VALLEY DAM, LAKE MENDOCINO, CA	3,841	3,841
DRY CREEK (WARM SPRINGS) LAKE AND CHANNEL, CA	6,470	6,470
FARMINGTON DAM, CA	617	617
HIDDEN DAM, HENSLEY LAKE, CA	2,518	2,518
HUMBOLDT HARBOR AND BAY, CA	5,500	5,500
INSPECTION OF COMPLETED WORKS, CA	3,962	3,962
ISABELLA LAKE, CA	3,538	3,538
LOS ANGELES-LONG BEACH HARBORS, CA	4,470	4,470
LOS ANGELES COUNTY DRAINAGE AREA, CA	17,982	17,982
MERCED COUNTY STREAMS, CA	810	810
MOJAVE RIVER DAM, CA	1,305	1,305
MORRO BAY HARBOR, CA	2,200	2,200
NEW HOGAN LAKE, CA	3,262	3,262
NEW MELONES LAKE, DOWNSTREAM CHANNEL, CA	2,517	2,517
OAKLAND HARBOR (50 FOOT PROJECT), CA	17,993	17,993
OCEANSIDE HARBOR, CA	2,350	2,350
PINE FLAT LAKE, CA	10,075	10,075
PROJECT CONDITION SURVEYS, CA	1,433	1,433
RICHMOND HARBOR, CA	10,800	10,800
SACRAMENTO RIVER (30 FOOT PROJECT), CA	1,200	1,200
SACRAMENTO RIVER AND TRIBUTARIES (DEBRIS CONTROL), CA	1,725	1,725
SACRAMENTO RIVER SHALLOW DRAFT CHANNEL, CA	175	175
SAN FRANCISCO BAY DELTA MODEL STRUCTURE, CA	1,565	1,565
SAN FRANCISCO BAY LONG TERM MANAGEMENT STRATEGY, CA	600	600
SAN FRANCISCO HARBOR AND BAY, CA (DRIFT REMOVAL)	3,500	3,500
SAN FRANCISCO HARBOR, CA	3,700	3,700
SAN JOAQUIN RIVER, PORT OF STOCKTON, CA	3,225	3,225
SAN PABLO BAY AND MARE ISLAND STRAIT, CA	5,075	5,075
SANTA ANA RIVER BASIN, CA	5,579	5,579
SANTA BARBARA HARBOR, CA	3,080	3,080
SCHEDULING RESERVOIR OPERATIONS, CA	1,391	1,391
SUCCESS LAKE, CA	3,454	3,454
SUISUN BAY CHANNEL, CA	7,800	7,800
TERMINUS DAM, LAKE KAWEAH, CA (DAM SAFETY)	5,950	5,950
VENTURA HARBOR, CA	5,163	5,163
YUBA RIVER, CA	1,519	1,519
COLORADO		
BEAR CREEK LAKE, CO	476	476
CHATFIELD LAKE, CO	2,105	2,105
CHERRY CREEK LAKE, CO	1,155	1,155
INSPECTION OF COMPLETED WORKS, CO	352	352

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
JOHN MARTIN RESERVOIR, CO	9,216	9,216
SCHEDULING RESERVOIR OPERATIONS, CO	646	646
TRINIDAD LAKE, CO	5,155	5,155
CONNECTICUT		
BLACK ROCK LAKE, CT	815	815
COLEBROOK RIVER LAKE, CT	1,237	1,237
GREENWICH HARBOR, CT	300	300
HANCOCK BROOK LAKE, CT	731	731
HOP BROOK LAKE, CT	1,562	1,562
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, CT	10	10
INSPECTION OF COMPLETED WORKS, CT	461	461
MANSFIELD HOLLOW LAKE, CT	1,461	1,461
NORTHFIELD BROOK LAKE, CT	730	730
PATCHOGUE RIVER, CT	400	400
PROJECT CONDITION SURVEYS, CT	850	850
STAMFORD HURRICANE BARRIER, CT	784	784
THOMASTON DAM, CT	1,892	1,892
WEST THOMPSON LAKE, CT	1,033	1,033
DELAWARE		
INSPECTION OF COMPLETED WORKS, DE	65	65
INTRACOASTAL WATERWAY, DELAWARE RIVER TO CHESAPEAKE BAY, DE & MD	15,585	15,585
PROJECT CONDITION SURVEYS, DE	200	200
WILMINGTON HARBOR, DE	8,085	8,085
DISTRICT OF COLUMBIA		
INSPECTION OF COMPLETED WORKS, DC	76	76
POTOMAC AND ANACOSTIA RIVERS, DC (DRIFT REMOVAL)	875	875
PROJECT CONDITION SURVEYS, DC	25	25
WASHINGTON HARBOR, DC	25	25
FLORIDA		
ATLANTIC INTRACOASTAL WATERWAY (AIWW), FL	2,224	2,224
CALOOSAHATCHEE RIVER TO ANCLOTE, FL	52	52
CANAVERAL HARBOR, FL	1,470	1,470
CENTRAL AND SOUTHERN FLORIDA, FL	24,858	24,858
ESCAMBIA AND CONECUH RIVERS, FL & AL	55	55
INSPECTION OF COMPLETED WORKS, FL	958	958
INTRACOASTAL WATERWAY, CALOOSAHATCHEE R TO ANCLOTE R, FL	50	50
INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL	3,560	3,560
JACKSONVILLE HARBOR, FL	7,690	7,690
JIM WOODRUFF LOCK AND DAM, LAKE SEMINOLE, FL, AL & GA	6,874	6,874
MANATEE HARBOR, FL	900	900
MIAMI HARBOR, FL	100	100
OKEECHOBEE WATERWAY, FL	2,692	2,692
PALM BEACH HARBOR, FL	4,000	4,000
PANAMA CITY HARBOR, FL	1,890	1,890
PENSACOLA HARBOR, FL	34	34
PORT EVERGLADES HARBOR, FL	420	420
PROJECT CONDITION SURVEYS, FL	1,375	1,375
REMOVAL OF AQUATIC GROWTH, FL	3,259	3,259
SCHEDULING RESERVOIR OPERATIONS, FL	99	99
TAMPA HARBOR, FL	8,290	8,290
WATER/ENVIRONMENTAL CERTIFICATION, FL	170	170
GEORGIA		
ALLATOONA LAKE, GA	10,463	10,463
APALACHICOLA, CHATTAHOOCHEE AND FLINT RIVERS, GA, AL & FL	1,845	1,845
ATLANTIC INTRACOASTAL WATERWAY, GA	181	181
BRUNSWICK HARBOR, GA	4,528	4,528
BUFORD DAM AND LAKE SIDNEY LANIER, GA	11,164	11,164

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CARTERS DAM AND LAKE, GA	8,587	8,587
HARTWELL LAKE, GA & SC	12,752	12,752
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, GA	15	15
INSPECTION OF COMPLETED WORKS, GA	277	277
J STROM THURMOND LAKE, GA & SC	12,001	12,001
PROJECT CONDITION SURVEYS, GA	100	100
RICHARD B RUSSELL DAM AND LAKE, GA & SC	9,003	9,003
SAVANNAH HARBOR, GA	33,436	33,436
SAVANNAH RIVER BELOW AUGUSTA, GA	137	137
WEST POINT DAM AND LAKE, GA & AL	12,147	12,147
HAWAII		
BARBERS POINT HARBOR, HI	269	269
HILO HARBOR, HI	551	551
INSPECTION OF COMPLETED WORKS, HI	698	698
NAWILWILI HARBOR, HI	4,815	4,815
PROJECT CONDITION SURVEYS, HI	752	752
IDAHO		
ALBENI FALLS DAM, ID	1,459	1,459
DWORSHAK DAM AND RESERVOIR, ID	4,795	4,795
INSPECTION OF COMPLETED WORKS, ID	337	337
LUCKY PEAK LAKE, ID	3,698	3,698
SCHEDULING RESERVOIR OPERATIONS, ID	627	627
ILLINOIS		
CALUMET HARBOR AND RIVER, IL & IN	3,808	3,808
CARLYLE LAKE, IL	6,748	6,748
CHICAGO HARBOR, IL	3,020	3,020
CHICAGO RIVER, IL	593	593
CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER, IL	16,700	16,700
FARM CREEK RESERVOIRS, IL	529	529
ILLINOIS WATERWAY (MVR PORTION), IL & IN	48,384	48,384
ILLINOIS WATERWAY (MVS PORTION), IL & IN	1,958	1,958
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, IL	55	55
INSPECTION OF COMPLETED WORKS, IL	1,654	1,654
KASKASKIA RIVER NAVIGATION, IL	4,889	4,889
LAKE MICHIGAN DIVERSION, IL	1,100	1,100
LAKE SHELBYVILLE, IL	8,835	8,835
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVR PORTION), IL	93,953	93,953
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVS PORTION), IL	43,900	43,900
PROJECT CONDITION SURVEYS, IL	104	104
REND LAKE, IL	7,593	7,593
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IL	738	738
WAUKEGAN HARBOR, IL	2,000	2,000
INDIANA		
BROOKVILLE LAKE, IN	1,216	1,216
BURNS WATERWAY HARBOR, IN	3,649	3,649
CAGLES MILL LAKE, IN	1,089	1,089
CECIL M HARDEN LAKE, IN	1,047	1,047
INDIANA HARBOR, IN	11,564	11,564
INSPECTION OF COMPLETED WORKS, IN	1,187	1,187
J EDWARD ROUSH LAKE, IN	1,084	1,084
MISSISSINEWA LAKE, IN	1,110	1,110
MONROE LAKE, IN	1,144	1,144
PATOKA LAKE, IN	1,153	1,153
PROJECT CONDITION SURVEYS, IN	185	185
SALAMONIE LAKE, IN	1,091	1,091
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IN	149	149

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
IOWA		
CORALVILLE LAKE, IA	9,915	9,915
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, IA	6	6
INSPECTION OF COMPLETED WORKS, IA	868	868
MISSOURI RIVER—SIOUX CITY TO THE MOUTH, IA, KS, MO & NE	8,964	8,964
MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	2,547	2,547
RATHBUN LAKE, IA	2,788	2,788
RED ROCK DAM AND LAKE RED ROCK, IA	7,095	7,095
SAYLORVILLE LAKE, IA	19,223	19,223
KANSAS		
CLINTON LAKE, KS	3,662	3,662
COUNCIL GROVE LAKE, KS	1,743	1,743
EL DORADO LAKE, KS	981	981
ELK CITY LAKE, KS	1,547	1,547
FALL RIVER LAKE, KS	1,619	1,619
HILLSDALE LAKE, KS	1,076	1,076
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, KS	11	11
INSPECTION OF COMPLETED WORKS, KS	1,218	1,218
JOHN REDMOND DAM AND RESERVOIR, KS	1,890	1,890
KANOPOLIS LAKE, KS	3,185	3,185
MARION LAKE, KS	2,251	2,251
MELVERN LAKE, KS	2,714	2,714
MILFORD LAKE, KS	2,367	2,367
PEARSON—SKUBITZ BIG HILL LAKE, KS	3,799	3,799
PERRY LAKE, KS	3,227	3,227
POMONA LAKE, KS	2,871	2,871
SCHEDULING RESERVOIR OPERATIONS, KS	369	369
TORONTO LAKE, KS	926	926
TUTTLE CREEK LAKE, KS	3,975	3,975
WILSON LAKE, KS	1,766	1,766
KENTUCKY		
BARKLEY DAM AND LAKE BARKLEY, KY & TN	12,247	12,247
BARREN RIVER LAKE, KY	3,233	3,233
BIG SANDY HARBOR, KY	1,865	1,865
BUCKHORN LAKE, KY	1,820	1,820
CARR CREEK LAKE, KY	1,850	1,850
CAVE RUN LAKE, KY	962	962
DEWEY LAKE, KY	1,920	1,920
ELVIS STAHR (HICKMAN) HARBOR, KY	915	915
FALLS OF THE OHIO NATIONAL WILDLIFE, KY & IN	43	43
FISHTRAP LAKE, KY	2,190	2,190
GRAYSON LAKE, KY	1,972	1,972
GREEN AND BARREN RIVERS, KY	3,420	3,420
GREEN RIVER LAKE, KY	2,917	2,917
INSPECTION OF COMPLETED WORKS, KY	1,271	1,271
KENTUCKY RIVER, KY	10	10
LAUREL RIVER LAKE, KY	2,698	2,698
MARTINS FORK LAKE, KY	1,496	1,496
MIDDLESBORO CUMBERLAND RIVER BASIN, KY	264	264
NOLIN LAKE, KY	2,880	2,880
OHIO RIVER LOCKS AND DAMS, KY, IL, IN & OH	47,331	47,331
OHIO RIVER OPEN CHANNEL WORK, KY, IL, IN, OH, PA & WV	5,800	5,800
PAINTSVILLE LAKE, KY	1,382	1,382
PROJECT CONDITION SURVEYS, KY	1	1
ROUGH RIVER LAKE, KY	4,300	4,300
TAYLORSVILLE LAKE, KY	1,099	1,099
WOLF CREEK DAM, LAKE CUMBERLAND, KY	11,613	11,613
YATESVILLE LAKE, KY	1,574	1,574

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LOUISIANA		
ATCHAFALAYA RIVER AND BAYOU CHENE, BOEUF & BLACK, LA	6,645	6,645
BARATARIA BAY WATERWAY, LA	100	100
BAYOU BODCAU RESERVOIR, LA	1,512	1,512
BAYOU LAFOURCHE AND LAFOURCHE JUMP WATERWAY, LA	769	769
BAYOU PIERRE, LA	42	42
BAYOU SEGNETTE WATERWAY, LA	20	20
BAYOU TECHE AND VERMILION RIVER, LA	12	12
BAYOU TECHE, LA	50	50
CADDO LAKE, LA	198	198
CALCASIEU RIVER AND PASS, LA	20,759	20,759
FRESHWATER BAYOU, LA	1,424	1,424
GULF INTRACOASTAL WATERWAY, LA	26,871	26,871
HOUMA NAVIGATION CANAL, LA	979	979
INSPECTION OF COMPLETED WORKS, LA	866	866
J BENNETT JOHNSTON WATERWAY, LA	12,288	12,288
LAKE PROVIDENCE HARBOR, LA	12	12
MADISON PARISH PORT, LA	150	150
MERMENTAU RIVER, LA	1,246	1,246
MISSISSIPPI RIVER OUTLETS AT VENICE, LA	1,449	1,449
MISSISSIPPI RIVER, BATON ROUGE TO THE GULF OF MEXICO, LA	83,846	83,846
PROJECT CONDITION SURVEYS, LA	54	54
REMOVAL OF AQUATIC GROWTH, LA	200	200
WALLACE LAKE, LA	213	213
WATERWAY FROM EMPIRE TO THE GULF, LA	8	8
WATERWAY FROM INTRACOASTAL WATERWAY TO BAYOU DULAC, LA	22	22
MAINE		
DISPOSAL AREA MONITORING, ME	1,050	1,050
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, ME	5	5
INSPECTION OF COMPLETED WORKS, ME	95	95
PROJECT CONDITION SURVEYS, ME	1,000	1,000
SACO RIVER, ME	4,200	4,200
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ME	30	30
WELLS HARBOR, ME	400	400
YORK HARBOR, ME	2,500	2,500
MARYLAND		
BALTIMORE HARBOR AND CHANNELS (50 FOOT), MD	25,557	25,557
BALTIMORE HARBOR, MD (DRIFT REMOVAL)	325	325
CUMBERLAND, MD AND RIDGELEY, WV	171	171
INSPECTION OF COMPLETED WORKS, MD	196	196
JENNINGS RANDOLPH LAKE, MD & WV	3,700	3,700
KNAPPS NARROWS, MD	2,300	2,300
OCEAN CITY HARBOR AND INLET AND SINEPUXENT BAY, MD	250	250
PROJECT CONDITION SURVEYS, MD	450	450
SCHEDULING RESERVOIR OPERATIONS, MD	78	78
WICOMICO RIVER, MD	2,000	2,000
MASSACHUSETTS		
BARRE FALLS DAM, MA	579	579
BIRCH HILL DAM, MA	841	841
BUFFUMVILLE LAKE, MA	933	933
CAPE COD CANAL, MA	13,753	13,753
CHARLES RIVER NATURAL VALLEY STORAGE AREA, MA	353	353
CONANT BROOK LAKE, MA	495	495
EAST BRIMFIELD LAKE, MA	986	986
HODGES VILLAGE DAM, MA	845	845
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, MA	20	20
INSPECTION OF COMPLETED WORKS, MA	307	307
KNIGHTVILLE DAM, MA	1,054	1,054

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued
[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LITTLEVILLE LAKE, MA	991	991
NEW BEDFORD FAIRHAVEN AND ACUSHNET HURRICANE BARRIER, MA	1,302	1,302
NEWBURYPORT HARBOR, MA	200	200
PLYMOUTH HARBOR, MA	500	500
PROJECT CONDITION SURVEYS, MA	1,000	1,000
TULLY LAKE, MA	1,145	1,145
WEST HILL DAM, MA	781	781
WESTVILLE LAKE, MA	1,070	1,070
MICHIGAN		
CHANNELS IN LAKE ST CLAIR, MI	185	185
DETROIT RIVER, MI	5,344	5,344
GRAND HAVEN HARBOR, MI	1,112	1,112
HOLLAND HARBOR, MI	1,600	1,600
INLAND ROUTE, MI	50	50
INSPECTION OF COMPLETED WORKS, MI	222	222
KEWEENAW WATERWAY, MI	12	12
MANISTEE HARBOR, MI	663	663
MONROE HARBOR, MI	650	650
PROJECT CONDITION SURVEYS, MI	746	746
SAGINAW RIVER, MI	4,044	4,044
SEBEWAING RIVER, MI	54	54
ST CLAIR RIVER, MI	699	699
ST JOSEPH HARBOR, MI	765	765
ST MARYS RIVER, MI	38,440	38,440
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MI	2,912	2,912
MINNESOTA		
BIGSTONE LAKE—WHETSTONE RIVER, MN & SD	290	290
DULUTH—SUPERIOR HARBOR, MN & WI	7,594	7,594
INSPECTION OF COMPLETED WORKS, MN	401	401
LAC QUI PARLE LAKES, MINNESOTA RIVER, MN	1,115	1,115
MINNESOTA RIVER, MN	263	263
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVP PORTION), MN	84,535	84,535
ORWELL LAKE, MN	592	592
PROJECT CONDITION SURVEYS, MN	96	96
RED LAKE RESERVOIR, MN	181	181
RESERVOIRS AT HEADWATERS OF MISSISSIPPI RIVER, MN	4,924	4,924
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MN	509	509
MISSISSIPPI		
CLAIBORNE COUNTY PORT, MS	1	1
EAST FORK, TOMBIGBEE RIVER, MS	285	285
GULFPORT HARBOR, MS	6,350	6,350
INSPECTION OF COMPLETED WORKS, MS	86	86
MOUTH OF YAZOO RIVER, MS	30	30
OKATIBBEE LAKE, MS	2,095	2,095
PASCAGOULA HARBOR, MS	5,116	5,116
PEARL RIVER, MS & LA	150	150
PROJECT CONDITION SURVEYS, MS	151	151
ROSEDALE HARBOR, MS	8	8
WATER/ENVIRONMENTAL CERTIFICATION, MS	40	40
YAZOO RIVER, MS	19	19
MISSOURI		
CARUTHERSVILLE HARBOR, MO	815	815
CLARENCE CANNON DAM AND MARK TWAIN LAKE, MO	6,994	6,994
CLEARWATER LAKE, MO	4,348	4,348
HARRY S TRUMAN DAM AND RESERVOIR, MO	19,617	19,617
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, MO	2	2
INSPECTION OF COMPLETED WORKS, MO	1,305	1,305
LITTLE BLUE RIVER LAKES, MO	1,114	1,114

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LONG BRANCH LAKE, MO	1,443	1,443
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REG WORKS), MO & IL	29,948	29,948
NEW MADRID COUNTY HARBOR, MO	10	10
NEW MADRID HARBOR, MO (MILE 889)	15	15
POMME DE TERRE LAKE, MO	3,406	3,406
PROJECT CONDITION SURVEYS, MO	1	1
SCHEDULING RESERVOIR OPERATIONS, MO	169	169
SMITHVILLE LAKE, MO	1,799	1,799
SOUTHEAST MISSOURI PORT, MISSISSIPPI RIVER, MO	9	9
STOCKTON LAKE, MO	5,754	5,754
TABLE ROCK LAKE, MO & AR	10,354	10,354
MONTANA		
FT PECK DAM AND LAKE, MT	6,035	6,035
INSPECTION OF COMPLETED WORKS, MT	232	232
LIBBY DAM, MT	2,726	2,726
SCHEDULING RESERVOIR OPERATIONS, MT	121	121
NEBRASKA		
GAVINS POINT DAM, LEWIS AND CLARK LAKE, NE & SD	11,311	11,311
HARLAN COUNTY LAKE, NE	2,483	2,483
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, NE	3	3
INSPECTION OF COMPLETED WORKS, NE	932	932
MISSOURI RIVER—KENSLEERS BEND, NE TO SIOUX CITY, IA	96	96
PAPILLION CREEK, NE	1,000	1,000
SALT CREEKS AND TRIBUTARIES, NE	1,546	1,546
NEVADA		
INSPECTION OF COMPLETED WORKS, NV	68	68
MARTIS CREEK LAKE, NV & CA	1,342	1,342
PINE AND MATHEWS CANYONS LAKES, NV	387	387
NEW HAMPSHIRE		
BLACKWATER DAM, NH	935	935
EDWARD MACDOWELL LAKE, NH	846	846
FRANKLIN FALLS DAM, NH	1,664	1,664
HOPKINTON—EVERETT LAKES, NH	2,149	2,149
INSPECTION OF COMPLETED WORKS, NH	60	60
OTTER BROOK LAKE, NH	1,689	1,689
PROJECT CONDITION SURVEYS, NH	300	300
SURRY MOUNTAIN LAKE, NH	1,191	1,191
NEW JERSEY		
ABSECON INLET, NJ	175	175
BARNEGAT INLET, NJ	450	450
CAPE MAY INLET, NJ	200	200
COLD SPRING INLET, NJ	380	380
DELAWARE RIVER AT CAMDEN, NJ	15	15
DELAWARE RIVER, PHILADELPHIA TO THE SEA, NJ, PA & DE	27,370	27,370
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, NJ	15	15
INSPECTION OF COMPLETED WORKS, NJ	427	427
MANASQUAN RIVER, NJ	435	435
NEW JERSEY INTRACOASTAL WATERWAY, NJ	980	980
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS, NJ	25,300	25,300
PASSAIC RIVER FLOOD WARNING SYSTEMS, NJ	605	605
PROJECT CONDITION SURVEYS, NJ	2,017	2,017
RARITAN RIVER TO ARTHUR KILL CUT-OFF, NJ	100	100
RARITAN RIVER, NJ	220	220
SANDY HOOK BAY AT LEONARD, NJ	10	10
SHARK RIVER, NJ	990	990
SHOAL HARBOR AND COMPTON CREEK, NJ	10	10
SHREWSBURY RIVER, MAIN CHANNEL, NJ	10	10

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued
[In thousands of dollars]

Item	Budget estimate	Committee recommendation
NEW MEXICO		
ABIQUIU DAM, NM	3,437	3,437
COCHITI LAKE, NM	3,178	3,178
CONCHAS LAKE, NM	5,769	5,769
GALISTEO DAM, NM	900	900
INSPECTION OF COMPLETED WORKS, NM	652	652
JEMEZ CANYON DAM, NM	753	753
MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM, NM	2,500	2,500
SANTA ROSA DAM AND LAKE, NM	1,583	1,583
SCHEDULING RESERVOIR OPERATIONS, NM	383	383
TWO RIVERS DAM, NM	592	592
UPPER RIO GRANDE WATER OPERATIONS MODEL STUDY, NM	1,300	1,300
NEW YORK		
ALMOND LAKE, NY	488	488
ARKPORT DAM, NY	345	345
BAY RIDGE AND RED HOOK CHANNELS, NY	50	50
BLACK ROCK CHANNEL AND TONAWANDA HARBOR, NY	1,834	1,834
BRONX RIVER, NY	100	100
BROWNS CREEK, NY	30	30
BUFFALO HARBOR, NY	2,500	2,500
BUTTERMILK CHANNEL, NY	50	50
EAST RIVER, NY	100	100
EAST ROCKAWAY INLET, NY	100	100
EAST SIDNEY LAKE, NY	797	797
EASTCHESTER CREEK, NY	10	10
FIRE ISLAND INLET TO JONES INLET, NY	50	50
GLEN COVE CREEK, NY	20	20
GREAT KILLS HARBOR, NY	50	50
GREAT SOUTH BAY, NY	50	50
HUDSON RIVER CHANNEL, NY	250	250
HUDSON RIVER, NY (MAINT)	6,900	6,900
HUDSON RIVER, NY (O & C)	2,450	2,450
INSPECTION OF COMPLETED WORKS, NY	1,351	1,351
JAMAICA BAY, NY	250	250
JONES INLET, NY	420	420
LAKE MONTAUK HARBOR, NY	250	250
LONG ISLAND INTRACOASTAL WATERWAY, NY	270	270
MATTITUCK HARBOR, NY	20	20
MORICHES INLET, NY	150	150
MOUNT MORRIS DAM, NY	3,892	3,892
NEW YORK AND NEW JERSEY CHANNELS, NY & NJ	400	400
NEW YORK AND NEW JERSEY HARBOR, NY & NJ	760	760
NEW YORK HARBOR, NY	7,743	7,743
NEW YORK HARBOR, NY & NJ (DRIFT REMOVAL)	9,850	9,850
NEW YORK HARBOR, NY (PREVENTION OF OBSTRUCTIVE DEPOSITS)	1,300	1,300
PROJECT CONDITION SURVEYS, NY	2,323	2,323
SHINNECOCK INLET, NY	150	150
SOUTHERN NEW YORK FLOOD CONTROL PROJECTS, NY	726	726
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, NY	610	610
WESTCHESTER CREEK, NY	10	10
WHITNEY POINT LAKE, NY	960	960
NORTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, NC	2,812	2,812
B EVERETT JORDAN DAM AND LAKE, NC	2,385	2,385
CAPE FEAR RIVER ABOVE WILMINGTON, NC	462	462
FALLS LAKE, NC	2,494	2,494
INSPECTION OF COMPLETED WORKS, NC	205	205
MANTEO (SHALLOWBAG) BAY, NC	4,790	4,790
MASONBORO INLET AND CONNECTING CHANNELS, NC	50	50

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MOREHEAD CITY HARBOR, NC	5,570	5,570
NEW RIVER INLET, NC	250	250
PROJECT CONDITION SURVEYS, NC	700	700
ROLLINSON CHANNEL, NC	1,000	1,000
SILVER LAKE HARBOR, NC	500	500
W KERR SCOTT DAM AND RESERVOIR, NC	3,363	3,363
WILMINGTON HARBOR, NC	14,739	14,739
NORTH DAKOTA		
BOWMAN HALEY, ND	249	249
GARRISON DAM, LAKE SAKAKAWEA, ND	19,938	19,938
HOMME LAKE, ND	338	338
INSPECTION OF COMPLETED WORKS, ND	374	374
LAKE ASHTABULA AND BALDHILL DAM, ND	1,747	1,747
PIPESTEM LAKE, ND	716	716
SCHEDULING RESERVOIR OPERATIONS, ND	121	121
SOURIS RIVER, ND	1,584	1,584
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ND	82	82
OHIO		
ALUM CREEK LAKE, OH	1,592	1,592
BERLIN LAKE, OH	3,093	3,093
CAESAR CREEK LAKE, OH	2,315	2,315
CLARENCE J BROWN DAM, OH	1,324	1,324
CLEVELAND HARBOR, OH	6,200	6,200
CONNEAUT HARBOR, OH	2,800	2,800
DEER CREEK LAKE, OH	2,231	2,231
DELAWARE LAKE, OH	1,535	1,535
DILLON LAKE, OH	1,489	1,489
FAIRPORT HARBOR, OH	1,150	1,150
INSPECTION OF COMPLETED WORKS, OH	874	874
MASSILLON LOCAL PROTECTION PROJECT, OH	89	89
MICHAEL J KIRWAN DAM AND RESERVOIR, OH	2,243	2,243
MOSQUITO CREEK LAKE, OH	1,216	1,216
MUSKINGUM RIVER LAKES, OH	11,836	11,836
NORTH BRANCH KOKOSING RIVER LAKE, OH	705	705
OHIO—MISSISSIPPI FLOOD CONTROL, OH	1,818	1,818
PAINT CREEK LAKE, OH	1,459	1,459
PROJECT CONDITION SURVEYS, OH	305	305
ROSEVILLE LOCAL PROTECTION PROJECT, OH	35	35
SANDUSKY HARBOR, OH	1,650	1,650
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OH	255	255
TOLEDO HARBOR, OH	6,102	6,102
TOM JENKINS DAM, OH	798	798
WEST FORK OF MILL CREEK LAKE, OH	770	770
WILLIAM H HARSHA LAKE, OH	1,281	1,281
OKLAHOMA		
ARCADIA LAKE, OK	724	724
BIRCH LAKE, OK	3,450	3,450
BROKEN BOW LAKE, OK	7,427	7,427
CANTON LAKE, OK	2,148	2,148
COPAN LAKE, OK	2,556	2,556
EUFULA LAKE, OK	18,621	18,621
FORT GIBSON LAKE, OK	5,974	5,974
FORT SUPPLY LAKE, OK	1,306	1,306
GREAT SALT PLAINS LAKE, OK	360	360
HEYBURN LAKE, OK	747	747
HUGO LAKE, OK	1,622	1,622
HULAH LAKE, OK	907	907
INSPECTION OF COMPLETED WORKS, OK	239	239
KAW LAKE, OK	2,398	2,398

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
KEYSTONE LAKE, OK	5,073	5,073
MCCLELLAN—KERR ARKANSAS RIVER NAVIGATION SYSTEM, OK	29,364	29,364
OLOGAH LAKE, OK	2,811	2,811
OPTIMA LAKE, OK	61	61
PENSACOLA RESERVOIR, LAKE OF THE CHEROKEES, OK	165	165
PINE CREEK LAKE, OK	1,439	1,439
SARDIS LAKE, OK	2,245	2,245
SCHEDULING RESERVOIR OPERATIONS, OK	1,200	1,200
SKIATOOK LAKE, OK	1,999	1,999
TENKILLER FERRY LAKE, OK	4,881	4,881
WAURIKA LAKE, OK	1,630	1,630
WISTER LAKE, OK	781	781
OREGON		
APPLEGATE LAKE, OR	1,058	1,058
BLUE RIVER LAKE, OR	1,152	1,152
BONNEVILLE LOCK AND DAM, OR & WA	10,041	10,041
CHETCO RIVER, OR	809	809
COLUMBIA RIVER AT THE MOUTH, OR & WA	24,131	24,131
COOS BAY, OR	7,655	7,655
COTTAGE GROVE LAKE, OR	2,247	2,247
COUGAR LAKE, OR	2,160	2,160
DETROIT LAKE, OR	5,510	5,510
DORENA LAKE, OR	2,337	2,337
ELK CREEK LAKE, OR	359	359
FALL CREEK LAKE, OR	1,527	1,527
FERN RIDGE LAKE, OR	2,231	2,231
GREEN PETER—FOSTER LAKES, OR	2,115	2,115
HILLS CREEK LAKE, OR	1,177	1,177
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, OR	60	60
INSPECTION OF COMPLETED WORKS, OR	1,082	1,082
JOHN DAY LOCK AND DAM, OR & WA	5,262	5,262
LOOKOUT POINT LAKE, OR	1,842	1,842
LOST CREEK LAKE, OR	3,695	3,695
MENARY LOCK AND DAM, OR & WA	13,042	13,042
PROJECT CONDITION SURVEYS, OR	400	400
SCHEDULING RESERVOIR OPERATIONS, OR	98	98
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OR	525	525
UMPQUA RIVER, OR	921	921
WILLAMETTE RIVER AT WILLAMETTE FALLS, OR	64	64
WILLAMETTE RIVER BANK PROTECTION, OR	200	200
WILLOW CREEK LAKE, OR	1,299	1,299
YAQUINA BAY AND HARBOR, OR	3,096	3,096
PENNSYLVANIA		
ALLEGHENY RIVER, PA	12,043	12,043
ALVIN R BUSH DAM, PA	970	970
AYLESWORTH CREEK LAKE, PA	624	624
BELTZVILLE LAKE, PA	1,305	1,305
BLUE MARSH LAKE, PA	3,090	3,090
CONEMAUGH RIVER LAKE, PA	1,345	1,345
COWANESQUE LAKE, PA	2,956	2,956
CROOKED CREEK LAKE, PA	1,777	1,777
CURWENSVILLE LAKE, PA	900	900
DELAWARE RIVER, PHILADELPHIA, PA TO TRENTON, NJ	4,980	4,980
EAST BRANCH CLARION RIVER LAKE, PA	1,399	1,399
FOSTER JOSEPH SAYERS DAM, PA	2,537	2,537
FRANCIS E WALTER DAM, PA	875	875
GENERAL EDGAR JADWIN DAM AND RESERVOIR, PA	395	395
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, PA	10	10
INSPECTION OF COMPLETED WORKS, PA	1,117	1,117
JOHNSTOWN, PA	46	46

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
KINZUA DAM AND ALLEGHENY RESERVOIR, PA	1,770	1,770
LOYALHANNA LAKE, PA	4,649	4,649
MAHONING CREEK LAKE, PA	1,291	1,291
MONONGAHELA RIVER, PA	16,759	16,759
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	39,511	39,511
OHIO RIVER OPEN CHANNEL WORK, PA, OH & WV	800	800
PROJECT CONDITION SURVEYS, PA	170	170
PROMPTON LAKE, PA	985	985
PUNXSUTAWNEY, PA	15	15
RAYSTOWN LAKE, PA	22,030	22,030
SCHEDULING RESERVOIR OPERATIONS, PA	37	37
SHENANGO RIVER LAKE, PA	2,464	2,464
STILLWATER LAKE, PA	843	843
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, PA	105	105
TIOGA—HAMMOND LAKES, PA	3,084	3,084
TIONESTA LAKE, PA	2,398	2,398
UNION CITY LAKE, PA	471	471
WOODCOCK CREEK LAKE, PA	1,015	1,015
YORK INDIAN ROCK DAM, PA	16,952	16,952
YOUGHIOGHENY RIVER LAKE, PA & MD	2,708	2,708
PUERTO RICO		
INSPECTION OF COMPLETED WORKS, PR	228	228
PROJECT CONDITION SURVEYS, PR	150	150
SAN JUAN HARBOR, PR	100	100
RHODE ISLAND		
FOX POINT BARRIER, NARRANGANSETT BAY, RI	2,816	2,816
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, RI	25	25
INSPECTION OF COMPLETED WORKS, RI	45	45
PROJECT CONDITION SURVEYS, RI	300	300
WOONSOCKET, RI	402	402
SOUTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, SC	199	199
CHARLESTON HARBOR, SC	16,109	16,109
COOPER RIVER, CHARLESTON HARBOR, SC	5,007	5,007
INSPECTION OF COMPLETED WORKS, SC	65	65
PROJECT CONDITION SURVEYS, SC	875	875
SOUTH DAKOTA		
BIG BEND DAM, LAKE SHARPE, SD	10,467	10,467
COLD BROOK LAKE, SD	370	370
COTTONWOOD SPRINGS LAKE, SD	226	226
FORT RANDALL DAM, LAKE FRANCIS CASE, SD	12,576	12,576
INSPECTION OF COMPLETED WORKS, SD	279	279
LAKE TRAVERSE, SD & MN	693	693
OAHE DAM, LAKE OAHE, SD & ND	13,829	13,829
SCHEDULING RESERVOIR OPERATIONS, SD	102	102
TENNESSEE		
CENTER HILL LAKE, TN	10,347	10,347
CHEATHAM LOCK AND DAM, TN	8,243	8,243
CHICKAMAUGA LOCK, TENNESSEE RIVER, TN	6,067	6,067
CORDELL HULL DAM AND RESERVOIR, TN	7,702	7,702
DALE HOLLOW LAKE, TN	9,071	9,071
INSPECTION OF COMPLETED WORKS, TN	334	334
J PERCY PRIEST DAM AND RESERVOIR, TN	5,592	5,592
NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN	10	10
OLD HICKORY LOCK AND DAM, TN	10,326	10,326
PROJECT CONDITION SURVEYS, TN	1	1
TENNESSEE RIVER, TN	22,578	22,578

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
WOLF RIVER HARBOR, TN	1,385	1,385
TEXAS		
AQUILLA LAKE, TX	1,080	1,080
ARKANSAS—RED RIVER BASINS CHLORIDE CONTROL—AREA VIII, TX	1,794	1,794
BARDWELL LAKE, TX	3,236	3,236
BELTON LAKE, TX	4,655	4,655
BENBROOK LAKE, TX	3,368	3,368
BRAZOS ISLAND HARBOR, TX	2,700	2,700
BUFFALO BAYOU AND TRIBUTARIES, TX	2,818	2,818
CANYON LAKE, TX	3,449	3,449
CHANNEL TO HARLINGEN, TX	2,400	2,400
CHANNEL TO PORT BOLIVAR, TX	50	50
CORPUS CHRISTI SHIP CHANNEL, TX	10,800	10,800
DENISON DAM, LAKE TEXOMA, TX	8,581	8,581
ESTELLINE SPRINGS EXPERIMENTAL PROJECT, TX	35	35
FERRELLS BRIDGE DAM, LAKE O' THE PINES, TX	4,041	4,041
FREEPORT HARBOR, TX	5,600	5,600
GALVESTON HARBOR AND CHANNEL, TX	5,000	5,000
GIWW, CHANNEL TO VICTORIA, TX	3,500	3,500
GRANGER DAM AND LAKE, TX	2,311	2,311
GRAPEVINE LAKE, TX	4,294	4,294
GULF INTRACOASTAL WATERWAY, TX	34,094	34,094
HORDS CREEK LAKE, TX	2,036	2,036
HOUSTON SHIP CHANNEL, TX	31,300	31,300
INSPECTION OF COMPLETED WORKS, TX	1,587	1,587
JIM CHAPMAN LAKE, TX	1,975	1,975
JOE POOL LAKE, TX	2,248	2,248
LAKE KEMP, TX	291	291
LAVON LAKE, TX	3,766	3,766
LEWISVILLE DAM, TX	4,614	4,614
MATAGORDA SHIP CHANNEL, TX	5,900	5,900
NAVARRO MILLS LAKE, TX	2,546	2,546
NORTH SAN GABRIEL DAM AND LAKE GEORGETOWN, TX	2,558	2,558
O C FISHER DAM AND LAKE, TX	1,091	1,091
PAT MAYSE LAKE, TX	1,234	1,234
PROCTOR LAKE, TX	2,392	2,392
PROJECT CONDITION SURVEYS, TX	323	323
RAY ROBERTS LAKE, TX	2,091	2,091
SABINE—NECHES WATERWAY, TX	7,725	7,725
SAM RAYBURN DAM AND RESERVOIR, TX	7,415	7,415
SCHEDULING RESERVOIR OPERATIONS, TX	332	332
SOMERVILLE LAKE, TX	4,159	4,159
STILLHOUSE HOLLOW DAM, TX	5,068	5,068
TEXAS CITY SHIP CHANNEL, TX	50	50
TOWN BLUFF DAM, B A STEINHAGEN LAKE, TX	4,754	4,754
WACO LAKE, TX	6,956	6,956
WALLISVILLE LAKE, TX	2,806	2,806
WHITNEY LAKE, TX	5,722	5,722
WRIGHT PATMAN DAM AND LAKE, TX	3,958	3,958
UTAH		
INSPECTION OF COMPLETED WORKS, UT	24	24
SCHEDULING RESERVOIR OPERATIONS, UT	554	554
VERMONT		
BALL MOUNTAIN, VT	1,019	1,019
GORDONS LANDING, VT	250	250
INSPECTION OF COMPLETED WORKS, VT	172	172
NARROWS OF LAKE CHAMPLAIN, VT & NY	50	50
NORTH HARTLAND LAKE, VT	1,311	1,311
NORTH SPRINGFIELD LAKE, VT	936	936

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
TOWNSHEND LAKE, VT	1,900	1,900
UNION VILLAGE DAM, VT	1,495	1,495
VIRGIN ISLANDS		
INSPECTION OF COMPLETED WORKS, VI	24	24
PROJECT CONDITION SURVEYS, VI	100	100
VIRGINIA		
ATLANTIC INTRACOASTAL WATERWAY—ACC, VA	3,627	3,627
ATLANTIC INTRACOASTAL WATERWAY—DSC, VA	1,852	1,852
CHINCOTEAGUE HARBOR OF REFUGE, VA	65	65
CHINCOTEAGUE INLET, VA	566	566
GATHRIGHT DAM AND LAKE MOOMAW, VA	2,347	2,347
HAMPTON ROADS, NORFOLK & NEWPORT NEWS HARBOR, VA (DRIFT REMOVAL)	1,470	1,470
HAMPTON ROADS, VA (PREVENTION OF OBSTRUCTIVE DEPOSITS)	170	170
INSPECTION OF COMPLETED WORKS, VA	364	364
JAMES RIVER CHANNEL, VA	2,729	2,729
JOHN H KERR LAKE, VA & NC	16,229	16,229
JOHN W FLANNAGAN DAM AND RESERVOIR, VA	3,443	3,443
LYNNHAVEN INLET, VA	600	600
NORFOLK HARBOR, VA	9,420	9,420
NORTH FORK OF POUND RIVER LAKE, VA	590	590
PHILPOTT LAKE, VA	4,871	4,871
PROJECT CONDITION SURVEYS, VA	1,195	1,195
RUDEE INLET, VA	520	520
WASHINGTON		
CHIEF JOSEPH DAM, WA	636	636
COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA & PORTLAND, OR ...	46,767	46,767
COLUMBIA RIVER AT BAKER BAY, WA & OR	1,809	1,809
COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR	1,246	1,246
COLUMBIA RIVER FISH MITIGATION, WA, OR & ID	1,907	1,907
EVERETT HARBOR AND SNOHOMISH RIVER, WA	2,281	2,281
GRAYS HARBOR, WA	11,710	11,710
HOWARD HANSON DAM, WA	3,819	3,819
ICE HARBOR LOCK AND DAM, WA	5,510	5,510
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, WA	70	70
INSPECTION OF COMPLETED WORKS, WA	1,057	1,057
LAKE WASHINGTON SHIP CANAL, WA	9,870	9,870
LITTLE GOOSE LOCK AND DAM, WA	2,836	2,836
LOWER GRANITE LOCK AND DAM, WA	4,532	4,532
LOWER MONUMENTAL LOCK AND DAM, WA	3,636	3,636
MILL CREEK LAKE, WA	4,492	4,492
MOUNT SAINT HELENS SEDIMENT CONTROL, WA	268	268
MUD MOUNTAIN DAM, WA	4,962	4,962
PORT TOWNSEND, WA	3	3
PROJECT CONDITION SURVEYS, WA	779	779
PUGET SOUND AND TRIBUTARY WATERS, WA	1,913	1,913
QUILLAYUTE RIVER, WA	283	283
SCHEDULING RESERVOIR OPERATIONS, WA	425	425
SEATTLE HARBOR, WA	389	389
STILLAGUAMISH RIVER, WA	303	303
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WA	64	64
SWINOMISH CHANNEL, WA	1,528	1,528
TACOMA HARBOR, WA	5	5
TACOMA, PUYALLUP RIVER, WA	226	226
THE DALLES LOCK AND DAM, WA & OR	3,776	3,776
WEST VIRGINIA		
BEECH FORK LAKE, WV	1,846	1,846
BLUESTONE LAKE, WV	2,283	2,283
BURNSVILLE LAKE, WV	2,495	2,495

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
EAST LYNN LAKE, WV	2,347	2,347
ELKINS, WV	15	15
INSPECTION OF COMPLETED WORKS, WV	463	463
KANAWHA RIVER LOCKS AND DAMS, WV	13,249	13,249
OHIO RIVER LOCKS AND DAMS, WV, KY & OH	26,835	26,835
OHIO RIVER OPEN CHANNEL WORK, WV, KY & OH	2,724	2,724
R D BAILEY LAKE, WV	2,636	2,636
STONEWALL JACKSON LAKE, WV	1,265	1,265
SUMMERSVILLE LAKE, WV	2,453	2,453
SUTTON LAKE, WV	2,440	2,440
TYGART LAKE, WV	3,283	3,283
WISCONSIN		
EAU GALLE RIVER LAKE, WI	2,199	2,199
FOX RIVER, WI	5,758	5,758
GREEN BAY HARBOR, WI	3,911	3,911
INSPECTION OF COMPLETED WORKS, WI	55	55
KEWAUNEE HARBOR, WI	12	12
MILWAUKEE HARBOR, WI	1,280	1,280
PROJECT CONDITION SURVEYS, WI	321	321
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WI	596	596
WYOMING		
INSPECTION OF COMPLETED ENVIRONMENTAL PROJECTS, WY	10	10
INSPECTION OF COMPLETED WORKS, WY	80	80
JACKSON HOLE LEVEES, WY	1,814	1,814
SCHEDULING RESERVOIR OPERATIONS, WY	80	80
SUBTOTAL, PROJECTS LISTED UNDER STATES	2,936,254	2,936,254
REMAINING ITEMS		
ADDITIONAL FUNDING FOR ONGOING WORK:		
NAVIGATION MAINTENANCE		23,000
DEEP-DRAFT HARBOR AND CHANNEL		287,000
DONOR AND ENERGY TRANSFER PORTS		50,000
INLAND WATERWAYS		13,500
SMALL, REMOTE, OR SUBSISTENCE NAVIGATION		51,000
OTHER AUTHORIZED PURPOSES		2,500
AQUATIC NUISANCE CONTROL RESEARCH	675	675
ASSET MANAGEMENT/FACILITIES AND EQUIP MAINT (FEM)	3,650	3,650
BUDGET/MANAGEMENT SUPPORT FOR O&M BUSINESS PROGRAMS:		
STEWARDSHIP SUPPORT PROGRAM	900	900
PERFORMANCE-BASED BUDGETING SUPPORT PROGRAM	4,200	4,200
RECREATION MANAGEMENT SUPPORT PROGRAM	1,550	1,550
OPTIMIZATION TOOLS FOR NAVIGATION	322	322
CIVIL WORKS WATER MANAGEMENT SYSTEM (CWWMS)	10,000	10,000
COASTAL INLET RESEARCH PROGRAM	2,700	2,975
COASTAL OCEAN DATA SYSTEM (CODS)	2,500	6,000
CULTURAL RESOURCES (NAGPRA/CURATION)	1,000	1,000
DREDGE MCFARLAND READY RESERVE	11,690	11,690
DREDGE WHEELER READY RESERVE	15,000	15,000
DREDGING DATA AND LOCK PERFORMANCE MONITORING SYSTEM	1,120	1,120
DREDGING OPERATIONS AND ENVIRONMENTAL RESEARCH (DOER)	6,450	6,450
DREDGING OPERATIONS TECHNICAL SUPPORT PROGRAM (DOTS)	2,820	2,820
EARTHQUAKE HAZARDS REDUCTION PROGRAM	300	300
FACILITY PROTECTION	4,500	4,500
FISH & WILDLIFE OPERATING FISH HATCHERY REIMBURSEMENT	5,400	5,400
HARBOR MAINTENANCE FEE DATA COLLECTION	795	795
INLAND WATERWAY NAVIGATION CHARTS	4,500	4,500
INSPECTION OF COMPLETED FEDERAL FLOOD CONTROL PROJECTS	20,000	20,000
MONITORING OF COMPLETED NAVIGATION PROJECTS	3,300	8,000
NATIONAL COASTAL MAPPING PROGRAM	6,300	6,300

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued
[In thousands of dollars]

Item	Budget estimate	Committee recommendation
NATIONAL DAM SAFETY PROGRAM (PORTFOLIO RISK ASSESSMENT)	10,000	10,000
NATIONAL EMERGENCY PREPAREDNESS PROGRAM (NEPP)	5,500	5,500
NATIONAL (LEVEE) FLOOD INVENTORY	10,000	10,000
NATIONAL (MULTIPLE PROJECT) NATURAL RESOURCES MANAGEMENT ACTIVITIES	3,700	3,700
NATIONAL PORTFOLIO ASSESSMENT FOR REALLOCATIONS	800	800
REGIONAL SEDIMENT MANAGEMENT PROGRAM	3,500	3,500
REVIEW OF NON-FEDERAL ALTERATIONS OF CIVIL WORKS PROJECTS (SECTION 408)	8,500	8,500
SUSTAINABLE RIVERS PROGRAM (SRP)	400	400
VETERAN'S CURATION PROGRAM AND COLLECTIONS MANAGEMENT	6,500	6,500
WATERBORNE COMMERCE STATISTICS	4,670	4,670
WATER OPERATIONS TECHNICAL SUPPORT (WOTS)	500	5,500
SUBTOTAL, REMAINING ITEMS	163,742	604,217
ACCOUNTING ADJUSTMENT	4	4
SAVINGS AND SLIPPAGE .....	.....	-59,000
TOTAL, OPERATION AND MAINTENANCE	3,100,000	3,481,475

Beneficial Use of Dredged Materials.—The Committee directs the Corps to complete its Implementation Guidance for the Beneficial Use of Dredged Material program authorized in section 1122 of the WIIN Act and move into timely implementation, including selection of pilot projects. The Committee supports the Corps' efforts to proceed with beneficial use as a regular part of its dredging activities in order to achieve efficiencies and cost reductions.

Coastal Inlets Research Program.—Additional funding is recommended in the Coastal Inlets Research Program for the Corps to work with the National Ocean and Atmospheric Administration's National Water Center on protecting the Nation's water resources.

Dam Optimization.—The Corps is urged not to carry out any reservoir reoperation or reallocation for authorized purposes at any Corps facilities with funds from any non-Federal entity other than the non-Federal sponsor until the Corps has completed all public outreach and coordination and submitted to the relevant authorizing and appropriations Committees and the congressional delegation representing such facility, a detailed analysis of the change in operations of the reservoir, and specific information on whether the activities would alter availability of water for existing authorized purposes at such facility, as well as compensation for lost water that would be necessary to make users whole if such activities were carried out.

Donor Ports and Energy Transfer Ports.—The additional funding recommended in this account for donor and energy transfer ports shall be allocated in accordance with 33 U.S.C. 2238c.

Isle of Shoals North and Cape Arundel Dredged Material Placement Site.—The Cape Arundel Disposal Site in the State of Maine selected by the Department of the Army as an alternative dredged material disposal site under section 103(b) of the Marine Protection Research and Sanctuaries Act of 1972, shall remain open until April 15, 2024, until the remaining disposal capacity of the site has been utilized, or until final designation of an Ocean Dredged Material Disposal Site for southern Maine under section 102(c) of the Marine Protection Research and Sanctuaries Act of 1972, which-

ever first occurs, provided that the site conditions remain suitable for such purpose and that the site may not be used for disposal of more than 80,000 cubic yards from any single dredging project.

Kennebec River Federal Navigation Channel.—The Committee is concerned that the Kennebec River Federal Navigation Channel required emergency dredging in 2017 to allow the safe passage of a newly constructed Navy guided missile destroyer to the Atlantic Ocean. The Committee believes the development of a long-term, resourced plan for the periodic sounding and dredging of the Kennebec River is necessary to prevent potential future impacts to the fleet and national security. Accordingly, the Committee directs the Assistant Secretary of the Army (Civil Works), in consultation with the Navy, to submit a report within 270 days after the date of enactment of this act to the Committees on Appropriations of both Houses of Congress, proposing a long-term plan for regular maintenance dredging of the Kennebec River. This report shall include detailed information on funding requirements and sources, as well as any legislative proposals for new authorities necessary to implement the proposed plan.

Medium Size Ports.—The Committee emphasizes the importance of ensuring the continued development and maintenance of our country's medium size ports. The Committee urges the Corps to consider projects proposed at medium size ports relative to the needs and potential impact of their surrounding communities in the fiscal year 2018 Work Plan.

Monitoring of Completed Navigation Projects.—The Committee supports the Corps' efforts to significantly improve the safety, efficiency, reliability and cost of performing inspections of critical and aging infrastructure. To accelerate the delivery and deployment of innovative technologies for infrastructure inspection on the national level, the Committee urges the Corps to continue to prioritize funding for the validation of proven innovative practices and technologies.

Of the funding provided, \$3,700,000 shall be for the Structural Health Monitoring Program to facilitate research and maximize operations, efficiency, and to protect asset life through catastrophic failure mitigation.

The Committee is concerned that a reduction in or elimination of navigational lock operations on the Nation's inland waterways is having a negative impact on river ecosystems, particularly the ability of a number of endangered, threatened and game fish species to migrate through waterways, particularly during critical spawning periods. The Committee is aware of preliminary research that indicates reduced lock operations on certain Corps designated low-use waterways is directly impacting migration, and that there are effective means to mitigate the impacts. The Committee believes maximizing the ability of fish to use these locks to move past the dams has the potential to restore natural and historic long-distance river migrations that may well be critical to species survival. In fiscal year 2017, Congress provided funding to continue preliminary research on the impact of reduced lock operations on riverine fish. The Committee understands the research underway is proving valuable and, within available funds for ongoing work, recommends \$2,000,000 for the Corps to continue this research. The goal of the

continued funding is to support the continuing research and, where appropriate, expand the work to look at ecosystem level impacts and additional waterways, lock structures, lock operation methods, and fish species that will more fully inform Corps operations.

Section 408 Reviews.—The Committee directs the Corps to complete section 408 reviews as expeditiously as possible, in a transparent manner, and in a reasonable timeframe. In recognition of the current, significant backlog in this program and the lag in review times, the Committee recommends \$8,500,000, the same as the budget request and \$5,200,000 above fiscal year 2017 enacted levels for section 408 reviews. Not later than 90 days after the date of enactment of this act, the Corps shall submit a report to the Committees on Appropriations of both Houses of Congress on the number of non-Federal projects in each Corps district that requested approval to alter existing Civil Works projects in fiscal years 2016 and 2017, and the average review time for such requests for each District.

The Committee is concerned that the Corps exhausted its fiscal year 2017 funds used to review section 408 packages, but the administration failed to identify additional funds for this purpose in its fiscal year 2017 work plan. As a result, the Corps halted section 408 reviews, leaving several projects in limbo at least until the start of fiscal year 2018. The Corps shall expedite the review of section 408 submissions wherever possible, including using the WRDA 2000 section 214 process where available. The Committee also directs the Corps to consider policies that would free up Corps resources to review section 408 submissions more expeditiously in the future, such as accepting certifications from private engineers and land surveyors, similar to processes used by the Federal Highway Administration, and to approve section 408 requests at the division level rather than the headquarters level wherever possible.

Lower Yellowstone Intake Project.—The Committee is concerned regarding continued delays in resolving issues surrounding the Lower Yellowstone Intake Project. The Committee strongly encourages the Corps and Bureau of Reclamation to assure the community and stakeholders of the agencies' continued support for resolving issues impacting local agriculture producers and fisheries. Further, the Committee directs the Corps and Bureau of Reclamation to refrain from reallocating funding from the proposed fish passage project until judicial challenges to the project are resolved.

Water Operations Technical Support.—Funding in addition to the budget request is recommended to continue research into atmospheric rivers first funded in fiscal year 2015.

WRRDA Section 4001.—Congress has made clear its intent that the Susquehanna, Delaware, and Potomac River Basin Commissions be supported, and the Corps is encouraged to budget accordingly.

WRRDA Section 6002.—The Committee supports the Corps' performing a review of its inventory, in accordance with section 6002 of the WRRDA 2014, not later than 1 year after the date of enactment of this act.

Additional Funding for Ongoing Work.—The Committee cannot support a level of funding that does not fund operation and maintenance of our Nation's aging infrastructure sufficiently to ensure

continued competitiveness in a global marketplace. Federal navigation channels maintained at only a fraction of authorized dimensions and navigation locks and hydropower facilities well beyond their design life result in economic inefficiencies and risk infrastructure failure, which can cause substantial economic losses. The Committee is disappointed the fiscal year 2018 budget request does not adequately fund operation and maintenance of our Nation's ports. WRRDA 2014, as amended by the WIIN Act, included an annual appropriation target for use of the HMTF. Despite providing a budget request that was near the fiscal year 2017 enacted levels, the administration failed to include projects in the budget request that are HMTF reimbursable commensurate with the targets established by law. Additional funding is recommended for dredging activities to restore navigation channels as determined by river stages.

The Committee is concerned that the administration's criteria for navigation maintenance disadvantage small, remote, or subsistence harbors and waterways from competing for scarce navigation maintenance funds. Accordingly, the Committee directs the Corps to revise the criteria used for determining which navigation maintenance projects are funded to develop a reasonable and equitable allocation under the Operation and Maintenance account. The Committee supports including criteria to evaluate economic impact that these projects provide to local and regional economies.

The Committee recommendation includes additional funds for projects and activities to enhance the Nation's economic growth and international competitiveness. When allocating the additional funding recommended in this account, the Corps shall consider giving priority to the following:

- ability to complete ongoing work maintaining authorized depths and widths of harbors and shipping channels (including small, remote, or subsistence harbors), including where contaminated sediments are present;
- ability to address critical maintenance backlog;
- presence of the U.S. Coast Guard;
- extent to which the work will enhance national, regional, or local economic development;
- extent to which the work will promote job growth or international competitiveness;
- number of jobs created directly by the funded activity;
- ability to obligate the funds allocated within the calendar year;
- ability to complete the project, separable element, project phase, or useful increment of work within the funds allocated;
- for harbor maintenance activities:
 - total tonnage handled,
 - total exports,
 - total imports,
 - dollar value of cargo handled,
 - energy infrastructure and national security needs served,
 - designation as strategic seaports,
 - lack of alternative means of freight movement, and
 - savings over alternative means of freight movement.

For deep-draft harbor and channel maintenance, the Corps shall give priority to funding strategic commercial seaports, as des-

igned by the Department of Defense, in the fiscal year 2018 work plan.

REGULATORY PROGRAM

Appropriations, 2017	\$200,000,000
Budget estimate, 2018	200,000,000
Committee recommendation	200,000,000

The Committee recommends \$200,000,000 for the Regulatory Program, the same as the budget request.

Aquaculture Activities.—The Committee is encouraged by the progress the Corps has made to process permit requests from shellfish growers in the State of Washington to initiate or expand aquaculture activities. The Committee is aware that the Corps initiated a process through which permits recently issued under the 2012 Nationwide Permit 48 can be verified under the 2017 Nationwide Permit 48 that went into effect on March 19, 2017. The Corps is directed to expeditiously process these requests using the final Biological Opinion and in accordance with the 2017 Nationwide Permit 48. The Corps is encouraged to communicate directly with the regulated industry and other interested stakeholders to ensure all have clarity on permitting requirements.

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

Appropriations, 2017	\$112,000,000
Budget estimate, 2018	118,000,000
Committee recommendation	117,000,000

The Committee recommends \$117,000,000 for the Formerly Utilized Sites Remedial Action Program, \$1,000,000 below the budget request.

FLOOD CONTROL AND COASTAL EMERGENCIES

Appropriations, 2017	\$32,000,000
Budget estimate, 2018	35,000,000
Committee recommendation	21,904,000

The Committee recommends \$21,904,000 for Flood Control and Coastal Emergencies a decrease of \$13,096,000 from the budget request. The Corps is directed to use \$10,096,000 from prior year balances.

EXPENSES

Appropriations, 2017	\$181,000,000
Budget estimate, 2018	185,000,000
Committee recommendation	185,000,000

The Committee recommends \$185,000,000 for Expenses, the same as the budget request. This appropriation finances the expenses for the Office of the Chief of Engineers, the Division Offices, and certain research and statistical functions of the Corps. No funding is recommended for creation of an Office of Congressional Affairs.

OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY FOR CIVIL WORKS

Appropriations, 2017	\$4,764,000
Budget estimate, 2018	5,000,000
Committee recommendation	4,406,000

The Committee recommends \$4,406,000 for the Office of the Assistant Secretary of the Army (Civil Works), \$594,000 below the budget request.

The Committee counts on a timely and accessible executive branch in the course of fulfilling its constitutional role in the appropriations process. The requesting and receiving of basic, factual information is vital to maintain a transparent and open governing process. The Committee recognizes that some discussions internal to the executive branch are pre-decisional in nature and, therefore, not subject to disclosure. However, the access to facts, figures, and statistics that inform these decisions are not subject to the same sensitivity and are critical to the budget process. The administration needs to do more to ensure timely and complete responses to these inquiries.

GENERAL PROVISIONS—CORPS OF ENGINEERS—CIVIL

Section 101. The bill includes language concerning reprogramming guidelines.

Section 102. The bill includes language concerning execution of funds.

Section 103. The bill includes language concerning award or modifications of funding.

Section 104. The bill includes language concerning funding transfers related to fish hatcheries.

Section 105. The bill includes language concerning the open lake placement of dredged material.

Section 106. The bill includes language concerning acquisitions consistent with the Code of Federal Regulations.

Section 107. The bill includes language regarding Wolf Creek Dam, Lake Cumberland, KY.

Section 108. The bill includes language regarding submission of an interim report.

Section 109. The bill includes language regarding Rough River Lake.

Section 110. The bill includes language regarding cost-sharing of projects.

TITLE II
DEPARTMENT OF THE INTERIOR
CENTRAL UTAH PROJECT

CENTRAL UTAH PROJECT COMPLETION ACCOUNT

Appropriations, 2017	\$10,500,000
Budget estimate, 2018	8,983,000
Committee recommendation	10,500,000

The Committee recommends \$10,500,000 for the Central Utah Project Completion Account, which includes \$8,152,000 for Central Utah Project construction, \$898,000 for transfer to the Utah Reclamation Mitigation and Conservation Account for use by the Utah Reclamation Mitigation and Conservation Commission, \$1,450,000 for necessary expenses of the Secretary of the Interior, and up to \$1,500,000 for the Commission’s administrative expenses. This program allows the Department of the Interior to develop water supply facilities that will continue to sustain economic growth and an enhanced quality of life in the western States, the fastest growing region in the United States. The Committee remains committed to completing the Central Utah Project, which would enable the project to initiate repayment to the Federal Government.

BUREAU OF RECLAMATION

OVERVIEW OF RECOMMENDATION

The Committee recommends \$1,287,725,000 for the Bureau of Reclamation [Reclamation], an increase of \$190,332,000 from the budget request. The Committee recommendation sets priorities by supporting our Nation’s water infrastructure.

INTRODUCTION

In addition to the traditional missions of bringing water and power to the West, Reclamation continues to develop programs, initiatives, and activities that will help meet new water needs and balance the multitude of competing uses of water in the West. Reclamation is the largest wholesaler of water in the country, operating 348 reservoirs with a total storage capacity of 245 million acre-feet. Reclamation projects deliver 10 trillion gallons of water to more than 31 million people each year, and provide 1 out of 5 western farmers with irrigation water for 10 million acres of farmland that produce 60 percent of the Nation’s vegetables and 25 percent of its fruits and nuts. Reclamation manages, with partners, 289 recreation sites that have 90 million visits annually.

FISCAL YEAR 2018 WORK PLAN

The Committee has recommended funding above the budget request for Water and Related Resources. Reclamation is directed to submit a work plan, not later than 60 days after the date of enactment of this act, to the Committees on Appropriations of both Houses of Congress proposing its allocation of these additional funds. Reclamation is directed not to obligate any funding above the budget request for studies or projects until the Committees have approved the work plan for fiscal year 2018. The work plan shall be consistent with the following general guidance:

- None of the funds may be used for any item for which the Committee has specifically denied funding.
- The additional funds are provided for ongoing studies or projects that were either not included in the budget request or for which the budget request was inadequate.
- Funding associated with a category may be allocated to eligible studies or projects within that category.
- Reclamation may not withhold funding from a study or project because it is inconsistent with administration policy. The Committee notes that these funds are in excess of the administration's budget request, and that administration budget metrics should not disqualify a study or project from being funded.

REPROGRAMMING

The Committee is retaining the reprogramming legislation provided in the Energy and Water Development and Related Agencies Appropriations Act, 2017.

DROUGHT RESILIENCY

The Committee has invested approximately \$300,000,000 over the past 3 years in drought and water supply-related activities. The Committee remains intently focused on the need for substantially increased investment in improving drought resiliency as well as in finding opportunities for agencies to combine water supply benefits with other mission priorities. In the fiscal year 2017 Energy and Water Appropriations bill, the Committee began the transition from mitigating an ongoing drought in the West to preparing for the next one. The Committee continues that approach in this year's bill by recommending another \$98,000,000 for the drought resiliency programs authorized in the WIIN Act.

The Committee directs Reclamation to continue working with the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, and relevant state agencies to undertake comprehensive, around the clock, real-time monitoring of water supply conditions and their impact on endangered species during critical periods in the winter and spring.

The Committee believes that the only answer to these chronic droughts is a combination of additional storage, substantial investments in desalination and recycling, improved conveyance, and increased efficiencies in the uses of water both for agriculture and potable purposes. As the West has consistently been the fastest growing part of the country, it is incumbent on Reclamation to lead the

way in increasing the water that is available from year to year and to incentivize more efficient use of the water that is available.

CONGRESSIONALLY DIRECTED SPENDING

The Committee did not accept or include congressionally directed spending, as defined in section 5(a) of rule XLIV of the Standing Rules of the Senate. However, the Committee has recommended additional programmatic funds above the budget request for the Water and Related Resources account. In some cases, these additional funds have been included within defined categories, as in prior years, and are described in more detail in their respective sections below.

WATER AND RELATED RESOURCES

Appropriations, 2017	\$1,155,894,000
Budget estimate, 2018	960,017,000
Committee recommendation	1,150,349,000

The Committee recommends \$1,150,349,000 for Water and Related Resources, an increase of \$190,332,000 above the budget request.

INTRODUCTION

The Water and Related Resources account supports the development, management, and restoration of water and related natural resources in the 17 western States. The account includes funds for operating and maintaining existing facilities to obtain the greatest overall level of benefits, to protect public safety, and to conduct studies on ways to improve the use of water and related natural resources. Work will be done in partnership and cooperation with non-Federal entities and other Federal agencies.

The Committee has recommended increased funding in the Water and Related Resources account on a number of line items to better allow Reclamation to address the immediate impacts of the drought.

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
ARIZONA				
AK CHIN INDIAN WATER RIGHTS SETTLEMENT ACT PROJECT		16,200		16,200
COLORADO RIVER BASIN—CENTRAL ARIZONA PROJECT	6,272	648	6,272	648
COLORADO RIVER FRONT WORK AND LEVEE SYSTEM ..	2,303		2,303	
SALT RIVER PROJECT	649	250	649	250
SAN CARLOS APACHE TRIBE WATER SETTLEMENT ACT PROJECT	1,550		1,550	
YUMA AREA PROJECTS	1,332	23,032	1,332	23,032
CALIFORNIA				
CACHUMA PROJECT	747	874	747	874
CENTRAL VALLEY PROJECTS:				

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
AMERICAN RIVER DIVISION, FOLSOM DAM UNIT/ MORMON ISLAND	1,577	9,138	1,577	9,138
AUBURN-FOLSOM SOUTH UNIT	35	2,184	35	2,184
DELTA DIVISION	6,308	6,520	6,308	6,520
EAST SIDE DIVISION	1,290	2,772	1,290	2,772
FRIANT DIVISION	1,649	3,301	1,649	3,301
SAN JOAQUIN RIVER RESTORATION	34,000	.....	34,000	.....
MISCELLANEOUS PROJECT PROGRAMS	8,771	400	8,771	400
REPLACEMENTS, ADDITIONS, AND EXTRAOR- DINARY MAINT. PROGRAM .....	.....	17,444	.....	17,444
SACRAMENTO RIVER DIVISION	1,307	595	1,307	595
SAN FELIPE DIVISION	232	75	232	75
SAN JOAQUIN DIVISION	52	.....	52	.....
SHASTA DIVISION	720	9,007	720	9,007
TRINITY RIVER DIVISION	12,309	5,177	12,309	5,177
WATER AND POWER OPERATIONS	5,989	10,793	5,989	10,793
WEST SAN JOAQUIN DIVISION, SAN LUIS UNIT	3,357	6,026	3,357	6,026
ORLAND PROJECT .....	.....	930	.....	930
SALTON SEA RESEARCH PROJECT	300	.....	300	.....
SOLANO PROJECT	1,329	2,367	1,329	2,367
VENTURA RIVER PROJECT	313	33	313	33
COLORADO				
ANIMAS-LA PLATA PROJECT	941	3,004	941	3,004
ARMEL UNIT, P-SMBP	5	1,738	5	1,738
COLLBRAN PROJECT	247	1,984	247	1,984
COLORADO-BIG THOMPSON PROJECT	726	13,372	726	13,372
FRUITGROWERS DAM PROJECT	93	131	93	131
FRYINGPAN-ARKANSAS PROJECT	167	10,091	167	10,091
FRYINGPAN-ARKANSAS PROJECT—ARKANSAS VALLEY CONDUIT	3,000	.....	3,000	.....
GRAND VALLEY UNIT, CRBSCP, TITLE II	486	1,809	486	1,809
LEADVILLE/ARKANSAS RIVER RECOVERY PROJECT .....	.....	1,935	.....	1,935
MANCOS PROJECT	76	240	76	240
NARROWS UNIT, P-SMBP .....	.....	38	.....	38
PARADOX VALLEY UNIT, CRBSCP, TITLE II	389	3,003	389	3,003
PINE RIVER PROJECT	141	432	141	432
SAN LUIS VALLEY PROJECT, CLOSED BASIN	301	3,219	301	3,219
SAN LUIS VALLEY PROJECT, CONEJOS DIVISION	16	34	16	34
UNCOMPAHGRE PROJECT	728	163	728	163
UPPER COLORADO RIVER OPERATIONS PROGRAM	1,570	.....	1,570	.....
IDAHO				
BOISE AREA PROJECTS	3,383	4,522	3,383	4,522
COLUMBIA AND SNAKE RIVER SALMON RECOVERY PROJECT	19,000	.....	19,000	.....
LEWISTON ORCHARDS PROJECTS	1,400	27	1,400	27
MINIDOKA AREA PROJECTS	2,442	2,438	2,442	2,438
PRESTON BENCH PROJECT	17	8	17	8
KANSAS				
ALMENA UNIT, P-SMBP	43	480	43	480
BOSTWICK UNIT, P-SMBP	370	884	370	884
CEDAR BLUFF UNIT, P-SMBP	40	552	40	552
GLEN ELDER UNIT, P-SMBP	65	2,581	65	2,581
KANSAS RIVER UNIT, P-SMBP .....	.....	102	.....	102
KIRWIN UNIT, P-SMBP	37	461	37	461
WEBSTER UNIT, P-SMBP	15	500	15	500
WICHITA PROJECT—CHENEY DIVISION	98	391	98	391

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued
 [In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
MONTANA				
BLACKFEET IWRS	10,000	.....	.....	.....
CANYON FERRY UNIT, P-SMBP	249	5,047	249	5,047
CROW TRIBE WATER RIGHTS	12,772	.....	.....	.....
EAST BENCH UNIT, P-SMBP	205	675	205	675
FORT PECK RESERVATION/DRY PRAIRIE RURAL WATER SYSTEM	6,000	.....	6,000	.....
HELENA VALLEY UNIT, P-SMBP	19	165	19	165
HUNGRY HORSE PROJECT .....	.....	453	.....	453
HUNTLEY PROJECT	12	46	12	46
LOWER MARIAS UNIT, P-SMBP	103	1,507	103	1,507
LOWER YELLOWSTONE PROJECT	716	16	716	16
MILK RIVER PROJECT	553	2,951	553	2,951
MISSOURI BASIN O&M, P-SMBP	1,045	167	1,045	167
ROCKY BOYS/NORTH CENTRAL MT RURAL WATER SYSTEM	4,850	.....	4,850	.....
SUN RIVER PROJECT	154	283	154	283
YELLOWTAIL UNIT, P-SMBP	22	8,021	22	8,021
NEBRASKA				
AINSWORTH UNIT, P-SMBP	71	98	71	98
FRENCHMAN-CAMBRIDGE UNIT, P-SMBP	326	1,860	326	1,860
MIRAGE FLATS PROJECT	13	93	13	93
NORTH LOUP UNIT, P-SMBP	90	124	90	124
NEVADA				
LAHONTAN BASIN PROJECT	4,992	4,859	4,992	4,859
LAKE TAHOE REGIONAL DEVELOPMENT PROGRAM	115	.....	115	.....
LAKE MEAD/LAS VEGAS WASH PROGRAM	700	.....	700	.....
NEW MEXICO				
AAMODT LITIGATION SETTLEMENT	8,000	.....	.....	.....
CARLSBAD PROJECT	2,790	1,339	2,790	1,339
EASTERN NEW MEXICO RURAL WATER SUPPLY	1,875	.....	1,875	.....
MIDDLE RIO GRANDE PROJECT	12,682	11,836	12,682	11,836
NAVAJO GALLUP WATER SUPPLY	67,772	25	.....	.....
RIO GRANDE PROJECT	1,906	4,750	1,906	4,750
RIO GRANDE PEUBLOS PROJECT	1,000	.....	1,000	.....
TUCUMCARI PROJECT	15	16	15	16
NORTH DAKOTA				
DICKINSON UNIT, P-SMBP	214	435	214	435
GARRISON DIVERSION UNIT, P-SMBP	13,235	12,934	13,235	12,934
HEART BUTTE UNIT, P-SMBP	82	1,322	82	1,322
OKLAHOMA				
ARBUCKLE PROJECT	67	174	67	174
MCGEE CREEK PROJECT	188	802	188	802
MOUNTAIN PARK PROJECT	53	617	53	617
NORMAN PROJECT	71	301	71	301
WASHITA BASIN PROJECT	58	554	58	554
W.C. AUSTIN PROJECT	242	1,091	242	1,091
OREGON				
CROOKED RIVER PROJECT	403	533	403	533
DESCHUTES PROJECT	384	230	384	230
EASTERN OREGON PROJECTS	533	213	533	213
KLAMATH PROJECT	13,514	4,486	13,514	4,486
ROGUE RIVER BASIN PROJECT, TALENT DIVISION	2,072	686	2,072	686

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
TUALATIN PROJECT	201	218	201	218
UMATILLA PROJECT	556	2,931	556	2,931
SOUTH DAKOTA				
ANGOSTURA UNIT, P-SMBP	249	694	249	694
BELLE FOURCHE UNIT, P-SMBP	271	730	271	730
KEYHOLE UNIT, P-SMBP	198	610	198	610
LEWIS AND CLARK RURAL WATER SYSTEM	3,650	.....	3,650	.....
MID-DAKOTA RURAL WATER PROJECT .....	.....	15	.....	15
MNI WICONI PROJECT .....	.....	13,475	.....	13,475
OAHE UNIT, P-SMBP	37	73	37	73
RAPID VALLEY PROJECT .....	.....	71	.....	71
RAPID VALLEY UNIT, P-SMBP .....	.....	200	.....	200
SHADEHILL UNIT, P-SMBP	75	466	75	466
TEXAS				
BALMORHEA PROJECT	37	13	37	13
CANADIAN RIVER PROJECT	58	108	58	108
LOWER RIO GRANDE WATER RESOURCES CONSERVATION PROGRAM	50	.....	50	.....
NECES RIVER PROJECT	107	803	107	803
SAN ANGELO PROJECT	38	596	38	596
UTAH				
HYRUM PROJECT	183	158	183	158
MOON LAKE PROJECT	28	92	28	92
NEWTON PROJECT	67	103	67	103
OGDEN RIVER PROJECT	242	233	242	233
PROVO RIVER PROJECT	1,224	718	1,224	718
SANPETE PROJECT	73	10	73	10
SCOFIELD PROJECT	304	81	304	81
STRAWBERRY VALLEY PROJECT	433	100	433	100
WEBER BASIN PROJECT	1,047	860	1,047	860
WEBER RIVER PROJECT	131	102	131	102
WASHINGTON				
COLUMBIA BASIN PROJECT	3,961	9,414	3,961	9,414
WASHINGTON AREA PROJECTS	445	63	445	63
YAKIMA PROJECT	744	6,083	744	6,083
YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT	17,136	.....	17,136	.....
WYOMING				
BOYSEN UNIT, P-SMBP	232	1,875	232	1,875
BUFFALO BILL DAM, DAM MODIFICATION, P-SMBP	32	2,731	32	2,731
KENDRICK PROJECT	78	5,626	78	5,626
NORTH PLATTE PROJECT	178	1,197	178	1,197
NORTH PLATTE AREA, P-SMBP	97	5,266	97	5,266
OWL CREEK UNIT, P-SMBP	6	93	6	93
RIVERTON UNIT, P-SMBP	8	572	8	572
SHOSHONE PROJECT	77	746	77	746
SUBTOTAL, ITEMS UNDER STATES	330,603	297,740	232,059	297,715
REMAINING ITEMS				
ADDITIONAL FUNDING FOR ONGOING WORK:				
RURAL WATER .....	.....	.....	48,000	.....
FISH PASSAGE AND FISH SCREENS .....	.....	.....	5,000	.....
WATER CONSERVATION AND DELIVERY .....	.....	.....	84,000	.....

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
ENVIRONMENTAL RESTORATION AND COMPLIANCE			15,000	
FACILITIES OPERATION, MAINTENANCE, AND REHABILITATION				1,800
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE I	250	15,203	250	15,203
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE II	8,374		8,374	
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 5	4,153	6,485	4,153	6,485
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 8	2,770		2,770	
COLORADO RIVER WATER QUALITY IMPROVEMENT PROJECT	640		640	
DAM SAFETY PROGRAM:				
DEPARTMENT OF THE INTERIOR DAM SAFETY PROGRAM		1,300		1,300
INITIATE SAFETY OF DAMS CORRECTIVE ACTION		66,500		66,500
SAFETY EVALUATION OF EXISTING DAMS		20,284		20,284
EMERGENCY PLANNING & DISASTER RESPONSE PROGRAM		1,250		1,250
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM	19,645		19,645	
ENVIRONMENTAL PROGRAM ADMINISTRATION	1,844		1,844	
EXAMINATION OF EXISTING STRUCTURES		8,873		8,873
GENERAL PLANNING ACTIVITIES	2,124		2,124	
INDIAN WATER RIGHTS SETTLEMENTS:				
AAMODT LITIGATION SETTLEMENT			8,000	
BLACKFEET			10,000	
CROW TRIBE RIGHTS			12,772	
NAVAJO-GALLUP			67,772	25
LAND RESOURCES MANAGEMENT PROGRAM	9,996		9,996	
LOWER COLORADO RIVER OPERATIONS PROGRAM	33,433		33,433	
MISCELLANEOUS FLOOD CONTROL OPERATIONS		927		927
NATIVE AMERICAN AFFAIRS PROGRAM	10,425		11,425	
NEGOTIATION & ADMINISTRATION OF WATER MARKETING	1,981		1,981	
OPERATION & PROGRAM MANAGEMENT	901	2,764	901	2,764
POWER PROGRAM SERVICES	2,391	307	2,391	307
PUBLIC ACCESS AND SAFETY PROGRAM	597	206	597	206
RECLAMATION LAW ADMINISTRATION	2,173		2,173	
RECREATION & FISH & WILDLIFE PROGRAM ADMINISTRATION	6,497		6,497	
RESEARCH AND DEVELOPMENT:				
DESALINATION AND WATER PURIFICATION PROGRAM	1,753	1,150	10,653	1,150
SCIENCE AND TECHNOLOGY PROGRAM	11,065		22,765	
SITE SECURITY ACTIVITIES		26,220		26,220
UNITED STATES/MEXICO BORDER ISSUES—TECHNICAL SUPPORT	90		90	
WATERSMART PROGRAM:				
WATERSMART GRANTS	23,365		24,000	
WATER CONSERVATION FIELD SERVICES PROGRAM	4,038		4,179	
COOPERATIVE WATERSHED MANAGEMENT	1,750		2,250	
BASIN STUDIES	5,200		5,200	
DROUGHT RESPONSE & COMPREHENSIVE DROUGHT PLANS	3,250		4,000	

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
TITLE XVI WATER RECLAMATION & REUSE PROGRAM	21,500	.....	34,406	.....
SUBTOTAL, REMAINING ITEMS	180,205	151,469	467,281	153,294
UNDERFINANCING .....	.....	.....	.....	.....
TOTAL	510,808	449,209	699,340	451,009
GRAND TOTAL, WATER AND RELATED RESOURCES .....	.....	960,017	.....	1,150,349

Indian Water Settlements.—The Committee notes that funding is recommended for Indian water rights settlements, which meet trust and treaty obligations to tribes and resolve significant tribal water-related claims against the Federal government. In December 2016, Congress authorized a number of important Indian water settlements as part of the WIIN Act, including the Blackfeet Water Rights Settlement Act. To meet the Blackfeet settlement's enforcement date of January 21, 2025, significant additional funding will be required after fiscal year 2018. The Committee therefore encourages Reclamation to budget accordingly for Indian water rights settlements in its budget request for fiscal year 2019.

San Joaquin River Restoration Program.—The Committee is deeply concerned by the lack of tangible progress in river channel reconstruction despite Federal expenditures of \$172,000,000 through September 30, 2016, and an anticipated additional \$390,000,000 to \$700,000,000 necessary to complete the program. The Committee directs Reclamation to work with the settling parties and the Exchange Contractors to develop a plan to successfully implement the program, which shall identify funding sources to match projected program expenditures; ensure that the program is on track to achieve goals that are technically, scientifically, and financially achievable; reevaluate the program's 2025 reopener date, given extensive delays in river project implementation; and improve the program's relationship with third parties, while working within projected budgets and timelines. The Committee directs Reclamation to achieve substantial progress toward developing the plan by November 15, 2017, and to brief the Committees on Appropriations of both Houses of Congress on the progress achieved by that date.

Salton Sea.—Pursuant to recent agreements between the Department of the Interior and the State of California, the Committee encourages the Department to prioritize implementation of the Salton Sea Memorandum of Understanding [MOU]. The Committee urges the Department to include specific funding requests for implementation of the MOU in future budget submissions and directs the Department to provide semiannual briefings to the Committees on Appropriations of both Houses of Congress regarding Federal ef-

forts to implement the MOU and other Salton Sea mitigation efforts.

Scoggins Dam, Tualatin Project, Oregon.—The Committee supports the administration’s budget request for preconstruction activities at Scoggins Dam under the Safety of Dams program. Consistent with the Tualatin Project Water Supply Feasibility Study authorized in Public Law 108–137 and statutory authority granted by Public Law 114–113 allowing for additional benefits to be conducted concurrently with dam safety improvements, the Committee directs Reclamation to evaluate alternatives, including new or supplementary works, provided that safety remains the paramount consideration, to address dam safety modifications and increased storage capacity. Considering the high risk associated with Scoggins Dam, the Committee urges Reclamation to work with local stakeholders and repayment contractors to prioritize this joint project including feasibility and environmental review of the preferred alternative in fiscal year 2018. The Committee understands that a replacement structure downstream could significantly reduce project costs for both the Federal Government and local stakeholders. Reclamation may accept contributed funds from non-Federal contractors to expedite completion of any level of review.

Rural Water Projects.—Voluntary funding in excess of legally required cost shares for rural water projects is acceptable but shall not be used by Reclamation as a criterion for allocating additional funding recommended by the Committee or for budgeting in future years.

WaterSMART Program.—The Committee encourages Reclamation to prioritize eligible water conservation projects that will provide water supplies to meet the needs of threatened and endangered species.

Research and Development: Desalination and Water Purification Program.—Of the funding recommended for this program, \$6,000,000 shall be for desalination projects as authorized in section 4009(a) of Public Law 114–322.

Research and Development, Science and Technology Program.—The Committee is aware that the Reclamation Science and Technology Office has been investing in efforts under the Open Water Data Initiative to integrate currently fragmented water supply data from several Federal agencies into a connected, national water data framework. Furthermore, the Committee understands that the Science and Technology Office has a future goal to develop web-based decision support tools. The Committee urges Reclamation to expedite the development and testing of a web-based Water Supply Decision Support System that will help Federal, State, municipal, Tribal and private water managers and users make better water-use decisions to support water conservation and drought resilience in the western States. Such a system will allow a diverse group of water managers and users to better leverage the Federal Government’s investment in producing water supply data on river levels, snow pack, weather, and climate.

WaterSMART Program: Title XVI Water Reclamation & Reuse Program.—Of the funding recommended for this program, \$10,000,000 shall be for water recycling and reuse projects as authorized in section 4009(c) of Public Law 114–322.

Additional Funding for Water and Related Resources Work.—The Committee recommendation includes an additional \$190,332,000 above the budget request for Water and Related Resources studies, projects, and activities. Priority in allocating these funds should be given to advance and complete ongoing work; improve water supply reliability; improve water deliveries; enhance national, regional, or local economic development; promote job growth; advance Tribal and nontribal water settlement studies and activities; or address critical backlog maintenance and rehabilitation activities. Funding recommended under the heading Additional Funding for Ongoing Work may be utilized for ongoing work, including pre-construction activities, on projects which provide new or existing water supplies through additional infrastructure. Reclamation shall give priority in allocating funds to ongoing work on authorized projects for which environmental compliance has been completed. Reclamation is encouraged to allocate additional funding for aquifer recharging efforts to address the ongoing backlog of related projects. Of the funds recommended under the heading “Water Conservation and Delivery”, \$5,000,000 is allocated to fund Colorado River water conservation, including the Pilot System Conservation Program as authorized in section 206 of Energy and Water Development and Related Agencies Appropriations Act, 2015. Of the additional funding recommended under the heading “Water Conservation and Delivery”, \$67,000,000 shall be for water storage projects as authorized in section 4007 of Public Law 114–322. Of the additional funding recommended under the heading “Environmental Restoration or Compliance”, \$15,000,000 shall be for activities authorized under sections 4001 and 4010 of Public Law 114–322 or as set forth in Federal-State plans for restoring threatened and endangered fish species affected by the operation of Reclamation’s water projects.

The Committee is concerned that Reclamation’s criteria for allocating funding have not adequately accounted for projects that would directly benefit military base operations and national security facilities in the past. The Committee directs the Department of the Interior to consult with the Department of Defense to develop a plan to adequately allocate Water and Related Resources funding that directly benefits military base operations and national security facilities.

Reclamation is encouraged to prioritize funding to help irrigation districts with junior water rights to plan and develop water conservation plans to comply with ESA requirements.

Buried Metallic Water Pipe.—Reclamation shall continue following its temporary design guidance.

CENTRAL VALLEY PROJECT RESTORATION FUND

Appropriations, 2017	\$55,606,000
Budget estimate, 2018	41,376,000
Committee recommendation	41,376,000

The Committee recommends \$41,376,000 for the Central Valley Project Restoration Fund, the same as the budget request. This appropriation is fully offset by a scorekeeping adjustment from revenues.

The Central Valley Project Restoration Fund was authorized in the Central Valley Project Improvement Act, title 34 of Public Law

102–575. This fund uses revenues from payments by project beneficiaries and donations for habitat restoration, improvement and acquisition, and other fish and wildlife restoration activities in the Central Valley project area of California. Payments from project beneficiaries include several required by the act (Friant Division surcharges, higher charges on water transferred to non-Central Valley Project users, and tiered water prices) and, to the extent required in appropriations acts, additional annual mitigation and restoration payments.

CALIFORNIA BAY-DELTA RESTORATION

Appropriations, 2017	\$36,000,000
Budget estimate, 2018	37,000,000
Committee recommendation	37,000,000

The Committee recommends \$37,000,000 for California Bay-Delta Restoration, the same as the budget request.

This account funds activities that are consistent with the CALFED Bay-Delta Program, a collaborative effort involving 18 State and Federal agencies and representatives of California’s urban, agricultural, and environmental communities. The goals of the program are to improve fish and wildlife habitat, water supply reliability, and water quality in the San Francisco Bay-San Joaquin River Delta, the principle hub of California’s water distribution system.

POLICY AND ADMINISTRATION

Appropriations, 2017	\$59,000,000
Budget estimate, 2018	59,000,000
Committee recommendation	59,000,000

The Committee recommends \$59,000,000 for Policy and Administration, the same as the budget request.

This account funds the executive direction and management of all Reclamation activities, as performed by the Commissioner’s offices in Washington, DC; Denver, Colorado; and five regional offices. The Denver office and regional offices charge individual projects or activities for direct beneficial services and related administrative and technical costs. These charges are covered under other appropriations.

GENERAL PROVISIONS—DEPARTMENT OF THE INTERIOR

Section 201. The bill includes language concerning reprogramming.

Section 202. The bill includes language concerning the San Luis Unit.

Section 203. The bill includes language concerning the Reclamation States Emerging Drought Relief Act of 1991.

Section 204. The bill includes language concerning industrial hemp.

TITLE III
DEPARTMENT OF ENERGY
OVERVIEW OF RECOMMENDATION

The Committee recommends \$31,967,986,000 for the Department of Energy, an increase of \$3,587,029,000 above the budget request. The recommendation includes recessions of \$510,360,000 of unobligated prior year balances, resulting in a net appropriation of \$31,457,626,000.

The Committee recommendation sets priorities by supporting the Office of Science and ARPA-E, leading the world in scientific computing, addressing the Federal Government's responsibility for environmental cleanup and disposal of used nuclear fuel, keeping large construction projects on time and on budget, effectively maintaining our nuclear weapons stockpile, and supporting our nuclear Navy.

INTRODUCTION

The mission of the Department of Energy [Department] is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. To accomplish this mission, the Secretary of Energy [Secretary] relies on a world-class network of national laboratories, private industry, universities, States, and Federal agencies, which allows our brightest minds to solve our Nation's most important challenges.

The Committee's recommendation for the Department includes funding in both defense and non-defense budget categories. Defense funding is recommended for atomic energy defense activities, including the National Nuclear Security Administration, which manages our Nation's stockpile of nuclear weapons, prevents proliferation of dangerous nuclear materials, and supports the Navy's nuclear fleet; defense environmental cleanup to remediate the former nuclear weapons complex; and safeguards and security for Idaho National Laboratory. Non-defense funding is recommended for the Department's energy research and development programs (including nuclear, fossil, and renewable energy, energy efficiency, grid modernization and resiliency, and the Office of Science), power marketing administrations, the Federal Energy Regulatory Commission, and administrative expenses.

REPROGRAMMING GUIDELINES

The Committee's recommendation includes control points to ensure that the Secretary spends taxpayer funds in accordance with congressional direction. The Committee's recommendation also includes reprogramming guidelines to allow the Secretary to request

permission from the Committee for certain expenditures, as defined below, which would not otherwise be permissible. The Secretary's execution of appropriated funds shall be fully consistent with the direction provided under this heading and in section 301 of the bill, unless the Committee includes separate guidelines for specific actions in the bill or report.

Prior to obligating any funds for an action defined below as a reprogramming, the Secretary shall notify and obtain approval of the Committees on Appropriations of both Houses of Congress. The Secretary shall submit a detailed reprogramming request in accordance with section 301 of the bill, which shall, at a minimum, justify the deviation from prior congressional direction and describe the proposed funding adjustments with specificity. The Secretary shall not, pending approval from the Committee, obligate any funds for the action described in the reprogramming proposal.

The Secretary is also directed to inform the Committees on Appropriations of both Houses of Congress promptly and fully when a change in program execution and funding is required during the fiscal year.

Definition.—A reprogramming includes:

- the reallocation of funds from one activity to another within an appropriation;
- any significant departure from a program, project, activity, or organization described in the agency's budget justification as presented to and approved by Congress;
- for construction projects, the reallocation of funds from one construction project identified in the agency's budget justification to another project or a significant change in the scope of an approved project;
- adoption of any reorganization proposal which includes moving prior appropriations between appropriations accounts; and
- any reallocation of new or prior year budget authority, or prior year deobligations.

CROSSCUTTING INITIATIVES

The recommendation supports several crosscutting initiatives funded in prior years that reach outside of individual program offices to draw on the diverse disciplines within the agency as a whole. These initiatives, which address the Energy-Water Nexus; grid modernization; subsurface science, technology and engineering research, development, and deployment; cybersecurity; and advanced materials, have allowed for a more comprehensive review of complex issues.

Grid Modernization.—The Department is directed to continue to support ongoing work between the national laboratories, industry, and universities to improve grid reliability and resiliency. Given that much of the Nation's grid is privately owned, there are significant challenges to modernizing the grid, which make it difficult to develop, test, and deploy new technologies. To address these challenges, Congress has provided funding for the Grid Modernization Initiative [GMI] over the past 2 fiscal years. The budget request does not address the GMI comprehensively even though in January 2016, the Department announced up to \$220,000,000 for the GMI over 3 years, subject to appropriations from Congress. Within the

GMI, the Committee supports the Grid Modernization Laboratory Consortium's [GMLC] leadership of a comprehensive, multidisciplinary research and development program managed through a consortium of the national laboratories, leveraging national laboratory assets and partnering with non-Federal entities. The Committee is pleased that the Department has recently undertaken peer review processes to evaluate the GMLC's progress. The Committee supports the strategic goals of the Grid Modernization Multi-Year Program Plan [MYPP], which reflects a 5-year integrated strategy across the Department to guide investment and leverage the expertise of our national laboratories, while working with industry and States. The Committee directs the Department to continue implementation of the MYPP, as in previous years.

The Committee recognizes the opportunities and challenges associated with grid modernization, as well as the gaps in our current understanding not addressed by existing studies, and accordingly directs the National Academies of Sciences, Engineering, and Medicine to conduct an evaluation of the expected medium- and long-term evolution of the grid. This evaluation shall focus on developments that include the emergence of new technologies, planning and operating techniques, grid architecture, and business models. This study will provide critical insight into the future of the grid, particularly with respect to the distribution network and its interface with the rest of the grid, and will inform decisions regarding strategic investment of Federal funds and other policies, including ensuring proper steps are taken to address cybersecurity.

Subsurface Crosscut.—The Committee supports the ongoing Subsurface Technology and Engineering Research [SubTER] Initiative, which is focused on revolutionizing sustainable subsurface energy production and storage through transformational improvements in the ability to access, characterize, predict, and adaptively manipulate subsurface fracture and flow processes. SubTER aims to double reservoir recovery, decrease the environmental footprint, and enhance energy security and public safety. The Committee supports the SubTER program's approach to increasing domestic supply of oil, gas, and geothermal energy resources by manipulating the permeability of subsurface rock formations to injection fluids. To validate methods which enhance oil and gas recovery from fracking wells, the Committee encourages the Department to conduct pilot field tests of promising technologies with university and industry partners to reduce permeability and control the flow of fluids in the subsurface with targets of blocking highly permeable pathways that reduce sweep efficiency in porous rock and plugging fractures in shales.

Energy-Water Nexus.—The Committee recognizes water and energy are critical resources that are reciprocally linked. The Energy-Water Nexus crosscut consists of a collaboration of agencies, national laboratories, State and local governments, utilities, industry, and the science community working collectively to address energy and water resource challenges, specifically as they relate to energy security and energy sector water needs.

Advanced Materials.—The Committee supports the Department-wide crosscut on advanced materials, which focuses on lightweight materials and composites and corrosion and materials under ex-

trems. The Committee understands in previous years, other program offices independently had standalone existing materials programs, and continues to support formal coordination across offices through the Materials Working Group. This is an unprecedented opportunity to impact the materials development cycle from scientific discovery to technological innovation and deployment.

Cybersecurity Crosscut.—Cybersecurity activities within the Department cover a broad scope ranging from the protection of Department assets against cybersecurity threats to improving cybersecurity in the electric power and oil and natural gas sectors to other areas in the national security portfolio. As cybersecurity threats become more complex, and the Department increases its focus on cybersecurity research and development, it is vital that there be clear crosscutting objectives and coordination across the Department. The budget proposes to develop a Multi-Year Program Plan for the Energy Sector, which will complement the energy sector-developed *Roadmap to Achieve Energy Delivery Systems Cybersecurity*. While that effort is important, it is not sufficient. The Committee directs the Department to develop a plan that integrates all of the Department's cybersecurity investments, and brief the Committees on Appropriations of both Houses of Congress on that plan before delivery of the fiscal year 2019 budget request.

Arctic Energy Office.—The Committee supports the promotion of research, development, and deployment of electric power technology that is cost-effective and well-suited to meet the needs of rural and remote regions of the United States, especially where permafrost is present or located nearby. In addition, the Committee further supports research, development and deployment in such regions of enhanced oil recovery technology, including heavy oil recovery, reinjection of carbon, and extended reach drilling technologies; gas-to-liquids technology and liquefied natural gas, including associated transportation systems; small hydroelectric facilities, river turbines, and tidal power; natural gas hydrates, coal bed methane, and shallow bed natural gas; and alternative energy, including wind, geothermal, and fuel cells. The Department is encouraged to support a renewed focus on the Arctic region, and as a cross-cutting activity, use the Arctic Energy Office as a centralized area to support the use of energy resources, but also innovative activities, including microgrids and integrated energy systems.

Regional Initiatives.—The Committee urges the Department to utilize investments through existing regional capabilities that include industry, universities, and State and regional economic development assets. The Committee further encourages the national laboratories to expand their geographic outreach through people and access to specialized equipment and user facilities in order to contribute to the success of these regional initiatives.

COMMONLY RECYCLED PAPER

The Secretary shall not expend funds for projects that knowingly use as a feedstock commonly recycled paper that is segregated from municipal solid waste or collected as part of a collection system that commingles commonly recycled paper with other solid waste at any point from the time of collection through materials recovery.

FIVE-YEAR PLAN

The Secretary is required by 42 U.S.C. 7279a, enacted by the Consolidated Appropriations Act, 2012, to include in the Department's annual budget request proposed funding levels for the request year and 4 subsequent years, at a level of detail commensurate with the current budget justification documents. This requirement is to ensure that the Secretary is proposing a current budget that takes into account realistic budget constraints in future years, and that Congress has full visibility into the future implications of current budget decisions across the Department's energy programs.

The Committee directs the Secretary to submit a report, not later than September 30, 2018, to the Committees on Appropriations of both Houses of Congress, on a plan to comply with 42 U.S.C. 7279a. Failure to provide this report may result in more directive measures to ensure the Secretary complies with the law and engages in practices that safeguard taxpayer dollars.

ENERGY PROGRAMS

ENERGY EFFICIENCY AND RENEWABLE ENERGY

Appropriations, 2017	\$2,090,200,000
Budget estimate, 2018	636,149,000
Committee recommendation	1,936,988,000

The Committee recommends \$1,936,988,000 for Energy Efficiency and Renewable Energy [EERE], an increase of \$1,300,839,000 above the budget request. Within available funds, the Committee recommends \$153,500,000 for program direction.

The Committee recognizes the importance of the development and deployment of energy efficiency and renewable energy technologies, which are critical to expanding U.S. energy security and global leadership. The Committee directs that within available funding, the Department shall support the reduction of costs for consumers, while also improving grid reliability.

Early-Stage Research and Development.—The President's budget request proposes a shift away from later stage research and development activities to refocus the Department on an early-stage research and development mission. The Committee believes that such an approach will not successfully integrate the results of early-stage research and development into the U.S. energy system and thus will not adequately deliver innovative energy technologies, practices, and information to American consumers and companies. Notably, this is the case with complex systems and structures such as America's homes, offices and other buildings. The Committee provides funding to support a comprehensive and real-world strategy that includes medium- and later-stage research and development; deployment and demonstration activities; and other approaches that are designed to utilize the most effective means to increase buildings' energy efficiency in order to promote their affordability, sustainability, resilience, and productivity.

Workforce Development.—The development of a skilled workforce is critical to the successful deployment and long-term sustainability of energy efficient and renewable energy technologies. The Committee encourages funding within EERE programs to be allocated

to training and workforce development programs that assist and support workers in trades and activities required for the continued growth of the U.S. energy efficiency and clean energy sectors. Furthermore, the Committee encourages the Department to work with 2-year, public community, and technical colleges for job training programs that lead to an industry-recognized credential in the energy workforce.

Energy Star.—In 2009, the Department and the Environmental Protection Agency [EPA] signed a Memorandum of Understanding [MOU] related to the Energy Star Program, which shifted some functions related to home appliance products from the Department to the EPA. The Department shall work with the EPA to review the 2009 MOU and report to the Committees on Appropriations of both Houses of Congress within 90 days after enactment of this Act on whether the expected efficiencies for home appliance products have been achieved.

Sustainable Transportation Initiative.—The Committee encourages the Department to continue the Sustainable Transportation (Mobility) Initiative, including the Co-Optima and SMART Mobility Initiatives. These investments are critical to expanding U.S. energy security. Therefore, the Committee supports continued funding for research that allows the U.S. to continue its leadership in advancing state-of-the-art transportation infrastructure, which is vital to economic development.

VEHICLE TECHNOLOGIES

The Committee recommends \$277,988,000 for Vehicle Technologies.

Within this amount, the Committee recommends not less than \$140,000,000 for Electric Drive Technologies Research and Development, \$42,988,000 for Advanced Combustion Engine Research and Development, \$25,000,000 for Materials Technology, and \$16,000,000 for Vehicle Systems.

Within available funds, the Committee recommends not less than \$10,000,000 for continued funding of section 131 of the 2007 Energy Independence and Security Act for transportation electrification. The Committee encourages the Department, when making grants through the Vehicle Technologies Program, to expand opportunities for the demonstration of zero-emissions technologies that will be of practical use in areas of extreme non-attainment with national ambient air quality standards. The Committee also supports early stage research to lower the cost of batteries for electric vehicles through battery processing science, materials research, and modeling and simulation of battery performance, including research on extreme fast and wireless charging, and using high performance computing for electric motor multi-physics discovery for electric drive technologies.

The Committee recommends \$20,000,000 for the SuperTruck II program to further improve the efficiency of heavy-duty class 8 long- and regional-haul vehicles and continue support of the fiscal year 2016 SuperTruck II awards. The Department is directed to make five awards using the multi-year allocation process that was used successfully by the SuperTruck I program.

Within available funds, the Committee recommends \$34,000,000 for Outreach, Deployment, and Analysis to support the Clean Cities Alternative Fuels and Vehicles Deployment Program. Within this amount, \$28,000,000 is provided for deployment through the Clean Cities Program, of which not less than \$24,000,000 shall be for funding opportunity awards to Clean Cities Coalitions and Alternative Fuel Vehicle Community Partner projects. The Department is encouraged to ensure balance in the award of funds to achieve varied aims in fostering broader adoption of clean vehicles and installation of supporting infrastructure. The Committee further encourages the Department to prioritize projects in States where the transportation sector is responsible for a higher percentage of the State's total energy consumption and is their largest source of greenhouse gases.

The Committee supports the EcoCAR 3 competition, which provides hands-on, real-world experience to demonstrate a variety of advanced technologies and designs, and supports development of a workforce trained in advanced vehicles. The Committee recommends \$2,500,000 for the third year of a 4-year collegiate engineering competition, EcoCAR 3.

The Committee recognizes that the commercial off-road vehicle sector, including industrial, mining, and farm equipment, consumes over 2 Quads of energy per year and directs the Department to continue activities to reduce the energy consumption of commercial off-road vehicles. The Committee recommends \$5,000,000 to continue improving the energy efficiency of fluid power systems for commercial off-road vehicles.

The Committee encourages the Department to support research on natural gas storage, natural gas engines, and fueling infrastructure optimization. The Committee is also supportive of efforts to address technical barriers to the increased use of natural gas vehicles, including the development of novel compression and liquefaction technologies, advanced materials, and improvements in processes for conditioning, storing, and dispensing natural gas.

BIOENERGY TECHNOLOGIES

The Committee recommends \$190,000,000 for Bioenergy Technologies.

Within available funds, the Committee directs the Secretary to provide a total of \$30,000,000 for algal biofuels, and expects the Department to sustain the investment in development of algal biofuels. When awarding grants and cooperative agreements for algal biofuels research and development, not less than 50 percent of the dollar value of awards shall be for university- or industry-led consortia. The Committee further recommends \$20,000,000 for Feedstock Supply and Logistics, \$50,000,000 for Demonstration and Market Transformation, and \$5,000,000 for Strategic Analysis and Cross-cutting Sustainability.

The Committee further recommends \$85,000,000 for Conversion Technologies. Within this amount, \$20,000,000 is recommended to continue activities of the Agile Biology Foundry intended to achieve substantial improvements in conversion efficiencies and the scale-up of biological processes with lower development costs and lead times.

Within available funds, the Committee recommends \$5,000,000 within Conversion Technologies to continue the research, biopower program, which makes full and innovative use of biomass, municipally-derived biosolids, and municipal solid waste.

The Committee recognizes that biomethane or anaerobic digesters can provide important solutions to meet renewable energy goals, as well as address environmental and economic challenges and divert organic waste from landfills. Research, development, and demonstration activities are needed to help lower upfront development costs and promote smaller-scale, community digesters. Within available funds for Conversion Technologies, the Committee recommends \$5,000,000 to improve the efficiency of community and smaller digesters that accept both farm and food wastes.

The Committee continues to support the Secretary's participation in the Farm to Fly 2 Initiative with the Federal Aviation Administration's Center of Excellence for Alternative Jet Fuels and the Environment. The Committee reiterates to the Federal entities involved that this is a cost-sharing research partnership among academia, industry, and the Federal Government, and urges full collaboration between the Departments of Energy and Agriculture and other Federal agencies in the Initiative.

The National Academies of Sciences, Engineering, and Medicine has recognized that bioenergy with carbon capture sequestration [BECCS] has technical potential to provide a significant portion of the world's energy supply by the end of the century. If commercialized further, BECCS could be a baseload electricity resource with a net-negative carbon emission profile. The Committee encourages the Bioenergy Technologies Office to continue its collaboration with the Office of Fossil Energy on BECCS research, as well as research to advance net carbon-negative transportation fuels.

HYDROGEN AND FUEL CELL TECHNOLOGIES

The Committee recommends \$85,000,000 for Hydrogen and Fuel Cell Technologies.

The Committee recognizes the progress of the program and continues to support stationary, vehicle, motive, and portable power applications. Within the amounts recommended, \$27,000,000 is for Fuel Cell Research and Development, \$36,000,000 is for Hydrogen Research and Development and \$1,000,000 is for systems analysis activities. The Committee recommends \$14,000,000 for Technology Acceleration activities, including \$3,000,000 for manufacturing research and development, and \$7,000,000 for industry-led efforts to demonstrate a hydrogen-focused integrated renewable energy production, storage, and transportation fuel distribution/retailing system. The Committee further recommends \$7,000,000 for Safety, Codes, and Standards.

The Committee encourages the Secretary to work with the Secretary of Transportation and industry on coordinating efforts to deploy hydrogen fueling infrastructure. The Department is further encouraged to identify competitive opportunities to help develop affordable hydrogen infrastructure components. The Department is directed to use funds to improve hydrogen measurement devices for retail fueling stations and work to reduce costs for hydrogen compressors and carbon fiber tanks.

SOLAR ENERGY

The Committee recommends \$167,500,000 for Solar Energy.

Within available funds, the Committee recommends \$48,000,000 for Concentrating Solar Power research, development, and demonstration of technologies that reduce overall system costs, better integrate subsystem components, develop higher-temperature receivers, and improve the design of solar collection and thermal energy storage. Within this amount \$12,000,000 is recommended for competitively selected projects focused on advanced thermal desalination techniques.

The Committee recommends \$48,000,000 for Photovoltaic Research and Development. Research programs for high efficiency thin-film photovoltaics and processes are encouraged to include cooperation between industry and academia, and to include advanced optical characterization that enables development of strong correlations between materials and cell optical properties, and the photovoltaic power performance of the working solar cells.

Further, the Committee recommends \$45,000,000 for Systems Integration, \$10,500,000 for Balance of System Soft Cost Reduction, and \$16,000,000 for Innovations in Manufacturing Competitiveness.

The Committee recognizes that solar energy is one of the fastest growing industries in the United States, and employs over 260,000 workers today. Within available funds, the Committee recommends \$1,000,000 for the Secretary's contribution to the joint Solar Ready Vets program within the Department of Defense as a way to train America's veterans to fill this growing skill need.

WIND ENERGY

The Committee recommends \$72,500,000 for Wind Energy.

The Committee supports research using high-performance computing, modeling and simulation—including the Atmosphere to Electrons initiative program—and reliability and grid integration efforts. Further, the Department is directed to give priority to stewarding the assets and optimizing the operations of the Department-owned wind research and testing facilities and provides not less than \$30,000,000 for the National Wind Technology Center.

The Committee notes that, despite the rapid growth of the wind power industry, the distributed wind segment has remained limited in its applications in the United States. The Committee encourages the Department to prioritize work on distributed wind technologies that reduce costs and improve performance, and to work with industry to invest in the development and demonstration of technologies and practices that advance distributed wind. Within available funds, the Committee recommends not less than \$2,500,000 for distributed wind.

The Committee directs the Department to support the advancement of innovative technologies for offshore wind development, including freshwater, deepwater, shallow water, and transitional depth installations. The Committee directs the Department to continue to support the previously awarded innovative Offshore Wind Advanced Technology Demonstration Projects, funded by previous appropriations bills, and further supports efforts to optimize their

design, construction methods, testing plans, and economic value proposition. The Committee expects project development and other funds for the offshore wind demonstration projects to be allocated equitably between the approved projects. The Committee further directs the Department to support the deployment and testing of scale floating wind turbines designed to reduce energy costs.

Within available funds, the Committee recommends not less than \$15,000,000 for the Department to prioritize early stage research on materials and manufacturing methods and advanced components that will enable accessing high-quality wind resources, on development that will enable these technologies to compete in the marketplace without the need for subsidies, and on activities that will accelerate fundamental offshore-specific research and development, such as those that target technology and deployment challenges unique to U.S. waters.

WATER POWER

The Committee recommends \$82,000,000 for Water Power.

Hydropower Technologies.—Within available funds, the Committee recommends \$25,000,000 for conventional hydropower and pumped storage activities, including up to \$6,600,000 for the purposes of section 242 of the Energy Policy Act of 2005. Within available funds, \$10,000,000 is recommended for a competitive funding opportunity for multiple awardees to test the commercial viability of new use cases for pumped storage hydropower at locations to enhance grid reliability and manage variable generation.

Marine and Hydrokinetic Technology Research, Development, and Deployment.—The Committee recommends \$57,000,000 for marine and hydrokinetic technology research, development, and deployment activities, including research into mitigation of marine ecosystem impacts of these technologies.

Within available funds, not less than \$5,000,000 and not more than \$10,000,000 is recommended to continue construction of the previously awarded open-water wave energy test facility. The Committee is concerned that the Secretary is not utilizing a 20 percent cost share, as previously directed. Given the importance of this facility in testing and advancing early-stage marine and hydrokinetic technologies and the tremendous potential these technologies have to provide long-term clean energy, the Department is again directed to ensure that the cooperative agreement reflects the appropriate cost share of 20 percent.

Within available funds, the Department is directed to continue competitive solicitations to increase energy capture, reliability, and survivability at lower costs for a balanced portfolio of wave and current (ocean, river, tidal) energy conversion systems and components. Therefore, the Committee recommends \$30,000,000 for industry and university led basic and applied research, development, and validation projects encompassing a pipeline of higher and lower technology readiness levels. The funds shall be used for new awards or to bring existing test and validation awards toward completion. Given the early stage nature of marine energy technologies, the Committee encourages the Department to consider reducing and/or waiving cost share requirements for small businesses.

The Committee recommends not less than \$4,000,000 to support collaborations between the previously designated university-based Marine Renewable Energy Centers and the national laboratories, including personnel exchanges, to support industry by conducting research, development and deployment of marine energy components and systems. In addition, the Department is directed to continue its coordination with the U.S. Navy on marine energy technology development for national security applications at the Wave Energy Test Site and other locations.

Within available funds, the Department is directed to prioritize the necessary infrastructure upgrades at marine industry testing sites operated by the national laboratories or the National Marine Renewable Energy Centers. Within available funds, not less than \$1,000,000 is provided for these projects in fiscal year 2018.

The Committee encourages close coordination between the Department and the Federal Energy Regulatory Commission, the Bureau of Ocean Energy Management, the National Oceanic and Atmospheric Administration, other relevant agencies and industry to reduce the amount of time to permit marine energy test and validation projects.

GEOTHERMAL TECHNOLOGIES

The Committee recommends \$67,500,000 for Geothermal Technologies.

Within available funds, \$43,000,000 shall be for Enhanced Geothermal Systems, \$14,000,000 shall be for Hydrothermal, \$8,000,000 for Low-Temperature and Coproduced Resources, and \$2,500,000 for Systems Analysis.

To facilitate necessary technology development and expand understanding of subsurface dynamics, the Committee recommends \$30,000,000 for the continuation of activities of the Frontier Observatory for Research in Geothermal Energy [FORGE], with activities to include ongoing novel subsurface characterization, full-scale well drilling, and technology research and development to accelerate the commercial pathway to large-scale enhanced geothermal systems power generation.

The Committee recognizes that enhanced geothermal systems are versatile, inherently modular, and scalable from residential utilization to district heating opportunities and large power parks that can provide base-load capacity. The Committee encourages the Department to support enhanced geothermal system applications for industrial and residential uses.

The Committee directs the Department to continue its efforts to identify prospective geothermal resources in areas with no obvious surface expressions.

ADVANCED MANUFACTURING

The Committee recommends \$252,000,000 for Advanced Manufacturing.

The Committee recommends \$80,500,000 for the Advanced Manufacturing Research and Development Projects, \$145,000,000 for Advanced Manufacturing Research and Development Facilities, and \$26,500,000 for Industrial Technical Assistance.

Within available funds for Advanced Manufacturing Research and Development Facilities, the Committee recommends \$20,000,000 for the Manufacturing Demonstration Facility [MDF], which supports the development of additive manufacturing processes, low-cost carbon fiber, and other manufacturing technologies to reduce the energy intensity and life-cycle energy consumption of domestic manufactured products, thereby increasing the competitiveness of U.S. manufacturing industries. The Committee notes the ongoing emphasis on assisting small- and medium-sized businesses to overcome the risks and challenges of investing in specialized, high-technology equipment at the MDF. The Department is directed to continue this emphasis in the coming year.

The Committee supports the development of additive manufacturing involving nanocellulose feedstock materials made from forest products, and encourages the Department to leverage expertise and capabilities for large scale additive manufacturing.

The Committee recommends \$20,000,000 for the second year of research and development efforts to lower the cost and energy intensity of technologies to provide clean, safe water through the Energy-Water Desalination Hub.

The Committee recommends \$70,000,000 to support five Clean Energy Manufacturing Institutes [CEMIs], including \$14,000,000 each for the Advanced Composites Manufacturing Innovation Institute, the Smart Manufacturing Innovation Institute, the Reducing Embodied-energy and Decreasing Emissions [REMADE] Institute, and the Rapid Advancement in Process Intensification Deployment [RAPID] Institute, and a CEMI selection to be announced. The Committee notes the PowerAmerica Next Generation Power Electronics Manufacturing Innovation Institute has received \$70,000,000 over the past 5 years to stand up a sustainable effort, and encourages the Department to work with one or more national laboratories and universities to build a sustainable plan. The Committee is pleased with the ongoing work of the innovative advanced manufacturing opportunities through the CEMIs, and directs the Department to continue funding and support for the institutes.

The Committee recommends \$25,000,000 to continue for the Critical Materials Hub. The Committee supports the Hub's continued focus on technologies that will enable domestic manufacturers to make better use of the critical materials to which they have access, as well as to reduce or eliminate the need for materials that are subject to supply disruptions. The Committee notes that the Hub has focused on high-priority problems and has developed strong milestones. The Committee supports the Hub's goal of developing at least one technology adopted by U.S. companies within each of its three focus areas: diversifying and expanding production; reducing wastes; and developing substitutes.

The Committee recognizes the important role additive manufacturing can play in helping to advance the deployment of clean energy technologies. The Committee directs the Department to further foster the partnership between the national laboratories, universities, and industry to use thermoplastics composites and 3-D printing for renewable energy to overcome challenges to the development and implementation of innovative offshore wind technologies.

Within available funds for the Industrial Technical Assistance program, the Committee recommends \$12,000,000 to provide ongoing support for the Combined Heat and Power [CHP] Technical Assistance Partnerships [TAPs] and related CHP Technical Partnership activities at the Department, including \$5,000,000 for the TAPs and \$7,000,000 for related CHP activities. The Committee recognizes the great potential for energy savings in municipal, industrial, and agricultural wastewater treatment systems and encourages the Secretary to expand on the technical assistance provided by the Industrial Assessment Centers to address these needs by equipping the directors of the Industrial Assessment Centers with the training and tools necessary to provide technical assistance on energy savings to those facilities. Within the funds provided for the Industrial Assessment Centers, the Committee recommends not less than \$1,500,000 for wastewater treatment technical assistance. The Committee encourages the Department to prioritize research, development, and demonstration of district energy systems, and work to accelerate greater deployment of district energy systems in communities, campuses, industries, and cities nationwide by supporting adaptive regional and local technology, and market opportunities.

Within available funds, the Committee recommends \$10,000,000 for district heating. The Committee further directs the Secretary to collaborate with industry to submit a report to the Committees on Appropriations of both Houses of Congress no later than 90 days after enactment that assesses the potential energy efficiency and energy security gains to be realized with district energy systems.

The Committee supports research and development on improving foundational materials and processes applicable to aluminum and other primary metal industries.

BUILDING TECHNOLOGIES

The Committee recommends \$195,000,000 for Building Technologies.

The Committee supports ongoing efforts to work with State and local agencies to incorporate the latest technical knowledge and best practices into construction requirements.

The Committee recommends \$23,000,000 for the Residential Building Integration Program. Within this amount, the Committee encourages funding to be concentrated on industry teams to facilitate research, demonstrate and test new systems, and facilitate widespread deployment through direct engagement with builders, the construction trades, equipment manufacturers, smart grid technology and systems suppliers, integrators, and State and local governments.

The Committee recommends \$32,000,000 for Commercial Buildings Integration. The Committee encourages a program of core research and development of more cost-effective integration techniques and technologies that could help the transition towards deep retrofits. In addition, the Committee encourages that the Department increase engagement with private sector stakeholders to develop market transforming policies and investments in commercial building retrofits.

The Committee recommends \$90,000,000 for the Emerging Technologies subprogram. Within available funds, the Committee recommends not less than \$23,000,000 for transactive controls research and development, within which \$5,000,000 is to continue promoting regional demonstrations of new, utility-led, residential Connected Communities advancing smart grid systems. Within available funds, the Committee recommends \$25,000,000 for research, development, demonstration, and commercial application activities related to advanced solid-state lighting technology development. If the Secretary finds solid-state lighting technology eligible for the Twenty-First Century Lamp prize, specified under section 655 of the Energy Independence and Security Act of 2007, \$5,000,000 shall be made available to fund the prize or additional projects for solid-state lighting research and development. Within available funds, the Committee recommends \$10,000,000 for research and development for energy efficiency efforts related to the direct use of natural gas in residential applications, including gas heat pump heating and water heating, onsite combined heat and power, and natural gas appliance venting. Within available funds for heating, ventilation, air conditioning, and refrigeration research and development, the Committee is supportive of early-stage research in thermodynamic processes and cycles, materials research, component development, and systems and manufacturing techniques that enable performance advances in building equipment technologies.

The Committee recommends \$50,000,000 for Equipment and Buildings Standards.

Energy efficiency is a critical component of infrastructure development strategy. The Committee recognizes the importance of the Transformation in Cities initiative for local government planning and directs the Department to continue to support the goals of the initiative.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAM

The Committee recommends \$265,000,000 for the Weatherization and Intergovernmental Program.

Within this amount, \$215,000,000 is for the Weatherization Assistance Program [WAP], including \$212,000,000 for Weatherization Assistance Grants and \$3,000,000 for Training and Technical Assistance; and \$50,000,000 is for State Energy Program grants.

WAP grant funds are to be allocated on a statutory formula basis.

The Committee recognizes the importance of providing Federal funds under the Weatherization and Intergovernmental Program to States and tribes in a timely manner in order to avoid any undue delay of services to eligible low-income households, and to encourage local high-impact energy efficiency and renewable energy initiatives and energy emergency preparedness. Therefore, the full amount of the funds appropriated for WAP and the State Energy Program shall be obligated to States, tribes, and other direct grantees no later than 60 days after enactment of this act.

The Committee recognizes WAP as a critical program for creating jobs and addressing energy and environmental challenges of low-income households. Furthermore, the Committee notes the

health risks posed by the presence of vermiculite in home insulation and the thousands of households unable to access WAP services as a result of the high cost of the remediation of vermiculite. The Committee directs the Department to make \$500,000 available to current WAP grant recipients via the Weatherization Innovation Pilot Program to develop and implement strategies to treat harmful substances, including vermiculite.

CORPORATE SUPPORT PROGRAMS

Within amounts recommended for Corporate Support, \$6,000,000 is for the U.S.-Israel energy cooperative agreement, of which \$4,000,000 is provided to establish the U.S.-Israel Center of Excellence in Energy Engineering and Water Technology as authorized by the United States-Israel Strategic Partnership Act (Public Law 113–296), and \$2,000,000 is recommended to continue cooperative and collaborative work with the Israel-U.S. Binational Industrial Research and Development Foundation. This joint research and development center between the U.S. and Israel shall focus on collaborative research initiatives among universities, research institutions, and industry partners that could include hydrocarbon extraction and processing, energy infrastructure and policies, process water treatment, alternative energy sources, and impacts on coastal communities. Funding provided shall be matched with Israeli government and industry funding.

ELECTRICITY DELIVERY AND ENERGY RELIABILITY

Appropriations, 2017	\$230,000,000
Budget estimate, 2018	120,000,000
Committee recommendation	213,141,000

The Committee recommends \$213,141,000 for Electricity Delivery and Energy Reliability, an increase of \$93,141,000 from the budget request. Within available funds, the Committee recommends \$27,000,000 for program direction.

Early-Stage Research, Electricity Sector.—The Committee rejects the budget’s sole focus on early-stage research. Most utilities have limited research and development budgets, primarily due to regulatory constraints designed to keep electricity costs low for consumers. Additionally, utilities are unlikely to implement new concepts because most utilities would need to use their own systems for testing and evaluation, which could impact consumers. State public utility commissions also have limited budgets that do not support research and development. The States rely heavily on the Department’s technical assistance on assessments of data and tools to help them evaluate grid modernization alternatives. The Department plays a vital role, not only in early-stage research, but also in deployment, field testing, and evaluation.

TRANSMISSION RELIABILITY

The Committee recommends \$36,000,000 for Transmission Reliability.

The Committee encourages the Department to prioritize the development of computer simulation tools that can predict the behavior of new technologies, such as variable generation and electronic

controls, on the grid. The Committee supports continued investment in advanced grid modeling algorithms and tool development to ensure resilient grid controls and protection systems that meet the challenges of the emerging smart grid.

RESILIENT DISTRIBUTION SYSTEMS

The Committee recommends \$35,000,000 for Resilient Distribution Systems.

Within available funding, \$5,000,000 is recommended for field validation of sensors using data analytics for utilities to improve operations in steady-state and under extreme conditions, and to continue early-stage research to develop low-cost, printable sensors that can predict the health of critical equipment in the electric delivery system.

The Committee supports the promotion of regional demonstrations of new, utility-led, residential Connected Communities advancing smart grid systems.

The Committee recommends that funds provided for the Advanced Grid Integration Division shall focus on identifying and addressing technical and regulatory barriers impeding grid integration of distributed energy systems to reduce energy costs and improve the resiliency and reliability of the electric grid.

The Committee supports advanced control concepts and open test beds for new distribution control tools for enhanced distribution system resilience.

CYBERSECURITY FOR ENERGY DELIVERY SYSTEMS

The Committee recommends \$53,000,000 for Cybersecurity for Energy Delivery Systems.

Within available funds, the Committee recommends not less than \$5,000,000 to develop cyber and cyber-physical solutions for advanced control concepts for distribution and municipal utility companies. The Committee encourages the Department to explore ways to get the Nation's critical infrastructure off the Internet to shield the Nation's electricity infrastructure from disruptive cyber penetration. Within available funds, the Department is directed to fund the third and final year of the Department of Energy Cooperative Agreement Projects DE-OE-00000807, "Improving the Cyber and Physical Security Posture of the Electric Sector", and DE-OE-0000811, "Improving the Cyber Resiliency and Security Posture of Public Power".

The Committee supports extension of cyber risk information sharing tools to close remaining vulnerabilities in the distribution and transmission system. The Committee encourages the Department to continue existing work within ongoing programs and encourages the Department to invest in research addressing power system vulnerabilities in supply chain and life cycle management for critical power system components and advanced adaptive defensive methods for grid control systems.

ENERGY STORAGE

The Committee recommends \$37,141,000 for Energy Storage.

Within available funds, the Committee supports developing an operational energy storage test facility capable of performance-driven data in a utility environment.

Within available funding, the Committee encourages the Department to further the development and demonstration of non-battery advanced storage components, including compressed air energy storage development and demonstration to enable efficiency improvements for utility-scale, bulk energy storage solutions.

The Committee notes that innovation and advancement in distributed energy resources is helping the Nation's power grid to better address reliability, resiliency, safety, and accessibility. This enhances our Nation's energy security and global leadership. The Committee encourages the Department to further advance the development and demonstration of innovative battery and non-battery energy storage components. Energy storage is needed to better enable distributed energy resources; integrate intermittent uses such as water heaters, electric vehicle chargers, battery storage systems, and pumps; help balance supply and demand in the power grid to aid consumers to better manage their energy costs; protect residential and commercial customers and public services from power interruptions; and improve grid security and reliability.

The Committee supports grid-scale field demonstrations of energy storage projects, either as single facilities or as aggregations of units, with a focus on new use cases rather than new battery chemistry. The Committee encourages the Department to support State energy offices with energy storage planning and deployment, as well universities and to participate in industry-led safety codes and standards development. The Committee also supports funding for development of analytical methods for including energy storage in electric system planning, as well as for development of software tools to better value energy storage technologies. The Committee encourages the Department to consider expanding research and development partnerships related to the development and deployment of energy storage with stakeholders in diverse geographic regions with unique market dynamics and policy challenges that can help to inform nationwide efforts to improve grid resiliency, reliability, and security, empower consumers, and increase integration of a broad range of generation sources.

The Committee is supportive of research for novel materials and system components to resolve key cost and performance challenges for electrochemical energy storage systems based on earth abundant advanced chemistries. In addition, the Committee supports continued materials research that will improve the understanding and predictability of energy storage systems and components, as well as enable safer and more reliable materials and systems to be developed.

TRANSFORMER RESILIENCE AND ADVANCED COMPONENTS

The Committee recommends \$7,000,000 for Transformer Resilience and Advanced Components.

Within available funds, the Committee directs the Department to continue to support research and development for advanced components and grid materials for low-cost, power flow control devices, including both solid state and hybrid concepts that use power elec-

tronics to control electromagnetic devices and enable improved controllability, flexibility, and resiliency.

INFRASTRUCTURE SECURITY AND ENERGY RESTORATION

The Committee recommends \$12,000,000 for Infrastructure Security and Energy Restoration. The Committee recommends an additional \$3,000,000 above the request in recognition of the importance of the security of the energy sector.

The Committee supports further development of energy sector situational awareness capabilities through Eagle-I, the Federal Government’s situational awareness tool for national power outages. The Committee encourages the Department to further illustrate how to benefit from increased access to more varied sources of data.

The Committee encourages the Department to continue to develop implementation strategies and analysis in partnership with industry, universities, and laboratories to address potential impacts to the electric grid from cyber-attacks, geomagnetic disturbances, and electromagnetic pulse threats. The Committee directs the Department to provide within 90 days of enactment of this act a report identifying strategic laboratory, university, and industry partnerships that would enhance national security and assist industry in addressing critical threats, including electromagnetic pulse, geomagnetic disturbances, cyber-attacks, and supply chain disruptions. The Committee encourages the Department to consider existing assets that can be used for testing to support operational awareness, situational security, and recovery of the Nation’s critical grid infrastructure.

NUCLEAR ENERGY

Appropriations, 2017	\$1,016,616,000
Budget estimate, 2018	703,000,000
Committee recommendation	917,020,000

The Committee recommends \$917,020,000 for Nuclear Energy, an increase of \$214,020,000 from the budget request. The Committee’s recommendation for nuclear power prioritizes funding for programs, projects and activities that will ensure a strong future for nuclear power in the United States.

Nuclear power provides more than 20 percent of our Nation’s electricity and nearly 60 percent of our emissions-free electricity. Electricity generation from our Nation’s 99 operating nuclear power plants is critical to our national security, economy, and way of life.

RESEARCH AND DEVELOPMENT

INTEGRATED UNIVERSITY PROGRAM

The Committee recommends \$5,000,000 for the Integrated University Program. The Committee notes the administration repeatedly attempts to defund this program, despite continued success in developing highly qualified nuclear specialists to meet national needs.

NUCLEAR ENERGY ENABLING TECHNOLOGY

The Committee recommends \$120,600,000 for Nuclear Energy Enabling Technology. Within this amount, the Committee recommends \$37,000,000 for Crosscutting Technology Development, \$28,200,000 for Nuclear Energy Advanced Modeling and Simulation, \$31,100,000 for National Scientific User Facilities, and \$24,300,000 for the Energy Innovation Hub for Modeling and Simulation. Funding for nuclear cybersecurity and hybrid electric systems is recommended only within Crosscutting Technology Development, as in previous years. Further, the Committee notes that the budget request made the short-sighted recommendation to cancel the Energy Innovation Hub for Modeling and Simulation, despite the important contributions it continues to make to improving operations and safety of operating nuclear reactors, and its likely application in licensing accident tolerant fuels and other advanced technologies.

REACTOR CONCEPTS RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$132,000,000 for Reactor Concepts Research, Development, and Demonstration. Advanced nuclear technologies hold great promise for reliable, safe, emission-free energy and should be a priority for the Department. Absent a clear set of goals for completing a program that demonstrates new technology can be deployed, the Department will continue to research concepts that never make it to the marketplace. The Committee directs the Department to provide a report to Committees on Appropriations of both Houses of Congress within 180 days of the date of enactment of this act that sets aggressive, but achievable goals to demonstrate a variety of private-sector advanced reactor designs and fuel types by the late 2020s. The report shall include anticipated costs, both Federal and private, needed to achieve the goals. The Department shall collaborate with national laboratories, nuclear vendors, utilities, potential end users (such as petrochemical companies), and other stakeholders to identify subprogram priorities necessary to meet the identified goals.

Advanced Reactor Technology.—Within available funds, the Committee recommends \$92,000,000, including \$18,000,000 for the third year of the advanced reactor concepts program and \$3,000,000 for testing and development of dynamic convection technology. No funds are provided for engineering, design, or regulatory development for next generation light water reactor technologies.

Versatile Fast Reactor.—The Committee recommends no funding for the Versatile Fast Reactor. The Department continues to recommend new programs or projects without showing any commitment to follow through with existing programs, especially key programs that show promise, or providing a detailed rationale for canceling those programs or projects. Accordingly, the Committee is reluctant to support a new multi-billion dollar project. The Committee directs the Department to provide a report to the Committees on Appropriations of both Houses of Congress within 90 days after the date of enactment of this act that details all current programs and projects within the Office of Nuclear Energy, whether the Department plans to continue to support each program or

project, and the expected out-year funding through completion of the program or project.

Light Water Reactor Sustainability.—Within available funds, the Committee recommends \$40,000,000. The most cost-effective way for the United States to maintain low-cost, carbon-free electricity is to safely extend the lives of our Nation's existing nuclear reactors from 60 to 80 years. Therefore, the Committee recommends additional funding above the budget request for this activity as a priority. The Committee directs the Secretary to use funding in this activity to continue research and development work on the technical basis for subsequent license renewal. The Secretary shall focus funding in this program on materials aging and degradation, advanced instrumentation and control technologies, and component aging modeling and simulation. The Secretary shall also coordinate with industry to determine other areas of high-priority research and development in this area.

FUEL CYCLE RESEARCH AND DEVELOPMENT

The Committee recommends \$213,500,000 for Fuel Cycle Research and Development. No defense function funds are provided. Within available funds, \$14,000,000 is for Material Recovery and Waste Form Development, \$6,000,000 is for Materials Protection, Accountancy, and Controls for Transmutation, and \$8,500,000 is for Systems Analysis and Integration.

The Committee continues to strongly support the recommendations of the Blue Ribbon Commission on America's Nuclear Future and believes that near-term action is needed to address the accumulating inventory of spent nuclear fuel. The Committee recommends \$35,000,000 for Integrated Waste Management System activities. Funding should be used to implement plans to consolidate spent nuclear fuel from around the United States to one or more private or government interim central storage facilities. Priority shall be given to accepting spent nuclear fuel from shutdown reactors, and to accelerating the development of a transportation capability to move spent fuel from its current storage locations. Within funds provided, the Committee recommends up to \$10,000,000 for the Secretary, within existing authorities, to contract for the management of spent nuclear fuel to which the Secretary holds the title or has a contract to accept title, which includes contracting with a private company for consolidated interim storage of spent nuclear fuel.

The Committee does not adopt the budget proposal to eliminate research and development activities previously funded in this account. The Committee recommends \$65,000,000 to continue research and development activities on behavior of spent fuel in long-term storage, under transportation conditions, and in various geologic media, which will continue to be important to developing a new solution to the waste problem. Priority shall be placed on the ongoing study of the performance of high-burnup fuel in dry storage and on the potential for direct disposal of existing spent fuel dry storage canister technologies.

The Committee continues to place a high priority on the development of nuclear fuels with enhanced accident-tolerant characteristics in order to significantly mitigate the potential consequences of

a nuclear accident. The Committee urges the Secretary to maintain focus and priority on achieving results in these efforts. The Committee recommends \$85,000,000 for the Advanced Fuels program. The Department is directed to continue implementation of the accident tolerant fuels development program, the goal of which remains development of accident tolerant nuclear fuels leading to commercial reactor fuel assembly testing by 2022. Within this amount not less than \$55,600,000 is recommended to continue the participation of three industry-led teams in Phase 2 of the cost-shared research and development program. Further the Committee recommends not less than \$20,000,000 to support accident tolerant fuels development at the national laboratories and other facilities, including at the Advanced Test Reactor, the Transient Reactor Test Facility, and the Halden reactor. In addition to amounts awarded through the Small Business Innovation Research and Small Business Technology Transfer programs, \$3,000,000 is to continue of the previously awarded small business projects to develop ceramic cladding for accident tolerant fuels.

INFRASTRUCTURE

RADIOLOGICAL FACILITIES MANAGEMENT

The Committee recommends \$24,000,000 for Radiological Facilities Management, including \$15,000,000 for continued safe operations and maintenance of Oak Ridge National Laboratory hot cells.

IDAHO FACILITIES MANAGEMENT

The Committee recommends \$216,202,000 for Idaho Facilities Management, which includes \$12,000,000 above the requested level for operations and maintenance of the Advanced Test Reactor. The Advanced Test Reactor [ATR] is a vital asset that provides research capability across the Department. The Committee does not agree with the Department's proposal to shift additional costs for ATR operations to Defense function funds, particularly without any justification for the change. The Committee directs the Department to provide a report to the Committees on Appropriations of both Houses of Congress not later than December 31, 2017, that lists all current and planned users for the ATR for the next 3 years, the operating cost attributed to each user, and the source of funds that will be applied to cover the costs for each user. Further, the Committee encourages the Department to fully fund ATR operations within the budget request for the Office of Nuclear Energy, including both Defense and non-Defense function funding.

FOSSIL ENERGY RESEARCH AND DEVELOPMENT

Appropriations, 2017	\$668,000,000
Budget estimate, 2018	280,000,000
Committee recommendation	572,701,000

The Committee recommends \$572,701,000 for Fossil Energy Research and Development, an increase of \$292,701,000 above the budget request. Within available funds, the Committee rec-

ommends \$57,000,000 for program direction. The Committee directs the use of \$29,236,000 from prior year balances.

Early-Stage Research and Development.—The Fossil Energy Research and Development program advances transformative scientific research, development, and deployment of technologies that enable the reliable, efficient, affordable, and environmentally sound use of fossil fuels. Fossil energy is an essential part of the United States’ energy future, and the National Energy Technology Laboratory [NETL] supports the Office of Fossil Energy in this critical national priority. The Committee rejects the approach to only provide funds for early-stage research. Such restrictions would cripple innovation and development, and would reduce the number of energy technologies adopted in the marketplace.

Fossil Energy Roadmap.—The Committee directs the Department to develop a cohesive policy strategy and supporting roadmap or long term plan for its Fossil Energy Research and Development portfolio and supporting infrastructure to guide the discovery or advancement of technological solutions that incorporate lessons learned for the future of research, development, and demonstration efforts on advanced carbon capture and storage [CCS] technologies, advanced fossil energy systems, and crosscutting fossil energy research, as well as guide the discovery or advancement of technological solutions for the prudent and sustainable development of unconventional oil and gas. The Department is directed to deliver the “Fossil Energy Roadmap” to the Committees on Appropriations of both Houses of Congress within 1 year of enactment of this act.

NETL.—No funds provided in by this Act shall be used for the closure of NETL sites. The Committee is supportive of NETL’s mission to discover, develop, and deploy new technologies to support a strong domestic fossil energy path. The Committee directs the Department to conduct a comprehensive assessment of Fossil Energy writ large to include the Fossil Energy Headquarters programs, NETL, and relevant competencies of other national laboratories which support the mission of the Office of Fossil Energy. The assessment will include an examination of the roles and responsibilities of staff within the Headquarters program, operations offices, and NETL to ensure the fossil energy research and development portfolio and supporting infrastructure are responsive to a cohesive policy strategy.

National Carbon Capture Center.—The Committee recommends funding for the Department’s National Carbon Capture Center consistent with the cooperative agreement and fiscal year 2017. The Committee continues to encourage the Department to establish university partnerships to support ongoing fossil energy programs, to promote broader research into CCS technologies, and to expand its technology transfer efforts. The Department has previously funded several university-based CCS projects and is encouraged to build on an established research base to support ongoing research and to address the wider implementation of CCS technologies.

The Committee reiterates the importance of adequate Federal support to promote design-related work and testing for a commercial-scale, post-combustion carbon dioxide capture project on an existing coal-fueled generating unit as well as fossil energy research, development, and deployment of breakthrough technologies.

COAL CCS AND POWER SYSTEMS

The Committee recommends \$342,054,000 for Coal CCS and Power Systems.

The Committee supports the Department's Cooperative Agreements to develop cost sharing partnerships to conduct basic, fundamental, and applied research that assist industry in developing, deploying, and commercializing efficient, low-carbon, nonpolluting energy technologies that could compete effectively in meeting requirements for clean fuels, chemical feedstocks, electricity, and water resources. The Committee encourages the Department to fund activities that promote the reuse of captured carbon dioxide from coal, natural gas, industrial facilities, and other sources for the production of fuels and other valuable products. Within the ongoing CCS Program, the Department is encouraged to pursue an aggressive timeline to develop advanced carbon storage and utilization technologies and enhanced oil recovery that will improve the economics associated with domestic energy production.

Carbon Storage.—Within available funds for Carbon Storage, the Committee recommends \$10,000,000 for Carbon Use and Reuse to continue research and development activities to support valuable and innovative uses for carbon. The Committee believes the potential for carbon dioxide utilization technologies to become economically viable has improved in recent years and these technologies should continue to receive attention from the Department. The Committee urges the Department to support carbon dioxide utilization technologies and direct air capture technologies, including using carbon dioxide to produce algae. The Committee encourages the Office of Fossil Energy to collaborate with the Bioenergy Technologies program within EERE to support projects that utilize carbon dioxide in the production of algae and other potentially marketable products. Within the Storage Infrastructure subprogram, the Committee recommends not less than \$40,000,000 and directs the Department to issue a new solicitation for the Regional Carbon Sequestration Partnerships and CarbonSAFE. The Committee encourages the Department to focus on value-added business case opportunities and to address potential changing markets related to natural gas power generation and emissions from industrial sources. Further, the Committee supports the Regional Carbon Sequestration Partnerships' focus on infrastructure development strategies for regional and national carbon dioxide transportation and distribution systems that will be the catalyst for commercial ventures in carbon storage and utilization.

Advanced Energy Systems.—Within funds available for Advanced Energy Systems, the Committee recommends not less than \$30,000,000 for solid oxide fuel cell systems, which support research and development to enable efficient, cost-effective electricity generation with minimal use of water. The Committee recommends \$23,250,000 for Gasification Systems, of which \$7,440,000 is for the Advanced Air Separation Program to continue activities improving advanced air separation technologies. The Committee encourages the Department to support research and development efforts for new, higher efficiency gas turbines used in power generation systems to upgrade and increase the resiliency of the Nation's elec-

trical grid system, while reducing the cost of electricity and emissions. This should include partnerships with industry, small businesses, universities, and other appropriate parties. The Committee supports advancing the maturity of affordable clean energy technology for new plants and upgrading existing plants. The Committee is concerned with the lack of funding for wastewater treatment at existing power plants and supports conducting techno-economic studies and pilot tests of combustion technology to treat coal plant wastewater while generating excess electricity to offset the water treatment costs.

Crosscutting Research.—The Committee supports Advanced Ultrasupercritical Materials research and development to identify, test, qualify, and develop a domestic supply chain capable of producing components from high temperature steam materials.

NATURAL GAS TECHNOLOGIES

The Committee recommends \$45,018,000 for Natural Gas Technologies. The Committee encourages the Department to support the research and demonstration of natural gas conversion technologies, which include waste-gas heat-to-electricity applications to create energy self-sufficient, high-efficiency, low-emission, oil and gas production sites on Federal and tribal lands. The Department is encouraged to address technical challenges to offshore oil and gas exploration and production, focusing on the development of technologies that enhance safe drilling operations, improving well integrity, improving riser designs and integrity, and safely extending the life and productivity of aging offshore oil and gas infrastructure. The Committee encourages the Department to support work related to blowout prevention.

Risk-Based Data Management System.—Within available funds, the Committee recommends \$5,200,000 to continue the Risk Based Data Management System [RBDMS] to support a cloud-based application and necessary cybersecurity initiatives. In addition, funding shall support the continued integration of FracFocus and RBDMS for improved public access to State oil and gas related data, as well as for State regulatory agencies to support electronic permitting for operators, eForms for improved processing time for new permits, operator training from the improved FracFocus 3.2 after enhancements are implemented, and miscellaneous reports, such as “Produced Water Report: Current and Future Beneficial Uses Report.” The Committee supports the continued efforts to provide public transparency, while protecting proprietary information.

Methane Hydrate Activities.—The Committee recommends \$19,800,000 for methane hydrates, and notes that the request includes no money for actual research into the methods for producing methane hydrates. The Committee recommendation encourages the Secretary to perform a long-term methane hydrate production test in the Arctic, as proposed in the Methane Hydrate Advisory Committee’s May 21, 2014, recommendations to the Secretary.

Ethane Storage Hub.—The Committee understands the Department is conducting a study on the feasibility of establishing an ethane storage and distribution hub in central Appalachia. The Department is further directed to identify the Federal agencies with jurisdictional oversight of such a project and to coordinate with the

liaisons of those agencies to streamline the permitting application and approval process for a central Appalachian ethane storage and distribution hub.

Environmentally Prudent Development.—The Committee recommends \$7,000,000 for the Environmentally Prudent Development subprogram.

Emissions Mitigation from Midstream Infrastructure.—The Committee recommends \$9,000,000 for the Emissions Mitigation from Midstream Infrastructure subprogram. The Committee believes that the development, production, and transportation of natural gas should be done safely, without contamination, and in a way that reduces fugitive methane emissions. These practices are essential for mitigating environmental harms from shale gas development and reducing waste contamination. The Committee encourages the Department to continue developing advanced pipeline inspection technologies to aid in cleaner and safer oil and gas development. The Committee recommends funds for natural gas infrastructure research, including advanced materials and novel sensor technologies. The Department is directed to incorporate this research into its ongoing work in this field, so that it shall complement the Emissions Mitigation from Midstream Infrastructure subprogram.

Emissions Quantification from Natural Gas Infrastructure.—The Committee recommends \$4,018,000 for the Emissions Quantification from Natural Gas Infrastructure research subprogram.

UNCONVENTIONAL FOSSIL ENERGY TECHNOLOGIES

The Committee recommends \$26,319,000 for Unconventional Fossil Energy Technologies. The Committee notes the importance of providing research support that will assure sustainable, reliable, affordable, and environmentally sound supplies of domestic unconventional fossil energy resources.

The Secretary is encouraged to fund high-priority research, development, and deployment activities for unconventional oil, gas, and coal resources, including oil shale, as outlined in the September 2011 Domestic Unconventional Fossil Energy Resource Opportunities and Technology Applications report.

The Committee recommends \$7,660,000 for research to better understand reservoirs and to improve low recovery factors from unconventional natural gas and oil wells through more efficient well completion methods. An additional \$7,659,000 is provided to continue research toward enhanced recovery technologies in shale oil, low permeability reservoirs, residual oil zone reservoirs and technology transfer methods. These efforts should be coordinated by the Department on a nationwide basis through a consortium of researchers and industry. Funds shall be awarded to a not-for-profit or university consortium comprised of multidisciplinary teams from industry, academia, and stakeholder groups that may also include State organizations. The projects will include research projects to improve environmental mitigation, water quality and treatment, infrastructure technology as well as the societal impacts of unconventional shale plays. These awards shall identify ways to improve existing technologies, encourage prudent development, provide cost

effective solutions, and develop a better understanding of these reservoirs' resource potential.

The Committee directs the Department, in consultation with the Department of Transportation, to complete the crude oil characterization study to improve the safety of crude oil transported by rail. The Committee recommends up to \$1,000,000 for completion of the study.

The Committee recommends not less than \$10,000,000 for the Unconventional Field Test Sites.

The Committee supports research and development for drilling technologies that use little to no water. Further, the Committee supports research on multipronged approaches for characterizing the constituents of and managing the cleaning of water produced during the extraction of oil and natural gas, and encourages the Department to partner with research universities engaged in the study of characterizing, cleaning, treating, and managing produced water and industry partners to develop and assess commercially viable technology to achieve the same. The Committee encourages the Department to work with industry to identify and develop technologies that can characterize, clean, and effectively treat produced water to have beneficial reuse.

The Committee recognizes that the United States possesses vast domestic coal reserves that cannot be mined economically at current prices. Although some natural gas is absorbed by coal and can be economically recovered through methane extraction, more efficient recovery mechanisms are feasible. To validate methods for recovering a greater fraction of energy contained in deep coal deposits, the Committee encourages the Department to conduct pilot field tests of technologies for in-situ biological conversion of coal to natural gas with university participants, and evaluate the feasibility of converting coal deposits in both the Western and Eastern United States into natural gas.

NATIONAL ENERGY TECHNOLOGY LABORATORY

The Committee recommends \$72,663,000 for NETL Research and Development and \$58,683,000 for NETL Infrastructure and Operations.

The Committee remains supportive of the reorganization and budget restructuring of NETL, as it increases consistency with other national laboratories. The structure highlights research and development, as well as infrastructure and operational funding requirements, reflects increased transparency in how funds are utilized, and promotes enhanced visibility and oversight into cost drivers and more efficient resource allocation decisions.

Within NETL Research and Development, the Committee commends the Department for including in their request support for the Feasibility of Recovering Rare Earth Elements. The Committee recommends \$15,000,000 for the Department to expand its external agency activities to develop and test commercially viable advanced separation technologies at proof-of-concept or pilot scale that can be deployed near term for the extraction and recovery of rare earth elements and minerals from U.S. coal and coal byproduct sources having the highest potential for success. The Committee encourages the Department to leverage the capabilities of outside applied

researchers in implementing these activities. The Committee directs the Department to establish university partnerships to support efforts to increase production of unconventional fossil fuels through innovative seismic research, including optimizing high resolution and time-lapse geophysical methods for improved resource detection and better rock characterization. The objective of this research is to facilitate necessary technology development, expand understanding of subsurface dynamics, encourage prudent development and develop best practices and tools.

Within NETL Infrastructure and Operations, the Committee directs the Department to prioritize funds to provide site-wide upgrades for safety, avoid an increase in deferred maintenance, and provide for the continued update and refresh of Joule through the second year of a 3-year lease.

NAVAL PETROLEUM AND OIL SHALE RESERVES

Appropriations, 2017	\$14,950,000
Budget estimate, 2018	4,900,000
Committee recommendation	4,900,000

The Committee recommends \$4,900,000 for Naval Petroleum and Oil Shale Reserves, the same as the budget request. The Committee directs the use of \$15,300,000 from prior year balances.

STRATEGIC PETROLEUM RESERVE

Appropriations, 2017	\$223,000,000
Budget estimate, 2018	180,000,000
Committee recommendation	180,000,000

The Committee recommends \$180,000,000 for the Strategic Petroleum Reserve, the same as the budget request.

The Committee understands the importance of the major maintenance projects and preventive/corrective maintenance activities needed at the Strategic Petroleum Reserve storage facilities and related facilities, and encourages the Department, when carrying out these maintenance and other construction projects to use as much American-made iron, steel, and other manufactured goods as possible.

ENERGY SECURITY AND INFRASTRUCTURE MODERNIZATION FUND

SALE OF CRUDE OIL

Appropriations, 2017	\$340,000,000
Budget estimate, 2018	350,000,000
Committee recommendation	350,000,000

USE OF SALE PROCEEDS

Appropriations, 2017	\$340,000,000
Budget estimate, 2018	350,000,000
Committee recommendation	350,000,000

The Committee's recommendation includes direction to the Department to draw down and sell not more than \$350,000,000 of crude oil from the Strategic Petroleum Reserve in fiscal year 2018. The proceeds from such drawdown shall be deposited in the Energy

Security and Infrastructure Modernization Fund during fiscal year 2018, and shall be available until expended.

NORTHEAST HOME HEATING OIL RESERVE

Appropriations, 2017	\$6,500,000
Budget estimate, 2018	6,500,000
Committee recommendation	6,500,000

The Committee recommends \$6,500,000 for the Northeast Home Heating Oil Reserve, the same as the request.

ENERGY INFORMATION ADMINISTRATION

Appropriations, 2017	\$122,000,000
Budget estimate, 2018	118,000,000
Committee recommendation	122,000,000

The Committee recommends \$122,000,000 for the Energy Information Administration [EIA], an increase of \$4,000,000 above the budget request.

The Committee supports the EIA's efforts to expand its monthly State-level estimates of generation and capacity of small-scale distributed generation systems.

The Committee recognizes the importance of building energy information and the opportunity for better data collection presented by new technologies. The Department is encouraged to upgrade the Commercial Buildings Energy Consumption Surveys to a real-time data collection system with rapid reporting of results, without compromising statistical validity or data security.

NON-DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2017	\$247,000,000
Budget estimate, 2018	218,400,000
Committee recommendation	266,000,000

The Committee recommends \$266,000,000 for Non-Defense Environmental Cleanup, an increase of \$47,600,000 above the budget request.

Small Sites.—The Committee recommends \$87,456,000 for Small Sites. Within the available funds, the Committee recommends \$8,000,000 for work required pursuant to the agreement reached in 2012 between the Department of Energy, the Advisory Council on Historic Preservation, and State and local governments to complete the demolition of K-25 in exchange for preserving the historic contributions made by the K-25 site to the Manhattan Project. The Manhattan Project National Historical Park tells an important story in our Nation's history: the development and production of the technology and materials necessary to create the world's first atomic bomb. The new park has locations in Hanford, Washington, Los Alamos, New Mexico, and Oak Ridge, Tennessee. It is administered and operated by the National Park Service in conjunction with the Department of Energy, which is working towards cleanup of these nuclear waste sites.

Within available funds, the Committee recommends \$21,000,000 to continue to deactivate, decommission, and demolish facilities at Lawrence Berkeley National Laboratory and \$38,456,000 for Moab.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING
FUND

Appropriations, 2017	\$768,000,000
Budget estimate, 2018	752,749,000
Committee recommendation	788,000,000

The Committee recommends \$788,000,000 for Uranium Enrichment Decontamination and Decommissioning [UED&D] activities, an increase of \$35,251,000 above the budget request.

The Committee recommendation includes \$194,673,000 for East Tennessee Technology Park, \$205,530,000 for Paducah, and \$351,271,000 for Portsmouth.

The Committee recommends \$13,732,000 for the Title X Uranium and Thorium Reimbursement Program. Title X of the Energy Policy Act of 1992 authorizes the Secretary to reimburse eligible licensees for the Federal Government's share of the cost associated with cleaning up former uranium and thorium processing sites across the country.

SCIENCE

Appropriations, 2017	\$5,392,000,000
Budget estimate, 2018	4,472,516,000
Committee recommendation	5,550,000,000

The Committee recommends \$5,550,000,000 for Science, an increase of \$1,077,484,000 above the budget request.

Distinguished Scientist Program.—The Committee recommends \$2,000,000 to support the Department's Distinguished Scientist Program, as authorized in section 5011 of Public Law 110–69 to promote scientific and academic excellence through collaborations between institutions of higher education and national laboratories to be funded from across all Office of Science programs.

Interagency Collaborations.—The Committee continues to support the Department's partnerships with the National Cancer Institute, National Institutes of Health, Centers for Medicare and Medicaid Services, Department of Veterans Affairs, Department of Homeland Security, and national security agencies.

The Committee supports the Department's contributions to the BRAIN initiative through the development of imaging and sensing tools and technologies at x-ray light sources and nanoscale research centers, as well as computational expertise, high performance computing, and data management. This complementary, multi-agency initiative is encouraged to take advantage of existing Department investments and infrastructure while engaging closely with the neuroscience community to accelerate our understanding of the brain.

The Committee also encourages and supports the use of national laboratory user facilities for the National Cancer Moonshot Initiative.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee recommends \$763,000,000 for Advanced Scientific Computing Research.

The Committee is supportive of the plan to accelerate delivery of at least one exascale-capable system in 2021, reasserting U.S. leadership in this critical area.

The Committee recommends \$184,000,000 for the Exascale Computing Project. In addition, the Committee recommends \$150,000,000 for the Oak Ridge Leadership Computing Facility, \$100,000,000 for the Argonne Leadership Computing Facility, \$94,000,000 for the National Energy Research Scientific Computing Center, and \$79,000,000 for ESnet. Further, the Committee recommends \$10,000,000 for the Computational Sciences Graduate Program. The Committee recommends \$24,559,000 for Research and Evaluation Prototypes. The Committee recommends not less than \$117,392,000 for Mathematical, Computational, and Computer Sciences Research.

BASIC ENERGY SCIENCES

The Committee recommends \$1,980,300,000 for Basic Energy Sciences [BES], and includes an accompanying table regarding control points, which the Department shall follow in expending these funds.

BASIC ENERGY SCIENCES

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MATERIALS SCIENCES AND ENGINEERING:		
EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE RESEARCH		20,000
ENERGY FRONTIER RESEARCH CENTERS	50,809	55,800
ENERGY INNOVATION HUB, BATTERIES AND ENERGY STORAGE		24,088
COMPUTATIONAL MATERIALS SCIENCES		12,000
OTHER MATERIALS SCIENCES AND ENGINEERING	255,828	254,857
SUBTOTAL, MATERIALS SCIENCES AND ENGINEERING	306,637	366,745
CHEMICAL SCIENCES, GEOSCIENCES, AND BIOSCIENCES:		
ENERGY FRONTIER RESEARCH CENTERS	48,065	54,200
ENERGY INNOVATION HUB, FUELS FROM SUNLIGHT		15,000
COMPUTATIONAL CHEMICAL SCIENCES		13,489
OTHER CHEMICAL SCIENCES, GEOSCIENCES, AND BIOSCIENCES	217,550	247,995
SUBTOTAL, CHEMICAL SCIENCES, GEOSCIENCES, AND BIOSCIENCES	265,615	330,684
SCIENTIFIC USER FACILITIES:		
SYNCHROTRON RADIATION LIGHT SOURCES:		
ADVANCED LIGHT SOURCE	59,010	65,950
ADVANCED PHOTON SOURCE	122,075	133,995
NATIONAL SYNCHROTRON LIGHT SOURCE-II	102,952	111,834
STANFORD SYNCHROTRON RADIATION LIGHTSOURCE	20,000	41,986
LINAC COHERENT LIGHT SOURCE	124,169	142,294
SUBTOTAL, SYNCHROTRON RADIATION LIGHT SOURCES	428,206	496,059
HIGH-FLUX NEUTRON SOURCES:		
SPALLATION NEUTRON SOURCE	168,847	193,200
HIGH FLUX ISOTOPE REACTOR	56,773	65,000
SUBTOTAL, HIGH-FLUX NEUTRON SOURCES	225,620	258,200
NANOSCALE SCIENCE RESEARCH CENTERS:		
CENTER FOR NANOSCALE MATERIALS	22,913	25,205
CENTER FOR FUNCTIONAL NANOMATERIALS		21,418
MOLECULAR FOUNDRY	25,823	31,500

BASIC ENERGY SCIENCES—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CENTER FOR NANOPHASE MATERIALS SCIENCES	22,399	24,638
CENTER FOR INTEGRATED NANOTECHNOLOGIES .....	.....	22,605
SUBTOTAL, NANOSCALE SCIENCE RESEARCH CENTERS	71,135	125,366
OTHER PROJECT COSTS:		
LINAC COHERENT LIGHT SOURCE II	7,900	.....
RESEARCH:		
ACCELERATOR AND DETECTOR RESEARCH	19,724	23,517
LONG TERM SURVEILLANCE AND MAINTENANCE .....	.....	7,000
SUBTOTAL, RESEARCH	19,724	30,517
SBIR/STTR	27,563	33,729
SUBTOTAL, SCIENTIFIC USER FACILITIES	780,148	943,871
CONSTRUCTION:		
13-SC-10 LINAC COHERENT LIGHT SOURCE II (LCLS-II), SLAC	182,100	200,000
18-SC-10 ADVANCED PHOTON SOURCE UPGRADE (APS-U), ANL	20,000	93,000
18-SC-11 SPALLATION NEUTRON SOURCE PROTON POWER UPGRADE (PPU), ORNL ..	.....	26,000
18-SC-12 ADVANCED LIGHT SOURCE UPGRADE (ALS-U), LBNL .....	.....	20,000
SUBTOTAL, CONSTRUCTION	202,100	339,000
TOTAL, BASIC ENERGY SCIENCES	1,554,500	1,980,300

The Committee recommends not less than \$110,000,000 for the Energy Frontier Research Centers to continue multi-disciplinary, fundamental research needed to address scientific grand challenges. The Committee recommends \$20,000,000 for the Experimental Program to Stimulate Competitive Research [EPSCoR], and rejects the proposed termination of the program. The Committee understands the Department has either delayed or does not intend to initiate a renewal for the Batteries and Energy Storage Hub, the Joint Center for Energy Storage Research [JCESR]. The Committee directs the Department to move forward with the review and renewal process to support the next 5-year charter for next-generation battery and storage technologies. Recognizing the critical role battery and energy storage technologies play in both the transportation and electricity sectors, the Committee recommends not less than \$24,088,000 for JCESR. In addition, the Committee recommends not less than \$15,000,000 for the Fuels from Sunlight Hub, the Joint Center for Artificial Photosynthesis [JCAP] to continue to perform research on the fundamental science of carbon dioxide reduction needed to enable efficient, sustainable solar-driven production of liquid transportation fuels. The Committee recommends not less than \$125,366,000 to continue the five existing Nanoscale Science Research Centers, and rejects the proposed termination of both the Center for Functional Nanomaterials and the Center for Integrated Nanotechnologies.

The Committee recommends \$496,059,000 for the five BES light sources to fully support research and allow the facilities to proceed with necessary maintenance, routine accelerator and instrumentation improvements, and crucial staff hires or replacements. The Committee recognizes the critical role that light sources play in the

Nation's innovation ecosystem, and the growing support for them by U.S. researchers and industry. In light of increased international investment in these unique scientific resources and the consequences for U.S. innovation leadership, the Committee continues to support efforts to upgrade and renew these facilities across the full spectrum of x-ray capabilities. In support of the priority recommendations from recent Basic Energy Sciences Advisory Committee reports, the Committee recommends \$6,000,000 for the High Energy Upgrade at LCLS II. In addition, the Committee recommends \$93,000,000 for the Advanced Photon Source Upgrade.

The Committee recommends \$258,200,000 for high-flux neutron sources, which will allow for both Spallation Neutron Source [SNS] and High Flux Isotope Reactor [HFIR] to proceed with the most critical deferred repairs, replace outdated instruments, and make essential machine improvements. The Committee does not recommend funding for the Lujan Neutron Scattering Center.

Construction.—The Committee recommends funding for two new projects as shown in the table below. Within the amounts recommended for construction, the Committee recommends \$26,000,000 for preliminary engineering and design of the Proton Power Upgrade project at SNS, and to continue work towards a project baseline. In addition, the Committee recommends \$20,000,000 for the Advanced Light Source Upgrade.

The Committee recommends \$7,000,000 for ongoing surveillance and monitoring activities designed to detect groundwater contamination at or near Brookhaven National Laboratory from the legacy High Flux Beam Reactor. The Committee recommends \$26,000,000 for exascale systems.

The Committee supports funding for energy research activities related to enhanced efficiency in energy conversion and utilization, including emergent polymer optoelectronic technologies, to ensure continued competitiveness in a global marketplace. The Department is directed to continue its partnership with qualified institutions of higher education in this effort. The Committee encourages the Secretary to continue funding to support research and development needs of graduate and post-graduate science programs at Historically Black Colleges and Universities.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

The Committee recommends \$633,000,000 for Biological and Environmental Research. The Committee rejects the short-sighted reductions proposed in the budget request. The Committee recognizes the unique and beneficial role that the Department plays for the Nation in the advancement of biosciences to address core departmental missions in energy and the environment. The Department is directed to give priority to optimizing the operation of Biological and Environmental Research User Facilities.

The Committee recommends \$321,721,000 for Biological Systems Science, including not less than \$90,000,000 for the four recently-selected Bioenergy Research Centers for the first year of their renewal funding period, including \$25,000,000 for the three existing centers and \$15,000,000 for the new awardee. The Committee directs the Department to maintain Genomic Science as a top priority, and continues to support the Mesoscale to Molecules activity.

The Committee recommends \$69,300,000 for the Joint Genome Institute, an essential component for genomic research.

The Committee recommends \$311,279,000 for Earth and Environmental Systems Sciences. Within available funds, the Committee recommends not less than \$43,200,000 for the Environmental Molecular Sciences Laboratory, not less than \$65,400,000 for the Atmospheric Radiation Measurement User Facility, not less than \$10,000,000 for NGEA–Arctic, and not less than \$8,300,000 for the SPRUCE field site. The Committee also recommends \$3,000,000 to support ongoing research and discovery related to mercury biogeochemical transformations in the environment. The Committee recommends \$10,000,000 to support the exascale computing initiative. The Committee directs the Department to expend appropriated funds for critical research on environmental science. In addition, the Committee remains concerned about the delay in the current review process, and directs the Department to continue to move forward in awarding grants.

The Committee encourages the Department to increase funding for academia to perform climate model studies that include the collection and evaluation of atmospheric data sets from satellite observations obtained in cooperation with NASA. Satellite observations of the atmosphere, within the context of the Earth as a global system, provide information that is critical in the interpretation of Earth-based observations.

FUSION ENERGY SCIENCES

The Committee recommends \$232,000,000 for Fusion Energy Sciences.

U.S. Contribution to ITER.—The Committee recommends no funding for the International Thermonuclear Experimental Reactor [ITER] project, as this funding would come at the expense of other Office of Science priorities.

The Committee recommends the Department prioritize operations and research for DIII–D tokamak facility.

The Committee remains concerned about the timeline of facility repair and recovery actions for the National Spherical Torus Experiment Upgrade [NSTX–U], as operations have ceased through at least fiscal year 2019. The Committee directs the Department to assess science drivers for the NSTX–U to support future planning and reconfiguration for the Fusion Energy Sciences program, and provide a briefing to the Committees on Appropriations of both Houses of Congress upon completion.

The Committee supports continued research in the Fusion Energy Sciences Program on High Energy Density Plasmas and recognizes the partnerships between the laboratories and research universities to address the critical need for skilled graduates to replace an aging workforce.

HIGH ENERGY PHYSICS

The Committee recommends \$860,000,000 for High Energy Physics. The Committee strongly supports the Secretary’s efforts to advance the recommendations of the Particle Physics Project Prioritization Panel Report, which established clear priorities for the domestic particle physics program.

Within available funds, the Committee recommends \$82,000,000 for the Long Baseline Neutrino Facility/Deep Underground Neutrino Experiment. The Committee recommends funding for the Muon to Electron Conversion Experiment (Mu2e) consistent with the approved baseline funding profile and \$5,000,000 to continue the upgrade of the Facility for Advanced Accelerator Experimental Tests II. In addition, the Committee continues to strongly support U.S. participation in the Large Hadron Collider [LHC] at CERN, and directs the Department to prioritize and provide optimal funding for the LHC accelerator upgrades and the LHC CMS and ATLAS collaboration activities.

Within Cosmic Frontier Experimental Physics, the Committee recommends \$17,500,000 for the Dark Energy Spectroscopic Instrument and \$14,100,000 for the G2 Dark Matter Experiment LUX ZEPLIN. The Committee recommends \$9,800,000 for the Large Synoptic Survey Telescope Camera. The Committee recommends \$24,100,000 for the Proton Improvement Project II at Fermi National Laboratory. This funding will advance design work for accelerator upgrades that will support the LBNF project. The Committee also recommends \$7,400,000 for SuperCDMS–SnoLab.

NUCLEAR PHYSICS

The Committee recommends \$639,200,000 for Nuclear Physics, and strongly supports the 2015 Long Range Plan for Nuclear Science released in October 2015 to address important scientific questions with modest or constrained growth in the nuclear science budgets, while still maintaining a strong, vital and world leading program.

Within available funds, the Committee recommends \$97,200,000 for the Facility for Rare Isotope Beams [FRIB], and encourages the Department to work with Michigan State University to commence early operations at FRIB. The Committee also recommends \$5,000,000 for the Stable Isotope Production Facility to provide increased domestic capacity for production of critically needed enriched stable isotopes for research, defense, and industry, and reduce the Nation's dependence on foreign supplies. The Committee also recommends \$3,200,000 for the Gamma-Ray Energy Tracking Array [GRETA], which will enable advanced, high resolution gamma ray detection capabilities for FRIB.

The Committee further recommends \$174,600,000 for operations at the Relativistic Heavy Ion Collider, and optimal operations for the Continuous Electron Beam Accelerator Facility, the Argonne Tandem Linac Accelerator System, and the Brookhaven Linac Isotope Producer Facility.

WORKFORCE DEVELOPMENT FOR TEACHERS AND SCIENTISTS

The Committee recommends \$19,500,000 for Workforce Development for Teachers and Scientists.

Within available funds, \$8,300,000 is for the Science Undergraduate Laboratory Internship; \$1,000,000 is for the Community College Institute of Science and Technology; \$2,500,000 is for the Graduate Student Research Program; \$1,700,000 is for the Visiting Faculty Program; \$1,200,000 is for the Albert Einstein Distinguished Educator Fellowship; \$2,900,000 is for the National

Science Bowl; \$750,000 is for Technology Development and Online Application; \$600,000 is for Evaluation Studies; \$500,000 is for Outreach; and \$50,000 is for the Laboratory Equipment Donation Program.

SCIENCE LABORATORIES INFRASTRUCTURE

The Committee recommends \$143,000,000 for Science Laboratories Infrastructure.

Within these funds, the Committee recommends \$26,000,000 for nuclear operations at Oak Ridge National Laboratory. In future budget requests, the Committee directs the Office of Science to work with the Office of Nuclear Energy to demonstrate a commitment to operations and maintenance of nuclear facilities at Oak Ridge National Laboratory that support multiple critical missions.

ADVANCED RESEARCH PROJECTS AGENCY—ENERGY

Appropriations, 2017	\$306,000,000
Budget estimate, 2018	- 26,367,000
Committee recommendation	330,000,000

The Committee recommends \$330,000,000 for the Advanced Research Projects Agency—Energy [ARPA-E], an increase of \$356,367,000 above the budget request. Within available funds, the Committee recommends \$29,250,000 for program direction.

ARPA-E was established by the America COMPETES Act of 2007 following a recommendation by the National Academies of Sciences, Engineering, and Medicine in the “Rising Above the Gathering Storm” report. Since receiving its first funding in fiscal year 2009, ARPA-E continues to catalyze and support the development of transformational, high-impact energy technologies to ensure the Nation’s economic and energy security and technological leadership. Project sponsors continue to form strategic partnerships and new companies, as well as secure private sector funding to help move ARPA-E technologies closer to the market.

The budget request proposes to terminate ARPA-E and use funds appropriated in fiscal year 2017 for oversight and management. The Committee definitively rejects this short-sighted proposal, and instead increases investment in this transformational program and directs the Department to continue to spend funds provided on research and development and program direction. The Department shall not use any appropriated funds to plan or execute the termination of ARPA-E. In addition, the Committee remains concerned about the timeliness of the current review process, and directs the Department to continue to move forward on approving Funding Opportunity Announcements.

OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

Appropriations, 2017	
Budget estimate, 2018	
Committee recommendation	\$16,000,000

The Committee recommends \$16,000,000 for the Office of Indian Energy Policy and Programs. The activities of this office have previously been funded through Departmental Administration. The Committee encourages the Office of Indian Energy Policy and Pro-

grams to facilitate better communication among different Federal agencies regarding rules, regulations issued, and actions taken by other Federal agencies impacting energy development on Indian lands.

TRIBAL ENERGY LOAN GUARANTEE PROGRAM

Appropriations, 2017	\$9,000,000
Budget estimate, 2018	
Committee recommendation	1,000,000

The Committee recommends \$1,000,000 for the Tribal Energy Loan Guarantee Program.

INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

ADMINISTRATIVE EXPENSES

GROSS APPROPRIATION

Appropriations, 2017	\$37,000,000
Budget estimate, 2018	2,000,000
Committee recommendation	2,000,000

OFFSETTING RECEIPTS

Appropriations, 2017	-\$30,000,000
Budget estimate, 2018	-2,000,000
Committee recommendation	-2,000,000

NET APPROPRIATION

Appropriations, 2017	\$7,000,000
Budget estimate, 2018	
Committee recommendation	

The Committee recommends \$2,000,000 in funding for the Loan Guarantee Program, the same as the request. This funding is offset by \$2,000,000 in receipts from loan guarantee applicants, for a net appropriation of \$0. An additional \$15,000,000 in prior receipts from loan guarantee applicants is credited to the bill as a scorekeeping adjustment. Section 309 of the General Provisions rescinds all remaining loan authority and subsidy cost except for \$2,000,000,000 in fossil loan authority to accommodate the current conditional commitment.

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

Appropriations, 2017	\$5,000,000
Budget estimate, 2018	2,000,000
Committee recommendation	5,000,000

The Committee recommends \$5,000,000 for the Advanced Technology Vehicles Manufacturing Loan Program, an increase of \$3,000,000 above the budget request.

DEPARTMENTAL ADMINISTRATION

(GROSS)

Appropriations, 2017	\$246,000,000
Budget estimate, 2018	241,652,000
Committee recommendation	238,736,000

(MISCELLANEOUS REVENUES)

Appropriations, 2017	-\$103,000,000
Budget estimate, 2018	-96,000,000
Committee recommendation	-96,000,000

NET APPROPRIATION

Appropriations, 2017	\$143,000,000
Budget estimate, 2018	145,652,000
Committee recommendation	142,736,000

The Committee recommends \$238,736,000 in funding for Departmental Administration including the Department's activities related to implementation of the Digital Accountability and Transparency Act. This funding is offset by \$96,000,000 in revenue for a net appropriation of \$142,736,000.

The Committee has reduced the number of control points in this account in order to provide flexibility to the Department in its management and funding of its support functions. The Department is directed to continue to submit its budget request for this account in its current structure. The Other Departmental Administration activity includes Management, Chief Human Capital Officer, Chief Information Officer, Office of Small and Disadvantaged Business Utilization, General Counsel, Energy Policy and Systems Analysis, Technology Transitions International Affairs, Public Affairs, Economic Impact and Diversity, and Office of Energy Jobs Development. The Office of Indian Energy Programs is funded in a separate account.

Compliance with State Laws.—The Committee directs the Department to submit a report, no later than 30 days after enactment of this act, detailing projects approved under 42 U.S.C. 16421 and the Department's efforts to ensure compliance with State laws, as applicable under 42 U.S.C. 16421(d)(2).

Nonprofit Cost Share.—The Committee notes that the Secretary may reduce or eliminate the research and development match requirement established in section 988 of the Energy Policy Act of 2005, where necessary and appropriate. The Committee encourages the Secretary to consider the use of this discretion if the research goals of the Department would be advanced by reducing or eliminating the match requirement for nonprofit organizations and institutions.

Small Refinery Exemption.—Under section 211(o)(9)(B) of the Clean Air Act, a small refinery may petition the EPA Administrator for an exemption from the Renewable Fuel Standard [RFS] on the basis that the refinery experiences a disproportionate economic hardship under the RFS. When evaluating a petition, the Administrator consults with the Secretary of Energy to determine whether disproportionate economic hardship exists. According to

the Department’s March 2011 Small Refinery Exemption Study, disproportionate economic hardship must encompass two broad components: a high cost of compliance relative to the industry average disproportionate impacts, and an effect sufficient to cause a significant impairment of the refinery operations’ viability. If the Secretary finds that either of these two components exists, the Committee directs the Secretary to recommend to the EPA Administrator at least a 50-percent waiver of RFS requirements for the petitioner. The Committee also directs the Secretary to score all of the metrics in the study and to score the metrics according to the 2011 study scoring criteria and not any later addendum to the study. The Secretary is directed to seek small refinery comment before making changes to its scoring metrics for small refinery petitions for RFS waivers, and to notify the Committees on Appropriations of both Houses of Congress prior to making any final changes to scoring metrics. Only the impact on the small refinery’s transportation fuel margins is pertinent to measuring RFS impacts on relative refining margins. The Committee notes that the conference report accompanying the Energy and Water Development and Related Agencies Appropriations Act, 2010, addressed similar issues and directed the Secretary to redo an earlier study done to evaluate whether the RFS program imposes a disproportionate economic hardship on small refineries. In calling for the Secretary to redo the study, the conference report cited the lack of small refinery input into the earlier study, concerns about regional RFS compliance cost disparities, small refinery dependence on the purchase of renewable fuel credits [RINs], and increasing RIN costs. Since then, the dramatic rise in RIN prices has amplified RFS compliance and competitive disparities, especially where unique regional factors exist, including high diesel demand production, no export access, and limited biodiesel infrastructure and production. In response to recent petitions in prior years, the Secretary determined that the RFS program would impose a disproportionate economic and structural impact on several small refineries. Despite this determination, the Secretary did not recommend, and EPA did not provide, any RFS relief because it determined the refineries were profitable enough to afford the cost of RFS compliance without substantially impacting their viability. The Committee reminds the Secretary that the RFS program may impose a disproportionate economic hardship on a small refinery even if the refinery makes enough profit to cover the cost of complying with the program. Small refinery profitability does not justify a disproportionate regulatory burden where Congress has explicitly given EPA authority, in consultation with the Secretary, to reduce or eliminate this burden.

OFFICE OF THE INSPECTOR GENERAL

Appropriations, 2017	\$44,424,000
Budget estimate, 2018	49,000,000
Committee recommendation	49,000,000

The Committee recommends \$49,000,000 for the Office of the Inspector General, the same as the request.

ATOMIC ENERGY DEFENSE ACTIVITIES

NATIONAL NUCLEAR SECURITY ADMINISTRATION

The Committee recommendation for the National Nuclear Security Administration [NNSA] continues funding for recapitalization of our nuclear weapons infrastructure, while modernizing and maintaining a safe, secure, and credible nuclear deterrent without testing. This is among our most important national security priorities.

At the same time, the Committee supports continuing important efforts to secure and permanently eliminate remaining stockpiles of nuclear and radiological materials overseas and in the United States that can be used for nuclear or radiological weapons. In addition, the Committee supports Naval Reactors and the important role they play in enabling the Navy's nuclear fleet.

INTEGRATED UNIVERSITY PROGRAM

The Committee directs the Secretary to carry out the requirements of 42 U.S.C. 16274a in support of university research and development in areas relevant to the NNSA's mission. Within available funds, the Committee recommends not less than \$5,000,000 for the Integrated University Program to cultivate the next generation of leaders in nonproliferation, nuclear security, and international security. Together with funds from the Office of Nuclear Energy and the Nuclear Regulatory Commission, this program ensures highly qualified nuclear specialists will be available to meet national needs. The Committee directs the Secretary to request funding for this program in future budget years, and specifically highlight the source of funds within the budget request. Further, funding for this program shall not come from prior year funds.

In addition to the Integrated University Program within Defense Nuclear Nonproliferation, NNSA manages several university-related programs, ranging from fellowships and scholarships to university research. NNSA has not been able to provide a clear accounting of these various programs, and is directed to provide a report annually with the budget request that lists all of the university programs requested, the recommended funding level, and the value that program provides the NNSA.

PROJECT MANAGEMENT

The Committee is concerned about NNSA's ability to properly estimate costs and timelines for large projects. The NNSA is encouraged to assess current performance on projects costing more than \$750,000,000, and make appropriate project management changes. The Committee encourages the NNSA to identify problems in cost and schedule estimates early, and provide updated information to the Committees on Appropriations of both Houses of Congress in a timely manner.

WEAPONS ACTIVITIES

Appropriations, 2017	\$9,245,567,000
Budget estimate, 2018	10,239,344,000
Committee recommendation	10,000,071,000

The Committee recommends \$10,000,071,000 for Weapons Activities, a decrease of \$239,273,000 below the budget request, to ensure the safety, security, reliability, and effectiveness of the Nation's nuclear weapons stockpile without the need for nuclear testing.

DIRECTED STOCKPILE WORK

The Committee recommends \$3,912,617,000 for Directed Stockpile Work.

Life Extension Programs.—The Committee recommends \$1,744,088,000 for Life Extension Programs [LEPs] and Major Alterations, which fully funds all LEPs and major alterations in the budget request, consistent with the plan of record approved by the Nuclear Weapons Council. NNSA needs to ensure that LEPs are completed on time and on budget to prevent impact on other high priorities, such as modernizing aging infrastructure, critical non-proliferation activities to combat nuclear terrorism, and naval nuclear propulsion.

W76 Life Extension Program.—The Committee recommends \$224,134,000 for the W76 LEP. Completing the W76 LEP, which makes up the largest share of the country's nuclear weapon deterrent on the most survivable leg of the Triad, is this Committee's highest priority for LEPs.

B61 Life Extension Program.—The Committee recommends \$788,572,000 for the B61 LEP. The Committee supports the Nuclear Weapons Council plan to retire the B83, the last megaton class weapon in the stockpile, by 2025.

W88 Alt 370.—The Committee recommends \$332,292,000 for the W88 Alt 370.

W80-4 Life Extension Program.—The Committee recommends \$399,090,000 for the W80-4 LEP.

Weapons Dismantlement and Disposition.—The Committee recommends \$56,000,000 for the dismantlement of retired nuclear weapons removed from the stockpile. Further, the Committee supports accelerated dismantlements now as a way of preparing its workforce for necessary stockpile production work beginning later this decade.

Stockpile Systems.—The Committee recommends \$475,000,000 for stockpile systems. Funds are no longer controlled at the system level, but should continue to be reflected in the future budget requests at the system level.

RESEARCH, DEVELOPMENT, TECHNOLOGY, AND ENGINEERING

The Committee recommends \$1,963,962,000 for Research, Development, Technology, and Engineering.

Inertial Confinement Fusion Ignition and High-Yield Campaign.—The Committee recommends \$544,934,000 for the inertial confinement fusion ignition and high-yield campaign. Within the amount provided, \$344,000,000 shall be for inertial confinement fusion activities at the National Ignition Facility, \$61,600,000 shall

be for Sandia National Laboratory's Z facility, and \$75,000,000 shall be for the University of Rochester's Omega facility.

Within the Inertial Confinement Fusion program, the Committee is concerned that NNSA's contracting practices are leading to instability in the target design and fabrication vendor base. The Committee encourages NNSA to review all current and planned target supply contracts to ensure its actions support a robust, innovative and cost-effective target design and fabrication capability from multiple vendors, including small businesses.

Advanced Simulation and Computing.—The Committee recommends \$734,244,000 for advanced simulation and computing. Within these funds, the Committee recommends no less than \$161,000,000 for activities associated with the exascale initiative, such as advanced system architecture design contracts with vendors and advanced weapons code development to effectively use new high performance computing platforms.

Advanced Manufacturing Development.—The Committee recommends \$85,540,000 for Advanced Manufacturing Development. Within the amount provided, \$34,896,000 is recommended for Process Technology Development, including \$5,000,000 above the budget request to modernize and upgrade legacy applications at weapons production facilities in order to improve manufacturing and safety.

Stockpile Responsiveness Program.—The Committee recommendation supports the important goals of the Stockpile Responsiveness Program. The bill includes a provision that provides special reprogramming authority of up to \$40,000,000 for the Stockpile Responsiveness Program, subject to the Committee's normal notification guidelines.

Engineering.—The Committee supports the request to begin recapitalization of the NNSA's trusted strategic microelectronics capability. However, the Committee urges NNSA to maintain focus on developing a cross-government approach to ensure that both NNSA and multiple customer needs are satisfied. No later than 90 after the date of enactment of this act, NNSA is directed to submit a report to the Committees on Appropriations of both Houses of Congress detailing the technical requirements for trusted microelectronics, an analysis of alternatives for meeting those requirements among public and private sector entities, and preliminary cost and schedule estimates for the various alternatives.

Academic Alliances and Partnerships.—Within available funds, not less than \$2,000,000 shall be for Tribal Colleges and Universities.

INFRASTRUCTURE AND OPERATIONS

The Committee recommends \$2,722,137,000 for Infrastructure and Operations.

Project 06-D-141, Uranium Processing Facility, Y-12, Oak Ridge, Tennessee.—The Committee recommends \$663,000,000 to continue design and engineering work as well as site readiness and site preparation projects for the Uranium Processing Facility.

The Committee supports efforts to replace existing enriched uranium capabilities currently residing in Building 9212 by 2025 for not more than \$6,500,000,000. The Committee supports the strat-

egy of breaking the project into more manageable sub-projects. This practice is specifically permitted by DOE Order 413.3B, and is a practical approach for any project of this magnitude. The Committee expects the Secretary to ensure full compliance with the Department's requirement to have a design that is at least 90 percent complete before approving the start of construction for the nuclear facilities. The Committee understands that the NNSA must complete enough design work before it can set a performance baseline for each subproject, which includes an accurate cost and schedule for completion.

DEFENSE NUCLEAR SECURITY

The Committee recommends \$691,977,000 for Defense Nuclear Security, within which \$5,000,000 is recommended to continue the design work for the West End Protected Area Reduction at Y-12.

DEFENSE NUCLEAR NONPROLIFERATION

Appropriations, 2017	\$1,902,000,000
Budget estimate, 2018	1,842,310,000
Committee recommendation	1,852,310,000

The Committee recommends \$1,852,310,000 for Defense Nuclear Nonproliferation, an increase of \$10,000,000 above the budget request. To preserve and advance uranium and engineering expertise for purposes of national security and nonproliferation, the Committee encourages the ongoing collaboration between the Department's Office of Intelligence and the Defense Nuclear Nonproliferation program.

Defense Nuclear Nonproliferation provides a vitally important component of our national security—preventing nuclear materials and weapons from falling into the wrong hands, including non-weapons nations, terrorist organizations and other non-state entities. This mission is challenged by an increasingly dangerous world with emerging and evolving threats, in addition to the proliferation of technologies that simplify production, manufacturing, and design of nuclear materials and weapons. The Committee recognizes the importance of bilateral and multilateral agreements and organizations in detecting, intercepting, and deterring nuclear and radiological threats. The Committee urges the full use of these partnerships to further strengthen U.S. and global security.

Global Material Security.—The Committee recommends \$357,108,000 for Global Material Security to increase the security of vulnerable stockpiles of nuclear weapons, weapons-usable nuclear materials, and radiological materials and to improve partner countries' abilities to deter, detect, and interdict illicit trafficking.

The Committee finds that unlike the materials needed for a nuclear weapon, which are located in fewer than 25 countries, the materials needed to build a dirty bomb can be found in thousands of hospitals, medical centers, research labs, and businesses in more than 150 countries. The most effective way to significantly reduce the threat of a radiological dispersal device, or dirty bomb, is, where feasible, to replace the radiological sources with safe, effective alternative technologies. For example, alternative x-ray technologies to replace cesium-137 blood irradiators are commercially

available, offer equivalent medical outcomes, and have been approved by the U.S. Food and Drug Administration. There are approximately 850 cesium blood and research irradiators in the United States, with over 500 being cesium blood irradiators. Therefore, within the funds provided, the Committee recommends not less than \$20,000,000 for the Cesium Irradiator Replacement Program. Furthermore, the Secretary is directed to submit to the Committees on Appropriations of both Houses of Congress no later than 90 days after the date of enactment of this act a report on the Cesium Irradiator Replacement Program, including a description of progress to date in reducing the use of cesium-137 based irradiation devices; identification of the universe of cesium-137 devices, including the number, general location, and user type; a prioritization scheme for replacement of devices; and estimated annual funding needs to replace all devices within 10 years through the existing voluntary, cost-shared program with devices users.

Materials Management and Minimization.—Within Materials Management and Minimization, the Committee recommends \$130,500,000 for Conversion, of which no less than \$40,000,000 shall be for the Molybdenum-99 [Moly-99] program. The Committee continues to place a high priority on the development of domestic supplies of the medical isotope Moly-99 on a schedule adequate to meet public health needs. The Committee notes the need for ongoing encouragement of private sector production of Moly-99 without the use of highly enriched uranium. New entrants to the program, particularly those utilizing existing infrastructure at the national laboratories or other facilities, should be encouraged. In addition, the Committee has followed closely the progress of current cooperative agreement awardees and notes that a number of first-of-a-kind regulatory and technological issues have delayed and increased the cost of these projects. Therefore, the Secretary is directed to provide up to \$35,000,000 or 50 percent of total project cost, consistent with American Medical Isotope Production Act provisions, whichever is less, in cost sharing funds for cooperative agreement awardees or award new cooperative agreements that leverage existing resources within the Department. Lastly, the NNSA shall ensure that its financial contributions to projects are made on a timely basis commensurate with the private parties' expenditures. NNSA shall not delay payment of matching contributions simply to remain involved in the projects through completion.

Nonproliferation and Arms Control.—The Committee recommends \$124,703,000 for Nonproliferation and Arms Control activities. Within available amounts, the Committee recommends not less than \$3,000,000 for international cooperation between governmental and non-governmental organizations at the national and sub-national levels to implement robust export control protocols.

Defense Nuclear Nonproliferation Research and Development.—The Committee recommends \$436,095,000 for Defense Nuclear Nonproliferation Research and Development. The Committee supports a robust research and development capability to support nonproliferation initiatives. Proliferation of illicit nuclear materials and weapons continues to be a high-consequence threat, and our ability to detect the production and movement of these materials is vitally important. Research and development in this area is espe-

cially important. The Committee recommendation also supports continued research and development of novel enrichment technologies to support nonproliferation goals, and recommends \$2,000,000 for this purpose.

MOX Construction.—The Committee recommends \$270,000,000, and supports the budget request proposal to terminate the construction of the MOX Fuel Fabrication Facility as early as practicable. No funds are provided to continue construction of the MOX Fuel Fabrication facility.

NAVAL REACTORS

Appropriations, 2017	\$1,419,813,000
Budget estimate, 2018	1,479,751,000
Committee recommendation	1,436,651,000

The Committee recommends \$1,436,651,000 for Naval Reactors, a decrease of \$43,100,000 below the budget request. The Committee's recommendation fully funds important national priorities, including the *Columbia*-class replacement submarine design and the prototype refueling. Naval Reactors relies on high-enriched uranium from weapons that have been removed from the stockpile to fuel the Navy's aircraft carriers and submarines. The Committee directs Naval Reactors to provide a report to the Committees on Appropriations of both Houses of Congress on the long-term sustainability of high-enriched uranium for Naval Reactor Propulsion for the Navy. The report shall include any impacts that may arise from changes to the shipbuilding plan under consideration and any outcomes of the Nuclear Posture Review. The report shall be provided within 60 days after completion of the Nuclear Posture Review.

COLUMBIA-CLASS REACTOR SYSTEMS DEVELOPMENT

The Committee recommends \$156,700,000 for *Columbia*-Class Reactor Systems Development. Funds for this program were included last year as *Ohio*-Class Replacement Reactor Systems Development. *Columbia*-class submarines must be delivered on time to maintain our survivable deterrent. The Committee directs Naval Reactors to provide a report to the Committees on Appropriations of both Houses of Congress by February 1, 2018, that outlines key technical risks to delivering the lead submarine on time, and mitigation strategies for those risks. At a minimum, the report shall include qualification of the fuel design and any major components in the propulsion plant.

NAVAL REACTORS DEVELOPMENT

The Committee recommends \$461,267,000 for Naval Reactors Development. Within the funds provided, the Committee recommends \$70,000,000 for the Advanced Test Reactor.

Future Fuel Systems.—The Committee directs Naval Reactors to provide a report to the Committees on Appropriations of both Houses of Congress by June 1, 2018, on its plans to design improved fuel systems. The report shall include any planned efforts to design a low enriched uranium fuel system, including the linkage between any planned future fuel system and a Navy fleet re-

quirement. The report shall also discuss planned needs and schedule for irradiation testing and post irradiation examination.

CONSTRUCTION

The Committee recommends \$117,700,000 for Construction. Within available funds, the Committee recommends \$102,000,000 for the Spent Fuel Handling Facility in Idaho and \$15,000,000 for the Fire System Upgrade at KAPL.

FEDERAL SALARIES AND EXPENSES

Appropriations, 2017	\$390,000,000
Budget estimate, 2018	418,595,000
Committee recommendation	396,000,000

The Committee recommends \$396,000,000, a decrease of \$22,595,000 below the budget request.

DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2017	\$5,405,000,000
Budget estimate, 2018	5,537,186,000
Committee recommendation	5,579,968,000

The Committee recommendation for Defense Environmental Cleanup is \$5,579,968,000, an increase of \$42,782,000 above the budget request. Within available funds, the Department is directed to fund the Hazardous Waste Worker Training Program.

Future Budget Requests.—The Committee directs the Department to include out-year funding projections in the annual budget request for Environmental Management, and an estimate of the total cost and time to complete each site.

Richland.—The Committee recognizes that significant progress has been made at the Hanford Site, including 984 contaminated waste sites remediated, 18 million tons of contaminated soil and debris removed, 2,300 tons of spent nuclear fuel removed and placed in dry storage, 16 billion gallons of contaminated groundwater remediated, and 428 facilities demolished. The Committee recommends \$826,192,000 for Richland Operations to continue critical cleanup work and ensure compliance with Tri-Party Agreement milestones. Additional funding is provided for cleanup of the 300–296 waste site, risk-reduction activities associated with legacy waste sites, K-West facility cleanup and deactivation, and community and regulatory support. Within available funds in the River Corridor control point, the Department is directed to carry out maintenance and public safety efforts at the B Reactor, the Manhattan Project National Historical Park, and the Hazardous Materials Management and Emergency Response facilities. Further, within available funds the Department is directed to work with contractors, labor, and the State of Washington to establish a resource center to provide education and advocacy to current and former Hanford employees on all available Federal and State compensation programs.

NNSA Sites.—The Committee recommends \$283,240,000 for NNSA sites. Within available funds, the Committee recommends \$217,529,000 for cleanup at Los Alamos National Laboratory.

Oak Ridge Reservation.—The Committee recommends \$275,219,000 for the Oak Ridge Reservation, including \$10,000,000 to support preliminary design of a new landfill for the Oak Ridge Reservation. The existing on-site disposal facility is expected to reach capacity before all cleanup activities are completed. Planning for a new landfill is necessary to ensure that there is no interruption of cleanup activities. Within funds available for Cleanup and Waste Disposition, the Committee recommends \$52,000,000 for continuing transuranic waste processing and storage to meet contractual and regulatory commitments.

U-233 Disposition Program.—The Committee recommends \$50,311,000 for the cleanup of Building 3019. Removal of legacy material from this building, an aging facility in the heart of the Oak Ridge National Laboratory central campus, must remain a high priority for the Department. Removal of the Uranium 233 will enable the overall security posture at the laboratory to be relaxed, which will reduce costs and eliminate nuclear safety issues, and make the campus more conducive to collaborative science. The Committee encourages the Department to seek opportunities to expedite cleanup of Building 3019, including public private partnerships that may reduce the overall cost of cleanup.

Mercury Treatment Facility.—The Committee recommends \$17,100,000 for the Outfall 200 Mercury Treatment Facility. Remediation of mercury contamination at the Oak Ridge Reservation is an important precursor to full site remediation. Reducing the mercury being released into the East Fork of Poplar Creek continues to be a high priority for the Environmental Management program.

Office of River Protection.—The Committee recommends \$1,590,000,000 for the Office of River Protection. Funds above the budget request are provided to resume full engineering, procurement, and construction work on the High-Level Waste Treatment facility, to resolve the five remaining technical issues on the Pre-Treatment facility, to ensure compliance with the 2016 Consent Decree and Tri-Party Agreement milestones, and to continue tank waste retrievals.

The Committee recognizes the Department's efforts to improve working conditions in the tank farms and address chemical vapor exposures by implementing recommendations from the 2014 Hanford Tank Vapor Assessment Report. The Committee is aware of three subsequent reviews conducted by the Department's Office of the Inspector General and Office of Enterprise Assessments, and the National Institute for Occupational Safety and Health. Within available funds in the Tank Farms Activities control point, the Department is directed to continue ongoing work to address chemical vapor exposures, implement recommendations from the three additional reviews, and maintain a safe work environment for Hanford employees.

Savannah River Site.—The Committee recommends \$1,260,000,000 for the Savannah River site. Within available funds, \$3,000,000 is for disposition of spent fuel from the High Flux Isotope Reactor. The Committee is concerned there is a lack of coordination and consistency among the Office of Environmental Management, NNSA, and the Office of Management and Budget when planning for retiree pension payments at the Savannah River Site.

The Department is directed to provide a report to the Committees on Appropriations of both Houses of Congress with the fiscal year 2019 budget request that describes the assumptions made in determining the anticipated retiree pension payments, including the anticipated out-year costs for retiree pension payments. The report shall also include the Department's plan for ensuring the Savannah River Site out-year retiree pension obligations are met, including any proposed changes in the manner funding is projected or requested.

Idaho.—The Committee recommends \$350,226,000 for cleanup of Idaho National Laboratory. The Committee remains concerned about the lack of progress in starting operations at the Integrated Waste Treatment Unit. Completed in 2012 at a cost of \$571,000,000, the facility is intended to treat 900,000 gallons of sodium-bearing radioactive waste. Unfortunately, design flaws and other problems have led to another \$281,000,000 being spent without startup of the facility. Treating this waste is necessary for cleanup of the Idaho site and to meet regulatory commitments to the State.

Waste Isolation Pilot Plant.—The Committee recommends \$300,971,000 for the Waste Isolation Pilot Plant [WIPP]. Worker safety must continue to be a priority for the Department and its contractors, and the Committee encourages the Secretary to not prioritize waste emplacement schedules over safe operations and infrastructure improvements at the facility. The Committee recommends \$10,000,000 above the budget request to address maintenance backlog issues. The restart of limited operations and the ongoing improvements to site infrastructure at the WIPP facility provide an opportunity to assess the status of current and future disposal requirements. The Committee directs the Secretary to submit to the Committees on Appropriations of both Houses of Congress not later than 90 days after the date of enactment of this act a long-term, consolidated plan for disposing of waste at WIPP. The plan shall include an analysis of the remaining capacity of WIPP under volumetric and radionuclide caps authorized under the Land Withdrawal Act. The plan shall also include an analysis of current and future waste streams that are eligible for disposal in WIPP and shall include steps to be taken to involve the state of New Mexico in any recommended changes.

Excess Facilities.—The Committee supports efforts to address the backlog of excess, high-risk facilities in the nuclear weapons complex. The Committee recommends \$55,000,000 for this effort. Within available funds, \$15,000,000 shall be for planning and permitting for cleanup of facilities at Lawrence Livermore National Laboratory and \$40,000,000 shall be for cleanup of facilities at the Y-12 National Security Complex.

Safeguards and Security.—The Committee recommends \$304,102,000 for safeguards and security activities at cleanup sites, within which \$43,342,000 is for cybersecurity activities.

Technology Development and Demonstration.—The Committee recommends \$25,000,000 for Technology Development and Demonstration. The Committee supports the Department's efforts to expand technology development and demonstration to address its long-term and technically complex cleanup challenges. Further, the

Committee supports the Department’s efforts to award merit-based research at the national laboratories to address long-term cleanup mission needs. The Committee believes it is in the best interest of all sites that these funds are competitively awarded and managed by Department of Energy Headquarters. Within the amount provided, no less than \$5,000,000 shall be made available for work on qualification, testing and research to advance the state of the art on containment ventilation systems. Further, the Department is directed to take the necessary steps to implement and competitively award a cooperative university affiliated research center for that purpose. No new funds are provided for the National Spent Fuel Database. This effort should be funded within the Office of Nuclear Energy.

**DEFENSE URANIUM ENRICHMENT DECONTAMINATION AND
DECOMMISSIONING**

Appropriations, 2017	\$563,000,000
Budget estimate, 2018	
Committee recommendation	788,000,000

The Committee recommends \$788,000,000 to fully offset the fiscal year 2018 appropriation for the Uranium Enrichment Decontamination and Decommissioning account.

OTHER DEFENSE ACTIVITIES

Appropriations, 2017	\$784,000,000
Budget estimate, 2018	815,512,000
Committee recommendation	784,000,000

The Committee recommends \$784,000,000 for Other Defense Activities, a decrease of \$31,512,000 from the budget request. Within available funds, the Committee recommends \$238,170,000 for Specialized Security Activities. Within the funds available for Environment, Health and Safety, the Committee recommends not less than \$1,000,000 for the Epidemiologic Study of One Million U.S. Radiation Workers and Veterans, which was originally approved by the Office of Science in 2012.

POWER MARKETING ADMINISTRATIONS

The Committee recognizes the important role the Power Marketing Administrations play in delivering affordable power, maintaining grid reliability, and supporting the Nation’s Federal multi-purpose water projects. The Department’s proposal to divest the transmission assets of the Bonneville Power Administration, Southwestern Power Administration, and Western Area Power Administration could increase costs for millions of consumers, decrease grid reliability, and reduce services to rural communities. Further, the Committee notes the Department’s proposal violates the Urgent Supplemental Appropriations Act, 1986 (Public Law 99–349) which prevents the use of any Federal funding by the executive branch to solicit proposals, prepare or review studies, or draft proposals designed to “transfer out of Federal ownership, management or control in whole or in part the facilities and functions of the Federal power marketing administrations located within the contiguous 48 States, and the Tennessee Valley Authority” unless explic-

itly authorized by an Act of Congress. Therefore, the Committee rejects the Department's proposal and directs the Department to fully comply with existing Federal law.

In addition, there have been questions raised by the Congressional Budget Office and others as to whether the Power Marketing Administrations have the legal authority to execute the current receipt authority provided in this and prior year appropriations acts to create carryover of unobligated balances for purchase power and wheeling expenditures. The Committee includes a general provision requiring a report, using specific receipts data and legal authorities, to provide a detailed response to those questions. The Committee would like to provide the full budget request for purchase power and wheeling expenditures, but until the Committee receives information confirming these funds are being properly executed, the Committee will continue to be unable to do so.

OPERATIONS AND MAINTENANCE, SOUTHWESTERN POWER ADMINISTRATION

Appropriations, 2017	\$11,057,000
Budget estimate, 2018	11,400,000
Committee recommendation	11,400,000

The Committee recommends a net appropriation of \$11,400,000 for the Southwestern Power Administration.

CONSTRUCTION, REHABILITATION, OPERATIONS AND MAINTENANCE, WESTERN AREA POWER ADMINISTRATION

Appropriations, 2017	\$95,581,000
Budget estimate, 2018	93,372,000
Committee recommendation	93,372,000

The Committee recommends a net appropriation of \$93,372,000 for the Western Area Power Administration.

FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND

Appropriations, 2017	\$232,000
Budget estimate, 2018	228,000
Committee recommendation	228,000

The Committee recommends a net appropriation of \$228,000 for the Falcon and Amistad Operating and Maintenance Fund.

FEDERAL ENERGY REGULATORY COMMISSION

SALARIES AND EXPENSES

Appropriations, 2017	\$346,800,000
Budget estimate, 2018	367,600,000
Committee recommendation	367,600,000

REVENUES APPLIED

Appropriations, 2017	-\$346,800,000
Budget estimate, 2018	-367,600,000
Committee recommendation	-367,600,000

The Committee recommends a net appropriation of \$0 for the Federal Energy Regulatory Commission [FERC]. The Committee encourages FERC to prioritize meaningful opportunities for public

engagement and coordination with State and local governments in the Federal permitting and review processes of energy infrastructure proposals. Specifically, FERC is encouraged to remain transparent and consistent, and ensure the health, safety, and security of the environment of each affected community.

DEPARTMENT OF ENERGY
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
ENERGY PROGRAMS					
ENERGY EFFICIENCY AND RENEWABLE ENERGY					
Sustainable Transportation:					
Vehicle technologies	306,959	82,000	277,988	- 28,971	+ 195,988
Bioenergy technologies	205,000	56,600	190,000	- 15,000	+ 133,400
Hydrogen and fuel cell technologies	101,000	45,000	85,000	- 16,000	+ 40,000
Subtotal, Sustainable Transportation	612,959	183,600	552,988	- 59,971	+ 369,388
Renewable Energy:					
Solar energy	207,600	69,700	167,500	- 40,100	+ 97,800
Wind energy	90,000	31,700	72,500	- 17,500	+ 40,800
Water power	84,000	20,400	82,000	- 2,000	+ 61,600
Geothermal technologies	69,500	12,500	67,500	- 2,000	+ 55,000
Subtotal, Renewable Energy	451,100	134,300	389,500	- 61,600	+ 255,200
Energy Efficiency:					
Advanced manufacturing	257,500	82,000	252,000	- 5,500	+ 170,000
Building technologies	199,141	67,500	195,000	- 4,141	+ 127,500
Federal energy management program	27,000	10,000	25,000	- 2,000	+ 15,000
Weatherization and intergovernmental:					
Weatherization:					
Weatherization assistance grants	225,000	.....	212,000	- 13,000	+ 212,000
Training and technical assistance	3,000	.....	3,000	.....	+ 3,000
Subtotal, Weatherization assistance program	228,000	.....	215,000	- 13,000	+ 215,000
State energy program grants	50,000	.....	50,000	.....	+ 50,000
Subtotal, Weatherization and intergovernmental program	278,000	.....	265,000	- 13,000	+ 265,000
Subtotal, Energy Efficiency	761,641	159,500	737,000	- 24,641	+ 577,500

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Corporate Support:					
Facilities and infrastructure:					
National Renewable Energy Laboratory (NREL)	92,000	92,000	92,000		
Program direction	153,500	125,849	153,500		+ 27,651
Strategic programs	19,000		12,000	- 7,000	+ 12,000
Subtotal, Corporate Support	264,500	217,849	257,500	- 7,000	+ 39,651
Subtotal, Energy efficiency and renewable energy	2,090,200	695,249	1,936,988	- 153,212	+ 1,241,739
Use of Prior Year Balances		- 59,100			+ 59,100
TOTAL, ENERGY EFFICIENCY AND RENEWABLE ENERGY	2,090,200	636,149	1,936,988	- 153,212	+ 1,300,839
ELECTRICITY DELIVERY AND ENERGY RELIABILITY					
Research and development:					
Transmission Reliability	36,000	13,000	36,000		+ 23,000
Resilient Distribution Systems	50,000	10,000	35,000	- 15,000	+ 25,000
Cyber security for energy delivery systems	62,000	42,000	53,000	- 9,000	+ 11,000
Energy storage	31,000	8,000	37,141	+ 6,141	+ 29,141
Transformer resilience and advanced components	6,000	5,000	7,000	+ 1,000	+ 2,000
Subtotal	185,000	78,000	168,141	- 16,859	+ 90,141
Transmission Permitting and Technical Assistance	7,500	6,000	6,000	- 1,500	
Infrastructure security and energy restoration	9,000	9,000	12,000	+ 3,000	+ 3,000
Program direction	28,500	27,000	27,000	- 1,500	
Subtotal, Electricity Delivery and Energy Reliability	230,000	120,000	213,141	- 16,859	+ 93,141
TOTAL, ELECTRICITY DELIVERY AND ENERGY RELIABILITY	230,000	120,000	213,141	- 16,859	+ 93,141

NUCLEAR ENERGY							
Research and development:							
Integrated university program	5,000						+ 5,000
STEP R&D	5,000		5,000			- 5,000	
Small modular reactor licensing technical support	95,000					- 95,000	
Nuclear energy enabling technologies	115,100					+ 5,500	+ 15,240
Reactor concepts RD&D	132,000	105,360		120,600			+ 38,000
Fuel cycle research and development	207,500	94,000		213,500		+ 6,000	+ 125,000
International nuclear energy cooperation	3,000	88,500		2,500		- 500	
Subtotal	562,600	290,360		473,600		- 89,000	+ 183,240
Infrastructure:							
Radiological facilities management:							
Space and defense infrastructure	10,000			15,000		+ 5,000	+ 15,000
Research reactor infrastructure	7,000	9,000		9,000		+ 2,000	
Subtotal	17,000	9,000		24,000		+ 7,000	+ 15,000
INL facilities management:							
INL operations and infrastructure	231,713	198,140		210,202		- 21,511	+ 12,062
Construction:							
16-E-200 Sample preparation laboratory	6,000	6,000		6,000			
Subtotal, INL facilities management	237,713	204,140		216,202		- 21,511	+ 12,062
Subtotal, INL facilities management	254,713	213,140		240,202		- 14,511	+ 27,062
Idaho statewide safeguards and security	129,303	133,000		129,000		- 303	- 4,000
Program direction	80,000	66,500		74,218		- 5,782	+ 7,718
Use of prior year balances	- 10,000					+ 10,000	
TOTAL, NUCLEAR ENERGY	1,016,616	703,000		917,020		- 99,596	+ 214,020
		FOSSIL ENERGY RESEARCH AND DEVELOPMENT					
Coal CCS and power systems:							
Carbon capture	101,000	16,000		93,930		- 7,070	+ 77,930
Carbon storage	95,300	15,000		88,629		- 6,671	+ 73,629
Advanced energy systems	105,000	46,000		97,650		- 7,350	+ 51,650
Cross cutting research	45,500	37,800		42,315		- 3,185	+ 4,515
NETL coal research and development	53,000	50,000				- 53,000	- 50,000

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
STEP (Supercritical CO2)	24,000	.....	19,530	-4,470	+19,530
Subtotal, Coal CCS and power systems	423,800	164,800	342,054	-81,746	+177,254
Natural Gas Technologies:					
Research	43,000	5,500	45,018	+2,018	+39,518
Unconventional fossil energy technologies from petroleum—oil technologies	21,000	15,000	26,319	+5,319	+11,319
Program direction	60,000	65,205	57,000	-3,000	-8,205
Special recruitment programs	700	200	200	-500	.....
NETL Research and Development	43,000	44,577	72,663	+29,663	+28,086
NETL Infrastructure and Operations	40,500	39,896	58,683	+18,183	+18,787
Subtotal, Fossil Energy Research and Development	632,000	335,178	601,937	-30,063	+266,759
Fossil proviso	50,000	.....	.....	-50,000	.....
Use of prior year balances	-14,000	-55,178	-29,236	-15,236	+25,942
TOTAL, FOSSIL ENERGY RESEARCH AND DEVELOPMENT	668,000	280,000	572,701	-95,299	+292,701
NAVAL PETROLEUM AND OIL SHALE RESERVES	14,950	20,200	20,200	+5,250	.....
Use of prior year balances .....	.....	-15,300	-15,300	-15,300	.....
TOTAL, NAVAL PETROLEUM AND OIL SHALE RESERVES	14,950	4,900	4,900	-10,050	.....
STRATEGIC PETROLEUM RESERVE					
Sale of crude oil	223,000	180,000	180,000	-43,000	.....
Use of sale proceeds	-340,000	-350,000	-350,000	-10,000	.....
Use of sale proceeds	340,000	350,000	350,000	+10,000	.....
TOTAL, STRATEGIC PETROLEUM RESERVE	223,000	180,000	180,000	-43,000	.....
SPR PETROLEUM ACCOUNT					
SPR Petroleum Account .....	.....	11,400	.....	.....	-11,400

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
SCIENCE					
Advanced scientific computing research	483,000	525,430	579,000	+ 96,000	+ 53,570
Construction:					
17-SC-20 SC Exascale Computing Project	164,000	196,580	184,000	+ 20,000	- 12,580
Subtotal, Advanced scientific computing research	647,000	722,010	763,000	+ 116,000	+ 40,990
Basic energy sciences:					
Research	1,681,500	1,352,400	1,641,300	- 40,200	+ 288,900
Construction:					
13-SC-10 LINAC coherent light source II, SLAC	190,000	182,100	200,000	+ 10,000	+ 17,900
18-SC-10 APS Upgrade, ANL .....	.....	20,000	93,000	+ 93,000	+ 73,000
18-SC-11 Spallation Neutron Source Proton Power Upgrade (PPU), ORNL .....	.....	.....	26,000	+ 26,000	+ 26,000
18-SC-12 Advanced Light Sources Upgrade (ALS-U), LBNL .....	.....	.....	20,000	+ 20,000	+ 20,000
Subtotal, Construction	190,000	202,100	339,000	+ 149,000	+ 136,900
Subtotal, Basic energy sciences	1,871,500	1,554,500	1,980,300	+ 108,800	+ 425,800
Biological and environmental research	612,000	348,950	633,000	+ 21,000	+ 284,050
Fusion energy sciences:					
Research	330,000	246,940	232,000	- 98,000	- 14,940
Construction:					
14-SC-60 ITER	50,000	63,000	.....	- 50,000	- 63,000
Subtotal, Fusion energy sciences	380,000	309,940	232,000	- 148,000	- 77,940
High energy physics:					
Research	731,500	573,400	733,600	+ 2,100	+ 160,200
Construction:					
11-SC-40 Long baseline neutrino facility / deep underground neutrino experiment, FNAL	50,000	54,900	82,000	+ 32,000	+ 27,100
11-SC-41 Muon to electron conversion experiment, FNAL	43,500	44,400	44,400	+ 900	.....

Subtotal, Construction	99,500	99,300	126,400	+ 32,900	+ 27,100
Subtotal, High energy physics	825,000	672,700	860,000	+ 35,000	+ 187,300
Nuclear physics:					
Operations and maintenance	522,000	422,700	542,000	+ 20,000	+ 119,300
Construction:					
14-SC-50 Facility for rare isotope beams, Michigan State University	100,000	80,000	97,200	- 2,800	+ 17,200
Subtotal, Nuclear physics	622,000	502,700	639,200	+ 17,200	+ 136,500
Workforce development for teachers and scientists	19,500	14,000	19,500	.....	+ 5,500
Science laboratories infrastructure:					
Infrastructure support:					
Payment in lieu of taxes	1,764	1,713	1,713	- 51	.....
Oak Ridge landlord	6,182	6,082	6,082	- 100	.....
Facilities and infrastructure	32,603	5,105	32,855	+ 252	+ 27,750
Oak Ridge nuclear operations	26,000	10,000	26,000	.....	+ 16,000
Subtotal, Infrastructure support	66,549	22,900	66,650	+ 101	+ 43,750
Construction:					
18-SC-71 Energy Science Capability, PNNL .....	.....	1,000	6,000	+ 6,000	+ 5,000
17-SC-71 Integrated Engineering Research Center, FNAL	2,500	1,500	2,500	.....	+ 1,000
17-SC-73 Core Facility Revitalization, BNL	1,800	1,500	5,000	+ 3,200	+ 3,500
15-SC-78 Integrative genomics building, LBNL	19,561	24,800	38,350	+ 18,789	+ 13,550
15-SC-77 Photon science laboratory building, SLAC	20,000	.....	.....	- 20,000	.....
15-SC-76 Materials design laboratory, ANL	19,590	24,500	24,500	+ 4,910	.....
Subtotal	63,451	53,300	76,350	+ 12,899	+ 23,050
Subtotal, Science laboratories infrastructure	130,000	76,200	143,000	+ 13,000	+ 66,800
Safeguards and security	103,000	103,000	103,000	.....	.....
Science program direction	182,000	168,516	177,000	- 5,000	+ 8,484
Subtotal, Science	5,392,000	4,472,516	5,550,000	+ 158,000	+ 1,077,484
TOTAL, SCIENCE	5,392,000	4,472,516	5,550,000	+ 158,000	+ 1,077,484
NUCLEAR WASTE DISPOSAL .....	.....	90,000	.....	.....	- 90,000

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
ADVANCED RESEARCH PROJECTS AGENCY-ENERGY					
ARPA-E projects	276,750	.....	300,750	+ 24,000	+ 300,750
Program direction	29,250	65,000	29,250	.....	- 35,750
Subtotal, ARPA-E	306,000	65,000	330,000	+ 24,000	+ 265,000
Use of prior year balances .....	.....	- 45,000	.....	.....	+ 45,000
Rescission .....	.....	- 46,367	.....	.....	+ 46,367
TOTAL, ARPA-E	306,000	- 26,367	330,000	+ 24,000	+ 356,367
OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS					
Program direction .....	.....	.....	4,800	+ 4,800	+ 4,800
Indian energy policy and programs .....	.....	.....	11,200	+ 11,200	+ 11,200
TOTAL, OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS .....	.....	.....	16,000	+ 16,000	+ 16,000
TITLE 17—INNOVATIVE TECHNOLOGY LOAN GUARANTEE PGM					
Administrative expenses	37,000	2,000	2,000	- 35,000	.....
Offsetting collection	- 30,000	- 2,000	- 2,000	+ 28,000	.....
Rescission .....	.....	- 250,000	.....	.....	+ 250,000
TOTAL, TITLE 17—INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM	7,000	- 250,000	.....	- 7,000	+ 250,000
ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PGM					
Administrative expenses	5,000	2,000	5,000	.....	+ 3,000
TOTAL, ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM	5,000	2,000	5,000	.....	+ 3,000
TRIBAL ENERGY LOAN GUARANTEE PROGRAM	9,000	.....	1,000	- 8,000	+ 1,000
Rescission	- 9,000	.....	.....	+ 9,000	.....

TOTAL, TRIBAL ENERGY LOAN GUARANTEE PROGRAM			1,000	+ 1,000	+ 1,000
DEPARTMENTAL ADMINISTRATION					
Administrative operations:					
Salaries and expenses:					
Office of the Secretary:					
Program direction	5,089	5,300	5,300	+ 211	.....
Chief Financial Officer	49,242	48,484	48,484	- 758	.....
Chief Information Officer	74,492	91,443	.....	- 74,492	- 91,443
Office of Indian energy policy and programs	16,000	10,000	.....	- 16,000	- 10,000
Congressional and intergovernmental affairs	6,200	6,200	6,200	.....	.....
Economic impact and diversity	10,169	10,000	.....	- 10,169	- 10,000
Other Departmental Administration	185,134	173,225	258,468	+ 73,334	+ 85,243
Subtotal, Salaries and expenses	346,326	344,652	318,452	- 27,874	- 26,200
Subtotal, Administrative operations	346,326	344,652	318,452	- 27,874	- 26,200
Strategic partnership projects	40,000	40,000	40,000	.....	.....
Subtotal, Departmental administration	386,326	384,652	358,452	- 27,874	- 26,200
Use of prior-year balances	- 20,610	.....	.....	+ 20,610	.....
Funding from other defense activities	- 119,716	- 143,000	- 119,716	.....	+ 23,284
Total, Departmental administration (gross)	246,000	241,652	238,736	- 7,264	- 2,916
Miscellaneous revenues	- 103,000	- 96,000	- 96,000	+ 7,000	.....
TOTAL, DEPARTMENTAL ADMINISTRATION (net)	143,000	145,652	142,736	- 264	- 2,916
OFFICE OF THE INSPECTOR GENERAL					
Office of the inspector general	44,424	49,000	49,000	+ 4,576	.....
TOTAL, OFFICE OF THE INSPECTOR GENERAL	44,424	49,000	49,000	+ 4,576	.....
TOTAL, ENERGY PROGRAMS	11,283,690	7,510,899	11,100,986	- 182,704	+ 3,590,087

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
ATOMIC ENERGY DEFENSE ACTIVITIES					
NATIONAL NUCLEAR SECURITY ADMINISTRATION					
WEAPONS ACTIVITIES					
Directed stockpile work:					
B61 Life extension program	616,079	788,572	788,572	+ 172,493	.....
W76 Life extension program	222,880	224,134	224,134	+ 1,254	.....
W88 Alteration program	281,129	332,292	332,292	+ 51,163	.....
W80-4 Life extension program	220,253	399,090	399,090	+ 178,837	.....
Stockpile systems			475,000	+ 475,000	+ 475,000
B61 Stockpile systems	57,313	59,729	.....	- 57,313	- 59,729
W76 Stockpile systems	38,604	51,400	.....	- 38,604	- 51,400
W78 Stockpile systems	56,413	60,100	.....	- 56,413	- 60,100
W80 Stockpile systems	64,631	80,087	.....	- 64,631	- 80,087
B83 Stockpile systems	41,659	35,762	.....	- 41,659	- 35,762
W87 Stockpile systems	81,982	83,200	.....	- 81,982	- 83,200
W88 Stockpile systems	103,074	131,576	.....	- 103,074	- 131,576
Subtotal	443,676	501,854	475,000	+ 31,324	- 26,854
Weapons dismantlement and disposition	56,000	52,000	56,000	.....	+ 4,000
Stockpile services:					
Production support	447,527	470,400	470,400	+ 22,873	.....
Research and Development support	34,187	31,150	31,150	- 3,037	.....
R and D certification and safety	156,481	196,840	180,000	+ 23,519	- 16,840
Management, technology, and production	251,978	285,400	285,400	+ 33,422	.....
Subtotal	890,173	983,790	966,950	+ 76,777	- 16,840
Strategic materials:					
Uranium sustainment	20,988	20,579	20,579	- 409	.....
Plutonium sustainment	184,970	210,367	200,000	+ 15,030	- 10,367
Tritium sustainment	109,787	198,152	190,000	+ 80,213	- 8,152

Domestic uranium enrichment	50,000	60,000	60,000	60,000	+ 10,000	.....
Strategic materials sustainment	212,092	206,196	200,000	200,000	- 12,092	- 6,196
Subtotal	577,837	695,294	670,579	670,579	+ 92,742	- 24,715
Subtotal, Directed stockpile work	3,308,027	3,977,026	3,912,617	3,912,617	+ 604,590	- 64,409
Research, Development, Test and Evaluation (RD&E):						
Science:						
Advanced certification	60,000	57,710	57,710	57,710	- 2,290	.....
Primary assessment technologies	99,000	89,313	89,313	89,313	- 9,687	.....
Dynamic materials properties	106,000	122,347	110,000	110,000	+ 4,000	- 12,347
Advanced radiography	45,700	37,600	37,600	37,600	- 8,100	.....
Secondary assessment technologies	76,000	76,833	76,833	76,833	+ 833	.....
Academic alliances and partnerships	49,800	52,963	40,000	40,000	- 9,800	- 12,963
Enhanced capabilities for subcritical experiments .....	.....	50,755	40,105	40,105	+ 40,105	- 10,650
Subtotal	436,500	487,521	451,561	451,561	+ 15,061	- 35,960
Engineering:						
Enhanced surety	37,196	39,717	37,196	37,196	.....	- 2,521
Weapons system engineering assessment technology	16,958	23,029	23,029	23,029	+ 6,071	.....
Nuclear survivability	36,100	45,230	45,230	45,230	+ 9,130	.....
Enhanced surveillance	42,228	45,147	42,228	42,228	.....	- 2,919
Stockpile responsiveness .....	.....	40,000	.....	.....	.....	- 40,000
Subtotal	132,482	193,123	147,683	147,683	+ 15,201	- 45,440
Inertial confinement fusion ignition and high yield:						
Ignition	77,932	79,575	79,575	79,575	+ 1,643	.....
Support of other stockpile programs	23,363	23,565	23,565	23,565	+ 202	.....
Diagnostics, cryogenics and experimental support	64,196	77,915	77,915	77,915	+ 13,719	.....
Pulsed power inertial confinement fusion	5,616	7,596	7,596	7,596	+ 1,980	.....
Joint program in high energy density laboratory plasmas	9,492	9,492	9,492	9,492	.....	.....
Facility operations and target production	342,360	334,791	346,791	346,791	+ 4,431	+ 12,000
Subtotal	522,959	532,934	544,934	544,934	+ 21,975	+ 12,000
Advanced simulation and computing	663,184	709,244	709,244	709,244	+ 46,060	.....
Construction:						
18-D-670 Exascale class computer cooling equipment L1NL .....	.....	22,000	22,000	22,000	+ 22,000	.....
18-D-620 Exascale computing facility modernization project .....	.....	3,000	3,000	3,000	+ 3,000	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Advanced manufacturing development:					
Additive manufacturing	12,000	12,000	12,000		
Component manufacturing development	46,583	38,644	38,644	- 7,939	
Process technology development	28,522	29,896	34,896	+ 6,374	+ 5,000
Subtotal	87,105	80,540	85,540	- 1,565	+ 5,000
Subtotal, RDT&E	1,842,230	2,028,362	1,963,962	+ 121,732	- 64,400
Infrastructure and Operations (formerly RTBF):					
Operations of facilities	824,000	868,000	824,000		- 44,000
Safety and environmental operations	110,000	116,000	110,000		- 6,000
Maintenance and repair of facilities	324,000	360,000	324,000		- 36,000
Recapitalization:					
Infrastructure and safety	430,509	312,492	312,492	- 118,017	
Capability based investments	112,639	114,850	114,850	+ 2,211	
Bannister federal complex disposition	200,000			- 200,000	
Subtotal, Recapitalization	743,148	427,342	427,342	- 315,806	
Construction:					
18-D-650 Material staging facility, PX					
18-D-660 Fire station, Y-12		28,000	28,000	+ 28,000	
18-D-620 Lithium production capability			5,000	+ 5,000	+ 5,000
18-D-650 Tritium production capability, SRS		6,800	6,800	+ 6,800	
17-D-125 RLUOB reconfiguration project, LANL	1,000			- 1,000	
17-D-126 PF-4 reconfiguration project, LANL	8,000			- 8,000	
17-D-640 U1a complex enhancements project, NNSA	11,500	22,100	22,100	+ 10,600	
17-D-630 Electrical distribution system, LLNL	25,000	6,000	6,000	- 19,000	
16-D-515 Albuquerque Complex project	15,047	98,000	98,000	+ 82,953	
15-D-613 Emergency Operations Center, Y-12	2,000	7,000	7,000	+ 5,000	
15-D-302 TA-55 Reinvestment project III, LANL	2,000			- 2,000	
07-D-220 Radioactive liquid waste treatment facility, LANL		2,100	2,100	+ 2,100	

07-0-220-04 TRU liquid waste facility, LANL	17,053	17,895	17,895	+ 842	.....
06-D-141 Uranium Processing Facility, Y-12	575,000	663,000	663,000	+ 88,000	.....
Chemistry and metallurgy replacement (CMRR):					
04-D-125 Chemistry and metallurgy replacement project, LANL	75,000	180,900	180,900	+ 180,900	.....
04-D-125-04 RLUB equipment installation, phase 2	75,615	.....	.....	- 75,000	.....
04-D-125-05 PF-4 equipment installation .....	.....	.....	.....	- 75,615	.....
Subtotal, CMRR	150,615	180,900	180,900	+ 30,285	.....
Subtotal, Construction	807,215	1,031,795	1,036,795	+ 229,580	+ 5,000
Subtotal, Infrastructure and Operations	2,808,363	2,803,137	2,722,137	- 86,226	- 81,000
Secure transportation asset:					
Operations and equipment	151,771	219,464	185,000	+ 33,229	- 34,464
Program direction	97,118	105,600	105,600	+ 8,482	.....
Subtotal, Secure transportation asset	248,889	325,064	290,600	+ 41,711	- 34,464
Defense nuclear security:					
Defense nuclear security	670,000	686,977	686,977	+ 16,977	.....
Security improvements program .....	.....	.....	.....	.....	.....
Construction:					
17-D-710 West end protected area reduction project, Y-12	2,500	.....	5,000	+ 2,500	+ 5,000
14-D-710 Device assembly facility argus installation project, IW	13,000	.....	.....	- 13,000	.....
Subtotal, Defense nuclear security	685,500	686,977	691,977	+ 6,477	+ 5,000
Information technology and cyber security	176,592	186,728	186,728	+ 10,136	.....
Legacy contractor pensions	248,492	232,050	232,050	- 16,442	.....
Subtotal, Weapons Activities	9,318,093	10,239,344	10,000,071	+ 681,978	- 239,273
Rescission	- 64,126	.....	.....	+ 64,126	.....
Budget amendment rescission	- 8,400	.....	.....	+ 8,400	.....
TOTAL WEAPONS ACTIVITIES	9,245,567	10,239,344	10,000,071	+ 754,504	- 239,273

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
DEFENSE NUCLEAR NONPROLIFERATION					
Defense Nuclear Nonproliferation Programs:					
Global material security:					
International nuclear security	66,027	46,339	46,339	-19,688	.....
Domestic radiologic security	87,199	85,764	97,433	+10,234	+11,669
International radiologic security	68,907	60,576	68,907	.....	+8,331
Nuclear smuggling detection	144,975	144,429	144,429	-546	.....
Subtotal, Global material security	367,108	337,108	357,108	-10,000	+20,000
Material management and minimization:					
Conversion	75,615	125,500	130,500	+54,885	+5,000
Nuclear material removal	68,902	32,925	32,925	-35,977	.....
Material disposition	143,833	173,669	173,669	+29,836	.....
Subtotal, Material management and minimization	288,350	332,094	337,094	+48,744	+5,000
Nonproliferation and arms control	124,703	129,703	124,703	.....	-5,000
Defense nuclear nonproliferation R&D:					
Defense nuclear nonproliferation R&D	469,750	446,095	436,095	-33,655	-10,000
Proliferation detection .....	.....	.....	.....	.....	.....
Nuclear detonation detection .....	.....	.....	.....	.....	.....
LEU fuels development .....	.....	.....	.....	.....	.....
Subtotal, Defense nuclear nonproliferation R&D	469,750	446,095	436,095	-33,655	-10,000
Nonproliferation construction:					
99-D-143 Mixed Oxide (MOX) Fuel Fabrication Facility, SRS	335,000	270,000	270,000	-65,000	.....
18-D-150 Surplus plutonium disposition project, SRS .....	.....	9,000	9,000	+9,000	.....
18-D-150 Plutonium removal project, SRS .....	.....	.....	.....	.....	.....
Subtotal, Nonproliferation construction	335,000	279,000	279,000	-56,000	.....

Legacy contractor pensions	83,208	40,950	40,950	-42,258	.....
Nuclear counterterrorism and incident response	271,881	277,360	277,360	+5,479	.....
Use of prior-year balances	-38,000	.....	.....	+38,000	.....
Subtotal, Defense Nuclear Nonproliferation	1,902,000	1,842,310	1,852,310	-49,690	+10,000
Rescission	-19,128	-49,000	.....	+19,128	+49,000
TOTAL, DEFENSE NUCLEAR NONPROLIFERATION	1,882,872	1,793,310	1,852,310	-30,562	+59,000
NAVAL REACTORS					
Naval reactors development	440,338	473,267	461,267	+20,929	-12,000
Columbia-class reactor systems development	213,700	156,700	156,700	-57,000	.....
S8G Prototype refueling	124,000	190,000	190,000	+66,000	.....
Naval reactors operations and infrastructure	449,682	466,884	466,884	+17,202	.....
Construction:					
17-D-911 BL Fire System Upgrade	1,400	.....	.....	-1,400	.....
15-D-904 NRF Overpack Storage Expansion 3	700	13,700	700	.....	-13,000
15-D-903 KL Fire System Upgrade .....	.....	15,000	15,000	+15,000	.....
15-D-902 KS Engine room team trainer facility	33,300	.....	.....	-33,300	.....
14-D-901 Spent fuel handling recapitalization project, NRF	100,000	116,000	102,000	+2,000	-14,000
10-D-903 Security upgrades, KAPL	12,900	.....	.....	-12,900	.....
Subtotal, Construction	148,300	144,700	117,700	-30,600	-27,000
Program direction	44,100	48,200	44,100	.....	-4,100
Rescission	-307	.....	.....	+307	.....
TOTAL, NAVAL REACTORS	1,419,813	1,479,751	1,436,651	+16,838	-43,100
FEDERAL SALARIES AND EXPENSES	390,000	418,595	396,000	+6,000	-22,595
TOTAL, FEDERAL SALARIES AND EXPENSES	390,000	418,595	396,000	+6,000	-22,595
TOTAL, NATIONAL NUCLEAR SECURITY ADMINISTRATION	12,938,252	13,931,000	13,685,032	+746,780	-245,968
Closure sites administration	9,389	4,889	4,889	-4,500	.....
DEFENSE ENVIRONMENTAL CLEANUP					

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Richland:					
River corridor and other cleanup operations	143,755	58,692	163,692	+ 19,937	+ 105,000
Central plateau remediation	659,818	637,879	637,879	- 21,939	.....
RL Community and regulatory support	24,701	5,121	10,121	- 14,580	+ 5,000
RL Safeguards and security .....	.....	.....	.....	.....	.....
Construction:					
18-D-404 WESF Modifications and capsule storage .....	.....	6,500	6,500	+ 6,500	.....
15-D-401 Containerized sludge removal annex, RL	11,486	8,000	8,000	- 3,486	.....
Subtotal, Richland	839,760	716,192	826,192	- 13,568	+ 110,000
Office of River Protection:					
Waste treatment and immobilization plant commissioning	3,000	8,000	8,000	+ 5,000	.....
Rad liquid tank waste stabilization and disposition	733,965	713,311	719,000	- 14,965	+ 5,689
Construction:					
15-D-409 Low activity waste pretreatment system	73,000	93,000	93,000	+ 20,000	.....
01-D-16 A-D, Waste treatment and immobilization plant	593,000	655,000	680,000	+ 87,000	+ 25,000
18-D-16 Waste treatment and immobilization plant—LBL/Direct feed LAW .....	.....	.....	.....	.....	.....
01-D-16 D High-level waste facility .....	.....	.....	.....	.....	.....
01-D-16 E, Pretreatment facility	97,000	35,000	90,000	- 7,000	+ 55,000
Total, Construction	763,000	783,000	863,000	+ 100,000	+ 80,000
Subtotal, Office of river protection	1,499,965	1,504,311	1,590,000	+ 90,035	+ 85,689
Idaho National Laboratory:					
Idaho cleanup and waste disposition	379,088	346,155	346,155	- 32,933	.....
Idaho community and regulatory support	3,000	4,071	4,071	+ 1,071	.....
Total, Idaho National Laboratory	382,088	350,226	350,226	- 31,862	.....
MNSA sites and Nevada offices:					
Lawrence Livermore National Laboratory	1,396	1,175	1,175	- 221	.....
Separations Process Research Unit	3,685	1,800	1,800	- 1,885	.....

Nevada	62,176	60,136	60,136	60,136	-2,040	.....
Sandia National Laboratory	4,130	2,600	2,600	2,600	-1,530	.....
Los Alamos National Laboratory	194,000	191,629	217,529	217,529	+23,529	+25,900
Total, NNSA sites and Nevada off-sites	265,387	257,340	283,240	283,240	+17,853	+25,900
Oak Ridge Reservation:						
OR Nuclear facility D&D	131,851	77,479	118,203	118,203	-13,648	+40,724
U233 disposition program	43,311	33,784	50,311	50,311	+7,000	+16,527
OR Cleanup and waste disposition	68,457	66,632	71,000	71,000	+2,543	+4,368
Construction:						
17-D-401 On-site waste disposal facility	6,000	5,000	10,000	10,000	+4,000	+5,000
14-D-403 Outfall 200 mercury treatment facility	5,100	17,100	17,100	17,100	+12,000	.....
Subtotal, Construction	11,100	22,100	27,100	27,100	+16,000	+5,000
OR Community & regulatory support	5,500	4,605	5,605	5,605	+105	+1,000
OR Technology development and deployment	3,000	3,000	3,000	3,000	.....	.....
Total, Oak Ridge Reservation	263,219	207,600	275,219	275,219	+12,000	+67,619
Savannah River Site:						
SR Site risk management operations	448,980	.....	.....	.....	-448,980	.....
Nuclear Material Management .....	.....	323,482	311,015	311,015	+311,015	-12,467
Environmental Cleanup .....	.....	159,478	159,478	159,478	+159,478	.....
SR Community and regulatory support	11,249	11,249	11,249	11,249	.....	.....
SR Radioactive liquid tank waste stabilization and disposition	600,123	597,258	597,258	597,258	-2,865	.....
Construction:						
18-D-401 Saltstone disposal unit #8/9 .....	.....	500	500	500	+500	.....
18-D-402 Emergency Operations Center Replacement, SR .....	.....	500	500	500	+500	.....
17-D-402 Saltstone disposal Unit #7, SRS	5,500	40,000	30,000	30,000	+24,500	-10,000
15-D-402 Saltstone disposal Unit #6, SRS	7,577	.....	.....	.....	-7,577	.....
05-D-405 Salt waste processing facility, SRS	160,000	150,000	150,000	150,000	-10,000	.....
Total, Savannah River Site	1,233,429	1,282,467	1,260,000	1,260,000	+26,571	-22,467
Waste Isolation Pilot Plant:						
Waste Isolation Pilot Plant	260,188	250,971	260,971	260,971	+783	+10,000
Construction:						
15-D-411 Safety significant confinement ventilation system, WIPP	2,532	46,000	20,000	20,000	+17,468	-26,000
15-D-412 Exhaust shaft, WIPP	30,000	19,600	20,000	20,000	-10,000	+400

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Total, Waste isolation pilot plant	292,720	316,571	300,971	+ 8,251	- 15,600
Program direction	290,050	300,000	290,150	+ 100	- 9,850
Program support	14,979	35,088	14,979		- 20,109
Safeguards and Security	262,189	269,160	304,102	+ 41,913	+ 34,942
Technology development	25,025	25,000	25,000	- 25	
CB-0101 Economic assistance to the state of NM	26,800	43,342		- 26,800	- 43,342
Cyber security				+ 55,000	- 170,000
Excess facilities		225,000	55,000		
Subtotal, Defense Environmental Cleanup	5,405,000	5,537,186	5,579,968	+ 174,968	+ 42,782
TOTAL, DEFENSE ENVIRONMENTAL CLEAN UP	5,405,000	5,537,186	5,579,968	+ 174,968	+ 42,782
DEFENSE URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING	563,000		788,000	+ 225,000	+ 788,000
OTHER DEFENSE ACTIVITIES					
Environment, health, safety and security:					
Environment, health, safety and security	126,972	130,693	126,972		- 3,721
Program direction	64,000	68,765	64,000		- 4,765
Subtotal, Environment, Health, safety and security	190,972	199,458	190,972		- 8,486
Independent enterprise assessments:					
Independent enterprise assessments	24,580	24,068	24,068	- 512	
Program direction	51,000	50,863	50,863	- 137	
Subtotal, Independent enterprise assessments	75,580	74,931	74,931	- 649	
Specialized security activities	237,912	237,912	238,170	+ 258	+ 258
Office of Legacy Management:					
Legacy management	140,306	137,674	137,674	- 2,632	

Program direction	14,014	16,932	16,932	+ 2,918	.....
Subtotal, Office of Legacy Management	154,320	154,606	154,606	+ 286	.....
Defense related administrative support	119,716	143,000	119,716	.....	- 23,284
Office of hearings and appeals	5,500	5,605	5,605	+ 105	.....
TOTAL, OTHER DEFENSE ACTIVITIES	784,000	815,512	784,000	.....	- 31,512
DEFENSE NUCLEAR WASTE DISPOSAL .....	.....	30,000	.....	.....	- 30,000
TOTAL, ATOMIC ENERGY DEFENSE ACTIVITIES	19,690,252	20,313,698	20,837,000	+ 1,146,748	+ 523,302
POWER MARKETING ADMINISTRATIONS ¹					
SOUTHEASTERN POWER ADMINISTRATION					
Operation and maintenance:	78,929	75,055	75,055	- 3,874	.....
Purchase power and wheeling	6,000	6,379	6,379	+ 379	.....
Program direction .....	.....	.....	.....	.....	.....
Subtotal, Operation and maintenance	84,929	81,434	81,434	- 3,495	.....
Less alternative financing (PPW)	- 18,169	- 15,070	- 15,070	+ 3,099	.....
Offsetting collections (for PPW)	- 60,760	- 59,985	- 59,985	+ 775	.....
Offsetting collections (PD)	- 1,000	- 6,379	- 6,379	- 5,379	.....
Use of prior-year balances	- 5,000	.....	.....	+ 5,000	.....
TOTAL, SOUTHEASTERN POWER ADMINISTRATION .....	.....	.....	.....	.....	.....
SOUTHWESTERN POWER ADMINISTRATION					
Operation and maintenance:	13,896	16,680	16,680	+ 2,784	.....
Operating expenses	83,000	93,000	93,000	+ 10,000	.....
Purchase power and wheeling	31,516	31,335	31,335	- 181	.....
Program direction	12,486	14,932	14,932	+ 2,446	.....
Construction .....	.....	.....	.....	.....	.....
Subtotal, Operation and maintenance	140,898	155,947	155,947	+ 15,049	.....
Less alternative financing (for O&M)	- 6,269	- 9,042	- 9,042	- 2,773	.....
Less alternative financing (for PPW)	- 10,000	- 10,000	- 10,000	.....	.....
Less alternative financing (Const)	- 5,986	- 9,417	- 9,417	- 3,431	.....
Offsetting collections (PD)	- 29,271	- 16,035	- 16,035	+ 13,236	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Offsetting collections (for O&M)	-5,315	-2,853	-2,853	+2,462	.....
Offsetting collections (for PPW)	-73,000	-83,000	-83,000	-10,000	.....
Use of prior-year balances .....	.....	-14,200	-14,200	-14,200	.....
TOTAL, SOUTHWESTERN POWER ADMINISTRATION	11,057	11,400	11,400	+343	.....
WESTERN AREA POWER ADMINISTRATION					
Operation and maintenance:					
Construction and rehabilitation	62,442	52,272	52,272	-10,170	.....
Operation and maintenance	76,697	72,407	72,407	-4,290	.....
Purchase power and wheeling	581,634	597,997	597,997	+16,363	.....
Program direction	226,497	235,722	235,722	+9,225	.....
Subtotal, Operation and maintenance	947,270	958,398	958,398	+11,128	.....
Less alternative financing (for O&M)	-43,884	-40,500	-40,500	+3,384	.....
Less alternative financing (for Construction)	-6,343	-8,056	-8,056	-1,713	.....
Less alternative financing (for Program Dir.)	-214,625	-289,072	-289,072	-74,447	.....
Less alternative financing (for PPW)	-150,441	-150,392	-150,392	+49	.....
Offsetting collections (for program direction)	-27,122	-23,922	-23,922	+3,200	.....
Offsetting collections (for O&M)	-367,009	-308,925	-308,925	+58,084	.....
Offsetting collections (Public Law 108-477; Public Law 109-103)	-8,265	-9,306	-9,306	-1,041	.....
Offsetting collections (Public Law 98-381)	-34,000	-34,853	-34,853	-853	.....
Use of prior-year balances .....	.....	.....	.....	.....	.....
TOTAL, WESTERN AREA POWER ADMINISTRATION	95,581	93,372	93,372	-2,209	.....
FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND					
Operation and maintenance	4,393	5,048	5,048	+655	.....
Offsetting collections	-3,838	-3,948	-3,948	-110	.....
Less alternative financing	-323	-872	-872	-549	.....

	232	228	228	228	- 4
TOTAL, FALCON AND AMISTAD O&M FUND					
TOTAL, POWER MARKETING ADMINISTRATIONS	106,870	105,000	105,000	- 1,870	
FEDERAL ENERGY REGULATORY COMMISSION					
Federal Energy Regulatory Commission	346,800	367,600	367,600	+ 20,800	
FERC revenues	- 346,800	- 367,600	- 367,600	- 20,800	
General Provisions					
Title III Rescissions:					
Fossil Energy Research and Development	- 240,000			+ 240,000	
Energy Programs and PMAs	- 81,063			+ 81,063	
Atomic Energy Defense Activities	- 13,740			+ 13,740	
Uranium lease and take-back revolving fund	10,000	10,000			- 10,000
Uranium lease and take-back revolving fund initial capitalization	1,000	1,000			
Northeast gasoline supply reserve sale	- 70,000	- 70,000			
Weapons activities (rescission)		- 64,000			- 64,000
Defense Nuclear Nonproliferation (rescission)		- 49,000			- 49,000
Sec. 309(e) (rescission)		- 236,700			- 236,700
Sec. 309(b) (rescission)			- 160,660		- 160,660
Total, General Provisions	- 334,803	- 59,000	- 579,360	- 244,557	- 520,360
GRAND TOTAL, DEPARTMENT OF ENERGY	30,746,009	27,870,597	31,463,626	+ 717,617	+ 3,593,029
(Total amount appropriated)	(31,181,773)	(28,215,964)	(31,973,986)	(+ 792,213)	(+ 3,758,022)
(Rescissions)	(- 435,764)	(- 345,367)	(- 510,360)	(- 74,596)	(- 164,993)
SUMMARY OF ACCOUNTS					
Energy efficiency and renewable energy	2,090,200	636,149	1,936,988	- 153,212	+ 1,300,839
Electricity delivery and energy reliability	230,000	120,000	213,141	- 16,859	+ 93,141
Nuclear energy	1,016,616	703,000	917,020	- 99,596	+ 214,020
Fossil Energy Research and Development	668,000	280,000	572,701	- 95,299	+ 292,701
Naval Petroleum & Oil Shale Reserves	14,950	4,900	4,900	- 10,050	
Strategic petroleum reserve	223,000	180,000	180,000	- 43,000	
SPR Petroleum Account		8,400			- 8,400
Northeast home heating oil reserve	6,500	6,500	6,500		
Energy Information Administration	122,000	118,000	122,000		+ 4,000
Non-Defense Environmental Cleanup	247,000	218,400	266,000	+ 19,000	+ 47,600

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	Enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Enacted	Budget estimate
Uranium enrichment D&D fund	768,000	752,749	788,000	+ 20,000	+ 35,251
Nuclear Waste Disposal	90,000	90,000	90,000	—	—
Science	5,392,000	4,472,516	5,550,000	+ 158,000	+ 1,077,484
Advanced Research Projects Agency-Energy	306,000	- 26,367	330,000	+ 24,000	+ 356,367
Departmental administration	143,000	145,652	142,736	- 264	- 2,916
Office of the Inspector General	44,424	49,000	49,000	+ 4,576	—
Title 17 Innovative technology loan guarantee program	7,000	- 250,000	5,000	- 7,000	+ 250,000
Advanced technology vehicles manufacturing loan pgrm	5,000	2,000	1,000	- 1,000	+ 3,000
Tribal Energy Loan Guarantee program	—	—	—	—	+ 1,000
Atomic energy defense activities:					
National Nuclear Security Administration:					
Weapons activities	9,245,567	10,239,344	10,000,071	+ 754,504	- 239,273
Defense nuclear nonproliferation	1,882,872	1,793,310	1,852,310	- 30,562	+ 59,000
Naval reactors	1,419,813	1,479,751	1,436,651	+ 16,838	- 43,100
Federal Salaries and Expenses	390,000	418,595	396,000	+ 6,000	- 22,595
Subtotal, National Nuclear Security Admin	12,938,252	13,931,000	13,685,032	+ 746,780	- 245,968
Defense environmental cleanup	5,405,000	5,537,186	5,579,968	+ 174,968	+ 42,782
Defense uranium enrichment decontamination and decommissioning	563,000	—	788,000	+ 225,000	+ 788,000
Other defense activities	784,000	815,512	784,000	—	- 31,512
Defense nuclear waste disposal	—	30,000	—	—	- 30,000
Total, Atomic Energy Defense Activities	19,690,252	20,313,698	20,837,000	+ 1,146,748	+ 523,302
Power marketing administrations (1):					
Southeastern Power Administration	11,057	11,400	11,400	+ 343	—
Southwestern Power Administration	95,581	93,372	93,372	- 2,209	—
Western Area Power Administration	232	228	228	- 4	—
Falcon and Amistad operating and maintenance fund	—	—	—	—	—
Total, Power Marketing Administrations	106,870	105,000	105,000	- 1,870	—

Federal Energy Regulatory Commission:					
Salaries and expenses	346,800	367,600	367,600	+ 20,800	.....
Revenues	- 346,800	- 367,600	- 367,600	- 20,800	.....
General Provisions	- 334,803	- 59,000	- 579,360	- 244,557	- 520,360
Total Summary of Accounts, Department of Energy	30,746,009	27,870,597	31,463,626	+ 717,617	+ 3,593,029

¹ Totals include alternative financing costs, reimbursable agreement funding, and power purchase and wheeling expenditures. Offsetting collection totals reflect funds collected for annual expenses, including power purchase and wheeling.

GENERAL PROVISIONS—DEPARTMENT OF ENERGY

Section 301. Language is included on the execution of appropriations, including reprogramming, and congressional notification.

Section 302. Language is included specifically authorizing intelligence activities pending enactment of the fiscal year 2018 Intelligence Authorization Act.

Section 303. The bill includes a provision related to nuclear safety requirements.

Section 304. The bill includes language related to independent cost estimates.

Section 305. The bill includes language concerning full funding of awards.

Section 306. The bill includes language concerning Uranium Lease and Take-Back Fund.

Section 307. The bill includes language concerning a pilot program related to consolidated storage of spent nuclear fuel.

Section 308. The bill includes language regarding reprogramming authority.

Section 309. The bill includes a rescission.

Section 310. The bill includes a rescission.

Section 311. The bill includes a rescission.

Section 312. The bill includes language concerning the Strategic Petroleum Reserve.

Section 313. The bill includes language concerning a report by the Secretary of Energy.

TITLE IV

INDEPENDENT AGENCIES

The budget request proposes to eliminate several independent agencies, including the Appalachian Regional Commission, Delta Regional Authority, Denali Commission, and Northern Border Regional Commission. The budget requests funding to conduct close-out of the agencies in fiscal year 2018. The Committee strongly opposes the termination of these agencies, and recommends funding to continue their activities. The Administration shall continue all activities funded by this Act, as well as follow directive language included in this report. No funds shall be used for the planning of or implementation of termination of these agencies.

APPALACHIAN REGIONAL COMMISSION

Appropriations, 2017	\$152,000,000
Budget estimate, 2018	26,700,000
Committee recommendation	142,000,000

The Committee recommends \$142,000,000 for the Appalachian Regional Commission [ARC]. Established in 1965, the Appalachian Regional Commission is an economic development agency composed of 13 Appalachian States and a Federal co-chair appointed by the President. Within available funding, \$70,000,000 is provided for base funds.

Further, not less than \$16,000,000 shall be for a program of industrial site and workforce development in Southern and South Central Appalachia, focused primarily on the automotive supplier sector and the aviation sector. Up to \$13,500,000 of that amount is recommended for activities in Southern Appalachia. The funds shall be distributed according to the Commission’s Distressed Counties Formula, which is comprised of land area, population estimates, and a proportion of the number of distressed counties.

Within available funding, the Committee recommends \$6,000,000 for a program of basic infrastructure improvements in distressed counties in Central Appalachia. Funds shall be distributed according to ARC’s distressed counties formula and shall be in addition to the regular allocation to distressed counties.

Within available funds, the Committee recommends \$50,000,000 for the POWER Initiative to support communities, primarily in Appalachia, that have been adversely impacted by the closure of coal-powered generating plants and a declining coal industry by providing resources for economic diversification, job creation, job training, and other employment services.

DEFENSE NUCLEAR FACILITIES SAFETY BOARD
SALARIES AND EXPENSES

Appropriations, 2017	\$30,872,000
Budget estimate, 2018	30,600,000
Committee recommendation	30,000,000

The Committee recommends \$30,000,000 for the Defense Nuclear Facilities Safety Board. Congress permanently authorized the Inspector General for the Nuclear Regulatory Commission to serve as the Inspector General for the Defense Nuclear Facilities Safety Board. The Committee recommendation includes \$1,131,000 within the Office of Inspector General of the Nuclear Regulatory Commission to perform these services.

DELTA REGIONAL AUTHORITY

Appropriations, 2017	\$25,000,000
Budget estimate, 2018	2,500,000
Committee recommendation	25,000,000

The Committee recommends \$25,000,000 for the Delta Regional Authority [DRA]. The DRA is a Federal-State partnership that is designed to assist the eight-State Mississippi Delta Region in developing basic infrastructure, transportation, skill training, and opportunities for economic development for distressed counties and parishes. Within available funds, not less than \$10,000,000 shall be used for flood control, basic public infrastructure development and transportation improvements, which shall be allocated separate from the State formula funding method. The Committee does not include a statutory waiver with regard to DRA's priority of funding, and directs DRA to focus on activities relating to basic public infrastructure and transportation infrastructure before allocating funding toward other priority areas.

DENALI COMMISSION

Appropriations, 2017	\$15,000,000
Budget estimate, 2018	7,300,000
Committee recommendation	15,000,000

The Committee recommends \$15,000,000 for the Denali Commission. The Denali Commission is a Federal-State partnership responsible for promoting infrastructure development, job training, and other economic support services in rural areas throughout Alaska.

NORTHERN BORDER REGIONAL COMMISSION

Appropriations, 2017	\$10,000,000
Budget estimate, 2018	850,000
Committee recommendation	15,000,000

The Committee recommends \$15,000,000 for the Northern Border Regional Commission. Within available funds, no less than \$3,000,000 is for initiatives that seek to address the decline in forest-based economies throughout the region.

NUCLEAR REGULATORY COMMISSION

SALARIES AND EXPENSES

Appropriations, 2017	\$905,000,000
Budget estimate, 2018	939,137,000
Committee recommendation	914,137,000

REVENUES

Appropriations, 2017	-\$794,580,000
Budget estimate, 2018	-803,409,000
Committee recommendation	-807,848,000

NET APPROPRIATION

Appropriations, 2017	\$110,420,000
Budget estimate, 2018	135,728,000
Committee recommendation	106,221,000

The Commission's mission is to ensure the safety and security of the nation's use of nuclear power and nuclear materials and protect the workers and public who use and benefit from these materials and facilities. The Committee recommends \$914,137,000 for the Nuclear Regulatory Commission [Commission], a decrease of \$25,000,000 from the budget request. The Committee's recommendation requires the use of \$10,000,000 of unobligated balances from prior appropriations. This amount is offset by estimated revenues of \$807,848,000, resulting in a net appropriation of \$106,221,000. In developing this recommendation, the Committee has consulted with the Commission to ensure it maintains its gold-standard health and safety mission while reducing low-priority work. The Committee recommends that the unobligated balance of \$68,076.04 provided to the Commission from the United States Agency for International Development in 1994 pursuant to section 632(a) of the Foreign Assistance Act of 1961, for which there is no currently authorized use, be rescinded.

Budget Execution Plan.—The Commission is directed to provide the Committees on Appropriations of both Houses of Congress with a specific budget execution plan no later than 30 days after the date of enactment of this act. This plan shall provide details at the product line level within each of the control points, as applicable, included in the table after the Office of Inspector General heading below.

Budget Control Points.—The recommendation includes budget control points for fiscal year 2018 to ensure the Commission's budget execution follows congressional intent. These budget control points are included in the table following the heading of Office of Inspector General. As it did for fiscal year 2017, the Committee includes statutory language incorporating the new control points by reference into law, and notes that any breaches are now subject to the reporting requirements and remedies of the Antideficiency Act contained in title 31 of the United States Code.

Reprogramming Authority.—Section 402 continues reprogramming authority included in the Energy and Water Development and Related Agencies Appropriations Act, 2017, for the Commission between the budget control points, subject to prior congressional approval, with a provision made for emergency circumstances. This

reprogramming authority supersedes the Commission's existing guidance on internal reprogrammings.

Unobligated Balances from Prior Appropriations.—The Committee notes that the Commission carries unobligated balances from appropriations received prior to fiscal year 2018. The Committee's recommendation requires the use of \$10,000,000 of these balances, derived from fee-based activities. Because the Commission has already collected fees corresponding to these activities in prior years, the Committee does not include these funds within the fee base calculation for determining authorized revenues, and does not provide authority to collect additional offsetting receipts for their use. The Committee notes that any remaining unobligated balances carried forward from prior years are subject to the reprogramming guidelines in section 402, and shall only be used to supplement appropriations consistent with those guidelines.

Reductions from Efficiencies.—In the past few years, the Commission's budget has included potential savings identified by the Commission's staff based on discontinuation, de-prioritization, or incremental reductions of activities. According to the Commission's staff, including these savings has not adversely affected the Commission's safety mission. The Committee applauds the Commission's reviews of its programs to find these efficiencies, and urges the Commission to continue to identify additional efficiencies in management practices, work control processes, and staffing.

Integrated University Program.—The Committee recommends \$15,000,000 for the Integrated University Program, of which not less than \$5,000,000 is for grants to support research projects that do not align with programmatic missions but are critical to maintaining the discipline of nuclear science.

Rulemaking.—The Committee directs the Commission to provide to the Committees on Appropriations of both Houses of Congress within 90 days after the date of enactment of this act, and quarterly thereafter, an update of appendix G of the budget request regarding planned rulemakings.

Reporting Requirement.—The Committee directs the Commission to continue the reporting required in the explanatory statement for the Energy and Water Development Appropriations Act, 2017, relating to progress against the Commission's licensing goals and right-sizing commitments.

Modeling and Simulation Tools.—The continued operation of the nation's current fleet of nuclear power reactors is vitally important to our energy infrastructure. The Consortium for Advanced Simulation of Light Water Reactors [CASL] has developed modeling and simulation tools, including for the use of accident tolerant fuels, which can result in more efficient and cost-effective plant operations. Not later than 180 days after the date of enactment of this act, the Commission is directed to report to the Committees on Appropriations of both Houses of Congress the Commission's potential uses of CASL's tools in its licensing process and safety reviews.

OFFICE OF INSPECTOR GENERAL

GROSS APPROPRIATION

Appropriations, 2017	\$12,129,000
Budget estimate, 2018	12,859,000
Committee recommendation	12,859,000

REVENUES

Appropriations, 2017	\$10,044,000
Budget estimate, 2018	10,555,000
Committee recommendation	10,555,000

NET APPROPRIATION

Appropriations, 2017	\$2,085,000
Budget estimate, 2018	2,304,000
Committee recommendation	2,304,000

The Committee recommends \$12,859,000 for the Office of Inspector General, the same as the budget request, which is offset by revenues estimated at \$10,555,000, for a net appropriation of \$2,304,000. The Office of Inspector General serves both the Nuclear Regulatory Commission and the Defense Nuclear Facilities Safety Board, and the recommendation includes \$1,131,000 for that purpose that is not available from fee revenues.

In line with the Nuclear Regulatory Commission's recent Project Aim activities, the Committee encourages the Office of Inspector General to examine its own program to identify savings and efficiencies that could be realized within the Office of Inspector General without negatively impacting its mission.

NUCLEAR REGULATORY COMMISSION

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Committee recommendation compared to budget estimate
SALARIES AND EXPENSES	939,137	.....	- 939,137
NUCLEAR REACTOR SAFETY .....	.....	466,655	+ 466,655
NUCLEAR MATERIALS AND WASTE SAFETY .....	.....	113,145	+ 113,145
DECOMMISSIONING AND LOW-LEVEL WASTE .....	.....	27,980	+ 27,980
CORPORATE SUPPORT .....	.....	301,357	+ 301,357
INTEGRATED UNIVERSITY PROGRAM .....	.....	15,000	+ 15,000
SUBTOTAL	939,137	924,137	- 15,000
USE OF PRIOR YEAR BALANCES .....	.....	- 10,000	- 10,000
TOTAL, SALARIES AND EXPENSES	939,137	914,137	- 25,000
RESCISSION .....	.....	- 68	- 68
REVENUES	- 803,409	- 807,848	- 4,439
SUBTOTAL	135,728	106,221	- 29,507
OFFICE OF INSPECTOR GENERAL:			
OFFICE OF INSPECTOR GENERAL	12,859	12,859	.....
REVENUES	- 10,555	- 10,555	.....
SUBTOTAL	2,304	2,304	.....
TOTAL, NUCLEAR REGULATORY COMMISSION	138,032	108,525	- 29,507
APPROPRIATIONS	(138,032)	(108,593)	(- 29,439)

NUCLEAR REGULATORY COMMISSION—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Committee recommendation compared to budget estimate
RECISSIONS	(-68)	(-68)

NUCLEAR WASTE TECHNICAL REVIEW BOARD

Appropriations, 2017	\$3,600,000
Budget estimate, 2018	3,600,000
Committee recommendation	3,600,000

The Committee recommends \$3,600,000 for the Nuclear Waste Technical Review Board to be derived from the Nuclear Waste Fund, the same as the budget request.

GENERAL PROVISIONS

Section 401. The Committee includes language regarding Congressional requests for information.

Section 402. The Committee includes reprogramming language for the Nuclear Regulatory Commission.

TITLE V
GENERAL PROVISIONS

The following list of general provisions is recommended by the Committee:

Section 501. The provision prohibits the use of any funds provided in this bill from being used to influence congressional action.

Section 502. The provision addresses transfer authority under this act.

PROGRAM, PROJECT, AND ACTIVITY

In fiscal year 2018, for purposes of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99–177), as amended, the following information provides the definition of the term “program, project or activity” for departments and agencies under the jurisdiction of the Energy and Water Development and Related Agencies Appropriation Act. The term “program, project or activity” shall include the most specific level of budget items identified in the Energy and Water Development and Related Agencies Appropriations Bill, 2018 and the report accompanying the bill.

If a sequestration order is necessary, in implementing the Presidential order, departments and agencies shall apply any percentage reduction required for fiscal year 2018 pursuant to the provisions of Public Law 99–177 to all items specified in the report accompanying the bill by the Senate Committee on Appropriations in support of the fiscal year 2018 budget estimates as modified by congressional action.

COMPLIANCE WITH PARAGRAPH 7, RULE XVI, OF THE
STANDING RULES OF THE SENATE

Paragraph 7 of rule XVI requires Committee reports on general appropriations bills to identify each Committee amendment to the House bill “which proposes an item of appropriation which is not made to carry out the provisions of an existing law, a treaty stipulation, or an act or resolution previously passed by the Senate during that session.”

The Committee is filing an original bill, which is not covered under this rule, but reports this information in the spirit of full disclosure.

The Committee recommends funding for the following programs or activities which currently lack authorization for fiscal year 2018:

APPROPRIATIONS NOT AUTHORIZED BY LAW—FISCAL YEAR 2018

[Dollars in thousands]

Agency/Program	Last Year of Authorization	Authorization Level	Appropriation in Last Year of Authorization	Net Appropriation in this Bill
Corps FUSRAP		(1)		117,000
EERE Program Direction	2006	110,500	164,198	153,500
EERE Weatherization Activities	2012	1,400,000	68,000	215,000
EERE State Energy Programs	2012	125,000	50,000	50,000
EERE Marine and Hydrokinetic R&D	2012	50,000	34,000	57,000
Nuclear Energy	2009	495,000	792,000	788,020
Nuclear Energy Infrastructure and Facilities	2009	145,000	245,000	240,202
Fossil Energy	2009	641,000	727,320	572,701
Naval Petroleum and Oil Shale Reserves	2014	20,000	20,000	4,900
Strategic Petroleum Reserve	2003	not specified	172,856	180,000
Northeast Home Heating Oil Reserve	2003	not specified	6,000	6,500
Energy Information Administration	1984	not specified	55,870	122,000
Office of Science	2013	6,007,000	4,876,000	5,550,000
Advanced Technology Vehicle Manufacturing Program	2012	not specified	6,000	5,000
Advanced Research Projects Agency-Energy	2013	312,000	265,000	330,000
Non-Defense Environmental Cleanup:				
West Valley Demonstration	1981	5,000	5,000	75,000
Departmental Administration	1984	246,963	185,682	142,736
Atomic Energy Defense Activities:				
National Nuclear Security Administration:				
Weapons Activities	2017	9,429,029	9,245,567	10,000,071
Defense Nuclear Nonproliferation	2017	1,886,916	1,882,872	1,852,310
Naval Reactors	2017	1,417,620	1,419,813	1,436,651
Federal Salaries and Expenses	2017	395,517	390,000	396,000
Defense Environmental Cleanup	2017	5,273,558	5,405,000	5,579,968
Other Defense Activities	2017	789,552	784,000	784,000
Power Marketing Administrations:				
Southwestern	1984	40,254	36,229	11,400
Western Area	1984	259,700	194,630	93,372
Federal Energy Regulatory Commission	1984	not specified	29,582	
Defense Nuclear Facilities Safety Board	2017	31,000	30,872	30,000
Nuclear Regulatory Commission	1985	460,000	448,200	108,525

¹ Program was initiated in 1972 and has never received a separate authorization.

COMPLIANCE WITH PARAGRAPH 7(c), RULE XXVI, OF THE
STANDING RULES OF THE SENATE

Pursuant to paragraph 7(c) of rule XXVI, on July 20, 2017, the Committee ordered favorably reported a bill (S. 1609) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2018, and for other purposes, provided, that the bill be subject to amendment and that the bill be consistent with the subcommittee funding guidance, and provided that the Chairman of the Committee or his designee be authorized to offer the substance of the original bill as a Committee amendment in the nature of a substitute to the House companion measure, by a recorded vote of 30–1, a quorum being present. The vote was as follows:

Yeas	Nays
Chairman Cochran	Mr. Graham
Mr. McConnell	
Mr. Shelby	
Mr. Alexander	
Ms. Collins	
Ms. Murkowski	
Mr. Blunt	
Mr. Moran	
Mr. Hoeven	
Mr. Boozman	
Mrs. Capito	
Mr. Lankford	
Mr. Daines	
Mr. Kennedy	
Mr. Rubio	
Mr. Leahy	
Mrs. Murray	
Mrs. Feinstein	
Mr. Durbin	
Mr. Reed	
Mr. Tester	
Mr. Udall	
Mrs. Shaheen	
Mr. Merkley	
Mr. Coons	
Mr. Schatz	
Ms. Baldwin	
Mr. Murphy	
Mr. Manchin	
Mr. Van Hollen	

COMPLIANCE WITH PARAGRAPH 12, RULE XXVI, OF THE
STANDING RULES OF THE SENATE

Paragraph 12 of rule XXVI requires that Committee reports on a bill or joint resolution repealing or amending any statute or part of any statute include “(a) the text of the statute or part thereof which is proposed to be repealed; and (b) a comparative print of that part of the bill or joint resolution making the amendment and of the statute or part thereof proposed to be amended, showing by stricken-through type and italics, parallel columns, or other appropriate typographical devices the omissions and insertions which would be made by the bill or joint resolution if enacted in the form recommended by the Committee.”

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

CHAPTER 36—WATER RESOURCES DEVELOPMENT

SUBCHAPTER V—GENERAL PROVISIONS

§ 2340. Revision of project partnership agreement; cost sharing

(a) Federal allocation

* * * * *

[(c) Cost estimates

The estimated Federal and non-Federal costs of water resources projects authorized to be carried out by the Secretary before, on, or after November 8, 2007, are for informational purposes only and shall not be interpreted as affecting the cost-sharing responsibilities established by law.]

TITLE 43—PUBLIC LANDS

CHAPTER 40—RECLAMATION STATES EMERGENCY DROUGHT RELIEF

SUBCHAPTER I—DROUGHT PROGRAM

§ 2214. Applicable period of drought program

(a) In general

* * * * *

(c) Termination of authority

The authorities established under this subchapter shall terminate on September 30, **[2017]** 2022.

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SUBCHAPTER III—GENERAL AND MISCELLANEOUS PROVISIONS

§ 2241. Authorization of appropriations

Except as otherwise provided in section 2243 of this title (relating to temperature control devices at Shasta Dam, California),

there is authorized to be appropriated not more than **[\$90,000,000]** **\$120,000,000** in total for the period of fiscal years 2006 through **[2017] 2022**.

BUDGETARY IMPACT OF BILL

PREPARED IN CONSULTATION WITH THE CONGRESSIONAL BUDGET OFFICE PURSUANT TO SEC.
308(A), PUBLIC LAW 93-344, AS AMENDED

(In millions of dollars)

	Budget authority		Outlays	
	Committee guidance ¹	Amount in bill	Committee guidance ¹	Amount in bill
Comparison of amounts in the bill with Committee guidance to its subcommittees of amounts for 2018: Subcommittee on Energy and Water Development:				
Mandatory				
Discretionary	38,400	38,400	38,860	² 38,860
Security	21,000	21,000	NA	NA
Nonsecurity	17,400	17,400	NA	NA
Projections of outlays associated with the recommendation:				
2018				³ 22,776
2019				10,968
2020				3,658
2021				799
2022 and future years				515
Financial assistance to State and local governments for 2018	NA	168	NA	³

¹ There is no section 302(a) allocation to the Committee on Appropriations for fiscal year 2018.

² Includes outlays from prior-year budget authority.

³ Excludes outlays from prior-year budget authority.

NA: Not applicable.

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2017 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2018
 [In thousands of dollars]

Item	2017 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2017 appropriation	Budget estimate
TITLE I—DEPARTMENT OF DEFENSE—CIVIL					
DEPARTMENT OF THE ARMY					
Corps of Engineers—Civil					
Investigations	121,000	86,000	113,465	-7,535	+27,465
Construction	1,876,000	1,020,000	1,703,150	-172,850	+683,150
Rescission .....	.....	.....	-35,000	-35,000	-35,000
Subtotal	1,876,000	1,020,000	1,668,150	-207,850	+648,150
Mississippi River and Tributaries	362,000	253,000	375,000	+13,000	+122,000
Operation and Maintenance	3,149,000	3,100,000	3,481,475	+332,475	+381,475
Regulatory Program	200,000	200,000	200,000	.....	.....
Formerly Utilized Sites Remedial Action Program (FUSRAP)	112,000	118,000	117,000	+5,000	-1,000
Flood Control and Coastal Emergencies	32,000	35,000	21,904	-10,096	-13,096
Expenses	181,000	185,000	185,000	+4,000	.....
Office of Assistant Secretary of the Army (Civil Works)	4,764	5,000	4,406	-358	-594
Total, title I, Department of Defense—Civil	6,037,764	5,002,000	6,166,400	+128,636	+1,164,400
Appropriations	(6,037,764)	(5,002,000)	(6,201,400)	(+163,636)	(+1,199,400)
Rescissions .....	.....	.....	(-35,000)	(-35,000)	(-35,000)
TITLE II—DEPARTMENT OF THE INTERIOR					
Central Utah Project					
Central Utah Project Completion Account	10,500	8,983	10,500	.....	+1,517
Bureau of Reclamation					
Water and Related Resources	1,155,894	960,017	1,150,349	-5,545	+190,332
Central Valley Project Restoration Fund	55,606	41,376	41,376	-14,230	.....

California Bay-Delta Restoration Policy and Administration	36,000	37,000	37,000	+ 1,000	.....
	59,000	59,000	59,000	.....	.....
Total, Bureau of Reclamation	1,306,500	1,097,393	1,287,725	- 18,775	+ 190,332
<hr/>					
Total, title II, Department of the Interior	1,317,000	1,106,376	1,298,225	- 18,775	+ 191,849
<hr/>					
TITLE III—DEPARTMENT OF ENERGY					
Energy Programs					
Energy Efficiency and Renewable Energy	2,090,200	636,149	1,936,988	- 153,212	+ 1,300,839
Electricity Delivery and Energy Reliability	230,000	120,000	213,141	- 16,859	+ 93,141
Nuclear Energy	880,000	570,000	788,020	- 91,980	+ 218,020
Defense function	136,616	133,000	129,000	- 7,616	- 4,000
Subtotal	1,016,616	703,000	917,020	- 99,596	+ 214,020
Fossil Energy Research and Development	618,000	280,000	572,701	- 45,299	+ 292,701
Fossil proviso	50,000	.....	.....	- 50,000	.....
Naval Petroleum and Oil Shale Reserves	14,950	4,900	4,900	- 10,050	.....
Strategic Petroleum Reserve	223,000	180,000	180,000	- 43,000	.....
Sale of crude oil	- 340,000	- 350,000	- 350,000	- 10,000	.....
Use of sale proceeds	340,000	350,000	350,000	+ 10,000	.....
SPR petroleum account .....	.....	8,400	.....	.....	- 8,400
Subtotal .....	.....	8,400	.....	.....	- 8,400
Northeast Home Heating Oil Reserve	6,500	6,500	6,500	.....	.....
Energy Information Administration	122,000	118,000	122,000	.....	+ 4,000
Non-defense Environmental Cleanup	247,000	218,400	266,000	+ 19,000	+ 47,600
Uranium Enrichment Decontamination and Decommissioning Fund	768,000	752,749	788,000	+ 20,000	+ 35,251
Science	5,392,000	4,472,516	5,550,000	+ 158,000	+ 1,077,484
Nuclear Waste Disposal .....	.....	90,000	.....	.....	- 90,000
Advanced Research Projects Agency-Energy	306,000	20,000	330,000	+ 24,000	+ 310,000
Rescission .....	.....	- 46,367	.....	.....	+ 46,367
Subtotal	306,000	- 26,367	330,000	+ 24,000	+ 356,367
Title 17 Innovative Technology Loan Guarantee Program	37,000	2,000	2,000	- 35,000	.....
Offsetting collection	- 30,000	- 2,000	- 2,000	+ 28,000	.....

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2017 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2018—Continued

[In thousands of dollars]

Item	2017 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2017 appropriation	Budget estimate
Rescission		-250,000			+250,000
Subtotal	7,000	-250,000		-7,000	+250,000
Advanced Technology Vehicles Manufacturing Loans program	5,000	2,000	5,000		+3,000
Tribal Energy Loan Guarantee Program	9,000		1,000	-8,000	+1,000
Rescission	-9,000			+9,000	
Subtotal			1,000	+1,000	+1,000
Office of Indian Energy Policy and Programs			16,000	+16,000	+16,000
Departmental Administration	245,000	241,652	238,736	-7,264	-2,916
Miscellaneous revenues	-103,000	-96,000	-96,000	+7,000	
Net appropriation	143,000	145,652	142,736	-264	-2,916
Office of the Inspector General	44,424	49,000	49,000	+4,576	
Total, Energy programs	11,283,690	7,510,899	11,100,986	-182,704	+3,590,087
Atomic Energy Defense Activities					
National Nuclear Security Administration					
Weapons Activities	9,318,093	10,239,344	10,000,071	+681,978	-239,273
Rescission	-64,126			+64,126	
Budget amendment rescission	-8,400			+8,400	
Subtotal	9,245,567	10,239,344	10,000,071	+754,504	-239,273
Defense Nuclear Nonproliferation	1,902,000	1,842,310	1,852,310	-49,690	+10,000
Rescission	-19,128	-49,000		+19,128	+49,000
Subtotal	1,882,872	1,793,310	1,852,310	-30,562	+59,000

Naval Reactors	1,420,120	1,479,751	1,436,651	+ 16,531	- 43,100
Rescission	- 307			+ 307	
Subtotal	1,419,813	1,479,751	1,436,651	+ 16,838	- 43,100
Federal Salaries and Expenses	390,000	418,595	396,000	+ 6,000	- 22,595
Total, National Nuclear Security Administration	12,938,252	13,931,000	13,885,032	+ 746,780	- 245,968
Environmental and Other Defense Activities					
Defense Environmental Cleanup	5,405,000	5,537,186	5,579,968	+ 174,968	+ 42,782
Defense Uranium Enrichment Decontamination and Decommissioning	563,000		788,000	+ 225,000	+ 788,000
Other Defense Activities	784,000	815,512	784,000		- 31,512
Defense nuclear waste disposal		30,000			- 30,000
Total, Environmental and Other Defense Activities	6,752,000	6,382,698	7,151,968	+ 399,968	+ 769,270
Total, Atomic Energy Defense Activities	19,690,252	20,313,698	20,837,000	+ 1,146,748	+ 523,302
Power Marketing Administrations ¹					
Operation and maintenance, Southeastern Power Administration	1,000	6,379	6,379	+ 5,379	
Offsetting collections	- 1,000	- 6,379	- 6,379	- 5,379	
Subtotal					
Operation and maintenance, Southwestern Power Administration	45,643	30,288	30,288	- 15,355	
Offsetting collections	- 34,586	- 18,888	- 18,888	+ 15,698	
Subtotal	11,057	11,400	11,400	+ 343	
Construction, Rehabilitation, Operation and Maintenance, Western Area Power Administration	273,144	267,686	232,276	- 40,868	- 35,410
Offsetting collections	- 177,563	- 174,314	- 138,904	+ 38,659	+ 35,410
Subtotal	95,581	93,372	93,372	- 2,209	
Falcon and Amistad Operating and Maintenance Fund	4,070	4,176	4,176	+ 106	
Offsetting collections	- 3,838	- 3,948	- 3,948	- 110	
Subtotal	232	228	228	- 4	

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2017 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2018—Continued
[In thousands of dollars]

Item	2017 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2017 appropriation	Budget estimate
Total, Power Marketing Administrations	106,870	105,000	105,000	- 1,870	
Federal Energy Regulatory Commission					
Salaries and expenses	346,800	367,600	367,600	+ 20,800	
Revenues applied	-346,800	-367,600	-367,600	- 20,800	
Total, Federal Energy Regulatory Commission					
General Provisions					
Title III Rescissions:					
Department of Energy:					
Energy Programs and PMAs	-81,063			+ 81,063	
Atomic Energy Defense Activities (050)	- 13,740			+ 13,740	
Fossil Energy Research and Development	-240,000			+240,000	
Weapons activities (rescission)			-64,000	-64,000	
Defense Nuclear Nonproliferation (rescission)			-49,000	-49,000	
Subtotal	-334,803		- 113,000	+221,803	- 113,000
Uranium lease and take-back revolving fund		10,000			- 10,000
Uranium lease and take-back revolving fund initial capitalization		1,000	1,000	+ 1,000	
Northeast gasoline supply reserve sale		-70,000	-70,000	-70,000	
Sec. 309(a) (rescission)			-236,700	-236,700	
Sec. 309(b) (rescission)			- 160,660	- 160,660	
Total, title III, Department of Energy	30,745,009	27,870,597	31,463,626	+ 717,617	+3,593,029
Appropriations	(31,181,773)	(28,215,964)	(31,973,986)	(+ 792,213)	(+ 3,758,022)
Rescissions	(- 433,764)	(- 345,367)	(- 510,360)	(- 74,596)	(- 164,993)

TITLE IV—INDEPENDENT AGENCIES

Appalachian Regional Commission	152,000	26,660	142,000	- 10,000	+ 115,340
Defense Nuclear Facilities Safety Board	30,872	30,600	30,000	- 872	- 600
Delta Regional Authority	25,000	2,500	25,000	.....	+ 22,500
Denali Commission	15,000	7,300	15,000	.....	+ 7,700
Northern Border Regional Commission	10,000	850	15,000	+ 5,000	+ 14,150
Southeast Crescent Regional Commission	250	.....	.....	- 250	.....
Nuclear Regulatory Commission:					
Salaries and expenses	905,000	939,137	914,137	+ 9,137	- 25,000
Revenues	- 794,580	- 803,409	- 807,848	- 13,268	- 4,439
Subtotal	110,420	135,728	106,289	- 4,131	- 29,439
(Rescission) .....	.....	.....	- 68	- 68	- 68
Office of Inspector General	12,129	12,859	12,859	+ 730	.....
Revenues	- 10,044	- 10,555	- 10,555	- 511	.....
Subtotal	2,085	2,304	2,304	+ 219	.....
Total, Nuclear Regulatory Commission	112,505	138,032	108,525	- 3,980	- 29,507
Appropriations	(112,505)	(138,032)	(108,593)	(- 3,912)	(- 29,439)
Rescissions .....	.....	.....	(- 68)	(- 68)	(- 68)
Nuclear Waste Technical Review Board	3,600	3,600	3,600	.....	.....
Total, title IV, Independent agencies	349,227	209,542	339,125	- 10,102	+ 129,583

**COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2017 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2018—Continued**

[In thousands of dollars]

Item	2017 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2017 appropriation	Budget estimate
Grand total	38,450,000	34,188,515	39,267,376	+ 817,376	+ 5,078,861
Appropriations	(38,885,764)	(34,533,882)	(39,812,804)	(+ 927,040)	(+ 5,278,922)
Rescissions	(- 435,764)	(- 345,367)	(- 545,428)	(- 109,664)	(- 200,061)

¹Totals adjusted to net out alternative financing costs, reimbursable agreement funding, and power purchase and wheeling expenditures. Offsetting collection totals only reflect funds collected for annual expenses, excluding power purchase wheeling.

○