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SENATE

{ REPORT
117-36

ENERGY AND WATER DEVELOPMENT APPROPRIATIONS
BILL, 2022

AUGUST 4, 2021.—Ordered to be printed

Mrs. FEINSTEIN, from the Committee on Appropriations, submitted
the following

REPORT

[To accompany S. 2605]

The Committee on Appropriations reports the bill (S. 2605) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2022, 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	\$56,865,791,000
Amount of 2021 appropriations	49,524,875,000
Amount of 2021 budget estimate	55,472,849,000
Bill as recommended to Senate compared to—	
2021 appropriations	+ 7,340,916,000
2022 budget estimate	+ 1,392,942,000

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PURPOSE

The purpose of this bill is to provide appropriations for fiscal year 2022, beginning October 1, 2021 and ending September 30, 2022, 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 the 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 2022 budget estimates for the bill total \$53,624,824,000 in new budget (obligational) authority. The recommendation of the Committee totals \$53,625,000,000. This is \$176,000 above the budget estimates and \$1,873,000,000 above the enacted appropriation for the prior fiscal year. The bill also recommends \$450,000,000 in emergency appropriations.

SUBCOMMITTEE HEARINGS

To develop this recommendation, the Committee held two budget hearings in June 2021 in connection with the fiscal year 2022 budget requests. The hearings provided officials from the agencies with an opportunity to present the administration's most pressing priorities to the Committee.

INTRODUCTION

The Committee's recommendation 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.

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

The Committee recommends \$8,700,000,000 for the Corps of Engineers [Corps]. The Committee's recommendation sets priorities by supporting our Nation's water infrastructure. Specifically, for the eighth consecutive year, the Committee recommendation provides adequate appropriations to utilize all of the estimated fiscal year 2022 revenues from the Inland Waterways Trust Fund [IWTF].

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, restores aquatic ecosystems, 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 \$89,000,000,000, which equates to a return of about \$12.00 for every \$1.00 expended.

The Corps' responsibilities include:

- Navigation systems, including 13,000 miles of coastal navigation channels, 12,000 miles of inland waterways, 239 lock chambers, and 1,067 harbors, which handle over 2.4 billion tons of cargo annually;
- Flood risk management infrastructure, including 718 dams, 12,400 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 262 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.

BUDGET STRUCTURE CHANGES

The fiscal year 2022 budget request for the Corps proposed numerous structural changes, including the creation of two new accounts—Harbor Maintenance Trust Fund [HMTF] and IWTF; the shifting of various studies and projects between accounts and business lines; and the consolidation of certain line items. The Committee rejects all such proposed changes and instead recommends funding for the requested studies and projects in the manner in which funding has traditionally been provided. Unless expressly noted, the Committee recommends studies and projects remain at the funding levels included in the budget request, but in different accounts than in the budget request. In particular:

- Projects requested in the HMTF account are shown in the Construction, Mississippi River and Tributaries, or Operation and Maintenance accounts, as appropriate;
- Sand mitigation projects requested in the HMTF account are shown in the Construction account;
- Interagency and International Support activities is not consolidated within the Coordination with Other Water Resource Agencies remaining item in Investigations;
- Disposition studies will continue to be funded under the remaining item line Disposition of Completed Projects in the Investigations account;
- Tribal Partnership projects will continue to be funded under the Tribal Partnership Program remaining item line in the Investigations account as well as in the remaining line item in the Construction account, and these amounts may also be used to cover necessary administrative expenses prior to agreement execution;
- Inspection of Completed Works, Project Condition Surveys, and Scheduling of Reservoir Operations will continue to be funded under States instead of consolidated into a national program as requested in the Operation and Maintenance account and the HMTF account; and
- Inspection of Completed Works will continue to be funded under the individual States instead of consolidated into a national program as requested in the Mississippi River and Tributaries account.

If the Corps proposes budget structure changes in future fiscal years, the proposal shall be accompanied by a display of the funding request in the traditional budget structure.

CONTINUING RESOLUTION APPORTIONMENT

For the purposes of continuing resolutions starting in fiscal year 2018, the Office of Management and Budget changed the long-standing policy by which funding is apportioned to the Civil Works program of the Corps. Under the new policy, funding within an individual account was apportioned separately for amounts from the general fund of the Treasury and from various trust funds. The Committee has long intended the Corps to have the flexibility to address projects most in need of funding under a continuing resolution. The creation of artificial accounting distinctions has the potential to cause serious impediments to the efficient and effective

implementation of the Civil Works program. For example, work on many navigation projects is limited by environmental or other regulatory windows. Further limitations imposed by separately apportioning HMTF monies could cause serious disruptions to the economic activity that depends on these navigation channels.

For these reasons, the Committee disagrees with the change in apportionment policy and directs the Administration to follow the previous policy during any continuing resolutions that may occur in this or any future fiscal years.

DEEP DRAFT NAVIGATION

The CARES Act (Public Law 116–136) made certain changes to the methods by which funds from the HMTF are treated under discretionary budget rules. The Committee recommends an estimated \$2,050,000,000 in accordance with these changes. This funding will enable the Corps to make significant progress on the backlog of dredging needs. Meeting these needs, including deeper drafts to accommodate the move toward larger ships, will be essential if the Nation is to remain competitive in international markets and to continue advancing economic development and job creation domestically.

Additionally, the Water Resources Development Act [WRDA] of 2020 made certain changes to the methods by which funds for donor and energy transfer ports under section 2106(c) of the Water Resources Reform and Development Act [WRRDA] of 2014 are treated under discretionary budget rules. The Committee recommends \$50,000,000 for these purposes.

INLAND WATERWAYS SYSTEM

The Committee is disappointed and perplexed by the budget request's proposal to not fund any ongoing work and only spend \$52,150,000 of the estimated \$115,000,000 of deposits for fiscal year 2022 into the IWTF. The Corps shall continue to prioritize funding for ongoing construction projects. The inland waterways system is essential for national security and for sustaining our global economic competitiveness as it serves as an integral component of the Nation's intermodal transportation system. Waterways are more efficient compared to alternative forms of freight transportation because barge transport allows for the movement of more cargo per shipment. Barges on the inland system transport many commodities including coal, petroleum, grain, and other farm products. The importance of modernizing inland waterway infrastructure is so important to these commercial users that they advocated for an increase to the fees they pay into the IWTF in 2014. Congress instituted this increase and took additional actions that allowed for two priority projects, the Olmsted Lock and Dam in Kentucky and the Lower Monongahela in Pennsylvania, to be funded to completion in fiscal year 2020. The success of this approach and the strategic importance of the inland waterway system is the reason the Committee does not understand why the administration would propose to delay progress by eliminating funding for ongoing construction projects. The budget request disregards the existing Capital Investment Strategy and the advice and recommendations of industry experts and professional engineers. Therefore, the Com-

mittee recommends appropriations that make full use of all estimated revenues from the IWTF for ongoing construction projects.

ADDITIONAL FUNDING

The Committee recommends funding above the budget request for Investigations, Construction, Operation and Maintenance, Mississippi River and Tributaries, Regulatory, and Expenses. This funding is for additional work (including new starts) that either was not included in the budget request or was inadequately budgeted. A study or project may not be excluded from evaluation for additional funding due to its inconsistency with administration policy. None of the funds may be used for any item for which the Committee has specifically denied funding.

The Committee includes the seven new start Investigations projects and four new start Construction projects proposed in the budget request without change. The Committee also includes additional new starts in Investigations and Construction. No further new starts are recommended in this act.

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 2022.

Funding associated with each category of Additional Funding 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 Committee 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 the study or project's remaining cost to complete (excluding Operation and Maintenance); 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 2022 and the specific reasons each study or project was considered less competitive for an allocation of funds.

The administration shall not delay apportioning the funding for Congressionally Directed Spending while developing the work plan for additional funding. The initiation of construction of an individually authorized project funded within a programmatic line item shall not require a new start designation if some amount of construction funding under such programmatic line item was appropriated and expended during the previous fiscal year. A study is not completed until preconstruction engineering and design [PED] is completed. The Committee urges the Corps within its Flood and Coastal Storm Damage Reduction mission to strive for a balance between inland and coastal projects. The Corps is encouraged to support opportunities to restore critical habitat and enhance the

Nation's economic development, job growth, and international competitiveness.

The following shall not require a new start or new investment decision and shall be considered ongoing work:

- When moving from feasibility to PED;
- To initiate work on a separable element of a project when construction of one or more separable elements of that project was initiated previously;
- Any authorized environmental infrastructure project;
- Study or construction activities related to individual projects authorized under section 1037 of WRRDA;
- Work undertaken to correct a design deficiency on an existing Federal project; and
- Projects that have previously received construction funding for authorized work.

INVASIVE CARP

The Corps is undertaking multiple efforts to stop invasive carp from reaching the Great Lakes. These actions are critical to protecting the Great Lakes ecosystem and the \$7,000,000,000 recreational fishing and \$16,000,000,000 boating industries. Last year, the Corps sent Congress an approved Chief's Report for a plan to build a comprehensive suite of measures to counter invasive carp at the Brandon Road Lock and Dam, a critical choke point to halt the spread of invasive species in the Illinois River. The Committee is encouraged to see funding is included in the fiscal year 2022 budget request to continue work on PED.

As the Corps prioritizes projects, it shall consider critical projects to prevent the spread of invasive species. The Corps is directed to provide quarterly updates to the Committee on the progress and status of efforts to prevent the further spread of invasive carp including the Brandon Road Recommended Plan and the second array at the Chicago Sanitary and Ship Canal; the location and density of carp populations; the use of emergency procedures previously authorized by the Congress; and the development, consideration, and implementation of new technological and structural countermeasures; and the progress on PED work.

The Corps shall continue to collaborate at levels commensurate with previous years with the U.S. Coast Guard, the U.S. Fish and Wildlife Service, the State of Illinois, and members of the Invasive Carp Regional Coordinating Committee, including identifying navigation protocols that would be beneficial or effective in reducing the risk of vessels inadvertently carrying aquatic invasive species, including invasive carp, through the Brandon Road Lock and Dam in Joliet, Illinois. Any findings of such an evaluation shall be included in the quarterly briefings to the Committees. The Corps is further directed to implement navigation protocols shown to be effective at reducing the risk of entrainment without jeopardizing the safety of vessels and crews. The Corps shall brief the Committee on such navigation protocols and potential solutions within 30 days of enactment of this act.

ADVANCED FUNDS AGREEMENTS

Under the advanced funds authority, the Corps is authorized to accept, from a State or political subdivision thereof, all funds covering both the Federal and non-Federal share of total project costs required to construct an authorized water resources development project or separable element thereof. Based on the non-Federal sponsor's commitment to provide all funds required to construct a project, or separable element thereof, the Corps may undertake construction of the project prior to a new start determination related to Federal funding for the project. In light of a non-Federal sponsor's commitment to provide all funding required for construction of the project, or separable element thereof, the Committee directs that Federal funds shall not be provided for such construction. Instead, for such projects, any Federal funding may be provided only after completion of construction, as repayment of the Federal share of such construction, from funding provided in this or subsequent acts for reimbursements or repayments, and would be subject to a new start designation. The Committee does not intend that this direction apply to any project with an advanced funds project partnership agreement was in place prior to December 20, 2019.

CONGRESSIONALLY DIRECTED SPENDING

The Committee included congressionally directed spending, as defined in section 5(a) of rule XLIV of the Standing Rules of the Senate. The Committee funded only projects and studies that are authorized by law. In the interest of providing full disclosure of funding provided in this Title, all projects requested and funded are listed in a table accompanying this report. All of the projects funded in this report have gone through the same rigorous process and approvals as those proposed by the President.

CONTINUING CONTRACTS

The Corps is authorized by section 621 of title 33, United States Code to execute its Civil Works projects through the use of a Special Continuing Contract Clause as described in Engineering Circulars 11-2-221 and 11-2-222. This permits the Corps to award the entire contract and fund the contract incrementally until completion. This acquisition strategy is well-suited to large, multi-year projects, including those with life safety, national security, or legal concerns, and is being used successfully at multiple projects nationwide. The Administration is directed to resume using its existing continuing contract authorities in accordance with the general provisions in this act as an efficient approach to managing large, multi-year projects.

UPDATED CAPABILITIES

Given the nature of the Civil Works program, the Committee understands the assumptions made in the budget request regarding the amount of work that can be accomplished in fiscal year 2022 for a particular project can change for a number of unforeseen reasons. The Committee expects updated capabilities will be addressed

and adjusted during conference using the latest data available at that time.

REPROGRAMMING

The Committee is retaining the reprogramming legislation provided in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116–94).

REPORTING REQUIREMENT

The Corps shall provide a quarterly report to the Committee, 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 quarterly report to the Committee, 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, 2021	\$153,000,000
Budget estimate, 2022	105,837,000
Committee recommendation	153,000,000

The Committee recommends \$153,000,000 for Investigations. Funding in this account is used to develop feasibility studies and conduct PED to address the Nation’s water infrastructure needs, in support of project authorization.

COMMITTEE RECOMMENDATION

The table below displays the budget request and the Committee’s recommendation for Investigations:

CORPS OF ENGINEERS—INVESTIGATIONS

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
ALABAMA		
CLAIRBORNE AND MILLERS FERRY LOCKS AND DAMS (FISH PASSAGE), LOWER ALABAMA RIVER, AL	600	600
TENNESSEE TOMBIGBEE AND BLACK WARRIOR TOMBIGBEE DEEPENING STUDY, AL & MS		400
ALASKA		
AKUTAN HARBOR NAVIGATIONAL IMPROVEMENTS, AK	100	†
ELIM SUBSISTENCE HARBOR, AK	2,000	2,000
LOWELL CREEK FLOOD DIVERSION, AK		3,000
ARIZONA		
LITTLE COLORADO RIVER, WINSLOW, AZ		500
CALIFORNIA		
LOS ANGELES COUNTY DRAINAGE AREA (CHANNELS), CA	565	†
LOS ANGELES RIVER ECOSYSTEM RESTORATION, CA	1,693	1,693
LOWER CACHE CREEK, CA		2,000
LOWER MISSION CREEK, CA (GENERAL REEVALUATION REPORT)	600	600
LOWER SAN JOAQUIN (LATHROP & MANTECA), CA		200
MURRIETA CREEK, CA (GENERAL REEVALUATION REPORT)	600	600

CORPS OF ENGINEERS—INVESTIGATIONS—Continued

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
IMPERIAL STREAMS SALTON SEA, CA .....	.....	200
SAN DIEGO COUNTY SHORELINE (OCEANSIDE), CA .....	.....	750
SANTA PAULA CREEK, CA .....	.....	200
SOUTH SAN FRANCISCO BAY SHORELINE (SANTA CLARA COUNTY), CA .....	.....	1,600
CONNECTICUT		
HARTFORD, CT & EAST HARTFORD, CT .....	.....	200
COLORADO		
ADAMS & DENVER SOUTH PLATTE RIVER, CO .....	.....	400
FLORIDA		
CENTRAL & SOUTHERN FLORIDA (C&SF) FLOOD RESILIENCY (SECTION 216) STUDY, FL	500	500
HAWAII		
HONOLULU HARBOR MODIFICATION FEASIBILITY STUDY, HI .....	.....	800
IDAHO		
BOISE RIVER, GARDEN CITY, ADA COUNTY, ID	500	500
ILLINOIS		
CHICAGO SHORELINE, IL (GENERAL REEVALUATION REPORT)	500	500
IL RIVER 519 FOX RIVER DAMS RESTORATION, IL .....	.....	250
GREAT LAKES COASTAL RESILIENCY STUDY, IL, IN, MI, MN, NY, OH, PA and WI	500	500
INTERBASIN CONTROL OF GREAT LAKES—MISSISSIPPI RIVER AQUATIC NUISANCE SPECIES, IL, IN, OH & WI	4,940	4,940
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVR PORTION), IL	700 ‡
UPPER DES PLAINES RIVER FLOODING & RESTORATION, IL .....	.....	1,525
KANSAS		
LOWER MISSOURI RIVER BASIN, KS, MO and IA	600	600
LOUISIANA		
PORT FOURCHON BELLE PASS CHANNEL, LA .....	.....	1,500
MICHIGAN		
ALTAMAHA RIVER, OCONEE RIVER AND OCMULGEE RIVERS, BELLVILLE POINT HARBOR, DARIEN HARBOR, FANCY BLUFF CREEK, SAPELO HARBOR, SATILLA RIVER AND ST MARYS RIVER WATERWAYS, MI	100 †
MINNESOTA		
ST ANTHONY FALLS, MISSISSIPPI RIVER, MN	250 †
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVP PORTION), MN	1,650 ‡
MISSOURI		
LITTLE BLUE RIVER BASIN, JACKSON COUNTY, MO	600	600
LOWER MISSOURI BASIN—BRUNSWICK L—246, MO .....	.....	500
LOWER MISSOURI BASIN—HOLT COUNTY, MO, DONIPHAN COUNTY, KS .....	.....	300
LOWER MISSOURI BASIN—JEFFERSON CITY L—142, MO .....	.....	300
NEW JERSEY		
NEW JERSEY BACK BAYS, NJ	750	750
NEW YORK AND NEW JERSEY HARBOR, NY & NJ .....	.....	1,125
PECKMAN RIVER BASIN, NJ .....	.....	500
RARITAN BAY AND SANDY HOOK BAY, HIGHLANDS, NJ .....	.....	750
RARITAN RIVER BASIN, GREEN BROOK SUB—BASIN, NJ .....	.....	300
NEW YORK		
HUDSON RARITAN ESTUARY ECOSYSTEM RESTORATION, NY & NJ .....	.....	1,200
NEW YORK—NEW JERSEY HARBOR AND TRIBUTARIES, NY and NJ	1,450	1,450

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

Project title	Budget estimate	Committee recommendation
SPRING CREEK SOUTH, JAMAICA BAY (HOWARD BEACH), QUEENS, NY	500	500
NORTH CAROLINA		
WILMINGTON NAVIGATION HARBOR IMPROVEMENTS, NC		500
OHIO		
ASHTABULA HARBOR, OH	300	‡
CLEVELAND HARBOR, OH	300	‡
CONNEAUT HARBOR, OH	300	‡
FAIRPORT HARBOR, OH	300	‡
SANDUSKY HARBOR, OH	300	‡
OKLAHOMA		
ARKANSAS RIVER NAVIGATION, MKARNS 12-FT CHANNEL, OK		500
OPTIMA LAKE, OK	200	†
OREGON		
COLUMBIA RIVER TREATY 2024 IMPLEMENTATION, OR & WA	10,000	‡
WILLAMETTE RIVER ENVIRONMENTAL DREDGING, OR		732
PUERTO RICO		
CAÑO MARTIN PEÑA ECOSYSTEM RESTORATION, PR	2,150	2,150
RHODE ISLAND		
LITTLE NARRAGANSETT BAY, RI	500	500
SOUTH CAROLINA		
PORT ROYAL HARBOR, SC	342	†
WACCAMAW RIVER, HORRY COUNTY, SC	500	500
SOUTH DAKOTA		
WATERTOWN FLOOD RISK MANAGEMENT, SD		200
TENNESSEE		
HATCHIE/LOOSAHATCHIE, MISSISSIPPI RIVER MILE 775-736 HABITAT RESTORATION, TN & AR	600	600
TEXAS		
ARKANSAS-RED RIVER CHLORIDE CONTROL, AREA VIII, TX	343	†
CITY OF EL PASO, TX	600	600
ESTELLINE SPRINGS EXPERIMENTAL PROJECT, TX	200	†
GIWW—BRAZOS RIVER FLOODGATES & COLORADO RIVER LOCKS, TX	6,932	6,932
WESTSIDE CREEKS ECOSYSTEM RESTORATION, SAN ANTONIO, TX	2,340	2,340
VIRGIN ISLANDS		
SAVAN GUT PHASE II, ST THOMAS, VI	3,777	3,777
WASHINGTON		
COLUMBIA RIVER TURNING BASIN NAVIGATION IMPROVEMENTS, WA & OR		200
PUGET SOUND NEARSHORE MARINE HABITAT RESTORATION, WA		250
WEST VIRGINIA		
KANAWHA RIVER BASIN FEASIBILITY, WV		500
WISCONSIN		
KEWAUNEE HARBOR, WI	300	‡
MANITOWOC HARBOR, WI	300	‡
MENOMINEE RIVER DEEPENING, WI		200
OTTER CREEK WATERSHED WETLAND RESTORATION, WI	75	†

CORPS OF ENGINEERS—INVESTIGATIONS—Continued

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
WYOMING		
LITTLE GOOSE CREEK, SHERIDAN, WY	500	500
SUBTOTAL, ITEMS UNDER STATES	50,857	55,814
REMAINING ITEMS		
ADDITIONAL FUNDING FOR ONGOING WORK		9,513
FLOOD AND STORM DAMAGE REDUCTION		
FLOOD CONTROL		
SHORE PROTECTION		
NAVIGATION		
COASTAL AND DEEP-DRAFT		
INLAND		
OTHER AUTHORIZED PROJECT PURPOSES		
ENVIRONMENTAL RESTORATION OR COMPLIANCE		
ACCESS TO WATER DATA	325	325
AUTOMATED INFORMATION SYSTEMS SUPPORT TRI-CADD	250	250
COASTAL FIELD DATA COLLECTION	1,500	3,000
COORDINATION WITH OTHER WATER RESOURCE AGENCIES	450	450
DISPOSITION OF COMPLETED PROJECTS		1,657
ENVIRONMENTAL DATA STUDIES	80	80
FERC LICENSING	100	100
FLOOD DAMAGE DATA	275	275
FLOOD PLAIN MANAGEMENT SERVICES	15,400	15,400
HYDROLOGIC STUDIES	500	500
INTERNATIONAL WATER STUDIES	100	100
INTERAGENCY WATER RESOURCE DEVELOPMENT	75	75
INVENTORY OF DAMS	400	400
NATIONAL FLOOD RISK MANAGEMENT PROGRAM	6,500	6,500
NATIONAL SHORELINE MANAGEMENT STUDY		1,500
PLANNING ASSISTANCE TO STATES	7,000	11,000
PLANNING SUPPORT PROGRAM	3,500	3,500
PRECIPITATION STUDIES	150	150
REMOTE SENSING/GEOGRAPHIC INFORMATION SYSTEM SUPPORT	75	75
RESEARCH AND DEVELOPMENT	15,000	35,000
SCIENTIFIC AND TECHNICAL INFORMATION CENTERS	50	50
SPECIAL INVESTIGATIONS	750	750
STREAM GAGING	1,500	1,500
TRANSPORTATION SYSTEMS	1,000	1,000
TRIBAL PARTNERSHIP PROGRAM		4,036
SUBTOTAL, REMAINING ITEMS	54,980	97,186
GRAND TOTAL	105,837	153,000

† Funded in remaining items

‡ Funded in a remaining item in another account

* Includes funds requested in Projects Listed Under States within this account

Arkansas Red River Chloride.—The Committee rejects the budget request to fund a disposition study of this project. The Corps is directed to brief the Committee within 60 days of enactment on the status of the project.

Bubbly Creek.—The Committee is disappointed that negotiations between the Corps, the Environmental Protection Agency, and the Department of Justice over remaining liability concerns have yet to produce an outcome that will allow the project to move forward. The Committee urges the parties to expedite a resolution and directs the Corps to brief the Committee within 90 days of enactment.

Chicago River.—The Committee urges the Corps to work with the City of Chicago River Ecology and Governance Task Force towards a comprehensive ecosystem restoration project for the restoration of the Chicago River. The Corps is encouraged to consider including funding for this study in future budget submissions.

Chicago Shoreline.—The Committee remains concerned that lake levels in the Great Lakes are predicted to surpass record high levels and strongly encourages the Corps to reevaluate the conclusions of the original feasibility report to assess Federal interest in providing additional coastal protection along the Chicago shoreline. The Committee reminds the Corps that the Chicago Shoreline can be a focus area of the Great Lakes Resiliency Study.

Coastal Field Data Collection.—The Committee strongly supports this program and the Corps' commitment to collect and maintain wave data, water level data, and other data critical to making informed decisions in our coastal areas. The Committee is concerned about the ability of the Corps to meet its obligation to maintain this critical capability at the proposed funding levels. Therefore, the Committee recommends an additional \$1,500,000 above the budget request amount of \$1,500,000 to continue data collection and research on the impact of extreme storms in coastal regions. Additionally, with the funds provided, the committee encourages the Corps to evaluate the readiness of the unique facilities and equipment necessary to support this effort and to include increased funding in future budget submissions in order to revitalize and modernize facilities and equipment in support of this program.

Flood Policy in Urban Areas.—The Committee has continually requested the Flood Policy in Urban Areas report as detailed in by section 1211 of America's Water Infrastructure Act of 2018 (Public Law 115–270) [AWIA 2018]. The Corps is reminded that this report can be completed using existing funds and encourages the Corps to include reporting requirements in future budget submissions, if needed. The Committee directs the Corps, to provide a briefing on the findings of this report within 45 days of enactment.

Inland Navigation Modernization Projects.—The Corps is urged to continue PED activities on inland modernization projects to prevent delays to project delivery and prepare projects for construction.

McClellan-Kerr Arkansas River Navigation System [MKARNS].—The MKARNS is an established Marine Highway for waterborne commerce, relieving our Nation's highways and bridges from additional congestion and wear and tear. MKARNS supports economic activity across a 12-State region, moving 11 million tons of commerce worth \$4,000,000,000 annually. MKARNS is a vital corridor for agriculture commerce (soybeans and wheat) and aggregate commodities (sand, gravel, and rock) from the Gulf Coast to the Midwest. Farmers and ranchers rely on its availability year round to move crops to markets in all seasons and facilitate the movement of fertilizer domestically to prepare for the growing season each year.

MKARNS needs to be deepened with a consistent 12-foot navigation channel to provide tow drafts that are more compatible with navigation on the Mississippi River. The current disparity results in less efficient barge operations and higher transportation costs.

The Committee understands this project has capability to complete economic impacts and environmental updates and strongly urges the Corps to prioritize this effort in fiscal year 2022 to continue construction as soon as practicable. The Committee continues to encourage the Corps to provide funds for non-structural activities, such as channel deepening, with low annual funding needs in years where appropriated funds for IWTF cost shared projects are sufficient to accommodate such projects without impacting ongoing construction projects. The Corps shall brief the Committee within 90 days of enactment of this act on section 159 of WRDA 2020.

Finally, the Committee encourages the Corps to prioritize inland waterways projects consistent with the update to the Capital Investment Strategy, pursuant to section 2002(d) of WRRDA 2014.

McMicken Dam, Arizona.—The Committee recognizes the importance of the McMicken Dam project in providing flood protection to the region, including Luke Air Force Base, which delivers national security benefits to the Nation. The Corps is reminded to consider the value of national security in prioritizing and formulating studies and projects.

New York-New Jersey Harbor and Tributaries Study.—The Committee appreciates that the budget request includes \$1,450,000 to continue this study. The Committee expects the Corps to vigorously engage community groups and incorporate impacts of low-frequency precipitation and impacts of sea level rise in the study. The Corps is directed to brief the Committee within 45 days of enactment of this act on how it plans to follow these steps.

North Atlantic Division Report on Hurricane Barriers and Harbors of Refuge.—The Committee continues to express the importance of the North Atlantic Division report on hurricane barriers and harbors of refuge mandated under Section 1218 of AWIA 2018. The Corps is reminded that this report can be completed using existing funds and encourages the Corps to include reporting requirements in future budget requests, if needed. Within 90 days of enactment of this act, the Corps shall brief the Committee on the status and path forward for the report.

Planning Assistance to States.—The Corps is reminded that this program encompasses many types of studies and technical assistance dealing with a number of water resource issues, including but not limited to, sediment management, coastal resilience, State water planning, water distribution, and water supply evaluations.

Puget Sound Nearshore Study.—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 WRDA 2000 (Public Law 106–541). The Committee notes that the Water Infrastructure Improvements for the Nation Act (Public Law 114–332) [WIIN Act] authorized construction of the Puget Sound Nearshore Ecosystem Restoration Project. The Committee reminds the Corps that consistent with the direction in this report no new start, new investment decision, or new phase decision shall be required to continue this project in PED.

Research and Development—Future Work.—The Committee appreciates and recognizes the value of research topics currently being addressed by the Army Engineer Research and Development Center [ERDC] towards advancing the Civil Works missions of the Corps. The Committee understands that the ERDC and the Corps have identified a series of critical research categories that will advance the efficient implementation of the Civil Works mission and provide value to the Nation. The Committee also understands that responding to these research needs can benefit the Corps by leveraging the expertise of universities through partnerships. The Committee directs the ERDC, within 90 days of enactment of this act, to brief the Committee on future research needs (including multi-year funding requirements) and potential university partnerships related to its strategic goals.

Research and Development—Biopolymers.—The Committee recommends \$6,000,000 of additional funding to continue research on the use of biopolymers to rehabilitate civil works structures, reduce the costs of rehabilitating and maintaining these structures, and increase resiliency of these structures against potential threats. With continued funding, the Committee understands this effort will be completed in 2 years.

Research and Development—Flood and Coastal Systems.—The Committee recognizes the importance of ensuring the integrity of our Nation's flood control systems and employing the most effective technologies to identify potential deficiencies in these systems. The Committee recommends \$5,000,000 to utilize partnerships to research and develop advanced technology to automate assessment and inspection of flood control systems for the purpose of identifying levee deficiencies, such as slope instability, settlement and seepage, and ensuring the safety of the surrounding areas and communities. Within 90 days of enactment of this act, the Corps shall provide to the Committee a proposal for this effort including a detailed scope of work with a breakdown of research activities, work to be performed by the Corps and academia, specific deliverables, and schedule and funding requirements. Additionally, the Committee is interested in how this work can contribute to existing operations and maintenance activities and how potential cybersecurity concerns can be addressed.

Research and Development—Freshwater Intrusion.—The Committee recognizes the need to develop tools to assess, forecast, and proactively manage the hydrodynamic and environmental impacts of large-scale freshwater intrusion into the Mississippi Sound and surrounding waters. These consistent freshwater intrusions have been detrimental to the Mississippi Sound and the U.S. blue economy. The Corps is encouraged to partner with academia with expertise in coastal processes and ocean and hydrodynamic modeling to develop these tools.

Research and Development—Geophysical Modeling.—Rising sea levels and the increasing severity and frequency of weather events continues to impact coastlines, rivers, and related habitats. Additional funding of \$4,000,000 is provided to continue research using geophysical computational modeling. The Committee understands that with continued funding this effort will be completed in 3 years.

Research and Development—Oyster Restoration.—The Committee recognizes the importance of sustainable oyster reefs for maintaining healthy ecosystems, protecting coastal infrastructure and supporting commercial fisheries. Recent restoration efforts have not achieved the intended success for U.S. oyster populations, and the identification of effective restoration strategies remains a critical gap. The Committee recommends additional funding of \$2,600,000 to continue the oyster reef restoration research and understands this effort will be completed in fiscal year 2022.

Research and Development—Polymer Composites.—The Committee recognizes that polymer composites have wide-ranging proven characteristics including lightweight, high strength, corrosion resistance, and long-term durability that could translate to increased safety for inland waterways infrastructure. The Committee supports investigating the value of incorporating polymer composites into infrastructure applications in navigable waterways. Within 90 days of enactment of this act, the Corps shall provide to the Committee a proposal for this effort including a detailed scope of work, a breakdown of research activities, work to be performed by the Corps and academia, specific deliverables, and schedule and funding requirements.

Research and Development—Subsurface Drains.—The Committee understands the use of subsurface drain systems as a flood risk reduction measure or coastal storm risk reduction measure are currently not considered during project development. Within 90 days of enactment of this act, the Corps shall brief the Committee on research and development opportunities of subsurface drain systems pursuant to section 227 of WRDA 2020.

Research and Development—Urban Flood Damage Reduction and Stream Restoration in Arid Regions.—The Committee recommends additional funds of \$2,000,000 to continue the work 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 resources systems to be managed as systems that are adaptable to the implications of a changing climate. The research and development program shall also continue its focus on science and technology efforts to address needs for resilient water resources infrastructure. The Committee understands that with continued funding this effort will be complete in 3 years.

Shore Protection Easements.—The Committee notes the importance of periodic restoration of the Shore Protection Projects and their significance for the protection of public safety, public infrastructure, native vegetation and wildlife, as well as economy stability in oceanfront communities. The Committee understands the challenges facing local governments in obtaining the necessary approvals for required easements when no work will be performed on the property for which the easement is being required. The Committee encourages the Corps to work with local governments to incorporate flexibility in project agreement language that allows for incremental acquisition of easements necessary for scheduled nourishments.

South Atlantic Coastal Study.—The Committee acknowledges the importance of engaging state, local, and tribal officials throughout

the study process to ensure the methodology, focus, and results are implementable by states and communities. The Corps shall consult with industry groups, academia, and non-governmental organizations who can provide specialized expertise and coordinate appropriate attention and interest in the study's design and implementation from relevant stakeholders, including coastal state agencies, local officials, and private coastal scientists and engineers. The Committee encourages the Corps to consider near-shore marine habitats including coral reefs and oyster reefs, as well as the current and projected effects of authorized Corps environmental restoration programs and projects, including South Florida Ecosystem Restoration, within the scope of this comprehensive study.

Upper Des Plaines River and Tributaries Project.—The Committee is aware the project area was flooded with record high crests overflowing the Des Plaines River, resulting in damage to more than 3,200 residents. The Committee urges the Corps to cooperate with the non-Federal sponsor to advance work on the flood features of this project.

Tenkiller Ferry Lake.—Nothing in Section 204(b)(2)(H) of the Consolidated Appropriations Act, 2021 (Public Law 116–260) is to be construed as to require a water reallocation study.

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.

Additional Funding.—The Corps is directed to allocate these additional funds in accordance with the direction in the front matter under the heading “Additional Funding”. The Corps is reminded that activities related to innovative materials, as required under section 1208 of AWIA 2018, are eligible for funding under the Research and Development remaining item. The Committee urges the Corps to prioritize any authorized projects that would reduce flood risks to vulnerable communities, have been authorized based on their ability to reduce life safety risks, have been classified by the Corps as having a high risk of levee failure and life loss in the last five fiscal years, and whose failure would cause a release of hazardous materials from a Superfund site. Additionally, the Corps shall comply with the following direction in allocating funds recommended for Investigations:

- When evaluating ongoing studies for funding, the Corps shall consider completing or accelerating ongoing studies or initiating new studies that will enhance the Nation's economic development, job growth, and international competitiveness; are for projects located in areas that have suffered recent natural disasters; are for projects that protect life and property; or are for projects to address legal requirements;
- The Corps is urged to consider any national security benefits a project may provide when allocating this funding; and
- The Corps shall include appropriate requests for funding in future budget submissions for PED and new feasibility studies initiated in fiscal year 2022. The Corps shall prepare the budget to reflect study completions, defined as completion of PED.

CONSTRUCTION

Appropriations, 2021	\$2,692,645,000
Budget estimate, 2022	1,792,378,000
Committee recommendation	3,002,003,000

The Committee recommends \$3,002,003,000 for Construction. 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 HMTF will be applied to cover the Federal share of the Dredged Material Disposal Facilities Program.

COMMITTEE RECOMMENDATION

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

CORPS OF ENGINEERS—CONSTRUCTION

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
ARKANSAS		
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, THREE RIVERS, AR	96,850	149,000 *
CALIFORNIA		
AMERICAN RIVER COMMON FEATURES, NATOMAS BASIN, CA	156,915	156,915
CALAVERAS COUNTY, SECTION 219, CA		1,300
CITY OF NORWALK, SECTION 219, CA		250
DESERT HOT SPRINGS, CA		250
HAMILTON AIRFIELD WETLANDS RESTORATION, CA		1,000
MILLS MEMORIAL PARK RECYCLED WATER, SECTION 219, CA		3,790
NEW RIVER, IMPERIAL COUNTY, CA		650
ROSEVILLE-PCWA COOPERATIVE WATER RELIABILITY, CA		75
SAN JOAQUIN RIVER BASIN, LOWER SAN JOAQUIN, CA	15,000	15,000
WEST SACRAMENTO, CA	17,900	17,900
WHITTIER NARROWS, CA (DAM SAFETY)	219,591	219,591
COLORADO		
SECTION 219, CROWLEY COUNTY, CO		7,000
DELAWARE		
DELAWARE COAST PROTECTION, DE		1,200
DELAWARE COAST, CAPE HENLOPEN TO FENWICK ISLAND, DE		4,000
DELAWARE COAST, REHOBOTH BEACH TO DEWEY BEACH, DE		7,650
FLORIDA		
SOUTH FLORIDA ECOSYSTEM RESTORATION (EVERGLADES), FL	350,000	350,000
GEORGIA		
SAVANNAH HARBOR EXPANSION, GA	24,000	24,000
ILLINOIS		
CALUMET HARBOR AND RIVER, IL AND IN		9,100 *
CHICAGO SANITARY & SHIP CANAL DISPERSAL BARRIERS, IL	12,948	12,948
MADISON & ST CLAIR COUNTIES, IL		6,025
UPPER MISSISSIPPI RIVER—ILLINOIS WW SYSTEM, IL, IA, MN, MO & WI		45,100
UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO and WI	33,170	33,170
INDIANA		
INDIANA HARBOR, CONFINED DISPOSAL FACILITY, IN		18,395 *

CORPS OF ENGINEERS—CONSTRUCTION—Continued

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
IOWA		
MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	8,075	8,075
LOUISIANA		
CALCASIEU RIVER AND PASS, LA .....	.....	9,000 *
LOUISIANA COASTAL AREA ECOSYSTEM RESTORATION, LA	6,000	6,000
SOUTHWEST COASTAL LOUISIANA HURRICANE PROTECTION, LA .....	.....	10,000
MARYLAND		
ANACOSTIA WATERSHED RESTORATION, PRINCE GEORGE'S COUNTY, MD	30,000	30,000
ASSATEAGUE ISLAND, MD .....	.....	600 *
CHESAPEAKE BAY ENVIRONMENTAL RESTORATION & PROTECTION, MD, VA & PA .....	.....	5,750
CHESAPEAKE BAY OYSTER RECOVERY, MD and VA	3,880	3,880
CHESAPEAKE & OHIO CANAL, CUMBERLAND, MD & RIDGELEY, WV .....	.....	390
MID-CHESAPEAKE BAY ISLAND, MD .....	.....	37,500
POPLAR ISLAND, MD .....	.....	4,200 *
MICHIGAN		
SAULT STE MARIE (REPLACEMENT LOCK), MI	480,000	480,000
MINNESOTA		
SECTION 596, ENVIRONMENTAL INFRASTRUCTURE, CITY OF BIWABIK, MN .....	.....	2,000
SECTION 596, ENVIRONMENTAL INFRASTRUCTURE, VIRGINIA STREET, MN .....	.....	2,000
MISSOURI		
MONARCH CHESTERFIELD, MO .....	.....	12,600
NEW JERSEY		
DELAWARE BAY COASTLINE, OAKWOOD BEACH, NJ .....	.....	5,000
GREAT EGG HARBOR INLET AND PECK BEACH, NJ .....	.....	17,000
RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	30,000	30,000
TOWNSENDS INLET TO CAPE MAY INLET, NJ .....	.....	15,500
NEW MEXICO		
ACEQUIAS ENVIRONMENTAL INFRASTRUCTURE, NM .....	.....	9,060
NORTH CAROLINA		
CAROLINA BEACH AND VICINITY, NC .....	.....	11,550
WILMINGTON HARBOR, NC .....	.....	22,000 *
WRIGHTSVILLE BEACH, NC .....	.....	9,295
NORTH DAKOTA		
PIPESTEM LAKE, ND	136,496	136,496
OHIO		
OHIO RIVERFRONT, CINCINNATI, OH .....	.....	600
OKLAHOMA		
TULSA AND WEST TULSA LEVEE SYSTEM .....	.....	13,789
OREGON		
COLUMBIA RIVER AT THE MOUTH, OR & WA	25,609	25,609
WILLAMETTE RIVER AT WILLAMETTE FALLS, OR .....	.....	6,200
PENNSYLVANIA		
UPPER OHIO NAVIGATION (MONTGOMERY LOCK), PA .....	.....	20,100
SOUTH CAROLINA		
LAKES MARION AND MOULTRIE, SC .....	.....	18,000
VERMONT		
LAKE CHAMPLAIN BASIN (SECTION 542), VT .....	.....	5,500

CORPS OF ENGINEERS—CONSTRUCTION—Continued

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
VIRGINIA		
NORFOLK HARBOR AND CHANNELS, VA (DEEPENING)	83,700	83,700
WASHINGTON		
COLUMBIA RIVER FISH MITIGATION, WA, OR & ID (CRFM)	3,575	38,375
DALLES TRIBAL VILLAGE DEVELOPMENT PLAN, WA		1,200
MOUNT ST HELENS SEDIMENT CONTROL, WA	29,749	29,749
PUGET SOUND & ADAJACENT WATER RESTORATION (SPENCER ISLAND), WA		5,000
WEST VIRGINIA		
SHEPHERDSTOWN WATER WORKS DISTRIBUTION SYSTEM, SECTION 571, WV		1,668
MARRTOWN SANITARY SEWER EXTENSION, SECTION 219, WV		3,200
WHEELING ELM RUN, WV		546
SUBTOTAL, ITEMS UNDER STATES	1,750,510	2,205,441
REMAINING ITEMS		
ADDITIONAL FUNDING		
FLOOD AND STORM DAMAGE REDUCTION		154,000
FLOOD CONTROL		91,975
SHORE PROTECTION		20,000
NAVIGATION		190,000
INLAND WATERWAYS TRUST FUND REVENUES		56,945
OTHER AUTHORIZED PROJECT PURPOSES		35,000
ENVIRONMENTAL RESTORATION OR COMPLIANCE		60,000
ENVIRONMENTAL INFRASTRUCTURE		50,000
AQUATIC PLANT CONTROL PROGRAM		26,000
BENEFICIAL USE OF DREDGED MATERIAL PILOT PROGRAM (SEC 1122)		4,300
SAN FRANCISCO BAY, CA		(3600)
CONTINUING AUTHORITIES PROGRAM		
AQUATIC ECOSYSTEM RESTORATION (SECTION 206)	1,000	15,000
BENEFICIAL USES OF DREDGED MATERIAL (SECTION 204)	1,000	10,000 *
EMERGENCY STREAMBANK AND SHORELINE PROTECTION (SECTION 14)		10,000
GLOUCESTER CITY SEAWALL (CAMDEN COUNTY), NJ		(100)
GRAND RIVER BANK STREET, CITY OF PLAINESVILLE, OH		(2600)
KANAWHA RIVER STREAMBANK STABILIZATION, WV		(4780)
MORGAN STATE UNIVERSITY SLOPE STABILIZATION, MD		(100)
URI NARRAGANSETT EROSION PROTECTION		(150)
FLOOD CONTROL PROJECTS (SECTION 205)	1,000	17,000
LOWER SANTA CRUZ RIVER, ELOY LEVEE, AZ		(100)
MCCORMICK WASH, GLOBE, AZ		(100)
RIVER ROAD, TOWN OF ROSENDALE, NY		(100)
ROSE AND PALM GARDEN WASHES FLOOD CONTROL PROJECT, AZ		(200)
NAVIGATION PROGRAM (SECTION 107)		5,000
PORT OF MUSKEGON, MI		(100)
STURGEON POINT, TOWN OF EVANS, NY		(100)
PROJECT MODIFICATIONS FOR IMPROVEMENT OF THE ENVIRONMENT (SECTION 1135)	1,533	11,000
SHORE PROTECTION (SECTION 103)		2,000
ROSE LARISA PARK, RI		(50)
ROUNDOUT RIVERPORT, CITY OF KINGSTON, NY		(100)
WATCH HILL LIGHTHOUSE, RI		(50)
DAM SAFETY AND SEEPAGE/STABILITY CORRECTION PROGRAM	13,000	13,000
EMPLOYEES' COMPENSATION	15,000	15,000
INLAND WATERWAYS USERS BOARD—BOARD EXPENSE	60	60
INLAND WATERWAYS USERS BOARD—CORPS EXPENSE	275	275
INNOVATIVE FUNDING PARTNERSHIPS	10,000	
RESTORATION OF ABANDONED MINES		2,000
TRIBAL PARTNERSHIP PROGRAM		8,007

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

Project title	Budget estimate	Committee recommendation
SUBTOTAL	42,868	796,562
TOTAL	1,793,378	3,002,003

*Includes funds requested in other lines or accounts.

Alternative Delivery.—The Committee continues to support alternative delivery approaches such as Public Private Partnerships [P3s] and split delivery methods that leverage public and private resources to reduce costs and risk to populations by delivering infrastructure sooner. The use of P3s and split delivery methods demonstrates a viable strategy to help address the Corps' backlog of projects while reducing scheduling and funding risk to the Federal Government. The Committee encourages the Corps to continue the rulemaking process for the Water Infrastructure Finance and Innovation Act [WIFIA]. The Corps is reminded that projects which use an alternative delivery approach are eligible to compete for additional funding recommended in this account.

Advanced Measures.—The Corps is encouraged to fully use the authorities granted to it under the Advanced Measures program to mitigate impacts expected to occur in the Great Lakes Basin as a result of record-high and near-record-high water levels.

Aquatic Plant Control Program.—Of the funding recommended for the Aquatic Plant Control Program, \$1,000,000 shall be for activities for monitoring, surveys, and control of flowering rush and hydrilla. Additionally, \$7,000,000 shall be for nationwide research and development to address invasive aquatic plants, within which the Corps is encouraged to support cost-shared aquatic plant management programs. Particularly, the Corps is encouraged to evaluate and address prevention, of new infestations of hydrilla in the Connecticut River Basin. Finally, \$15,000,000 shall be for watercraft inspection stations and rapid response as authorized in section 104 of the River and Harbor Act of 1958, equally distributed to carry out subsections (d)(1)(A)(i), (d)(1)(A)(ii), and (d)(1)(A)(iii), and \$3,000,000 shall be for related monitoring.

Barrow Alaska Coastal Erosion.—The Committee is pleased the Corps reprogrammed funding to continue PED work for this critical project in fiscal year 2021 and urges the Corps to expeditiously complete PED to address the significant risks to life and safety, threats to the community's only drinking water source, and risks from contamination to the environment.

Beneficial Use of Dredged Material Pilot Program.—The Committee is pleased to see the Corps' selection of ten pilot projects under section 1122 of the WIIN Act to carry out beneficial use of dredged material including the Resilient San Francisco Bay Pilot project. The Committee recommends \$4,300,000 for the ten pilot projects selected to date within the "Beneficial Use of Dredged Material Pilot Program." The Corps is further directed to brief the Committee prior to any effort to solicit or select any additional pilot projects as authorized by AWIA 2018.

Bipartisan Budget Act [BBA] of 2018.—The Committee is frustrated with the lack of urgency in completing the BBA 2018 construction projects. The purpose of the supplemental disaster funding was to accelerate completion of high-priority flood control projects nationwide, including areas affected by hurricanes Harvey, Irma, and Maria. The Committee does not understand why the full cost of the project must be available before starting any construction especially when discrete elements are ready and there are funds to complete them. The Corps has never been funded in this manner and this interpretation does not align with the intent of Congress—to accelerate construction. The Committee has received only one of the required quarterly reports on the obligation of funds and this lack of transparency and collaboration is unacceptable. As the BBA 2018 program progresses, it is possible that projects will not be completed within supplemental funds available; the Committee does not intend for those projects to be delayed. The Corps shall brief the Committee no later than 30 days of this act enactment of this act on the status of the program and the plan for completion of projects.

Bird Drive Basin Conveyance, Seepage Collection, and Recharge.—The Committee acknowledges the unique opportunity for Miami-Dade County and the Miami-Dade Expressway Authority [MDX] to assist in land purchases and swaps to protect a vital project footprint to implement the Bird Drive Basin Conveyance, Seepage Collection, and Recharge concept and achieve the goals of the original Comprehensive Everglades Restoration Plan [CERP] Bird Drive Recharge Area project. The Committee encourages the Corps to work with the Department of the Interior and the South Florida Water Management District to quickly identify a consensus project footprint between SW 8th Street and the C-1W Canal to the south, immediately east of Krome Avenue, to enable Miami-Dade County and MDX to begin necessary land acquisitions in support of the creation of a West Kendall Everglades Buffer and progress towards completing an important element of the CERP.

Biscayne Bay Coastal Wetlands Project.—The Committee continues to support this vital project to protect drinking water supplies in eastern Miami-Dade County from saltwater intrusion and to enhance the coastal and marine ecology of Biscayne Bay and the offshore coral reef system. The Committee notes support from Miami-Dade County and the South Florida Water Management District to incorporate highly treated, reclaimed wastewater as an additional source of freshwater to assist the rehydration of these coastal wetlands. The Committee encourages the Corps to consider the incorporation of this potential source of freshwater into further study, design, and construction of the project and to evaluate the potential to use additional volumes of reclaimed wastewater to restore freshwater artesian springs within the Bay through underground injection to the shallow, underlying aquifer.

Camp Ellis Beach, Saco, Maine.—The Committee is pleased the Corps has accepted a letter of support from the City of Saco making them the non-Federal sponsor of the Camp Ellis Project. The Committee directs the Secretary to finalize a Project Partnership Agreement between the City of Saco and the Corps and to continue

the collaborative effort to address the continued erosion at Camp Ellis Beach.

Caño Martin Peña Ecosystem Restoration Project, San Juan, Puerto Rico.—The Committee renews its focus on the Caño Martin Peña Ecosystem Restoration Project planned for urban San Juan, Puerto Rico. The Committee continues to recognize the significance of this project for the economic revitalization, public health, and incidental flood protection of the eight surrounding communities. This historically important tidal channel will re-establish the natural tidal exchange between the San Jose Lagoon and the San Juan Bay, two bodies of water with ecologically significant habitat for native species and ecosystem function. The Committee further recognizes the substantial time and effort dedicated across the past three decades by the non-Federal sponsor to plan this project in coordination with the Corps and the meaningful progress made in recent years to secure its authorization and ready it for the construction phase. The Committee is concerned over lost opportunities and delays arising with the absence of funds being allocated to start construction of this critical project. Accordingly, the Committee encourages the Corps to prioritize funding for this project in future budget requests and to work with the non-Federal sponsor to advance the project to the next phase at the earliest practicable opportunity.

Central Everglades Planning Project [CEPP].—The Committee recognizes the importance of restoring America's Everglades, and urges the Corps to expedite the required validation reports for PPA North and PPA New Water, and to begin design and construction of components for PPA South and PPA New Water as soon as practicable to complement the efforts of the South Florida Water District. The Committee urges the Corps to design and construct the recently-authorized Everglades Agricultural Area Storage Reservoir as quickly as possible to utilize the expanded water delivery capabilities of completed PPA South elements.

Central and South Florida Project.—The Committee recognizes the importance of the Central and South Florida Project and urges the Corps to maintain continued attention to the need of the South Florida economy and environment for a functioning flood control system.

Chesapeake Bay Comprehensive Water Resources Restoration Plan and Oyster Recovery.—The Committee supports the Corps' Chesapeake Bay Comprehensive Water Resources and Restoration Plan and the Chesapeake Bay Oyster Recovery Program and encourages the Corps to provide sufficient funding in future budget requests and the fiscal year 2022 work plan.

Chicago Sanitary and Ship Canal Dispersal Barrier, Illinois.—No funds recommended in this act may be used for construction of hydrologic separation measures.

CERP-Indian River Lagoon-South.—The Committee recognizes the importance of restoring America's Everglades, and the challenge of balancing discharges from Lake Okeechobee and harmful algal blooms in the St. Lucie River and Indian River Lagoon. The Committee urges the Corps to move on the final construction of the C-44 Reservoir and to expedite design work on the C-23 and C-24 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 and runoff before they enter the Lagoon.

Columbia River Treaty.—The Corps is directed to brief, in a classified setting and in coordination with the Department of State, within 60 days after enactment of this act on the execution plan for post-fiscal year 2023 for flood control operations as dictated by the modernized agreement. Further, not later than 90 days after enactment of this act the Corps shall provide a classified detailed assessment, in coordination with Department of State, of its funding requirements and plan for post-fiscal year 2023 for flood control operations as dictated by the Columbia River Treaty.

Construction Funding Schedules.—A complete and reliable cost estimate with an out-year funding schedule is essential to understanding current funding and future funding requirements within the Corps' construction portfolio. A comprehensive outlook of these dynamic requirements is necessary for Congress to consider and balance funding allocations annually, and to assess the long-term effects of new investment decisions. Therefore, within 90 days of enactment of this act and annually thereafter, the Chief of Engineers shall submit directly to the Committee on Appropriations of both houses of Congress, a breakdown, by fiscal year, of the full and efficient Federal funding needs for each ongoing construction project in the Corps' Civil Works program. For each project identified, the Corps shall also provide the total project cost with a breakdown between the Federal and non-Federal costs, and any applicable authorization ceiling. For the purposes of this report, an active project shall mean any project which has received construction account appropriations, including those funded in a supplemental, and has remaining costs to be funded from the Construction account. These funding requirements shall be based on technical construction sequencing, and realistic workflow and shall not be altered to reflect administrative policies and priorities or any assumed limitation on funding available.

Continuing Authorities Program.—The Committee recommends \$70,000,000 for the Continuing Authorities Program [CAP]. 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 management of CAP shall continue consistent with direction provided in previous fiscal years.

The Corps shall allow for the advancement of flood control projects in combination with ecological benefits using natural and nature-based solutions alone, or in combination with, built infrastructure where appropriate for reliable risk reduction during the development of projects under section 205 of CAP. Additionally, within the section 1135 CAP authority, and to the extent already authorized by law, the Committee encourages the Corps to consider projects that restore degraded wetland habitat and stream habitat impacted by construction of Corps levees with executed Feasibility Cost Share Agreements.

Environmental Infrastructure.—Authorized Environmental Infrastructure projects shall not require a new start designation. This includes projects in regional authorities that have not received

funding and projects authorized under section 219 of the WRDA of 1992 (Public Law 102–580), as amended. The Committee reminds the Corps that Environmental Infrastructure authorities include caps on Federal participation, but do not provide a guarantee that the project authorization level will be met. Environmental Infrastructure projects shall only receive funding if there is a separable element that can be funded to completion in a fiscal year without the requirement for continued funding in future years.

Howard Hanson Dam—Additional Water Storage Project [HAHD–AWSP].—The Committee supports continued efforts to fully implement the jeopardy Biological Opinion (BiOp) determining the impact of ongoing operations of Howard Hanson Dam, including the HAHD–AWSP on ESA-listed species, and specifically the ongoing work to construct a downstream fish passage facility.

Innovative Funding Partnerships Program.—The budget request includes \$10,000,000 for an Innovative Funding Partnerships Program to be used along with funds from non-Federal interests “in excess of the non-Federal sponsor’s statutory cost share requirements” to accelerate certain authorized projects. The Committee is troubled by what appears to be an avenue to circumvent the performance based budgeting approach the Corps uses to evaluate projects. It is unclear how equity will be maintained if funding in excess of legally required cost share is used as a criterion for funding decisions allowing non-Federal sponsors to contribute funds and jump the line is contrary to long-standing congressional direction. The Committee recommends no funds for this proposal. The Committee notes, however, that any project that could have received funding under such a program is eligible to compete for the additional funding provided in this account based on the project performance criteria described in this report.

Lake Champlain Watershed.—The Lake Champlain Watershed is an officially designated resource of national significance that spans the States of New York and Vermont and into Canada. The Committee reminds the Corps that section 542 of WRDA of 2000 (Public Law 106–541) as amended, authorizes the Corps to provide assistance to non-Federal interests to address a range of environmental issues in the Lake Champlain Watershed in Vermont and New York.

New Savannah Bluff Lock and Dam, Georgia and South Carolina.—The Committee maintains interest in the New Savannah Bluff Lock and Dam and recognizes the long standing challenges of the project. The Committee encourages the Corps to work with all stakeholders towards a mutually beneficial resolution that will ensure waters levels for existing activities and functions are maintained, as detailed in section 1319 of the WIIN Act.

Non-Federal Implementation Pilot Program.—Due to ongoing concerns initially expressed in the fiscal year 2020 Senate Report, the Corps shall notify the Committee upon receiving any proposal from a non-Federal interest requesting to utilize the section 1043(b) of WRRDA authority. The Corps shall not negotiate or enter into a project partnership agreement to transfer funds to a non-Federal interest utilizing this authority unless approval is received from the Committee on Appropriations of both Houses of Congress. None of the funds recommended in this act shall be used

under this authority for a project where construction has been started but not completed. The Corps shall brief the Committees not later than 45 days after enactment of this act on activities carried out under the section 1043 pilot program, including the Corps' implementation guidance and any existing or potential agreements.

Prioritization of 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 four fiscal years, to include projects focused on the treatment of brackish water.

South Florida Ecosystem Restoration [SFER].—For fiscal year 2022, the Committee directs the Corps to make publicly available a comprehensive snapshot of all SFER cost share accounting down to the project level and directs the Corps to ensure the accuracy of all budget justification sheets that inform SFER Integrated Financial Plan documents by September 30, 2022.

The Dalles Dam, Tribal Housing.—The Committee is aware that the work on the Village Development Plan is partially complete. The Corps is encouraged to complete the Village Development Plan in consultation with affected Columbia River tribes and the Bureau of Indian Affairs.

Tulsa and West-Tulsa Levee System [TWTLS].—The Committee recognizes that TWTLS-protected area is home to a substantial population of elderly and low income residents, and the TWTLS was classified by the Corps as a high risk of failure and life loss in 2019. Therefore, the Committee has provided additional funding and urges the Corps to expeditiously continue progress on this critical project.

Upper Mississippi River Restoration Program [UMRR], Quincy Bay.—Over the past 70 years, river traffic has led to the environmental degradation of Quincy Bay. Therefore the Committee encourages the Corps to prioritize the environmental restoration project in Quincy Bay near Quincy, Illinois as a Tier 1 project for immediate commencement through the UMMR Program.

Upper St. Anthony Falls.—The Committee is concerned that the Corps is attempting to divest the entire Federal project at once and encourages the Corps to continue to operate and maintain the lock. The Corps is further reminded that the Upper St. Anthony Falls project remains an authorized Federal project until there is a willing non-Federal partner for the disposition study.

Additional Funding.—The Corps shall allocate these additional funds in accordance with the direction in the front matter under the heading "Additional Funding". The Corps shall not condition these funds, or any funds appropriated in this act, on a non-Federal interest paying more than their required share in any phase of a project. 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 \$35,000,000 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 funding provided in this account for environmental restoration or compliance and other au-

thorized project purposes, the Corps shall allocate not less than \$25,000,000 for multistate ecosystem restoration programs for which a comprehensive restoration plan is in development or has been completed. Of the additional funding recommended in this account for flood and storm damage reduction and flood control, the Corps shall allocate not less than \$25,558,000 to continue construction of projects that principally address drainage in urban areas.

When allocating the additional funding provided in this account, the Corps is encouraged to evaluate authorized reimbursements in the same manner as if the projects were being evaluated for new or ongoing construction and shall consider giving priority to the following:

- Benefits of the funded work to the national economy;
- Extent to which the work will enhance national, regional, or local economic development;
- Number of jobs created directly by the funded activity;
- Ability to obligate the funds allocated within the calendar year, including consideration of the ability of the non-Federal sponsor to provide any required cost share;
- Ability to complete the project, separable element, or project phase with the funds allocated;
- Legal requirements, including responsibilities to Tribes;
- For flood and storm damage reduction projects (including authorized nonstructural measures and periodic beach renourishments): Population, safety of life, economic activity, or public infrastructure at risk, as appropriate; the severity of risk of flooding or the frequency with which an area has experienced flooding; and preservation of historically significant communities, culture, and heritage;
- For shore protection projects, projects in areas where there is risk to life and public health and safety, and risk of environmental contamination;
- For navigation projects, the number of jobs or level of economic activity to be supported by completion of the project, separable element, or project phase;
- For projects cost shared with the IWTF, the economic impact on the local, regional, and national economy if the project is not funded, as well as discrete elements of work that can be completed within the funding provided in this line item;
- For other authorized project purposes and environmental restoration or compliance projects, the beneficial use of dredged material; and
- For environmental infrastructure, projects in rural communities, projects with greater economic impact, projects in counties or parishes with high poverty rates, projects owed past reimbursements, and projects that provide backup raw water supply in the event of an emergency.

The Committee recommendation includes the full use of all estimated fiscal year 2022 annual revenues in the IWTF to ensure ongoing construction projects proceed with an efficient funding profile. Funds recommended herein for inland waterways shall only be available for ongoing construction projects. The Corps shall allocate all funds recommended in the IWTF Revenues remaining item along with the statutory cost share from funds provided in the

Navigation line item prior to allocating the remainder of funds in the Navigation line item.

MISSISSIPPI RIVER AND TRIBUTARIES

Appropriations, 2021	\$380,000,000
Budget estimate, 2022	269,688,000
Committee recommendation	380,000,000

The Committee recommends \$380,000,000 for Mississippi River and Tributaries. Funds recommended in this account are for planning, construction, and operation 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
INVESTIGATIONS		
RUNNING REELFOOT BAYOU, TN	600	600
SUBTOTAL, INVESTIGATIONS	600	600
CONSTRUCTION		
LOWER MISSISSIPPI RIVER MAIN STEM (LMRMS)	800	800
CHANNEL IMPROVEMENT, AR, IL, KY, LA, MS, MO & TN	14,300	14,300
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO and TN	17,450	17,450
MORGANZA TO THE GULF, LA		19,333
YAZOO BASIN, DELTA HEADWATERS, MS		12,900
YAZOO BASIN, UPPER YAZOO, MS		12,000
YAZOO BASIN, YAZOO BACKWATER AREA, MS		20,750
SUBTOTAL, CONSTRUCTION	32,550	97,533
OPERATION AND MAINTENANCE		
LOWER MISSISSIPPI RIVER MAIN STEM (LMRMS)	30,922	30,922
CHANNEL IMPROVEMENT, AR, IL, KY, LA, MS, MO & TN	77,500	77,500
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	11,593	11,593
BAYOU METO BASIN, AR		24,000
GRAND PRAIRIE REGION, AR		13,000
HELENA HARBOR, PHILLIPS COUNTY, AR		540 *
INSPECTION OF COMPLETED WORKS, AR		252 †
LOWER ARKANSAS RIVER, NORTH BANK, AR	75	75
LOWER ARKANSAS RIVER, SOUTH BANK, AR	40	40
RED-OUACHITA RIVER BASIN LEVEES, AR & LA	87	87
ST FRANCIS BASIN, AR & MO	9,600	9,600
TENSAS BASIN, BOEUF AND TENSAS RIVERS, AR & LA	2,455	2,455
WHITE RIVER BACKWATER, AR	1,100	1,100
INSPECTION OF COMPLETED WORKS, IL		20 †
INSPECTION OF COMPLETED WORKS, KY		35 †
BAYOU COCODRIE AND TRIBUTARIES, LA	48	48
INSPECTION OF COMPLETED WORKS, LA		3,952 †
LOWER RED RIVER, SOUTH BANK LEVEES, LA	140	140
MISSISSIPPI DELTA REGION, LA	1,940	1,940
OLD RIVER, LA	52,020	52,020
TENSAS BASIN, RED RIVER BACKWATER, LA	2,990	2,990
GREENVILLE HARBOR, MS		932 *
INSPECTION OF COMPLETED WORKS, MS		202 †
VICKSBURG HARBOR, MS		942 *
YAZOO BASIN, ARKABUTLA LAKE, MS	6,070	6,070
YAZOO BASIN, BIG SUNFLOWER RIVER, MS	224	224

MISSISSIPPI RIVER AND TRIBUTARIES—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
YAZOO BASIN, ENID LAKE, MS	5,362	5,362
YAZOO BASIN, GREENWOOD, MS	365	365
YAZOO BASIN, GRENADA LAKE, MS	5,482	5,482
YAZOO BASIN, MAIN STEM, MS	900	900
YAZOO BASIN, SARDIS LAKE, MS	7,632	7,632
YAZOO BASIN, TRIBUTARIES, MS	450	450
YAZOO BASIN, WILL M WHITTINGTON AUX CHAN, MS	290	290
YAZOO BASIN, YAZOO BACKWATER AREA, MS	727	727
YAZOO BASIN, YAZOO CITY, MS	450	450
INSPECTION OF COMPLETED WORKS, MO	136	†
WAPPAPPELLO LAKE, MO	6,863	6,863
INSPECTION OF COMPLETED WORKS, TN	28	†
MEMPHIS HARBOR, MCKELLAR LAKE, TN	2,338	*
SUBTOTAL, OPERATION AND MAINTENANCE	225,325	271,702
REMAINING ITEMS		
ADDITIONAL FUNDING FOR ONGOING WORK		3,667
DREDGING		
FLOOD CONTROL		
OTHER AUTHORIZED PURPOSES		
COLLECTION AND STUDY OF BASIC DATA	6,498	6,498
MISSISSIPPI RIVER COMMISSION	90	
INSPECTION OF COMPLETED WORKS, AR, IL, KY, LA, MS, MO AND TN	4,625	
SUBTOTAL, REMAINING ITEMS	11,213	10,165
TOTAL, MISSISSIPPI RIVER AND TRIBUTARIES	269,688	380,000 †

* Includes funds requested in other accounts.

† Includes funds requested in remaining items.

Lower Mississippi River Main Stem.—The budget request proposes to consolidate several activities across multiple States into one line item. The Committee rejects this change and instead recommends continuing to fund these activities as separate line items.

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. The Corps shall use such sums as are necessary to carry out remaining unconstructed features of projects authorized by law, in response to recent flood disasters. While this funding is shown under remaining items, the Corps shall use these funds in investigations, construction, and operation and maintenance, as applicable.

The Committee recognizes the importance of erosion control in headwater streams and tributaries, and the environmental, water quality, and sediment reduction benefits it provides downstream. When allocating additional funds recommended in this account, the Corps is directed to give adequate consideration to cooperative projects addressing watershed erosion, sedimentation, flooding, and environmental degradation. Of the additional funds recommended in this account, the Corps shall allocate not less than \$3,000,000 for dredging of ports and harbors.

OPERATION AND MAINTENANCE

Appropriations, 2021	\$3,849,655,000
Budget estimate, 2022	2,502,901,000
Committee recommendation	4,682,797,000

The Committee recommends \$4,682,797,000 for Operation and Maintenance. 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	15,252	23,632
BAYOU CODEN, AL		3,000
BAYOU LA BATRE, AL		5,008 *
BLACK WARRIOR AND TOMBIGBEE RIVERS, AL	24,652	27,852
BON SECOUR RIVER, AL		4,493
DAUPHIN ISLAND BAY, AL		3,000
GULF INTRACOASTAL WATERWAY, AL	6,745	6,745
INSPECTION OF COMPLETED WORKS, AL		180 †
MOBILE HARBOR, AL		63,212 *
PERDIDO PASS CHANNEL, AL		2,000 *
PROJECT CONDITION SURVEYS, AL		150 *
SCHEDULING RESERVOIR OPERATIONS, AL		85 †
TENNESSEE—TOMBIGBEE WATERWAY WILDLIFE MITIGATION, AL & MS	1,800	1,800
TENNESSEE—TOMBIGBEE WATERWAY, AL & MS	28,986	32,986
WALTER F GEORGE LOCK AND DAM, AL & GA	10,676	10,676
WATER/ENVIRONMENTAL CERTIFICATION, AL		90 *
ALASKA		
ANCHORAGE HARBOR, AK		11,370 *
CHENA RIVER LAKES FLOOD CONTROL PROJECT, NORTH POLE, AK	6,921	6,921
DILLINGHAM HARBOR, AK		1,055 *
ELFIN COVE, AK		2,660 *
HOMER HARBOR, AK		785 *
INSPECTION OF COMPLETED WORKS, AK		200 †
LOWELL CREEK TUNNELL (SEWARD), AK	75	75
NINILCHIK HARBOR, AK		665 *
NOME HARBOR, AK		2,434 *
PROJECT CONDITION SURVEYS, AK		750 *
AMERICAN SAMOA		
ANUU HARBOR, AS		2,921 *
ARIZONA		
ALAMO LAKE, AZ	1,600	1,600
INSPECTION OF COMPLETED WORKS, AZ		175 †
PAINTED ROCK DAM, AZ	1,936	1,936

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
SCHEDULING RESERVOIR OPERATIONS, AZ .....	.....	112 †
WHITLOW RANCH DAM, AZ	445	445
ARKANSAS		
BEAVER LAKE, AR	8,956	8,956
BLAKELY MT DAM, LAKE OUACHITA, AR	7,460	7,460
BLUE MOUNTAIN LAKE, AR	1,998	1,998
BULL SHOALS LAKE, AR	9,525	9,525
DEGRAY LAKE, AR	6,587	6,587
DEQUEEN LAKE, AR	1,846	1,846
DIERKS LAKE, AR	1,488	1,488
GILLHAM LAKE, AR	1,430	1,430
GREERS FERRY LAKE, AR	7,947	7,947
HELENA HARBOR, PHILLIPS COUNTY, AR .....	.....	540 *
INSPECTION OF COMPLETED WORKS, AR .....	.....	929 †
McCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	56,136	56,136
MILLWOOD LAKE, AR	2,831	2,831
NARROWS DAM, LAKE GREESON, AR	5,691	5,691
NIMROD LAKE, AR	2,267	2,267
NORFORK LAKE, AR	6,572	6,572
OSCEOLA HARBOR, AR .....	.....	15 *
OUACHITA AND BLACK RIVERS, AR & LA	12,065	12,065
PROJECT CONDITION SURVEYS .....	.....	5 *
WHITE RIVER, AR	25	25
YELLOW BEND PORT, AR .....	.....	127 *
CALIFORNIA		
BLACK BUTTE LAKE, CA	6,400	6,400
BUCHANAN DAM, HV EASTMAN LAKE, CA	2,295	2,295
CHANNEL ISLANDS HARBOR, CA .....	.....	15,016 *
COYOTE VALLEY DAM, LAKE MENDOCINO, CA	8,200	8,200
DRY CREEK (WARM SPRINGS) LAKE AND CHANNEL, CA	9,524	9,524
FARMINGTON DAM, CA	525	525
HIDDEN DAM, HENSLEY LAKE, CA	7,495	7,495
HUMBOLDT HARBOR AND BAY, CA .....	.....	4,700 *
INSPECTION OF COMPLETED WORKS, CA .....	.....	3,410 †
ISABELLA LAKE, CA	3,440	3,440
LOS ANGELES COUNTY DRAINAGE AREA, CA	20,220	20,220
MERCED COUNTY STREAMS, CA	835	835
MOJAVE RIVER DAM, CA	1,101	1,101
MORRO BAY HARBOR, CA .....	.....	3,600 *
NAPA RIVER, CA .....	.....	4,750 *
NEW HOGAN LAKE, CA	6,390	6,390
NEW MELONES LAKE, DOWNSTREAM CHANNEL, CA	2,480	2,480
OAKLAND HARBOR, CA .....	.....	25,634 *
OCEANSIDE HARBOR, CA .....	.....	1,790 *
PINE FLAT LAKE, CA	3,930	3,930
PROJECT CONDITION SURVEYS, CA .....	.....	840 *
RICHMOND HARBOR, CA .....	.....	13,179 *
SACRAMENTO RIVER (30 FOOT PROJECT), CA .....	.....	3,875 *
SACRAMENTO RIVER AND TRIBUTARIES (DEBRIS CONTROL), CA	990	990 *
SACRAMENTO RIVER (SHALLOW DRAFT CHANNEL), CA .....	.....	190 *
SAN FRANCISCO BAY DELTA MODEL STRUCTURE, CA	1,018	1,018
SAN FRANCISCO BAY LONG TERM MANAGEMENT STRATEGY (LTMS), CA .....	.....	450 *
SAN FRANCISCO HARBOR AND BAY, CA (DRIFT REMOVAL) .....	.....	3,883 *
SAN FRANCISCO HARBOR, CA .....	.....	5,275 *
SAN JOAQUIN RIVER (PORT OF STOCKTON), CA .....	.....	7,425 *
SAN PABLO BAY AND MARE ISLAND STRAIT, CA .....	.....	600 *
SAN RAFAEL CREEK, CA .....	.....	6,750 *
SANTA ANA RIVER BASIN, CA	6,572	6,572
SANTA BARBARA HARBOR, CA .....	.....	3,640 *
SANTA CRUZ HARBOR, CA .....	.....	540 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
SCHEDULING RESERVOIR OPERATIONS, CA		1,623 †
SUCCESS LAKE, CA	2,972	2,972
SUISUN BAY CHANNEL, CA		5,880 *
TERMINUS DAM (LAKE KAWEAH), CA	5,750	5,750
VENTURA HARBOR, CA		5,516 *
YUBA RIVER, CA	200	1,755 *
COLORADO		
BEAR CREEK LAKE, CO	662	662
CHATFIELD LAKE, CO	1,937	1,937
CHERRY CREEK LAKE, CO	1,487	1,487
INSPECTION OF COMPLETED WORKS, CO		314 †
JOHN MARTIN RESERVOIR, CO	9,594	9,594
SCHEDULING RESERVOIR OPERATIONS, CO	2,023	2,023
TRINIDAD LAKE, CO		530 †
CONNECTICUT		
BLACK ROCK LAKE, CT	643	643
COLEBROOK RIVER LAKE, CT	833	833
HANCOCK BROOK LAKE, CT	558	558
HOP BROOK LAKE, CT	1,317	1,317
INSPECTION OF COMPLETED WORKS, CT		970 †
MANSFIELD HOLLOW LAKE, CT	816	816
NEW HAVEN HARBOR, CT		401 *
NORTHFIELD BROOK LAKE, CT	585	585
PROJECT CONDITION SURVEYS, CT		1,100 *
STAMFORD HURRICANE BARRIER, CT	597	597
THOMASTON DAM, CT	1,000	1,000
WEST THOMPSON LAKE, CT	890	890
WESTPORT HARBOR & SAUGATUCK RIVER, CT		2,810
DELAWARE		
INDIAN RIVER INLET AND BAY, DE		30 *
INSPECTION OF COMPLETED WORKS, DE		2 †
INTRACOASTAL WATERWAY, DELAWARE RIVER TO CHESAPEAKE BAY, DE & MD		19,130 *
INTRACOASTAL WATERWAY, REHOBOTH BAY DELAWARE BAY		150 *
PROJECT CONDITION SURVEYS, DE		225 *
WILMINGTON HARBOR, DE		8,950 *
DISTRICT OF COLUMBIA		
INSPECTION OF COMPLETED WORKS, DC		39 †
POTOMAC AND ANACOSTIA RIVERS, DC (DRIFT REMOVAL)		1,175 *
PROJECT CONDITION SURVEYS, DC		30 *
WASHINGTON HARBOR, DC		25 *
FLORIDA		
CANAVERAL HARBOR, FL		2,215 *
CENTRAL AND SOUTHERN FLORIDA, FL	22,243	23,854 *
INSPECTION OF COMPLETED WORKS, FL		1,003 †
INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL	4,380	4,380
JACKSONVILLE HARBOR, FL		7,155 *
JIM WOODRUFF LOCK AND DAM, LAKE SEMINOLE, FL, AL & GA	8,501	8,501
MANATEE HARBOR, FL		680 *
MIAMI HARBOR, FL		180 *
OKEECHOBEE WATERWAY, FL	1,365	3,710 *
PALM BEACH HARBOR, FL		5,120 *
PENSACOLA HARBOR, FL		40 *
PORT EVERGLADES HARBOR, FL		180 *
PROJECT CONDITION SURVEYS, FL		1,275 *
REMOVAL OF AQUATIC GROWTH, FL		3,449 *
SCHEDULING RESERVOIR OPERATIONS, FL		100 †
SOUTH FLORIDA ECOSYSTEM RESTORATION (EVERGLADES), FL	8,950	8,950

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
TAMPA HARBOR, FL		12,472 *
WATER/ENVIRONMENTAL CERTIFICATION, FL		80 *
GEORGIA		
ALLATOONA LAKE, GA	9,164	9,164
APALACHICOLA, CHATTAHOOCHEE AND FLINT RIVERS, GA, AL & FL	1,459	1,459
ATLANTIC INTRACOASTAL WATERWAY, GA	3,739	3,739
BRUNSWICK HARBOR, GA		7,778 *
BUFORD DAM AND LAKE SIDNEY LANIER, GA	12,441	12,441
CARTERS DAM AND LAKE, GA	8,504	8,504
HARTWELL LAKE, GA & SC	13,090	13,090
INSPECTION OF COMPLETED WORKS, GA		196 †
J STROM THURMOND LAKE, GA & SC	11,206	11,206
PROJECT CONDITION SURVEYS, GA		76 *
RICHARD B RUSSELL DAM AND LAKE, GA & SC	9,541	9,541
SAVANNAH HARBOR, GA		33,053 *
SAVANNAH RIVER BELOW AUGUSTA, GA		148 *
WEST POINT DAM AND LAKE, GA & AL	8,354	8,354
HAWAII		
BARBERS POINT DEEP DRAFT HARBOR, OAHU, HI	300	300
INSPECTION OF COMPLETED WORKS, HI		797 †
PROJECT CONDITION SURVEYS, HI		709 *
IDAHO		
ALBENI FALLS DAM, ID	1,245	1,245
DWORSHAK DAM AND RESERVOIR, ID	3,063	3,063
INSPECTION OF COMPLETED WORKS, ID		466 †
LUCKY PEAK LAKE, ID	2,366	2,366
SCHEDULING RESERVOIR OPERATIONS, ID		750 †
ILLINOIS		
CALUMET HARBOR AND RIVER, IL & IN		5,009 *
CARLYLE LAKE, IL	14,360	14,360
CHICAGO HARBOR, IL		16,823 *
CHICAGO RIVER, IL	635	635
FARM CREEK RESERVOIRS, IL	541	541
ILLINOIS WATERWAY (MVR PORTION), IL & IN	64,614	64,614
ILLINOIS WATERWAY (MVS PORTION), IL & IN	2,183	2,183
INSPECTION OF COMPLETED WORKS, IL		2,787 †
KASKASKIA RIVER NAVIGATION, IL	4,383	4,383
LAKE MICHIGAN DIVERSION, IL		1,190 *
LAKE SHELBYVILLE, IL	17,965	17,965
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVR PORTION), IL	80,667	80,667 *
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVS PORTION), IL	34,951	34,951
PROJECT CONDITION SURVEYS, IL		103 *
REND LAKE, IL	12,797	12,797
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IL		398 *
WAUKEGAN HARBOR, IL		11 *
INDIANA		
BROOKVILLE LAKE, IN	3,157	3,157
BURNS WATERWAY HARBOR, IN		1,561 *
CAGLES MILL LAKE, IN	1,335	1,335
CECIL M HARDEN LAKE, IN	1,467	1,467
INDIANA HARBOR, IN		8,196 *
INSPECTION OF COMPLETED WORKS, IN		1,264 †
J EDWARD ROUSH LAKE, IN	2,051	2,051
MICHIGAN CITY HARBOR, IN		10 *
MONROE LAKE, IN	1,479	1,479
MISSISSINEWA LAKE, IN	1,915	1,915
PATOKA LAKE, IN	1,446	1,446

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
PROJECT CONDITION SURVEYS, IN .....	.....	197 *
SALAMONIE LAKE, IN	3,282	3,282
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IN .....	.....	81 *
IOWA		
CORALVILLE LAKE, IA	6,170	6,170
INSPECTION OF COMPLETED WORKS, IA .....	.....	1,202 †
MISSOURI RIVER—SIOUX CITY TO THE MOUTH, IA, KS, MO & NE	47,406	47,406
PROJECT CONDITION SURVEYS .....	.....	2 *
RATHBUN LAKE, IA	3,254	3,254
RED ROCK DAM AND LAKE RED ROCK, IA	27,728	27,728
SAYLORVILLE LAKE, IA	19,500	19,500
KANSAS		
CLINTON LAKE, KS	2,763	2,763
COUNCIL GROVE LAKE, KS	1,925	1,925
EL DORADO LAKE, KS	675	675
ELK CITY LAKE, KS	1,310	1,310
FALL RIVER LAKE, KS	4,214	4,214
HILLSDALE LAKE, KS	1,089	1,089
INSPECTION OF COMPLETED WORKS, KS .....	.....	2,132 †
JOHN REDMOND DAM AND RESERVOIR, KS	1,764	1,764
KANOPOLIS LAKE, KS	1,974	1,974
MARION LAKE, KS	1,812	1,812
MELVERN LAKE, KS	2,667	2,667
MILFORD LAKE, KS	2,589	2,589
PEARSON—SKUBITZ BIG HILL LAKE, KS	1,247	1,247
PERRY LAKE, KS	3,069	3,069
POMONA LAKE, KS	2,951	2,951
SCHEDULING RESERVOIR OPERATIONS, KS .....	.....	774 †
TORONTO LAKE, KS	694	694
TUTTLE CREEK LAKE, KS	12,373	13,673
WILSON LAKE, KS	1,902	1,902
KENTUCKY		
BARKLEY DAM AND LAKE BARKLEY, KY & TN	19,522	19,522
BARREN RIVER LAKE, KY	3,228	3,228
BIG SANDY HARBOR, KY .....	.....	1,977 *
BUCKHORN LAKE, KY	2,812	2,812
CARR CREEK LAKE, KY	2,220	2,220
CAVE RUN LAKE, KY	1,484	1,484
DEWEY LAKE, KY	2,096	2,096
ELVIS STAHR (HICKMAN) HARBOR, KY .....	.....	935 *
FALLS OF THE OHIO NATIONAL WILDLIFE, KY & IN	63	63
FISHTRAP LAKE, KY	2,515	2,515
GRAYSON LAKE, KY	1,867	1,867
GREEN AND BARREN RIVERS, KY	2,776	2,776
GREEN RIVER LAKE, KY	3,643	3,643
INSPECTION OF COMPLETED WORKS, KY .....	.....	1,192 †
LAUREL RIVER LAKE, KY	5,891	5,891
MARTINS FORK LAKE, KY	1,443	1,443
MIDDLESBORO CUMBERLAND RIVER BASIN, KY	291	291
NOLIN LAKE, KY	3,647	3,647
OHIO RIVER LOCKS AND DAMS, KY, IL, IN & OH	55,307	55,307
OHIO RIVER OPEN CHANNEL WORK, KY, IL, IN, OH, PA & WV	7,563	7,563
PAINTSVILLE LAKE, KY	1,919	1,919
PROJECT CONDITION SURVEYS .....	.....	5 *
ROUGH RIVER LAKE, KY	4,541	4,541
TAYLORSVILLE LAKE, KY	1,503	1,503
WOLF CREEK DAM, LAKE CUMBERLAND, KY	17,476	17,476
YATESVILLE LAKE, KY	2,503	2,503

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LOUISIANA		
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF & BLACK, LA		16,296 *
BARATARIA BAY WATERWAY, LA		6,200 *
BAYOU BODCAU RESERVOIR, LA	1,494	1,494
BAYOU LAFOURCHE AND LAFOURCHE JUMP WATERWAY, LA		6,185 *
BAYOU PIERRE, LA	33	33
BAYOU SEGNETTE WATERWAY, LA		25 *
BAYOU TECHE AND VERMILION RIVER, LA		50,030 *
BAYOU TECHE, LA		1,150 *
CADDO LAKE, LA	186	186
CALCASIEU RIVER AND PASS, LA		20,500 *
FRESHWATER BAYOU, LA		3,634 *
GULF INTRACOASTAL WATERWAY, LA	70,715	70,715
HOUMA NAVIGATION CANAL, LA		12,593 *
INSPECTION OF COMPLETED WORKS, LA		978 †
J BENNETT JOHNSTON WATERWAY, LA	27,764	27,764
LAKE PROVIDENCE HARBOR, LA		1,332 *
MADISON PARISH PORT, LA		208 *
MERMENTAU RIVER, LA		10,880 *
MISSISSIPPI RIVER OUTLETS AT VENICE, LA		19,755 *
MISSISSIPPI RIVER, BATON ROUGE TO THE GULF OF MEXICO, LA		126,000 *
PROJECT CONDITION SURVEYS, LA		51 *
REMOVAL OF AQUATIC GROWTH, LA		200 *
WALLACE LAKE, LA	318	318
WATERWAY FROM EMPIRE TO THE GULF, LA		10 *
WATERWAY FROM INTRACOASTAL WATERWAY TO BAYOU DULAC, LA		15 *
MAINE		
DISPOSAL AREA MONITORING, ME		1,050 *
GEORGE'S RIVER, ME		75 *
INSPECTION OF COMPLETED WORKS, ME		121 †
JOSIAS RIVER, ME		150 †
PROJECT CONDITION SURVEYS, ME		1,100 *
SEARSPORT HARBOR, ME		5,850 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ME		22 *
ISLE AU HAUT THOROUGHFARE, ME		100
WELLS HARBOR, ME		4,296 *
MARYLAND		
BALTIMORE HARBOR AND CHANNELS (50 FOOT), MD		20,385 *
BALTIMORE HARBOR, MD (DRIFT REMOVAL)		720 *
CUMBERLAND, MD AND RIDGELEY, WV	219	219
INSPECTION OF COMPLETED WORKS, MD		89 †
JENNINGS RANDOLPH LAKE, MD & WV	2,488	2,488
OCEAN CITY HARBOR AND INLET AND SINEPUXENT BAY, MD		510 *
POCOMOKE RIVER, MD		8
PROJECT CONDITION SURVEYS, MD		600 *
SCHEDULING RESERVOIR OPERATIONS, MD		123 †
WICOMICO RIVER, MD		4,300 *
MASSACHUSETTS		
BARRE FALLS DAM, MA	823	823
BIRCH HILL DAM, MA	1,054	1,054
BUFFUMVILLE LAKE, MA	722	722
CAPE COD CANAL, MA	1,793	24,216 *
CHARLES RIVER NATURAL VALLEY STORAGE AREA, MA	401	401
CONANT BROOK LAKE, MA	371	371
EAST BRIMFIELD LAKE, MA	758	758
GREEN HARBOR, MA		2,749 *
HODGES VILLAGE DAM, MA	793	793
INSPECTION OF COMPLETED WORKS, MA		450 †

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
KNIGHTVILLE DAM, MA	887	887
LITTLEVILLE LAKE, MA	821	821
NEW BEDFORD FAIRHAVEN AND ACUSHNET HURRICANE BARRIER, MA	537	537
PROJECT CONDITION SURVEYS, MA		1,490 *
MERRIMACK SPUR JETTY, MA		(240)
PLYMOUTH HARBOR, MA		6 *
TULLY LAKE, MA	984	984
WEST HILL DAM, MA	934	934
WESTVILLE LAKE, MA	752	752
MICHIGAN		
ALPENA HARBOR, MI		5 *
CHANNELS IN LAKE ST CLAIR, MI		243 *
CHEBOYGAN HARBOR, MI		6 *
CHARLEVOIX HARBOR, MI		570 *
DETROIT HARBOR, MI		7,645 *
GRAND HAVEN HARBOR AND GRAND RIVER, MI		3,934 *
HARBOR BEACH HARBOR, MI		1,320 *
HOLLAND HARBOR, MI		516 *
INSPECTION OF COMPLETED WORKS, MI		329 †
INLAND ROUTE, MI		52 *
KAWKAWLIN DREDGING, MI	570	570
KEWEENAW WATERWAY, MI	10	1,279 *
LUDINGTON HARBOR, MI		1,007 *
MANISTEE HARBOR, MI		4,111 *
MANISTIQUE HARBOR, MI		1,332 *
MARQUETTE HARBOR, MI		5 *
MENOMINEE HARBOR, MI AND WI		5 *
MONROE HARBOR, MI		1,137 *
MUSKEGON HARBOR, MI		1,711 *
ONTONAGON HARBOR, MI		1,136 *
PRESQUE ISLE HARBOR, MI		1,505 *
PROJECT CONDITION SURVEYS, MI		828 *
ROUGE RIVER, MI		1,133 *
SAGINAW RIVER, MI		3,844 *
SEBEWAING RIVER, MI	214	214
SOUTH BEACH, MI		1,000
SOUTH HAVEN HARBOR, MI		500 *
ST CLAIR RIVER, MI		1,653 *
ST JOSEPH HARBOR, MI		1,068 *
ST MARYS RIVER, MI	2,702	58,361 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MI		2,217 *
WHITE LAKE HARBOR, MI		500 *
MINNESOTA		
BIGSTONE LAKE—WHETSTONE RIVER, MN & SD	318	318
DULUTH—SUPERIOR HARBOR, MN & WI	400	6,847 *
GRAND MARAIS HARBOR, MN		25 *
INSPECTION OF COMPLETED WORKS, MN		565 †
LAC QUI PARLE LAKES, MINNESOTA RIVER, MN	1,150	1,150
MINNESOTA RIVER, MN		265 *
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVP PORTION), MN	104,193	104,193 *
ORWELL LAKE, MN	565	565
PROJECT CONDITION SURVEYS, MN		104 *
RED LAKE RESERVOIR, MN	206	206
RESERVOIRS AT HEADWATERS OF MISSISSIPPI RIVER, MN	6,576	6,576
ST PAUL SMALL BOAT HARBOR, MN		500
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MN		428 *
TWO HARBORS, MN		31 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MISSISSIPPI		
EAST FORK, TOMBIGBEE RIVER, MS	290	290
GULFPORT HARBOR, MS		9,536 *
INSPECTION OF COMPLETED WORKS, MS		103 †
MOUTH OF YAZOO RIVER, MS		32 *
OKATIBBEE LAKE, MS	2,152	2,152
PASCAGOULA HARBOR, MS		6,287 *
PEARL RIVER, MS & LA	140	140
PROJECT CONDITION SURVEYS, MS		155 *
ROSEDALE HARBOR, MS		1,687 *
WATER/ENVIRONMENTAL CERTIFICATION, MS		40 *
YAZOO RIVER, MS		32 *
MISSOURI		
CARUTHERSVILLE HARBOR, MO		791 *
CLARENCE CANNON DAM AND MARK TWAIN LAKE, MO	11,301	11,301
CLEARWATER LAKE, MO	4,639	4,639
HARRY S TRUMAN DAM AND RESERVOIR, MO	14,482	14,482
INSPECTION OF COMPLETED WORKS, MO		1,563 †
LITTLE BLUE RIVER LAKES, MO	1,345	1,345
LONG BRANCH LAKE, MO	948	948
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REG WORKS), MO & IL	35,279	35,279
NEW MADRID COUNTY HARBOR, MO		520 *
NEW MADRID HARBOR, MO (MILE 889)		92 *
POMME DE TERRE LAKE, MO	4,704	4,704
PROJECT CONDITION SURVEYS, MO		5 *
SCHEDULING RESERVOIR OPERATIONS, MO		174
SMITHVILLE LAKE, MO	2,033	2,033
SOUTHEAST MISSOURI PORT, MISSISSIPPI RIVER, MO		234 *
STOCKTON LAKE, MO	5,817	5,817
TABLE ROCK LAKE, MO & AR	9,693	9,693
MONTANA		
FT PECK DAM AND LAKE, MT	6,017	6,017
INSPECTION OF COMPLETED WORKS, MT		191 †
LIBBY DAM, MT	1,744	1,744
SCHEDULING RESERVOIR OPERATIONS, MT		130 †
NEBRASKA		
GAVINS POINT DAM, LEWIS AND CLARK LAKE, NE & SD	10,093	10,093
HARLAN COUNTY LAKE, NE	9,151	9,151
INSPECTION OF COMPLETED WORKS, NE		785 †
MISSOURI RIVER—KENSLEERS BEND, NE TO SIOUX CITY, IA	117	117
PAPILLION CREEK, NE	1,196	1,196
SALT CREEKS AND TRIBUTARIES, NE	1,337	1,337
NEVADA		
INSPECTION OF COMPLETED WORKS, NV		50 †
MARTIS CREEK LAKE, NV & CA	1,435	1,435
PINE AND MATHEWS CANYONS LAKES, NV	591	591
NEW HAMPSHIRE		
BLACKWATER DAM, NH	865	865
EDWARD MACDOWELL LAKE, NH	826	826
FRANKLIN FALLS DAM, NH	890	890
HOPKINTON—EVERETT LAKES, NH	1,933	1,933
INSPECTION OF COMPLETED, NH		111 †
OTTER BROOK LAKE, NH	1,204	1,204
PROJECT CONDITION SURVEYS, NH		350 *
SURRY MOUNTAIN LAKE, NH	1,253	1,253

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
NEW JERSEY		
BARNEGAT INLET, NJ		760 *
COLD SPRING INLET, NJ		300 *
DELAWARE RIVER AT CAMDEN, NJ		15 *
DELAWARE RIVER, PHILADELPHIA TO THE SEA, NJ, PA & DE		41,823 *
INSPECTION OF COMPLETED WORKS, NJ		382 †
MANASQUAN RIVER, NJ		375 *
MAURICE RIVER, NJ		4,010 *
NEW JERSEY INTRACOASTAL WATERWAY, NJ		985 *
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS, NJ		24,825 *
PASSAIC RIVER FLOOD WARNING SYSTEMS, NJ	600	600
PROJECT CONDITION SURVEYS, NJ		2,175 *
SALEM RIVER, NJ		100 *
SHARK RIVER, NJ		1,150 *
NEW MEXICO		
ABIQUIU DAM, NM	6,378	6,378
COCHITI LAKE, NM	2,962	2,962
CONCHAS LAKE, NM	3,808	3,808
GALISTEO DAM, NM	685	685
INSPECTION OF COMPLETED WORKS, NM		526 †
JEMEZ CANYON DAM, NM	1,102	1,102
MIDDLE RIO GRANDE ENDANGERED SPECIES COLLABORATIVE PROGRAM, NM	1,994	1,994
SANTA ROSA DAM AND LAKE, NM	1,502	1,502
SCHEDULING RESERVOIR OPERATIONS, NM		270 †
TWO RIVERS DAM, NM	937	937
UPPER RIO GRANDE WATER OPERATIONS MODEL STUDY, NM	1,006	1,006
NEW YORK		
ALMOND LAKE, NY	716	716
ARKPORT DAM, NY	559	559
BARCELONA HARBOR, NY		1,150
BAY RIDGE AND RED HOOK CHANNELS, NY		200 *
BLACK ROCK CHANNEL AND TONAWANDA HARBOR, NY		10,600 *
BRONX RIVER, NY		250 *
BUFFALO HARBOR, NY		20,908
BUTTERMILK CHANNEL, NY		19,525 *
CATTARAUGUS BREAKWATER, NY		1,000
DUNKIRK HARBOR, NY		5,930 *
EAST RIVER, NY		5 *
EAST ROCKAWAY INLET, NY		11,500 *
EAST SIDNEY LAKE, NY		712 *
FIRE ISLAND INLET TO JONES INLET, NY		25
FLUSHING BAY AND CREEK, NY		24,880 *
GREAT KILLS HARBOR, NY		100 *
HUDSON RIVER, NY (MAINT)		4,810 *
HUDSON RIVER, NY (O & C)		2,350 *
JONES INLET, NY		19,025 *
LITTLE SODUS BAY HARBOR, NY		7,900 *
INSPECTION OF COMPLETED WORKS, NY		1,464 †
MOUNT MORRIS DAM, NY	5,799	5,799
NEW YORK AND NEW JERSEY CHANNELS, NY & NJ		5 *
NEW YORK AND NEW JERSEY HARBOR, NY & NJ		87,980 *
NEW YORK HARBOR, NY		7,885 *
NEW YORK HARBOR, NY & NJ (DRIFT REMOVAL)		12,591 *
NEW YORK HARBOR, NY (PREVENTION OF OBSTRUCTIVE DEPOSITS)		2,059 *
OSWEGO HARBOR, NY		5,606 *
PROJECT CONDITION SURVEYS, NY		2,468 *
ROCHESTER HARBOR, NY		5,010 *
ROUNDOUT HARBOR, NY		200 *
SOUTHERN NEW YORK FLOOD CONTROL PROJECTS, NY	980	980

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, NY .....	.....	597 *
WEST ARROWHEAD BREAKWATER, NY .....	.....	300
WHITNEY POINT LAKE, NY	832	832
NORTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, NC	5,950	5,950
B EVERETT JORDAN DAM AND LAKE, NC	2,077	2,077
CAPE FEAR RIVER ABOVE WILMINGTON, NC	151	480 *
FALLS LAKE, NC	3,189	3,189
INSPECTION OF COMPLETED WORKS, NC .....	.....	209 †
MANTEO (SHALLOWBAG) BAY, NC .....	.....	3,296 *
MOREHEAD CITY HARBOR, NC .....	.....	8,340 *
NEW RIVER INLET, NC .....	.....	390 *
PROJECT CONDITION SURVEYS, NC .....	.....	700 *
ROLLINSON CHANNEL, NC .....	.....	1,700 *
SILVER LAKE HARBOR, NC .....	.....	1,120 *
W KERR SCOTT DAM AND RESERVOIR, NC	4,025	4,025
WILMINGTON HARBOR, NC .....	.....	25,260 *
NORTH DAKOTA		
BOWMAN HALEY, ND	351	351
GARRISON DAM, LAKE SAKAKAWEA, ND	18,609	18,609
HOMME LAKE, ND	409	409
INSPECTION OF COMPLETED WORKS, ND .....	.....	311 †
LAKE ASHTABULA AND BALDHILL DAM, ND	1,689	1,689
PIPESTEM LAKE, ND	615	615
SCHEDULING RESERVOIR OPERATIONS, ND .....	.....	128 †
SOURIS RIVER, ND	381	381
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ND .....	.....	125 *
OHIO		
ALUM CREEK LAKE, OH	5,454	5,454
ASHTABULA HARBOR, OH .....	.....	457 *
BERLIN LAKE, OH	3,554	3,554
CAESAR CREEK LAKE, OH	2,928	2,928
CLARENCE J BROWN DAM, OH	1,958	1,958
CLEVELAND HARBOR, OH .....	.....	10,020 *
CONNEAUT HARBOR, OH .....	.....	2,764 *
DEER CREEK LAKE, OH	2,057	2,057
DELAWARE LAKE, OH	4,364	4,364
DILLON LAKE, OH	3,335	3,335
FAIRPORT HARBOR, OH .....	.....	3,880 *
HURON HARBOR, OH .....	.....	8 *
INSPECTION OF COMPLETED WORKS, OH .....	.....	984 †
LORAIN HARBOR, OH .....	.....	2,317 *
MASSILLON LOCAL PROTECTION PROJECT, OH	235	235
MICHAEL J KIRWAN DAM AND RESERVOIR, OH	1,805	1,805
MOSQUITO CREEK LAKE, OH	4,610	4,610
MUSKINGUM RIVER LAKES, OH	24,813	24,813
NORTH BRANCH KOKOSING RIVER LAKE, OH	558	558
OHIO—MISSISSIPPI FLOOD CONTROL, OH	1,490	1,490
PAINT CREEK LAKE, OH	2,578	2,578
PROJECT CONDITION SURVEYS, OH .....	.....	340 *
ROSEVILLE LOCAL PROTECTION PROJECT, OH	56	56
SANDUSKY HARBOR, OH .....	.....	1,163 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OH .....	.....	230 *
TOLEDO HARBOR, OH .....	.....	6,929 *
TOM JENKINS DAM, OH	984	984
VERMILION HARBOR, OH .....	.....	5,700 *
WEST FORK OF MILL CREEK LAKE, OH	4,875	4,875
WILLIAM H HARSHA LAKE, OH	2,221	2,221

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
OKLAHOMA		
ARCADIA LAKE, OK	525	525
BIRCH LAKE, OK	847	847
BROKEN BOW LAKE, OK	3,267	3,267
CANTON LAKE, OK	2,207	2,207
COPAN LAKE, OK	1,885	1,885
EUFULA LAKE, OK	16,618	16,618
FORT GIBSON LAKE, OK	5,195	5,195
FORT SUPPLY LAKE, OK	1,163	1,163
GREAT SALT PLAINS LAKE, OK	454	454
HEYBURN LAKE, OK	817	817
HUGO LAKE, OK	1,896	1,896
HULAH LAKE, OK	1,908	1,908
INSPECTION OF COMPLETED WORKS, OK		310 †
KAW LAKE, OK	2,833	2,833
KEYSTONE LAKE, OK	4,874	4,874
MCCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM, OK	37,629	37,629
OLOGAH LAKE, OK	5,221	5,221
OPTIMA LAKE, OK	198	198
PENSACOLA RESERVOIR, LAKE OF THE CHEROKEES, OK	163	163
PINE CREEK LAKE, OK	1,745	1,745
SARDIS LAKE, OK	1,556	1,556
SCHEDULING RESERVOIR OPERATIONS, OK		1,750 †
SKIATOOK LAKE, OK	5,130	5,130
TENKILLER FERRY LAKE, OK	11,990	11,990
WAURIKA LAKE, OK	2,796	2,796
WISTER LAKE, OK	988	988
OREGON		
APPLEGATE LAKE, OR	1,674	1,674
BLUE RIVER LAKE, OR	1,385	1,385
BONNEVILLE LOCK AND DAM, OR & WA	1,937	8,994 *
CHETCO RIVER, OR		954 *
COLES RIVER HATCHERY, APPEGATE & LOST CREEK, OR		1,819
COLUMBIA RIVER AT THE MOUTH, OR & WA		41,061 *
COOS BAY, OR		7,951 *
COOS BAY (MAJOR MAINTENANCE), OR		32,720
COQUILLE RIVER, OR		619 *
COTTAGE GROVE LAKE, OR	2,415	2,415
COUGAR LAKE, OR	2,756	2,756
DEPOE BAY, OR		71 *
DETROIT LAKE, OR	1,720	1,720
DORENA LAKE, OR	3,326	3,326
ELK CREEK LAKE, OR	248	248
FALL CREEK LAKE, OR	2,423	2,423
FERN RIDGE LAKE, OR	2,939	2,939
GREEN PETER—FOSTER LAKES, OR	2,898	2,898
HILLS CREEK LAKE, OR	1,598	1,598
INSPECTION OF COMPLETED WORKS, OR		425 †
JOHN DAY LOCK AND DAM, OR & WA	6,300	6,300
LOOKOUT POINT LAKE, OR	3,167	3,167
LOST CREEK LAKE, OR	4,810	4,810
M McNARY LOCK AND DAM, OR & WA	14,983	14,983
NEHALEM BAY, OR		15 *
PORT ORFORD, OR		459 *
PROJECT CONDITION SURVEYS, OR		477 *
ROGUE RIVER AT GOLD BEACH, OR		2,781 *
SCHEDULING RESERVOIR OPERATIONS, OR		104 †
SIUSLAW RIVER, OR		1,049 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OR		10,350 *
TILLAMOOK BAY & BAR, OR		172 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
UMPQUA RIVER, OR		1,183 *
WILLAMETTE RIVER AT WILLAMETTE FALLS, OR	80	80
WILLAMETTE RIVER BANK PROTECTION, OR	160	160
WILLOW CREEK LAKE, OR	1,189	1,189
YAUQUINA BAY AND HARBOR, OR		4,572 *
PENNSYLVANIA		
ALLEGHENY RIVER, PA	9,064	9,064
ALVIN R BUSH DAM, PA	782	782
AYLESWORTH CREEK LAKE, PA	312	312
BELTZVILLE LAKE, PA	1,886	1,886
BLUE MARSH LAKE, PA	4,734	4,734
CONEMAUGH RIVER LAKE, PA	1,677	1,677
COWANESQUE LAKE, PA	2,244	2,244
CROOKED CREEK LAKE, PA	2,348	2,348
CURWENSVILLE LAKE, PA	1,260	1,260
DELAWARE RIVER, PHILADELPHIA, PA TO TRENTON, NJ		13,710 *
EAST BRANCH CLARION RIVER LAKE, PA	2,013	2,013
ERIE HARBOR, PA		263 *
FOSTER JOSEPH SAYERS DAM, PA	1,837	1,837
FRANCIS E WALTER DAM, PA	1,225	1,225
GENERAL EDGAR JADWIN DAM AND RESERVOIR, PA	459	459
INSPECTION OF COMPLETED WORKS, PA		601 †
JOHNSTOWN, PA	3,288	3,288
KINZUA DAM AND ALLEGHENY RESERVOIR, PA	2,362	2,362
LOYALHANNA LAKE, PA	5,308	5,308
MAHONING CREEK LAKE, PA	2,409	2,409
MONONGAHELA RIVER, PA	18,807	18,807
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	76,654	76,654
OHIO RIVER OPEN CHANNEL WORK, PA, OH & WV	851	851
PROJECT CONDITION SURVEYS, PA		177 *
PROMPTON LAKE, PA	1,049	1,049
PUNXSUTAWNEY, PA	100	100
RAYSTOWN LAKE, PA	4,828	4,828
SCHEDULING RESERVOIR OPERATIONS, PA		82 †
SCHUYLKILL RIVER, PA		100 *
SHENANGO RIVER LAKE, PA	3,675	3,675 ...
STILLWATER LAKE, PA	481	481
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, PA		91 *
TIOGA—HAMMOND LAKES, PA	3,000	3,000
TIONESTA LAKE, PA	3,934	3,934
UNION CITY LAKE, PA	626	626
WOODCOCK CREEK LAKE, PA	1,381	1,381
YORK INDIAN ROCK DAM, PA	989	989
YOUGHIOGHENY RIVER LAKE, PA & MD	4,345	4,345
PUERTO RICO		
INSPECTION OF COMPLETED WORKS, PR		150 †
PROJECT CONDITION SURVEYS, PR		100 *
SAN JUAN HARBOR, PR		3,940 *
RHODE ISLAND		
BLOCK ISLAND HARBOR OF REFUGE, RI		350 *
FOX POINT BARRIER, NARRANGANSETT BAY, RI	704	929
GREAT SALT POND, BLOCK ISLAND, RI		350 *
INSPECTION OF COMPLETED WORKS, RI		49 †
PROJECT CONDITION SURVEYS, RI		500 *
PROVIDENCE RIVER AND HARBOR, RI		38,600 *
WOONSOCKET LOCAL PROTECTION PROJECT, RI	543	668
SOUTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, SC	4,315	4,315

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CHARLESTON HARBOR, SC		9,145 *
COOPER RIVER, CHARLESTON HARBOR, SC		4,175 *
INSPECTION OF COMPLETED WORKS, SC		65 †
PROJECT CONDITION SURVEYS, SC		875 *
SOUTH DAKOTA		
BIG BEND DAM, LAKE SHARPE, SD	13,412	13,412
COLD BROOK LAKE, SD	386	386
COTTONWOOD SPRINGS LAKE, SD	257	257
FORT RANDALL DAM, LAKE FRANCIS CASE, SD	22,264	22,264
INSPECTION OF COMPLETED WORKS, SD		224 †
LAKE TRAVERSE, SD & MN	687	687
OAHE DAM AND LAKE OAHE, SD	13,386	13,386
SCHEDULING RESERVOIR OPERATIONS, SD		158 †
TENNESSEE		
CENTER HILL LAKE, TN	7,806	7,806
CHEATHAM LOCK AND DAM, TN	15,984	15,984
CORDELL HULL DAM AND RESERVOIR, TN	8,610	8,610
DALE HOLLOW LAKE, TN	8,292	8,292
INSPECTION OF COMPLETED WORKS, TN	6,481	6,481
J PERCY PRIEST DAM AND RESERVOIR, TN		294 †
NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN		540 *
OLD HICKORY LOCK AND DAM, TN	11,870	11,870
PROJECT CONDITION SURVEYS, TN		5 *
TENNESSEE RIVER, TN	27,738	27,738
WOLF RIVER HARBOR, TN		655 *
TEXAS		
AQUILLA LAKE, TX	2,169	2,169
BARDWELL LAKE, TX	3,972	3,972
BELTON LAKE, TX	4,455	4,455
BENBROOK LAKE, TX	3,091	3,091
BRAZOS ISLAND HARBOR, TX		4,135 *
BUFFALO BAYOU AND TRIBUTARIES, TX	3,906	3,906
CANYON LAKE, TX	5,614	5,614
CEDAR BAYOU, TX		3,150 *
CHANNEL TO HARLINGEN, TX		1,100 *
CHANNEL TO PORT BOLIVAR, TX		600 *
CORPUS CHRISTI SHIP CHANNEL, TX		9,600 *
DENISON DAM, LAKE TEXOMA, TX	10,216	10,216
FERRELLS BRIDGE DAM, LAKE O' THE PINES, TX	3,708	3,708
FREEPORT HARBOR, TX		8,015 *
GALVESTON HARBOR AND CHANNEL, TX		7,175 *
GIWW, CHANNEL TO VICTORIA, TX		130 *
GIWW, CHOCOLATE BAYOU, TX		50 *
GRANGER LAKE, TX	2,628	2,628
GRAPEVINE LAKE, TX	2,607	2,607
GULF INTRACOASTAL WATERWAY, TX	29,250	29,250
HORDS CREEK LAKE, TX	1,712	1,712
HOUSTON SHIP CHANNEL, TX		23,750 *
INSPECTION OF COMPLETED WORKS, TX		1,573 †
JIM CHAPMAN LAKE, TX	2,307	2,307
JOE POOL LAKE, TX	6,748	6,748
LAKE KEMP, TX	261	261
LAVON LAKE, TX	3,699	3,699
LEWISVILLE DAM, TX	4,094	4,094
MATAGORDA SHIP CHANNEL, TX		4,255 *
NAVARRO MILLS LAKE, TX	2,871	2,871
NORTH SAN GABRIEL DAM AND LAKE GEORGETOWN, TX	2,703	2,703
O C FISHER DAM AND LAKE, TX	1,336	1,336
PAT MAYSE LAKE, TX	1,439	1,439

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
PROCTOR LAKE, TX	3,393	3,393
PROJECT CONDITION SURVEYS, TX .....	.....	325 *
RAY ROBERTS LAKE, TX	1,570	1,570
SABINE—NECHES WATERWAY, TX .....	.....	8,900 *
SAM RAYBURN DAM AND RESERVOIR, TX	7,448	7,448
SCHEDULING RESERVOIR OPERATIONS, TX .....	.....	592 †
SOMERVILLE LAKE, TX	3,352	3,352
STILLHOUSE HOLLOW DAM, TX	2,892	2,892
TEXAS CITY SHIP CHANNEL, TX .....	.....	5,500 *
TOWN BLUFF DAM, B A STEINHAGEN LAKE, TX	3,402	3,402
WACO LAKE, TX	3,961	3,961
WALLISVILLE LAKE, TX	2,946	2,946
WHITNEY LAKE, TX	7,090	7,090
WRIGHT PATMAN DAM AND LAKE, TX	5,664	5,664
UTAH		
INSPECTION OF COMPLETED WORKS, UT .....	.....	40 †
SCHEDULING RESERVOIR OPERATIONS, UT .....	.....	410 †
VERMONT		
BALL MOUNTAIN, VT	986	986
GORDONS LANDING, VT .....	.....	250 *
INSPECTION OF COMPLETED WORKS, VT .....	.....	9 †
NORTH HARTLAND LAKE, VT	884	884
NORTH SPRINGFIELD LAKE, VT	949	949
TOWNSHEND LAKE, VT	988	988
UNION VILLAGE DAM, VT	817	817
VIRGIN ISLANDS		
INSPECTION OF COMPLETED WORKS, VI .....	.....	36 †
PROJECT CONDITION SURVEYS, VI .....	.....	50 *
VIRGINIA		
ATLANTIC INTRACOASTAL WATERWAY—ACC, VA	3,015	3,015
ATLANTIC INTRACOASTAL WATERWAY—DSC, VA	1,754	1,754
BENNETTS CREEK, VA .....	.....	420 *
CHINCOTEAGUE INLET, VA .....	.....	680 *
DAVIS CREEK, VA .....	.....	265 *
GATHRIGHT DAM AND LAKE MOOMAW, VA	2,749	2,749
HAMPTON ROADS DRIFT REMOVAL, VA .....	.....	2,632 *
HAMPTON ROADS PREVENTION OF OBSTRUCTIVE DEPOSITS, VA .....	.....	130 *
INSPECTION OF COMPLETED WORKS, VA .....	.....	381 †
JAMES RIVER CHANNEL, VA .....	.....	8,025 *
JOHN H KERR LAKE, VA & NC	12,131	12,131
JOHN W FLANNAGAN DAM AND RESERVOIR, VA	7,864	7,864
LYNNHAVEN INLET, VA .....	.....	5,425 *
NORFOLK HARBOR, VA .....	.....	26,700 *
NORTH FORK OF POUND RIVER LAKE, VA	698	698
PHILPOTT LAKE, VA	4,833	4,833
PROJECT CONDITION SURVEYS, VA .....	.....	1,229 *
RUDEE INLET, VA .....	.....	580
WATER AND ENVIRONMENTAL CERTIFICATIONS, VA .....	.....	200 *
YORK RIVER ENTRANCE CHANNEL, VA .....	.....	300 *
WASHINGTON		
CHIEF JOSEPH DAM, WA	676	676
COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA & PORTLAND, OR .....	.....	56,665 *
COLUMBIA RIVER AT BAKER BAY, WA & OR .....	.....	849 *
COLUMBIA RIVER BETWEEN CHINOOK AND SAND ISLAND, WA .....	.....	1,894 *
COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR .....	.....	1,117 *
EVERETT HARBOR AND SNOHOMISH RIVER, WA .....	.....	2,513 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
GRAYS HARBOR, WA		18,851 *
HOWARD HANSON DAM, WA	9,065	9,065
ICE HARBOR LOCK AND DAM, WA	5,012	5,012
INSPECTION OF COMPLETED WORKS, WA		1,223 †
LAKE RIVER, WA (PORT OF RIDGEFIELD)		124
LAKE WASHINGTON SHIP CANAL, WA	1,314	11,199 *
LITTLE GOOSE LOCK AND DAM, WA	3,133	3,133
LOWER GRANITE LOCK AND DAM, WA	3,559	3,559
LOWER MONUMENTAL LOCK AND DAM, WA	3,095	3,095
MILL CREEK LAKE, WA	2,849	2,849
MOUNT SAINT HELENS SEDIMENT CONTROL, WA	918	918
MUD MOUNTAIN DAM, WA	13,409	13,049
PROJECT CONDITION SURVEYS, WA		810 *
PUGET SOUND AND TRIBUTARY WATERS, WA		1,276 *
QUILLAYUTE RIVER, WA		2,334 *
SCHEDULING RESERVOIR OPERATIONS, WA		493 *
SEATTLE HARBOR, WA		378 †
STILLAGUAMISH RIVER, WA	299	299
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WA		53 *
SWINOMISH CHANNEL, WA		215
TACOMA, PUYALLUP RIVER, WA	364	364
THE DALLES LOCK AND DAM, WA & OR	4,033	4,033
WILLAPA RIVER AND HARBOR, WA		3,290 *
WEST VIRGINIA		
BEECH FORK LAKE, WV	1,534	1,534
BLUESTONE LAKE, WV	2,883	2,883
BURNSVILLE LAKE, WV	2,944	2,944
EAST LYNN LAKE, WV	3,098	3,098
ELKINS, WV	70	70
INSPECTION OF COMPLETED WORKS, WV		536 †
KANAWHA RIVER LOCKS AND DAMS, WV	17,043	23,943
OHIO RIVER LOCKS AND DAMS, WV, KY & OH	57,656	57,656
OHIO RIVER OPEN CHANNEL WORK, WV, KY & OH	2,726	2,726
R D BAILEY LAKE, WV	2,760	2,760
STONEWALL JACKSON LAKE, WV	1,832	1,832
SUMMERSVILLE LAKE, WV	2,752	2,752
SUTTON LAKE, WV	3,609	3,609
TYGART LAKE, WV	2,351	2,351
WISCONSIN		
ASHLAND HARBOR, WI		1,020 *
EAU GALLE RIVER LAKE, WI	1,026	1,026
FOX RIVER, WI	3,444	3,444
GREEN BAY HARBOR, WI		3,101 *
INSPECTION OF COMPLETED WORKS, WI		45 †
KENOSHA HARBOR, WI		730 *
KEWAUNEE HARBOR, WI		462 *
MANITOWOC HARBOR, WI		830 *
MILWAUKEE HARBOR, WI		3,112 *
PORT WING HARBOR, WI		25 *
PROJECT CONDITION SURVEYS, WI		359 *
STURGEON BAY HARBOR AND LAKE MICHIGAN SHIP CANAL, WI	18	629 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WI		408 *
TWO RIVERS HARBOR, WI		20
WYOMING		
INSPECTION OF COMPLETED WORKS, WY		70 †
JACKSON HOLE LEVEES, WY	1,678	1,678
SCHEDULING RESERVOIR OPERATIONS, WY		112 †
SUBTOTAL, PROJECTS LISTED UNDER STATES	2,336,969	4,050,405

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
REMAINING ITEMS		
ADDITIONAL FUNDING FOR ONGOING WORK		
NAVIGATION MAINTENANCE		40,000
DEEP-DRAFT HARBOR AND CHANNEL		172,052
DONOR AND ENERGY TRANSFER PORTS		50,000
INLAND WATERWAYS		25,000
SMALL, REMOTE, OR SUBSISTENCE NAVIGATION		60,000
OTHER AUTHORIZED PURPOSES		40,000
AQUATIC NUISANCE CONTROL RESEARCH	100	17,500
ASSET MANAGEMENT/FACILITIES AND EQUIP MAINT (FEM)		1,000
BUDGET/MANAGEMENT SUPPORT FOR O&M BUSINESS PROGRAMS		
STEWARDSHIP SUPPORT PROGRAM	900	900
PERFORMANCE-BASED BUDGETING SUPPORT PROGRAM		
RECREATION MANAGEMENT SUPPORT PROGRAM	1,000	1,000
OPTIMIZATION TOOLS FOR NAVIGATION	350	350
CIVIL WORKS WATER MANAGEMENT SYSTEM (CWWMS)	8,000	8,000
COASTAL INLET RESEARCH PROGRAM	100	10,975
COASTAL OCEAN DATA SYSTEM (CODS)	2,500	7,500
CULTURAL RESOURCES (NAGPRA/CURATION)	900	900
CYBERSECURITY	4,000	4,000
DREDGE MCFARLAND READY RESERVE		11,000
DREDGE WHEELER READY RESERVE		14,000
DREDGING DATA AND LOCK PERFORMANCE MONITORING SYSTEM	1,100	4,300
DREDGING OPERATIONS AND ENVIRONMENTAL RESEARCH (DOER)	5,000	5,000
DREDGING OPERATIONS TECHNICAL SUPPORT PROGRAM (DOTS)	100	6,950
EARTHQUAKE HAZARDS REDUCTION PROGRAM	100	300
ENGINEERING WITH NATURE		12,500
ELECTRIC VEHICLE FLEET AND CHARGING INFRASTRUCTURE	8,000	8,000
FACILITY PROTECTION	4,200	4,200
FISH & WILDLIFE OPERATING FISH HATCHERY REIMBURSEMENT	5,400	5,400
HARBOR MAINTENANCE FEE DATA COLLECTION		795
INLAND WATERWAY NAVIGATION CHARTS	4,000	4,800
INSPECTION OF COMPLETED FEDERAL FLOOD CONTROL PROJECTS	18,000	18,000
INSPECTION OF COMPLETED WORKS	32,500	‡
MONITORING OF COMPLETED NAVIGATION PROJECTS	100	12,000
NATIONAL COASTAL MAPPING PROGRAM	4,000	15,000
NATIONAL DAM SAFETY PROGRAM (PORTFOLIO RISK ASSESSMENT)	10,000	10,000
NATIONAL EMERGENCY PREPAREDNESS PROGRAM (NEPP)	5,500	5,500
NATIONAL (LEVEE) FLOOD INVENTORY	4,500	4,500
NATIONAL (MULTIPLE PROJECT) NATURAL RESOURCES MANAGEMENT ACTIVITIES	2,500	2,500
NATIONAL PORTFOLIO ASSESSMENT FOR REALLOCATIONS	600	600
REGIONAL SEDIMENT MANAGEMENT PROGRAM	100	6,700
RESPONSE TO CLIMATE CHANGE AT CORPS PROJECTS	6,000	6,000
REVIEW OF NON-FEDERAL ALTERATIONS OF CIVIL WORKS PROJECTS (SECTION 408)	10,000	10,000
SCHEDULING RESERVOIR OPERATIONS	8,500	‡
SOIL MOISTURE AND SNOWPACK MONITORING	5,000	8,000
SUSTAINABLE RIVERS PROGRAM (SRP)	500	500
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	165,220	632,392
TOTAL, OPERATION AND MAINTENANCE	2,502,189	4,682,797

* Includes funds requested in other accounts.

† Requested in remaining items.

‡ Funded under projects listed under states.

Arkansas Red River Chloride Control.—The Committee reminds the Corps of their existing obligations to continue operations and maintenance activities for the Red River Chloride Control project,

Oklahoma and Texas, at Federal expense and encourages the Corps to prioritize funding for these projects when allocating additional funding recommended in this account.

Aquatic Nuisance Control Research.—Harmful Algal Blooms [HABs] continue to threaten local communities, ecosystems, human health, drinking water sources, and local outdoor economies across the Nation. These algae overgrowths produce dangerous toxins in fresh and marine waters that can sicken or kill people and animals, create dead zones, and raise treatment costs for drinking water. The devastating effects of HABs occur across multiple ecoregions from large freshwater lakes like the Finger Lakes in New York and Lake Okeechobee in Florida to large inland waterways like the Ohio River where a 2015 HAB event persisted for over a month involving over 700 miles of waterway. The Committee continues to support the Corps' efforts to address gaps in critical HAB research to avoid, detect, and address HAB occurrences.

The additional funding recommended in the Aquatic Nuisance Control Research remaining item is to supplement and advance Corps activities to address HABs including: early detection, prevention, and management techniques and procedures to reduce the occurrence and impacts of harmful algal blooms in our nation's water resources; work with university partners to develop prediction, avoidance and remediation measures focused on environmental triggers in riverine ecosystems; and to advance state-of-the-art UAS based detection, monitoring, and mapping of invasive aquatic plant species in conjunction with University partners.

Asset Management/FEM.—The Committee is frustrated by the lack of progress of the Corps in performing a review of their inventory, in accordance with Section 6002 of the WRRDA of 2014, as has been directed in previous Committee Reports. The Committee notes that the Corps was previously provided \$1,000,000 to carry out these activities and understands \$350,000 is needed in fiscal year 2022 which has been recommended under Asset Management/Facilities and Equipment Maintenance [FEM]. The Corps is directed to provide an interim progress report that includes details on the percentage of this work that has already been done and a timeline for completion of the inventory to the Committee no later than 60 days after enactment of this act.

Coastal Inlet Research Program.—The Committee understands that communities, infrastructure, commerce, and resources that are tied to the coastal nearshore region are all vulnerable to damage from extreme coastal events and long-term coastal change. Funding in addition to the budget request is recommended for the Corps-led, multi-university effort to identify engineering frameworks to address coastal resilience needs; to develop adaptive pathways that lead to coastal resilience; that measure the coastal forces that lead to infrastructure damage and erosion during extreme storm events; and to improve coupling of terrestrial and coastal models. Funding in addition to the budget request is also recommended for the Corps to continue work with the National Oceanic and Atmospheric Administration's National Water Center on protecting the Nation's water resources.

Debris Removal.—The Committee reminds the Corps that section 1164 of the WIIN Act enhanced the Corps' authority to remove "ac-

cumulated snags, obstructions, and other debris located in or adjacent to a Federal channel in the interest of navigation, flood control, or recreation.” The Committee encourages the Corps to complete ongoing bridge removal projects; and when removing bridges and bridge pilings, to consider also removing other pilings and obstructions in close proximity to the bridge, and in or adjacent to the Federal navigation channel pursuant to this authority.

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.

Engineering With Nature.—The Committee recommendation includes \$12,500,000 as a new remaining item in this account to support the Corps’ Engineering with Nature [EWN] initiative. The Committee is impressed with the positive impact on the environment and the extensive cost savings this program provides. With the funds recommended, the Corps is encouraged to continue collaboration across research programs on nature-based infrastructure and with university partners to develop standards, design guidance, and testing protocols to fully evaluate and standardize nature-based and hybrid infrastructure solutions, including those in drought and fire-prone lands and post-fire recovery areas. Additionally, the Corps is encouraged to expand the EWN initiative to support science and engineering practices that support long-term resilience and sustainability of water infrastructure and their supporting systems. Funding under this line item is intended for EWN activities having a national or regional scope or which benefit the Corps’ broader execution of its mission areas. It is not intended to replace or preclude the appropriate use of EWN practices at districts using project-specific funding, or work performed across other Corps programs that might involve EWN. The Committee encourages the Corps to identify EWN efforts in future budget requests. Of the funding recommended, \$5,000,000 is included to support ongoing research and advance work with university partners to develop standards, design guidance, and testing protocols to improve and standardize nature-based and hybrid infrastructure solutions.

Flood and Earthquake Modeling.—Additional funds are recommended in the Earthquake Hazards Reduction Program to facilitate coordination with the Levee Safety program to develop a plan for leveraging existing knowledge related to potential seismic concerns relevant to levees. The Corps is encouraged to evaluate whether earthquake model would aid in assessment and if collaboration with Universities would be beneficial.

Forecast Informed Reservoir Operations.—The Committee is pleased with the results of FIRO Phases 1 and 2 and is interested in how the program can be leveraged to other areas. Particularly if there are regions where different storm types, in addition to Atmospheric Rivers, are key to heavy rain and flooding (e.g., tropical storms/hurricanes, large thunderstorm systems), and where longer forecast lead times may be required. The Corps shall brief the Committees on Appropriations of both Houses of Congress no later than 60 days following enactment on the details of continuing and potentially expanding FIRO and related efforts. The briefing shall include how FIRO could be expanded to include assessments of at

least two major systems of dams (representing at least a dozen dams in total), for which coordination across several dams in the larger watershed is required and focus on the potential to predict extreme precipitation and flood to better anticipate to what degree FIRO might be applicable across reservoirs nationally.

Integrated Navigation Analysis and Systems Enhancements.—The Committee recommends additional funds in the remaining item Dredging Data and Lock Performance Monitoring System and in the remaining item Dredging Operations Technical Support Program to continue work laying the foundation for prototype applications for machine learning techniques as it relates to sedimentation-dredging patterns, dredging operations trends, and lock operations, including enhancements to systems to provide additional analytical capabilities and integrates data across enterprise navigation systems.

Inspection of Completed Environmental Projects.—The Committee is concerned about the absence of funding for the Inspection of Completed Environmental Projects program in the administration's budget request. The program is intended to ensure that non-Federal sponsors operate and maintain aquatic ecosystem restoration projects in accordance with the Operations, Maintenance, Repair, Rehabilitation, and Replacement manual, thereby ensuring that the Federal investment is protected and presumably providing the benefits intended. The Corps is encouraged to include funding in future budget requests.

Invasive Species Mitigation.—The Committee recognizes that the Corps is engaged in a multipronged effort to combat invasive species in our country's waterways and protect the Mississippi River Basin, which is one of the most valued ecosystems in the world. The Committee recommends \$500,000 for the Corps, in partnership with other Federal partners, to begin planning, design, initial engineering and project management for construction of carp barriers in the Mississippi River Basin and the Tennessee-Tombigbee waterway.

Kennebec River Long-Term Maintenance Dredging.—The Committee continues to support the Memorandum of Agreement signed in January 2019 denoting responsibilities between the Department of the Army and the Department of the Navy for the regular maintenance of the Kennebec River Federal Navigation Channel. Maintenance dredging of the Kennebec is essential to the safe passage of newly constructed Navy guided missile destroyers to the Atlantic Ocean. The Committee directs the Secretary to continue its collaboration with the Department of the Navy to ensure regular maintenance dredging of the Kennebec.

Levee Safety Program.—In fiscal year 2020, Congress provided \$15,000,000 to implement levee safety initiatives to meet the requirements under section 3016 of WRRDA. The Committee understands these funds are sufficient to complete Phase II activities.

Low Reservoir Water Level Issues.—The Committee encourages the Corps to ensure adequate resources to address issues at Corps projects when low water levels occur, such as additional terrestrial noxious weed control and sediment removal activities.

Mobile Bay Beneficial Use of Dredged Material.—The Committee encourages the Corps to examine beneficial uses of dredged material in Mobile Bay, Alabama.

Monitoring of Completed Navigation Projects—Fisheries.—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 endangered, threatened, and game fish species to migrate through waterways, particularly during critical spawning periods. The Committee notes the success of preliminary research which 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 continues to believe that 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 be critical to species survival. In fiscal year 2021, the Committee recommended funding to continue this research on the impact of reduced lock operations on riverine fish.

The Committee understands this research has proven valuable and, within available funds for ongoing work, directs the Corps to continue this research at not less than the fiscal year 2021 level. The goal of the continued funding is to support the ongoing 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 the Corps' operations.

Monitoring of Completed Navigation Projects—Structural Health Monitoring.—Of the funding recommended, \$4,000,000 shall be to support the structural health monitoring program to facilitate research to maximize operations, enhance efficiency, and protect asset life through catastrophic failure mitigation. The Corps is encouraged to include funding for these activities in future budget requests.

National Coastal Mapping Program.—Of the additional funds recommended in the National Coastal Mapping Program remaining item, \$5,000,000 shall be for Arctic coastal mapping needs. The Committee notes the Corps has responsibility for some mapping but, in general, does not include shoreline. Before the Corps obligates funds to map shoreline in Alaska, the Assistant Secretary of the Army for Civil Works shall provide notice to the Committee. The notice shall include certification that the effort is coordinated with NOAA and compliments those efforts.

Recreational Boating.—The Committee encourages the Corps to complete the ongoing inventory of all federally managed recreational boating infrastructure and facilities. The Committee is interested in the findings related to the assessment of annual operation and maintenance needs associated with such infrastructure and facilities, deferred operation and maintenance needs for such infrastructure and facilities to operate safely at full capacity, opportunities to expand capacity at existing access points, and economic impact of recreation to local and regional economies and benefits of sustaining and improving public access at recreational infrastructure and facilities.

Regional Sediment Management.—The Committee recommends \$5,000,000 to continue Corps research and development into enhanced forecasting capabilities to implement proactive strategies for flood risk management to enhance the resiliency of coastal communities and mitigate socioeconomic and environmental consequences of extreme coastal hazards. Funds are also provided to support cooperative efforts between the Corps and academia to address compound flooding issues.

Small, Remote, or Subsistence Harbors.—The Committee emphasizes the importance of ensuring that our country's small and low-use ports remain functional. The Committee urges the Corps to consider expediting scheduled maintenance at small and low-use ports that have experienced unexpected levels of deterioration since their last dredging. 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. The Committee directs the Corps to revise the criteria used for determining which navigation maintenance projects are funded and 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.

Soil Moisture and Snowpack Monitoring Program.—The Committee recommends \$8,000,000 for the continued fielding of the Missouri River Snowpack and Soil Moisture Monitoring System. Providing these capabilities is critical to enabling the Corps to accurately forecast plains snowpack and soil moisture to improve runoff forecasts that inform management decisions on dam releases in order to protect Missouri River Basin states from the impacts of flooding and droughts.

Tuttle Creek Lake, KS.—The additional funding provided is for Water Injection Dredging efforts.

Water Control Manual Prioritization Report.—The Committee is pleased to see the Corps start to budget for the update of water control manuals. However, the Committee is perplexed and disappointed that the prioritized list of manuals that require updating has not been provided. This is particularly concerning because funds were provided for this purpose and it appears the Corps has used this information to budget for these updates. The Corps shall provide the comprehensive list of water control manuals at Corps-owned projects located in states where a Reclamation project is also located, including a prioritized list of needed updates of those manuals no later than 60 days following enactment.

Water Control Manuals, Section 7 Dams.—Many water control manuals are decades old and in need of updating, particularly in light of recent dam disasters and improvements in forecast-informed reservoir operations [FIRO]. Of the additional funds recommended for Other Authorized Project Purposes \$4,000,000 shall be for water control manual updates for a non-Corps owned high hazard dam where: (1) the Corps has a responsibility for flood control operations under section 7 of the Flood Control Act of 1944; (2) the dam requires coordination of water releases with one or more other high-hazard dams for flood control purposes; and (3) the dam

owner is actively investigating the feasibility of applying forecast informed reservoir operations technology.

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

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 being used well beyond their design life results in economic inefficiencies and risks infrastructure failure, which can cause substantial economic losses. The Committee recommendation includes additional funds for projects and activities to enhance the Nation’s economic growth and international competitiveness.

Of the additional funds recommended in this account for other authorized project purposes, not less than \$2,000,000 shall be for efforts to combat invasive mussels at Corps-owned reservoirs.

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 fiscal year;
- Ability to complete the project, separable element, project phase, or useful increment of work within the funds allocated;
- Dredging projects that would provide supplementary benefits to tributaries and waterways in close proximity to ongoing island replenishment projects; and
- Extent to which the work will promote recreation-based benefits, including those created by recreational boating; and
- 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;
 - Savings over alternative means of freight movement; and
 - Improvements to dredge disposal facilities which will result in long-term savings, including a reduction in regular maintenance costs.

REGULATORY PROGRAM

Appropriations, 2021	\$210,000,000
Budget estimate, 2022	204,400,000
Committee recommendation	212,000,000

The Committee recommends \$212,000,000 for the Regulatory Program. The Committee recommends funds above the budget request to address capacity needs across the Corps related to staffing shortages in Corps districts. The Corps is encouraged to budget appropriately in order to process permits in a timely fashion.

Notwithstanding any other provision of law, nothing shall preclude a non-Federal entity from developing and operating a pumped storage hydroelectric project in Gregory County, South Dakota, utilizing Missouri River water pursuant to a Federal Power Act license, subject to all otherwise applicable license and permits, nor limit the entities to which project power can be sold.

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

Appropriations, 2021	\$250,000,000
Budget estimate, 2022	
Committee recommendation	260,000,000

The Committee recommends \$260,000,000 for the Formerly Utilized Sites Remedial Action Program.

FLOOD CONTROL AND COASTAL EMERGENCIES

Appropriations, 2021	\$35,000,000
Budget estimate, 2022	35,000,000
Committee recommendation	35,000,000

The Committee recommends \$35,000,000 for Flood Control and Coastal Emergencies.

EXPENSES

Appropriations, 2021	\$206,000,000
Budget estimate, 2022	199,290,000
Committee recommendation	216,000,000

The Committee recommends \$216,000,000 for Expenses. No funding is recommended for creation of an Office of Congressional Affairs.

The Expenses appropriation is an administrative and operational account which supports the technical, administrative and staff supervision functions assigned to Corps Headquarters, the Major Subordinate Commands [MSCs/division offices]; and the costs of those elements within four field operating activities providing direct support to those functions. The Expenses appropriation pays for two categories of requirements—labor and non-labor—to support the Corps.

The most recent U.S. Army Manpower Analysis Agency [USAMAA] staffing analysis was conducted in 2011 to determine an efficient and effective organizational structure for the Corps, properly staffed to perform assigned missions and accomplish given workload under the appropriate command and control. This analysis identified the need for 980 Full time equivalents [FTE] based on the needs facing the Corps' Civil Works program in 2011, which received an annual Civil Works appropriation of \$5,100,000,000.

The Corps has been operating with approximately 850 FTE, with a fiscal year 2020 appropriation of \$7,650,000, not accounting for the over \$20,000,000,000 in emergency supplemental funding they have received over the past 3 years. Thus, the Corps is working with nearly 130 fewer FTE than recommended and being required to execute at least 50 percent more work than the initial estimate was based on.

The additional funds recommended in this account shall be used to support implementation of the Corps' Civil Works program, including hiring additional FTE. This includes developing and issuing policy guidance; managing Civil Works program; and providing national coordination of and participation in forums and events within headquarters, the division offices, and meeting other enterprise requirements and operating expenses. The Committee encourages the Corps to pursue updating the 2011 USMAA staffing analysis based on current Civil Works needs.

The Committee moved \$8,000,000 provided in the budget recommendation for electric vehicles and charging stations to this account. These activities align with the replacement and maintenance of the current fleet of vehicles which is conducted as part of this account.

OFFICE OF THE ASSISTANT SECRETARY OF THE ARMY (CIVIL WORKS)

Appropriations, 2021	\$4,500,000
Budget estimate, 2022	5,000,000
Committee recommendation	5,000,000

The Committee recommends \$5,000,000 for the Office of the Assistant Secretary of the Army (Civil Works).

The Committee is concerned about the bureaucratic process for renewing leases under 10 U.S.C. 2667 and 16 U.S.C. 460d. The Committee encourages the Secretary to consider the efficiencies that may be gained by allowing Corps districts to authorize lease renewals under this section, including lease applications in excess of 25 years.

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 maintaining 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 appropriations process. The administration needs to do more to ensure timely and complete responses to these inquiries.

WATER INFRASTRUCTURE FINANCE AND INNOVATION PROGRAM

Appropriations, 2020	\$14,200,000
Budget estimate, 2021	14,200,000
Committee recommendation	14,200,000

The Committee recommends \$14,200,000 for the Water Infrastructure Finance and Innovation Program.

GENERAL PROVISIONS—CORPS OF ENGINEERS—CIVIL

Section 101. The bill includes a provision related to reprogramming.

Section 102. The bill includes a provision related to allocation of funds.

Section 103. The bill includes a provision related to contract awards and modifications.

Section 104. The bill includes a provision related to the Fish and Wildlife Service.

Section 105. The bill includes a provision related to open lake disposal of dredged material.

Section 106. The bill includes a provision related to the reorganization or transfer of the Corps of Engineers.

Section 107. The bill includes a provision related to project eligibility for funding.

Section 108. The bill includes a provision related to water reallocation studies.

TITLE II
DEPARTMENT OF THE INTERIOR

CENTRAL UTAH PROJECT COMPLETION ACCOUNT

Appropriations, 2021	\$21,000,000
Budget estimate, 2022	20,000,000
Committee recommendation	21,000,000

The Committee recommends \$21,000,000 for the Central Utah Project Completion Account, which includes \$5,000,000 for the Utah Reclamation Mitigation and Conservation Account for use by the Utah Reclamation Mitigation and Conservation Commission, \$1,550,000 for necessary expenses of the Secretary of the Interior, and up to \$1,850,000 for the Commission's administrative expenses. This 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 complete 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 \$1,986,000,000 for the Bureau of Reclamation [Reclamation]. 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 338 reservoirs with a total storage capacity of 140 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 11 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 2022 WORK PLAN

The Committee recommends 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 Committee proposing its allocation of these addi-

tional funds. 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 recommended for 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; and
- 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 shall not disqualify a study or project from being funded.

DROUGHT RESILIENCY

The Committee remains intently focused on the need for improving drought resiliency as well as in finding opportunities for agencies to combine water supply benefits with other mission priorities. The impacts of the current severe drought in the west display there is more work to be done. The Committee continues to invest in the drought resiliency programs authorized in the WIIN Act and believes a solution 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 included congressionally directed spending, as defined in section 5(a) of rule XLIV of the Standing Rules of the Senate. The Committee funded only projects and studies that are authorized by law. In the interest of providing full disclosure of funding provided in this Title, all projects requested and funded are listed in a table accompanying this report. All of the projects funded in this report have gone through the same rigorous process and approvals as those proposed by the President.

WATER AND RELATED RESOURCES

Appropriations, 2021	\$1,521,125,000
Budget estimate, 2022	1,379,050,000
Committee recommendation	1,832,101,000

The Committee recommends \$1,832,101,000 for Water and Related Resources.

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.

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		19,433		19,433
COLORADO RIVER BASIN—CENTRAL ARIZONA PROJECT	20,957	648	20,957	648
COLORADO RIVER FRONT WORK AND LEVEE SYSTEM ..	2,303		2,303	
SALT RIVER PROJECT	649	364	649	364
SAN CARLOS APACHE TRIBE WATER SETTLEMENT ACT PROJECT	550		550	
YUMA AREA PROJECTS	1,025	28,364	1,025	28,364
CALIFORNIA				
CACHUMA PROJECT	915	1,401	915	1,401
CENTRAL VALLEY PROJECT:				
AMERICAN RIVER DIVISION, FOLSOM DAM UNIT/MOR-				
MON ISLAND	1,830	10,937	1,830	10,937
AUBURN—FOLSOM SOUTH UNIT	35	2,564	35	2,564
DELTA DIVISION	17,586	12,145	17,586	12,145
EAST SIDE DIVISION	1,290	2,772	1,290	2,772
FRIANT DIVISION	1,375	3,761	1,375	3,761
SAN JOAQUIN RIVER RESTORATION SETTLEMENT	20,500		20,500	
MISCELLANEOUS PROJECT PROGRAMS	21,694	370	21,694	370
REPLACEMENTS, ADDITIONS, AND EXTRAORDINARY MAINT PROGRAM		29,500		29,500
SACRAMENTO RIVER DIVISION	7,450	695	12,450	695
SACRAMENTO RIVER BASIN FLOOD PLAIN REACTIVATION			(5,000)	
SAN FELIPE DIVISION	128	68	128	68
CVP SAN JOAQUIN DIVISION				
SHASTA DIVISION	494	11,190	494	11,190
TRINITY RIVER DIVISION	10,361	5,230	10,361	5,230
WATER AND POWER OPERATIONS	2,251	10,843	2,251	10,843
WEST SAN JOAQUIN DIVISION, SAN LUIS UNIT	2,604	7,075	3,104	7,075
LOS BANOS CREEK APPRAISAL STUDY			(500)	
ORLAND PROJECT		923		923
SALTON SEA RESEARCH PROJECT	2,000		2,000	
SAN GABRIEL BASIN RESTORATION FUND			10,000	
SOLANO PROJECT	1,162	2,535	1,162	2,535
VENTURA RIVER PROJECT	330	44	830	44
COLORADO				
ANIMAS—LA PLATA PROJECT	758	4,506	758	4,506
ARMEL UNIT, P—SMBP	15	434	15	434
COLLBRAN PROJECT	148	2,686	148	2,686
COLORADO—BIG THOMPSON PROJECT	265	15,092	265	15,092
FRUITGROWERS DAM PROJECT	67	133	67	133
FRYINGPAN—ARKANSAS PROJECT	76	8,880	76	8,880
FRYINGPAN—ARKANSAS PROJECT—ARKANSAS VALLEY CONDUIT	10,050		10,050	
GRAND VALLEY UNIT, CRBSCP, TITLE II	64	1,755	64	1,755
GRAND VALLEY PROJECT	193	155	193	155
LEADVILLE/ARKANSAS RIVER RECOVERY PROJECT		24,878		24,878
MANCOS PROJECT	93	258	93	258
NARROWS UNIT, P—SMBP		33		33

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
PARADOX VALLEY UNIT, CRBSCP, TITLE II	771	2,967	771	2,967
PINE RIVER PROJECT	127	361	127	361
SAN LUIS VALLEY PROJECT, CLOSED BASIN	100	2,950	100	2,950
SAN LUIS VALLEY PROJECT, CONEJOS DIVISION	10	20	10	20
UNCOMPAHGRE PROJECT	711	169	711	169
UPPER COLORADO RIVER OPERATIONS PROGRAM	3,250	.....	3,250	.....
IDAHO				
BOISE AREA PROJECTS	2,753	2,964	2,753	2,964
COLUMBIA AND SNAKE RIVER SALMON RECOVERY PROJECT	18,000	.....	18,000	.....
LEWISTON ORCHARDS PROJECT	880	27	880	27
MINIDOKA AREA PROJECTS	2,654	4,557	2,654	4,557
PRESTON BENCH PROJECT	13	34	13	34
KANSAS				
ALMENA UNIT, P-SMBP	18	1,131	18	1,131
BOSTWICK UNIT, P-SMBP	199	1,243	199	1,243
CEDAR BLUFF UNIT, P-SMBP	13	452	13	452
GLEN ELDER UNIT, P-SMBP	18	18,519	18	18,519
KANSAS RIVER UNIT, P-SMBP .....	.....	100	.....	100
KIRWIN UNIT, P-SMBP	27	387	27	387
WEBSTER UNIT, P-SMBP	18	5,010	18	5,010
WICHITA PROJECT—CHENEY DIVISION	39	398	39	398
WICHITA EQUUS BEDS DIVISION	10	.....	10	.....
MONTANA				
CANYON FERRY UNIT, P-SMBP	188	8,012	188	8,012
EAST BENCH UNIT, P-SMBP	162	602	162	602
FORT PECK RESERVATION / DRY PRAIRIE RURAL WATER SYSTEM	17,191	.....	17,191	.....
HELENA VALLEY UNIT, P-SMBP	52	200	52	200
HUNGRY HORSE PROJECT .....	.....	1,673	.....	1,673
HUNTLEY PROJECT	38	24	38	24
LOWER MARIAS UNIT, P-SMBP	536	1,496	536	1,496
LOWER YELLOWSTONE PROJECT	905	22	905	22
MILK RIVER PROJECT	400	1,202	400	1,202
MISSOURI BASIN O&M, P-SMBP	1,015	157	1,015	157
ROCKY BOYS/NORTH CENTRAL MT RURAL WATER SYSTEM	13,504	.....	13,504	.....
SUN RIVER PROJECT	107	373	107	373
YELLOWTAIL UNIT, P-SMBP	105	9,875	105	9,875
NEBRASKA				
AINSWORTH UNIT, P-SMBP	33	109	33	109
EASTERN NEW MEXICO WATER SUPPLY—UTE RESERVOIR	7,790	.....	25,190	.....
FRENCHMAN—CAMBRIDGE UNIT, P-SMBP	174	2,411	174	2,411
MIRAGE FLATS PROJECT	24	102	24	102
NORTH LOUP UNIT, P-SMBP	46	198	46	198
NEVADA				
LAHONTAN BASIN PROJECT	5,435	5,858	5,435	5,858
LAKE TAHOE REGIONAL DEVELOPMENT PROGRAM	115	.....	115	.....
LAKE MEAD/LAS VEGAS WASH PROGRAM	595	.....	3,655	.....
NEW MEXICO				
CARLSBAD PROJECT	2,794	6,946	2,794	6,946
MIDDLE RIO GRANDE PROJECT	20,100	10,530	20,100	10,530
RIO GRANDE PROJECT	2,391	6,709	2,391	6,709

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
RIO GRANDE PUEBLOS PROJECT	1,050	.....	1,050	.....
TUCUMCARI PROJECT	15	5	15	5
NORTH DAKOTA				
DICKINSON UNIT, P-SMBP .....	.....	838	.....	838
GARRISON DIVERSION UNIT, P-SMBP Rural and Non-Rural Water	24,568	14,891	24,568	14,891
HEART BUTTE UNIT, P-SMBP	82	1,271	82	1,271
OKLAHOMA				
ARBUCKLE PROJECT	39	243	39	243
MCGEE CREEK PROJECT	20	904	20	904
MOUNTAIN PARK PROJECT	30	681	30	681
NORMAN PROJECT	76	289	76	289
WASHITA BASIN PROJECT	52	1,555	52	1,555
WC AUSTIN PROJECT	37	905	37	905
OREGON				
CROOKED RIVER PROJECT	314	499	314	499
DESCHUTES PROJECT	429	231	429	231
EASTERN OREGON PROJECTS	721	256	721	256
KLAMATH PROJECT	19,770	4,299	24,770	4,299
KLAMATH, SCADA ACQUISITION .....	.....	.....	(5,000)	.....
ROGUE RIVER BASIN PROJECT, TALENT DIVISION	738	543	738	543
TUALATIN PROJECT	382	1,856	1,682	1,856
SCOGGINS DAM .....	.....	.....	(1,300)	.....
UMATILLA PROJECT	567	3,100	567	3,100
SOUTH DAKOTA				
ANGOSTURA UNIT, P-SMBP	10	882	10	882
BELLE FOURCHE UNIT, P-SMBP	130	1,507	130	1,507
KEYHOLE UNIT, P-SMBP	190	586	190	586
LEWIS AND CLARK RURAL WATER SYSTEM	9,220	.....	31,134	.....
MID-DAKOTA RURAL WATER PROJECT .....	.....	13	.....	13
MNI WICONI PROJECT .....	.....	17,010	.....	17,010
OAHE UNIT, P-SMBP .....	.....	90	.....	90
RAPID VALLEY PROJECT .....	.....	86	.....	86
RAPID VALLEY UNIT, P-SMBP .....	.....	224	.....	224
SHADEHILL UNIT, P-SMBP	119	715	119	715
TEXAS				
BALMORHEA PROJECT	4	.....	4	.....
CANADIAN RIVER PROJECT	42	82	42	82
LOWER RIO GRANDE WATER CONSERVATION PROGRAM	911	.....	911	.....
NUECES RIVER PROJECT	52	1,010	52	1,010
SAN ANGELO PROJECT	23	680	23	680
UTAH				
HYRUM PROJECT	109	260	109	260
MOON LAKE PROJECT	19	159	19	159
NEWTON PROJECT	56	132	56	132
OGDEN RIVER PROJECT	195	246	195	246
PROVO RIVER PROJECT	3,336	532	3,336	532
SANPETE PROJECT	85	18	85	18
SCOFIELD PROJECT	344	153	344	153
STRAWBERRY VALLEY PROJECT	500	60	500	60
WEBER BASIN PROJECT	1,273	942	1,273	942
WEBER RIVER PROJECT	108	212	108	212
WASHINGTON				
COLUMBIA BASIN PROJECT	7,270	20,715	7,770	20,715

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
ODESSA SUBAREA	(1,500)	.....	(2,000)	.....
WASHINGTON AREA PROJECTS	372	160	372	160
YAKIMA PROJECT	1,887	7,040	1,887	7,040
YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT	25,500	.....	26,450	.....
WAPATO IRRIGATION PROJECT	(1,040)	.....	(1,990)	.....
WYOMING				
BOYSEN UNIT, P-SMBP	78	2,235	78	2,235
BUFFALO BILL DAM, DAM MODIFICATION, P-SMBP	9	5,941	9	5,941
KENDRICK PROJECT	79	3,841	79	3,841
NORTH PLATTE PROJECT	93	2,487	93	2,487
NORTH PLATTE AREA, P-SMBP	121	6,787	121	6,787
OWL CREEK UNIT, P-SMBP	4	102	4	102
RIVERTON UNIT, P-SMBP	12	716	12	716
SHOSHONE PROJECT	34	1,293	34	1,293
SUBTOTAL, ITEMS UNDER STATES	333,604	416,742	399,728	416,742
REMAINING ITEMS				
ADDITIONAL FUNDING FOR ONGOING WORK				
RURAL WATER .....	.....	.....	40,000	.....
FISH PASSAGE AND FISH SCREENS .....	.....	.....	8,000	.....
SACRAMENTO RIVER FISH SCREEN .....	.....	.....	(3,900)	.....
UPPER YAKIMA BULL TROUT RESEARCH FACILITY .....	.....	.....	(700)	.....
WATER CONSERVATION AND DELIVERY .....	.....	.....	225,500	.....
ENVIRONMENTAL RESTORATION AND COMPLIANCE .....	.....	.....	20,000	.....
FACILITIES OPERATION, MAINTENANCE, AND REHABILITATION .....	.....	.....	.....	2,717
AGING INFRASTRUCTURE PROGRAM .....	.....	1,000	.....	1,000
AQUATIC ECOSYSTEM RESTORATION PROGRAM	1,000	.....	1,000	.....
COLORADO RIVER COMPLIANCE ACTIVITIES	21,400	.....	21,400	.....
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE I .....	.....	17,574	.....	17,574
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE II	7,000	.....	7,000	.....
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 5	3,164	7,469	3,164	7,469
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 8	3,322	.....	3,322	.....
COLORADO RIVER WATER QUALITY IMPROVEMENT PROJECT	740	.....	500	.....
DAM SAFETY PROGRAM				
DEPARTMENT OF THE INTERIOR DAM SAFETY PROGRAM .....	.....	1,300	.....	1,300
INITIATE SAFETY OF DAMS CORRECTIVE ACTION .....	.....	182,500	.....	182,500
SAFETY EVALUATION OF EXISTING DAMS .....	.....	23,284	.....	23,284
EMERGENCY PLANNING & DISASTER RESPONSE PROGRAM .....	.....	1,250	9,950	1,250
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM				
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM (Bureauwide)	2,575	.....	2,575	.....
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM (Platte River)	4,950	.....	4,950	.....
ENDANGERED SPEC RECOVERY IMPL PROG (Upper Colo & San Juan Riv Basins)	5,700	.....	5,700	.....
ENVIRONMENTAL PROGRAM ADMINISTRATION	1,711	.....	1,711	.....

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
EXAMINATION OF EXISTING STRUCTURES		12,727		12,727
GENERAL PLANNING ACTIVITIES	2,195		2,195	
INDIAN WATER RIGHTS SETTLEMENTS				
AAMODT LITIGATION SETTLEMENT	10,000		10,000	
BLACKFEET SETTLEMENT	40,000		40,000	
CROW TRIBE RIGHTS	12,772		12,772	
NAVAJO—GALLUP	51,342	5,000	51,342	5,000
LAND RESOURCES MANAGEMENT PROGRAM	16,190		16,190	
LOWER COLORADO RIVER OPERATIONS PROGRAM	45,218		45,218	
MISCELLANEOUS FLOOD CONTROL OPERATIONS		971		971
NATIVE AMERICAN AFFAIRS PROGRAM	20,000		20,000	
NEGOTIATION & ADMINISTRATION OF WATER MARKETING	2,219		2,219	
OPERATION & PROGRAM MANAGEMENT	836	3,264	836	3,264
POWER PROGRAM SERVICES	3,121	307	3,121	307
PUBLIC ACCESS AND SAFETY PROGRAM	610	206	610	206
RECLAMATION LAW ADMINISTRATION	1,131		1,131	
RECREATION & FISH & WILDLIFE PROGRAM ADMINISTRATION	5,508		5,508	
RESEARCH AND DEVELOPMENT				
DESALINATION AND WATER PURIFICATION PROGRAM ..	7,850	1,650	19,850	1,650
SCIENCE AND TECHNOLOGY PROGRAM	18,000		18,000	
SITE SECURITY ACTIVITIES		27,500		27,500
UNITED STATES/MEXICO BORDER ISSUES—TECHNICAL SUPPORT	80		80	
WATERSMART PROGRAM				
WATERSMART GRANTS	15,000		48,000	
WATER CONSERVATION FIELD SERVICES PROGRAM	2,318		2,318	
COOPERATIVE WATERSHED MANAGEMENT	2,250		2,250	
BASIN STUDIES	13,500		13,500	
DROUGHT RESPONSE & COMPREHENSIVE DROUGHT PLANS	16,500		25,000	
TITLE XVI WATER RECLAMATION & REUSE PROGRAM	4,500		32,000	
SUBTOTAL, REMAINING ITEMS	342,702	286,002	726,912	288,719
TOTAL, WATER AND RELATED RESOURCES	676,306	702,744	1,126,640	705,461
GRAND TOTAL, WATER AND RELATED RESOURCES		1,379,050		1,832,101

Anadromous Fish Screen Program.—The Committee appreciates Reclamation's efforts to devote additional resources to completing work on the last two remaining priority unscreened diversions on the Sacramento River, which have been specifically identified as priorities in the California Natural Resources Agency Sacramento Valley Salmon Resiliency Strategy.

Aging Infrastructure Program.—The majority of Reclamation's infrastructure is over 50 years old, which can result in significant operations and maintenance costs. The Committee is interested in the benefit the Aging Infrastructure program could provide, particularly in addressing extraordinary maintenance projects, par-

ticularly in drought prone areas. The Committee does not support allowing increases or decreases in transfer amounts at this time and directs Reclamation to report to the Committee prior to obligation of any of the funds for this purpose a report detailing the implementation of this program and the criteria for evaluating eligible projects.

Aquatic Ecosystem Restoration Program.—The Committee supports the budget request of \$1,000,000 for the Aquatic Ecosystem Restoration Program to the design, study, and construction of aquatic ecosystem restoration and protection projects in Reclamation States. Reclamation is directed to report to the Committee within 60 days after enactment of this act, detailing the plan to implement this program and the criteria for evaluating eligible projects.

Aquifer Recharge.—Reclamation is directed to work closely with project beneficiaries to identify and resolve any barriers to aquifer recharge projects when appropriate while utilizing full authority to prioritize funds for ongoing projects through completion. Of the funds recommended in this account above the budget request, \$25,000,000 shall be for Aquifer Storage and Recovery projects focused on ensuring sustainable water supply and protecting water quality of aquifers in the Great Plains Region with shared or multi-use aquifers for municipal, agricultural irrigation, industrial, recreation and domestic users.

Boulder Canyon Project, Dam Fund.—The committee is aware of the challenges that the Hoover Dam site cleanup maintenance costs place on the ratepayers. The Committee encourages Reclamation to work with the ratepayers towards a solution within applicable laws. Reclamation is directed to brief the Committee within 60 days of enactment on the challenges, legal obstacles, and potential solutions related to the cleanup.

CALFED Water Storage Feasibility Studies.—The Committee strongly encourages Reclamation to expeditiously complete financial assistance projects requested by the non-Federal sponsors of the CALED water storage projects to help the projects. The Committee finds it unacceptable that these agreements have been under study for over 15 years.

Columbia Basin Project.—The Committee is aware of the Odessa Groundwater Replacement Program within the Columbia Basin Project to deliver surface water to the Odessa Subarea. The Subarea groundwater is being withdrawn at a rate beyond the aquifer's capacity to recharge, and aquifers in the Subarea are quickly declining. The Committee supports Reclamation's partnership in the program to provide farmlands in Central and Eastern Washington with surface water supply through operational changes in the storage and delivery system and urges Reclamation to move forward to implement the program.

Drought Contingency Plans.—The Committee commends Reclamation, the Department of the Interior, and the seven Colorado River Basin states for completing drought contingency plans to conserve water and reduce risks from ongoing drought for the Upper and Lower Colorado River basins. The completion of these plans mark a major milestone in protecting a critical water source in the

western United States. The Committee encourages Reclamation to provide sufficient funding for activities that support these plans.

Friant-Kern Canal.—The Committee encourages the Secretary to include funding in future budget submissions for construction activities related to projects found to be feasible by the Secretary and which are ready to initiate for the repair of critical Reclamation canals where operational conveyance capacity has been seriously impaired by factors such as age or land subsidence, especially those that would imminently jeopardize Reclamation's ability to meet water delivery obligations.

Klamath Basin Project.—The Committee encourages the Bureau to continue to collaborate agreements with state agencies to support groundwater monitoring efforts in the Klamath Basin.

Navajo-Gallup Water Supply Project.—The Committee remains interested in the progress on this critical project as Reclamation works to meet the December 2024 completion date. Reclamation is directed to brief the Committee within 90 days after enactment of this act, detailing the timeline and cost for the remaining work.

Research and Development: Desalination and Water Purification Program.—Of the funding recommended for this program, \$12,000,000 shall be for desalination projects as authorized in section 4009(a) of Public Law 114–322.

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.

Safety of Dams Act Cost Share.—The Committee reminds Reclamation that not more than 15 percent of dam safety modification project costs can be allocated for reimbursement to all project purposes and all beneficiaries consistent with Section 4 of Public Law 95–578, as amended.

Salton Sea.—The Committee supports the Memorandum of Understanding signed between the Department of the Interior and the California Natural Resources Agency to support management activities at the Salton Sea. The Committee encourages Reclamation to partner with Federal, state, and local agencies and coordinate use of all existing authorities and funding sources to support the State of California's Salton Sea Management Program and reduce the likelihood of severe health and environmental impacts. Reclamation is directed to brief the Committee within 90 days of the enactment of this act on Reclamation's plan for managing the air quality impacts of the estimated 8.75 square miles of lands it owns that will emerge from the receding Sea over the next decade.

San Joaquin River Restoration.—Permanent appropriations, available for the program in fiscal year 2020, shall not supplant continued annual appropriations, and the Committee encourages Reclamation to include adequate funding in future budget submissions.

Scoggins Dam, Tualatin Project, Oregon.—The Committee remains concerned about the high risk associated with Scoggins Dam, and urges Reclamation to work with local stakeholders and repayment contractors to prioritize this joint project and continue to review measures to protect public safety, water security and the

economic health of the region. Within 60 days of enactment of this act, Reclamation shall brief the Committee on the status of the dam safety activities including a timeline for completion and any challenges to addressing the safety concerns in the most efficient manner.

Snow Modeling Data Processing.—Better snow modeling and estimates of snow water equivalent may improve water resource decision-making, specifically for water allocations and flood control. Of the additional funding recommended in this account, \$1,500,000 shall be to support Reclamation's efforts to support the U.S. Department of Agriculture and NOAA efforts to improve real-time and derived snow water equivalent information such that it can be immediately used for water resources decision-making. Reclamation is directed to brief the Committee on its plan for how Federal agencies will coordinate to implement emerging snowpack modeling technologies, required by October 1, 2021 pursuant to section 1111(d)(1) of Subtitle FF of Public Law 116–260.

St. Mary's Diversion Dam and Conveyance Works.—The Committee recognizes the importance of stable water supply to regional economies and communities and urges Reclamation to continue working with local stakeholders to complete its ability to pay study for the rehabilitation of the St. Mary's Diversion Dam. The Committee encourages Reclamation to find innovative methods to rehabilitate the Milk River Project without significant financial impacts for local stakeholders.

Upper Rio Grande Basin Study.—The Committee recognizes the ecological, economic, cultural, and historic importance of the Upper Rio Grande Basin and the increasing stress on its water supply. The Committee encourages a comprehensive approach on water and reservoir management, operation issues, and climate resiliency within the Upper Rio Grande Basin (including the Heron, El Vado, Abiquiu, Cochiti, Jemez Canyon, Elephant Butte, and Caballo Dams and Reservoirs). Accordingly, Reclamation is directed to brief the Committee within 90 days of the enactment of this act on the work that has been done to date. Additionally the briefing shall identify additional work that can be done to supplement already completed work and to identify any opportunities to partner with the National Academies of Sciences.

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.

WaterSMART Program: Open Evapotranspiration System.—The Committee is intrigued by the evapotranspiration in the Central Valley and California Delta to help measure how much water is consumed by crops and other plants. Reclamation is encouraged to utilize the Open Evapotranspiration system designed to provide real-time and historical evapotranspiration information, primarily on irrigated crop lands. Reclamation is directed to provide to the Committee not later than 90 days after enactment of this act a briefing on the potential application of this system to Reclamation missions.

WaterSMART Program: Title XVI Water Reclamation & Reuse Program.—Of the funding recommended for this program,

\$20,000,000 shall be for water recycling and reuse projects as authorized in section 4009(c) of the WIIN Act.

Yakima River Basin Integrated Water Resource Management Plan.—The Committee supports the Yakima River Basin Integrated Water Resource Management Plan. This innovative water management plan represents years of collaboration in the Yakima River Basin among stakeholders including Reclamation, the State of Washington, the Yakama Nation, irrigators and farmers, conservation organizations, recreationists, and local governments to address water supply needs for agriculture, fish and wildlife, and municipal use. The Committee encourages Reclamation to move forward on implementing authorized components of the plan.

Additional Funding for Water and Related Resources Work.—The Committee recommendation includes funds in addition to the budget request for Water and Related Resources studies, projects, and activities. Priority in allocating these funds shall be given to advance and complete ongoing work, including preconstruction activities, and where environmental compliance has been completed; 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. Reclamation is encouraged to allocate additional funding for aquifer recharging efforts to address the ongoing backlog of related projects. Reclamation is reminded that activities authorized under Indian Water Rights Settlements are eligible to compete for the additional funding under “Water Conservation and Delivery”. Reclamation shall allocate additional funding provided in this account consistent with the following direction:

- Of the additional funding recommended under the heading “Water Conservation and Delivery”, \$134,000,000 shall be for water storage projects as authorized in section 4007 of the WIIN Act;
- Of the additional funding recommended under the heading “Water Conservation and Delivery,” \$40,000,000 shall be for implementing the Drought Contingency Plan in the Lower Colorado River Basin to create or conserve recurring Colorado River water that contributes to supplies in Lake Mead and other Colorado River water reservoirs in the Lower Colorado Basin or projects to improve the long-term efficiency of operations in the Lower Colorado River Basin, consistent with the Secretary’s obligations under the Colorado River Drought Contingency Plan Authorization Act of 2019 (Public Law 116–14) and related agreements. These water conservation activities may include well construction and irrigation-related structural or other measures; programs and projects that result in conservation of surface water or groundwater; or improve water system efficiency, resiliency, reliability, delivery, and conveyance, including canal system improvements. None of these funds shall be used for the operation of the Yuma Desalting Plant and nothing in this section shall be construed as limiting existing or future opportunities to augment the water supplies of the Colorado River

- Of the additional funding recommended under the heading “Water Conservation and Delivery,” not less than \$10,000,000, shall be for construction activities related to projects found to be feasible by the Secretary and which are ready to initiate for the repair of critical Reclamation canals where operational conveyance capacity has been seriously impaired by factors such as age or land subsidence, especially those that would imminently jeopardize Reclamation’s ability to meet water delivery obligations;
- Of the additional funding recommended under the heading “Environmental Restoration or Compliance”, not less than \$20,000,000 shall be for activities authorized under sections 4001 and 4010 of the WIIN Act or as set forth in Federal-State plans for restoring threatened and endangered fish species affected by the operation of Reclamation’s water projects.

CENTRAL VALLEY PROJECT RESTORATION FUND

GROSS APPROPRIATION

Appropriations, 2021	\$55,875,000
Budget estimate, 2022	56,499,000
Committee recommendation	56,499,000

The Committee recommends \$56,499,000 for the Central Valley Project Restoration Fund, the same as the budget request. This appropriation is fully offset by collections, resulting in a net appropriation of \$0.

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, 2021	\$33,000,000
Budget estimate, 2022	33,000,000
Committee recommendation	33,000,000

The Committee recommends \$33,000,000 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, 2021	\$60,000,000
Budget estimate, 2022	64,400,000
Committee recommendation	64,400,000

The Committee recommends \$64,400,000 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 a provision regarding reprogramming.

Section 202. The bill includes a provision regarding the San Luis Unit and Kesterson Reservoir.

Section 203. The bill includes a provision regarding the Secure Water Act.

Section 204. The bill includes a provision regarding CALFED Bay-Delta.

Section 205. The bill includes a provision regarding the Omnibus Public Land Management Act of 2009.

Section 206. The bill includes a provision regarding the Reclamation States Emergency Drought Relief Act of 1991.

Section 207. The bill includes a provision regarding the Cooperative Watershed Management Act.

TITLE III
DEPARTMENT OF ENERGY
OVERVIEW OF RECOMMENDATION

The Committee recommendation sets priorities by supporting the Office of Science and the Advanced Research Projects Agency-Energy [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 [NNSA], 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, 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 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.

SEXUAL HARRASSMENT

The Government Accountability Office [GAO] recently released a report on sexual harassment in NNSA’s nuclear security forces. The Committee is encouraged that the Department and NNSA stated they welcome opportunities for continuous improvement, and that they agreed with the five recommendations in the report. The Committee also commends NNSA for broadening its focus to implementing the recommendations beyond the nuclear security forces to include all Federal employees and contractors across the NNSA enterprise. To better understand and document the Department and NNSA progress in implementing these recommendations, the Committee requests that the Department and NNSA brief the Armed Services and Appropriations Committees of both the House and Senate on the steps taken, progress made, and relevant findings in their efforts to implement the recommendations in the report. These briefings shall take place within 6 months of enactment of the act and every 6 months thereafter until GAO’s recommendations are implemented.

COVID–19 RESEARCH DELAYS

The Committee recognizes the potential impacts and delays in research caused by the effects of the COVID–19 pandemic. The Committee notes that the Department has taken some steps to engage

scientific professional societies, universities and colleges, and other Federal agencies to obtain up to-date information on the impacts to institutions and research communities to help inform an open, transparent, and equitable response. However, the Committee is concerned that this response has been uneven across the Department. The Department is encouraged to consider these impacts within the resources available. The Department is directed to provide to the Committee not later than 60 days after enactment of this act a report that details the impacts of the COVID-19 pandemic on institutions and research communities. The report shall outline funding and costs associated with the impacts. Further, the Department is encouraged to include funding to address the impacts in future budget requests.

CROSSCUTTING INITIATIVES

Grid Modernization.—The Department is directed to continue the ongoing work among the national laboratories, industry, and universities to improve grid reliability and resiliency through the strategic goals of the Grid Modernization Initiative [GMI]. The Committee recognizes the accomplishments of over 200 partners from industry, academia, and state governments in these efforts. The Department shall brief the Committee not later than 90 days after enactment of this act on the revised GMI strategy, plans to reflect new decarbonization targets in strategy enhancements, the funding profiles, portfolio of funding opportunities, programmatic investments for the Initiative, and the roles and responsibilities of each participating program office. The Committee supports the Grid Modernization Laboratory Consortium [GMLC] and continued implementation of the Grid Multi-Year Program Plan [MYPP] to ensure coordination across all applied program offices, including the additions of the Offices of Cybersecurity, Energy Security, and Emergency Response [CESER]; Nuclear Energy [NE]; and Fossil Energy and Carbon Management [FECM] to the MYPP. The Committee directs the Department to continue its emphasis on national energy systems resilience within the context of administration goals in decarbonization of the power system and related infrastructures, such as transportation. This shall build on GMI/GMLC progress in advanced grid modeling and improved grid cyber resilience to address emerging national resilience challenges of the grid and related energy systems, planned investments in energy storage to improve grid flexibility and resilience, and advanced sensors and control paradigms that promise to improve energy system resilience of the grid of the future. The Committee recognizes the growing importance of training and workforce development to support grid modernization research and development, and the Committee directs the Department to develop a plan for a pipeline of students, graduates, and professors to sustain a robust grid modernization research, design, and operations capability over the long-term.

Carbon Dioxide Removal.—The fiscal year 2020 Act directed the Department to develop an implementation plan coordinated across FECM, Energy Efficiency and Renewable Energy [EERE], and the Office of Science. The Committee is still awaiting this plan and directs the Department to provide the plan immediately after enactment of this act. The Department is directed to include a break-

down of the roles and responsibilities of each participating program office in the implementation plan. The Department is directed, pursuant to section 5001 and 5002 of the Energy Act of 2020, to establish the Carbon Dioxide Removal Program and Carbon Dioxide Removal Task Force to advance the development and commercialization of carbon dioxide removal, direct air capture, sequestration, and any other relevant technologies on a significant scale. The Department is directed to coordinate these activities among FECM, EERE, and the Office of Science. The Committee supports direct air capture prize competitions. The Department is directed to provide to the Committee not later than 30 days after enactment of this act the report required by section 5002 of the Energy Act of 2020.

The recommendation provides not less than \$120,000,000 for research, development, and demonstration of carbon dioxide removal technologies, including not less than \$20,000,000 from EERE, not less than \$50,000,000 from FECM, and not less than \$35,000,000 from the Office of Science. Within available funds for carbon dioxide removal, the recommendation provides not less than \$75,000,000 for direct air capture.

Equity and Justice.—The Committee supports the Department's continuing efforts and progress in implementing the Justice40 Initiative, Executive Order 13985, and Executive Order 14008. The Committee supports the Department's reforms toward addressing equity and justice issues within the U.S. energy system. In order to accelerate these reforms at the Department, the Committee directs the Department to survey its current programs, grant-making, policies, procedures, and rules to ensure that it is adequately meeting the clean energy, energy conservation, and energy efficiency needs of low-income, minority, and other marginalized communities. Further, the Department is encouraged to engage with communities impacted by climate change, air and water pollution, systemic racism and underinvestment, high energy costs, and economic inequality when conducting this survey. The Department is directed to provide to the Committee not later than 180 days after enactment of this act a report summarizing its efforts, including key findings, and a strategy to carry out the direction contained herein.

Critical Minerals.—The Committee supports the Department's coordination of critical minerals activities across the Department through the Critical Minerals Initiative. The recommendation provides not less than \$146,000,000 for research, development, demonstration, and commercialization activities on the development of alternatives to, recycling of, and efficient production and use of critical minerals, including not less than \$100,000,000 from EERE, not less than \$25,000,000 from FECM, and not less than \$17,000,000 from the Office of Science. The Department is encouraged to carry out these activities pursuant to sections 7001 and 7002 of the Energy Act of 2020.

Industrial Decarbonization.—Nearly 30 percent of greenhouse gas emissions come from hard-to-reduce industrial sources, including heavy road and rail transport, shipping, aviation, chemical production, steel and cement production, and heat production. To make progress on climate change, it is necessary to reduce emis-

sions in this sector. The Committee supports the Department's efforts, aligned with Title VI of the Energy Act of 2020, to foster innovations and enable scale up of cost-competitive, low-emissions technologies. Further, the Committee encourages the Department to establish an Office of Industrial Emissions Reduction Technology Development Program as required by the Energy Act of 2020 to support coordinating research, developing and demonstrating technologies, and providing commercial applications of technologies that achieve significant emissions reductions in the industrial sectors.

The recommendation provides not less than \$520,000,000 for industrial decarbonization activities, including not less than \$250,000,000 from EERE, not less than \$250,000,000 from FECM, and not less than \$20,000,000 from the Office of Science. The funds provided are for research, development, and demonstration of technologies to strengthen the competitiveness of America's industrial sector, including low-carbon feedstocks, clean heat alternatives, industrial carbon capture and removal, and electrification. Not less than \$25,000,000 is provided for low-carbon feedstocks in the steel, cement, concrete, and other heavy industrial sectors. In addition, not less than \$25,000,000 is provided for clean heat alternatives for industrial processes.

Further, the Committee supports the continuation of the Department's existing 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.

Energy Storage.—The Committee supports the Department's ongoing efforts for the Energy Storage Grand Challenge [ESGC] initiative, as well as cost-shared demonstrations of energy storage technologies. The ESGC builds on the Department's prior research and development efforts in storage and will align Energy Storage research and development efforts to focus on technical, regulatory, and market issues necessary to achieve the technology goals. The Department is directed to continue to provide the Committee periodic updates on the ESGC and make publically available a cross-cutting research and development road-map through 2030 to illustrate the ESGC's goals. This road-map shall be focused on reducing costs and improving the performance of a diverse set of grid-scale storage technologies to meet industry needs, improve reliability and environmental performance of the electricity grid, and reduce greenhouse gas emissions.

The Committee recognizes that energy storage will play a vital role in integrating new energy sources while strengthening grid reliability and resilience. Energy storage systems are fuel neutral and help generation connected to the grid become more efficient, productive, and competitive. The Department is directed to carry out these activities in accordance with sections 3201 and 3202 of the Energy Act of 2020. The Department is directed to support long-duration joint demonstration projects with the Department of Defense and grants for rural utilities to build microgrids for resiliency. The Department is directed to support competitive pilot dem-

onstration grants, as authorized in section 3201 of the Energy Act of 2020, for energy storage projects that are wholly U.S.-made, sourced, and supplied.

The recommendation provides not less than \$460,000,000 for energy storage, including not less than \$347,000,000 from EERE, not less than \$80,000,000 from OE, not less than \$5,000,000 from FECM, not less than \$4,000,000 from NE, and not less than \$24,000,000 from the Office of Science.

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. The Committee encourages the Arctic Energy Office [AEO] to continue to bring together assets from across the Department to work together in collaborative and innovative ways to meet the energy, science, and national security needs of the United States and its allies in the Arctic. Further, the AEO is encouraged to lead cross-cutting operations in the Arctic with a mission to tackle the energy, science, and national security challenges of the 21st Century. Alaska is home to some of the highest energy costs in the nation, making diverse research, development, and deployment opportunities more cost-effective to meet the needs of rural and remote regions of the United States. There are also a wide variety of energy resources and technologies, both traditional and innovative, available in Alaska, including more than 200 microgrids.

Hydrogen Energy and Fuel Cell Coordination.—The Committee directs that the Department coordinates its efforts in hydrogen energy and fuel cell technologies across its various departments and offices in order to maximize the effectiveness of investments in hydrogen-related activities. This coordination shall include EERE, FECM, NE, OE, the Office of Science, and ARPA-E.

Unmanned Aircraft.—The Committee encourages the Department to test the effectiveness of Counter-Unmanned Aircraft Systems technologies to protect critical Departmental assets.

ENERGY PROGRAMS

ENERGY EFFICIENCY AND RENEWABLE ENERGY

Appropriations, 2021	\$2,861,760,000
Budget estimate, 2022	4,732,000,000
Committee recommendation	3,896,971,000

The Committee recommends \$3,896,971,000 for Energy Efficiency and Renewable Energy. Within available funds, the Committee recommends \$220,000,000 for program direction.

The Department is directed throughout all of its programs to maintain a balanced portfolio of early-, mid-, and late-stage research, development, demonstration, deployment and other market transformation activities that will deliver innovative energy technologies, practices, and information to American consumers and industry. While Federal investment plays a greater role in early stage research, the portfolio must be balanced by being inclusive of Federal investment in mid-to-late research activities, including field evaluation of early-stage technology to provide testing and

data collection in a real-world setting. This includes demonstration, deployment, and other market transformation activities, including delineation by account and subaccounts to attract private sector cost-share that will advance technology to market and provide a bridge to small businesses, cities, or small utilities with fewer resources and tools to participate in energy infrastructure planning. The Department is further directed to fully execute the funds appropriated in a timely manner and to keep the Committees on Appropriations of both Houses of Congress apprised of progress in implementing funded programs, projects, and activities.

Within available funds, the Committee recommends \$3,000,000 for the Energy Transitions Initiative [ETI] to address high energy costs, reliability, and inadequate infrastructure challenges faced by island and remote communities. The Committee supports ETI's efforts to develop a cross-sector initiative alongside community-based organizations pursuing energy transition efforts that will address energy challenges, build capacity, accelerate the sharing of best practices and innovations between similarly-situated regions, and leverage specialized, local expertise into commercial opportunity. The Committee directs the Department to continue to support community-based initiatives by partnering with community-based organizations, and leverage the Department's previously-developed tool to build cost effective, resilient energy infrastructure on island and remote communities, including in Alaska, Hawaii, New England, the Caribbean, and elsewhere.

Workforce Development.—The Committee believes there are significant clean energy challenges related to the inclusion of students from underserved institutions in the technology development programs within the Department's portfolio of manufacturing, solar, transportation and grid/energy storage. Clean energy programs can provide a much more inclusive talent pipeline. Accordingly, the Committee recommends \$5,000,000 to support an expansion of these efforts through a university which has existing partnerships with several Historically Black Colleges and Universities and Minority Serving Institutions, and participants in several Departmental applied energy research programs.

Further, the development of a skilled workforce is critical to the successful transition to a clean energy economy and deployment and long-term sustainability of energy efficient and renewable energy technologies. The Committee encourages EERE to support 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, with an emphasis on training programs focused on building retrofit and construction industries. Furthermore, the Committee encourages the Department to continue to work with two-year, public community, technical colleges, and non-governmental and industry consortia for job training programs, including programs focused on displaced fossil fuel workers, that lead to an industry-recognized credential in the energy workforce.

Renewable Energy Grid Integration.—To facilitate the oversight of grid integration activities among renewable energy technologies, the Committee recommends \$40,000,000 to be provided from across the Solar Energy, Wind Energy, Water Power, and Geothermal

Technologies programs. Further, within available funds, the Committee recommends \$10,000,000 for development and demonstration of an “energyshed” management system that addresses a discrete geographic area in which renewable sources currently provide a large portion of electric energy needs, where grid capacity constraints result in curtailment of renewable generation, and with interactive smart meters. The “energyshed” design should achieve a high level of integration, resilience and reliability among all energy uses, including both on-demand and long-time energy scales, transmission and distribution of electricity.

Polyethylene Plastics.—The Committee recommends up to \$5,000,000 for university-led research in order to increase recycling rates for polyethylene plastics and develop conversion of waste polyethylene to more recyclable and biodegradable plastics.

The Department is directed to provide to the Committee not later than 30 days after enactment of this act a briefing on the status of its decarbonization roadmaps in key technology areas to guide research and development at the Department to achieve significant, economical greenhouse gas emission reductions by 2050, including energy efficiency, process electrification, industrial electrification technologies, and carbon capture.

North American Energy Research.—Within available funds, the Committee recommends \$10,000,000 for a consortium of universities in the United States that has established agreements with universities in Canada and Mexico to conduct research on a broad array of energy sources and topics.

The Department is encouraged to solicit proposals to study the value potentially derived from construction of a large-scale pumped storage project of at least 750 MW capacity for grid stability, reliability, and resiliency of the bulk electric system, and for the integration of intermittent generation resources. Such a study is encouraged to include consideration of impacts on the markets and transmission grids operated by at least one Regional Transmission Organization or Independent System Operator within which the proposed project would be located.

SUSTAINABLE TRANSPORTATION

Within available funds, the Committee recommends not less than \$40,000,000 to continue the SuperTruck III program to further improve the energy and freight efficiency of heavy and medium duty long- and regional-haul vehicles.

Vehicle Technologies.—The Committee recommends \$553,114,000 for Vehicle Technologies. The Committee 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 the largest source of greenhouse gases.

Battery and Electrification Technologies.—The Committee recommends \$248,000,000 for Battery and Electrification Technologies. The Committee recognizes the increasing domestic manufacturing opportunities for electric battery production for vehicles. The Committee also encourages the Department to work to expand domestic manufacturing opportunities for electric vehicle batteries and to further address consumer barriers to adoption.

Within available funding, the Committee recommends not less than \$40,000,000 is provided for Electric Drive Research and not less than \$20,000,000 for the ReCell initiative to improve strategies to recycle and repurpose batteries, including for use on the electrical grid. The Committee also supports efforts to improve cost, performance and charging time of plug-in electric vehicles, as well as further research into reducing the size of vehicle batteries and reducing cobalt content. Within available funds, the Committee recommends not less than \$25,000,000 for the Vehicle Technologies Office to expand its partnership with the Advanced Manufacturing Office on efforts to scale up the domestic battery supply chain, including battery manufacturing demonstration projects.

The Committee directs the Department to continue to support the Clean Cities alternative fuels deployment program focused on vehicles that can deliver lower greenhouse gas emissions and meet customer needs, which can include vehicles powered by biofuels, electricity, hydrogen, natural gas, renewable natural gas, and propane. Within available funds, the recommendation provides not less than \$60,000,000 for deployment through the Clean Cities program, including not less than \$40,000,000 for competitive grants, to support alternative fuel, infrastructure, new mobility, and vehicle deployment activities. When issuing competitive grants in support of these activities, the Department is encouraged to include some awards that range from \$500,000 to \$1,000,000 each and encourage at least one Clean Cities coalition partner. The Committee encourages the Department 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 that can contribute the most greenhouse gases reduction. The Committee encourages the Department to work with the Department of Transportation and industry on coordinating efforts to deploy electric vehicle [EV] charging infrastructure. The Committee encourages the Department to explore ways in which the Clean Cities Program can leverage funding to provide greater support for electrification efforts, including in underserved communities, recognizing the strong emissions reduction and public health benefits delivered by electrification.

The Committee recommends \$10,000,000 to continue improving the energy efficiency of commercial off-road vehicles, including up to \$5,000,000 for fluid power systems. These funds shall be awarded through a competitive solicitation in which university and industry teams are eligible to apply.

The Committee recommends up to \$5,000,000 for research on direct injection, engine technology, and the use of dimethyl ether as fuel, and encourages continued research and development as appropriate in advanced combustion and vehicle engine technology efficiency in propane engines used for light and medium-duty applications.

The Committee recommends up to \$10,000,000 to address technical barriers to the increased use of natural gas vehicles for medium- and heavy-duty on-road natural gas engine research and development, including energy efficiency improvements, emission after-treatment technologies, fuel system enhancements, and new

engine development, natural gas storage, natural gas engines, and fueling infrastructure optimizations.

The Committee recognizes novel engine designs can achieve significant efficiency improvements and recommends within available funds up to \$10,000,000 to support research and development of two-stroke opposed-piston engines, to be conducted by industry-led teams.

The Committee recognizes the need for clarity regarding the availability, affordability, and reliability of direct current fast chargers for electric vehicles. Last year, the Committee directed the Department to produce a report, in partnership with the national laboratories, on the technologies and calculation methods that meet the tentative code for EV charger metering and testing published in the National Institute of Standards and Technology Handbook 44, Section 3.40. The Committee is still awaiting this report and directs the Department to provide the report and briefing to the Committee immediately after enactment of this act.

Bioenergy Technologies.—The Committee recommends \$284,500,000 for Bioenergy Technologies. The Committee encourages the Department to focus on defining and meeting technical targets that reduce cost of sustainable aviation fuels through the conversion of low-cost waste carbon as feedstocks. These efforts shall take into account relevant global supply chains and shall be coordinated with other Federal agencies, the aviation industry, National Labs, and universities.

Within available funds, the Committee recommends up to \$5,000,000 for continued support of the development and testing of new domestic manufactured low-emission, high-efficiency, residential wood heaters that supply easily accessed and affordable renewable energy and have the potential to reduce the national costs associated with thermal energy. Further, the Committee recommends \$3,000,000 for research at commercially-relevant processing scales into affordable wood chip fractionation technologies and other processing improvements relevant to thermal deoxygenation biorefineries in order to enable economic production of cellulose nanomaterials and economic upgrading of hemicelluloses and lignin. High-value coproducts made from nanocellulose, hemicelluloses, and lignin can improve the cost structure for biorefineries producing transportation fuels and thereby help the industry meet the Department's \$3 per gasoline gallon equivalent near-term price target and move quickly towards \$2 per gasoline gallon equivalent.

The Committee directs the Department to sustain the investment in the development of algal biofuels. Within available funds, the Committee recommends not less than \$40,000,000 for Advanced Algal Systems to sustain the investment in development of algal biofuels. The Committee recommends \$10,000,000 to continue research and development activities to support carbon dioxide capture from the atmosphere into highly alkaline solutions using algae-to-energy technologies. The program is directed to continue collaboration with the Office of Science and FECM in this area.

The Committee further recommends not less than \$100,000,000 for Conversion Technologies. Within available funds, the Committee recommends not less than \$30,000,000 for the Agile Bio-Foundry, including \$10,000,000 of additional funding to continue

developing methods and technologies to advance biological engineering, support expanded focus on Artificial Intelligence and Machine Learning and software development to improve the predictive design of organisms and pathways and to build tools accessible to the wider scientific community for the purchase of state-of-the-art technology instrumentation that will enable better and more expansive collaborations. Some portion of the additional funding shall be used to support Directed Funding Opportunities to meet the demand for collaboration by industry partners.

Further, within available funds for Conversion Technologies, the Committee recommends \$5,000,000 to demonstrate the use of and improve the efficiency of community-scale digesters with priority given for projects in States and Tribal areas that have adopted statutory requirements for the diversion of a high percentage of food material from municipal waste streams.

Within available funds, the Committee supports research to develop the foundation for scalable techniques to use carbon dioxide produced in various plants, such as in biorefineries, to produce higher value fuels, chemicals, or materials.

Hydrogen and Fuel Cell Technologies.—The Committee recommends \$200,000,000 for Hydrogen and Fuel Cell Technologies to maintain a diverse program which focuses on early-, mid-, and late-stage research and development and technology acceleration including market transformation. The Committee encourages regular consultation with industry to avoid duplication of private-sector activities and ensure retention of fuel cell technology and systems development in the United States.

The Committee recommends not less than \$100,000,000 for H2@Scale activities to support the development of hydrogen as a clean energy resource. Of this amount, the Committee recommends up to \$60,000,000 for technologies to advance hydrogen use for heavy-duty transportation and industrial applications. Hydrogen can be developed to serve a broad range of applications, including heavy-duty transportation and as a clean heat source for industry.

Within available funds, the Committee recommends not less than \$45,000,000 for Hydrogen Technologies for efforts to reduce the cost and improve the performance of hydrogen generation and storage systems, hydrogen measurement devices for fueling stations, hydrogen compressor components, and hydrogen station dispensing components. The Department shall continue research on novel onboard hydrogen tank systems, as well as trailer delivery systems to reduce cost of delivered hydrogen. Further, the Department is directed to support research and development activities that reduce the use of platinum group metals provide improvements in electrodes and membranes and balance-of-plant components and systems.

The Committee further recommends \$10,000,000 for Safety, Codes, and Standards to maintain a robust program and engage State and local regulatory and code officials to support their technical needs relative to infrastructure and vehicle safety. The Department is encouraged to engage on codes and standards for developing fuel cell and hydrogen markets, such as heavy-duty trucks. The Department is also encouraged to continue coordination between U.S. and international standard bodies to ensure there is

one set of open non-proprietary global standards for fuel cell and hydrogen technologies.

The Committee encourages the Secretary to work with the Secretary of Transportation and industry on coordinating efforts to deploy hydrogen fueling infrastructure.

RENEWABLE ENERGY

Solar Energy.—The Committee recommends \$300,000,000 for Solar Energy.

Within available funds, the Committee recommends not less than \$60,000,000 for Concentrating Solar Power research, development, and demonstration to reduce overall system costs, better integrate subsystem components, develop higher-temperature receivers, and improve the design of solar collection and thermal energy storage.

The Committee recommends not less than \$50,000,000 for Balance of System Soft Costs efforts focused on reducing the time and costs for permitting, inspecting, and interconnecting distributed solar and storage projects installed behind the customer's meter through standardized requirements, online application systems, and grant awards to localities which voluntarily adopt the Solar Automated Permit Processing platform. Within available funds for Balance of Systems Soft Costs, \$5,000,000 is for the National Community Solar Partnership program.

Within available funds, the Committee recommends a competitive solicitation for reequipping, expanding, or establishing advanced solar manufacturing facilities, including not less than \$25,000,000 for a competitive solicitation for advanced solar power demonstration projects, including perovskite and novel applications.

The Committee encourages the Department to expand work to lower barriers to solar adoption for low-income households, renters, multifamily homes, and racially diverse communities and recommends not less than \$20,000,000 for these activities. This includes exploring and providing resources on financing and business models that are well-suited to these households and communities.

The Committee directs the Department to advance demonstration, field testing, financing, and deployment of distributed solar and energy storage technologies for households and communities in Tribal nations that lack connection to the electric grid. The Solar Energy Technologies Office and OE are directed to collaborate on issuing these funds.

The Committee encourages the Department to continue work to improve co-siting of solar photovoltaics with ecosystem restoration activities and to reduce the environmental impact of solar photovoltaics.

The Committee also encourages the Department to develop programs that support a skilled, robust, and diverse solar energy workforce, including indirect solar workers in jobs related to financing and permitting.

Wind Energy.—The Committee recommends \$204,870,000 for Wind Energy.

The Department is directed to give priority to stewarding the assets and optimizing the operations of the Department-owned wind energy research and development facilities. Within available funds,

the Committee recommends not less than \$30,000,000 for the National Wind Technology Center, and up to \$5,000,000 for research and operations of the Integrated Energy System at Scale, a large-scale research platform using high-performance computing, modeling and simulation, including improved models that can be used to understand atmospheric and wind power plant flow physics, and reliability and grid integration efforts.

The Department is directed to support the advancement of innovative technologies for offshore wind development including fresh-water, deep water, shallow water, and transitional depth installations. Further, the Committee recommends not less than \$30,000,000 for the Department to prioritize early-stage research on materials and manufacturing methods and advanced components that will enable high quality wind resources 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. The Department is directed to provide to the Committees on Appropriations of both Houses of Congress not later than 180 days after the enactment of this act a report that outlines regional and national strategies to accelerate and maximize the effectiveness, reliability, and sustainability of U.S. offshore wind deployment and operation with partners from institutions of higher education, research institutions, national laboratories, the private sector, and state and local governments. The study shall address the need for expanded work in this area to potentially include an additional offshore wind consortium. In addition, the Department is directed to support innovative offshore wind demonstration projects to optimize their development, design, construction methods, testing plans, and economic value proposition. The Committee recommends not less than \$10,000,000 to support additional project development and pre-construction activities for offshore wind demonstration projects to help ensure success.

The Committee encourages the Department to prioritize distributed wind technologies that reduce costs and improve performance and to collaborate with industry to invest in the development and demonstration of technologies and practices that advance distributed wind. Within available funds, the Committee recommends \$10,000,000 for distributed wind.

Water Power.—The Committee recommends \$196,560,000 for Water Power.

The Department is encouraged to consider the use of existing authorities to waive cost share for water power technology research, development, demonstration, and deployment activities as appropriate.

The Committee recommends \$142,000,000 for marine energy. The Committee recommendation includes not less than \$60,000,000 for industry-led competitive solicitations to increase energy capture, improve reliability, and to assess and monitor environmental effects of marine energy systems and components at a variety of scales, including full scale prototypes. The Committee recommends not less than \$24,000,000 for the Powering the Blue Economy initiative.

Within available funds, the recommendation provides up to \$20,000,000 to address infrastructure needs at marine energy technology testing sites.

The Committee is concerned that a lack of dedicated funding within existing resources and uncertainty in frequency has a unique impact on university capacity to support needed foundational research and develop the skilled workforce to accelerate development of the marine energy sector. The recommendation provides up to \$24,000,000 for foundational research activities led by universities and other research institutions affiliated with the National Marine Energy Centers.

The Committee recommends up to \$10,000,000 to address technology testing infrastructure needs, including planning activities for the staged development of an ocean current test facility and upgrades to facilities that provide cost effective open water access for prototype testing.

The Committee recommends up to \$10,000,000 to continue development and construction of an open water, fully energetic, grid connected wave energy test facility, and up to \$8,000,000 for continuation of the Testing Expertise and Access for Marine Energy Research initiative. The Committee recommends the Department continue to coordinate with the U.S. Navy and other Federal agencies on marine energy technology development for national security and other applications. Within available funds, the Committee recommends not less than \$5,000,000 to continue operations at the Atlantic Marine Energy Center to accelerate the transition of wave and tidal energy technologies to market.

The Committee is aware of a growing interest from the private sector in advancing collaborative projects between recreational marine manufacturers and national laboratories to support next generation marine propulsion research, and encourages the Department to work with industry stakeholders to address funding barriers to manufacturers who wish to engage with the Department to advance the testing of alternative fuels, including carbon neutral sustainable biofuels.

The Committee recognizes the challenges of decarbonizing remote communities and the maritime sector. The Department is encouraged to continue to focus on activities addressing the integration of clean energy systems for remote communities and port electrification, including the demonstration of marine, distributed wind, solar, energy storage, improved microgrids, and local production of zero-carbon fuels.

Within available funds recommended, \$5,000,000 shall be used for the environmental analyses and engineering of potential run-of-river hydrokinetic facilities at two sites with high electricity costs and diesel use, as determined by the Secretary. Funding may be used for such related field work, engineering, and analysis necessary for a future FERC license.

Of the funds available for conventional hydropower and pumped storage activities, the Committee recommends \$10,000,000 for the purposes of section 242 and section 243 of the Energy Policy Act of 2005.

Geothermal Technologies.—The Committee recommends \$130,380,000 for Geothermal Technologies. The Department is di-

rected to focus on all stages of research and development, market transformation activities to advance geothermal strategies, and implementation of the recommendations outlined in the GeoVision study.

The Committee directs the Department to continue its efforts to identify and characterize geothermal resources in areas with no obvious surface expressions. Awards for geothermal exploration activities, including test drilling, shall recognize the diversity of geologic terrains, resource depths, and exploration costs across the United States.

The Committee recommends up to \$60,380,000 for enhanced geothermal system demonstrations and next-generation geothermal demonstration projects in diverse geographic areas. The Committee directs the Department to continue its efforts to identify prospective geothermal resources in areas with no obvious surface expressions.

ENERGY EFFICIENCY

Advanced Manufacturing.—The Committee recommends \$560,500,000 for Advanced Manufacturing.

The Committee recommends \$25,000,000 for the Manufacturing Demonstration Facility [MDF] and the Carbon Fiber Technology Facility. Within available funds for MDF, \$5,000,000 is provided for the development of processes for materials solutions.

The Committee recognizes the significant grid resilience benefits that distributed-scale highly-efficient natural gas engines can provide to the nation's electricity grid and notes the need for more aggressive Federal support for research and development of this promising technology. Therefore, the Committee recommends \$4,000,000 to be competitively awarded to industry to develop highly efficient natural gas engines to be used in electricity generation. Preference shall be given to projects that prioritize fast demand response and improved integration with building and institution-based microgrid systems, to further the resiliency of the nation's electrical grid.

The Committee recognizes the importance of developing recyclable wind turbine blades and directs the Department to support research and development in innovative approaches to enable manufacturing of wind turbine blades with novel thermoplastic resin systems to create brand new reversible and recyclable thermoplastic resins for future use in blade manufacturing. Within available funds, the Committee recommends \$5,000,000 for development of thermoplastic resin systems research.

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 also 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.

The Committee further directs the Department to collaborate with industry on the potential energy efficiency and energy security gains to be realized with district energy systems.

Within available funds, the Committee recommends up to \$20,000,000 for the Industrial Assessment Center [IAC] program. The Committee further directs the Department to apply the additional funding to support regions that are currently designated as underserved through the IAC program. Within the funds provided for the Industrial Assessment Centers, the Committee recommends up to \$4,000,000 for applied technical assistance and the purchase and pilot testing of innovative technology. This equipment and technical assistance shall be provided to municipal or industrial entities that face significant water treatment challenges and for which piloting such technology would be of significant benefit.

The Committee acknowledges the contributions of the Clean Energy Manufacturing Innovation Institutes [CEMIs] program as an important component of efforts to combat climate change by reducing carbon emissions from manufacturing, promoting recycling and conservation, and creating new companies and jobs for a greener economy. The Committee further believes that the continuation of Federal participation in the CEMI program is vital in order to maintain significant private investment and allow the Institutes to realize the goals for which they were established. Within available funds, the Committee encourages the Department to continue work of the CEMIs.

The Committee supports additive manufacturing technologies for wind energy applications. Within available funds, \$4,000,000 to support additive manufacturing work on large wind blades that will allow for rapid prototyping, tooling, fabrication, and testing; \$7,000,000 for additive manufacturing of wind turbine components; and \$18,000,000 for advanced wind turbine blade manufacturing research, including additive composite tip technology, automation, and sustainability.

The Committee recognizes the important role large-area additive manufacturing can play in helping to advance the deployment of building, transportation, and clean energy technologies. The Committee directs the Department to further foster the partnership between the national laboratories, universities, and industry to use bio-based thermoplastics composites, such as micro- and nanocellulosic materials, and large-area 3-D printing to overcome challenges to the cost and deployment of building, transportation, and energy technologies. In addition, the Committee recommends up to \$20,000,000 to continue the development of additive manufacturing involving nanocellulosic feedstock materials made from forest products to overcome challenges to the cost and deployment of building, transportation, and energy technologies, and encourages the Department to leverage expertise and capabilities for large-scale additive manufacturing through partnerships between universities and the MDF.

The Committee notes that drying processes consume approximately 10 percent of the process energy used in the manufacturing sector and directs that within available funds, up to \$10,000,000 is recommended to be used to issue a competitive solicitation for uni-

versity and industry-led teams to improve the efficiency of industrial drying processes.

The Committee recognizes that progress is occurring at the demonstration level of extracting lithium from geothermal brine to create lithium chloride, but further research and development is needed to convert the extracted lithium chloride into lithium hydroxide, one of the final components of lithium-ion batteries. The Committee recommends \$15,000,000 to continue technology development to convert lithium chloride from geothermal brine into lithium hydroxide that will inform the design of a commercial-scale facility that will both extract lithium from geothermal brine and convert the lithium in geothermal brine into the lithium hydroxide.

The Committee recognizes the growing need for the use of more sustainable chemistry in consumer and commercial products, which can create significant value as an economic opportunity for U.S. manufacturing. The Committee recommends \$5,000,000 to support sustainable chemistry research and development. The fiscal year 2021 Act directed the Department to provide a report exploring how incorporating sustainable chemistry in consumer and commercial manufacturing processes fits within its research and development portfolio and can benefit these processes. The Committee is still awaiting this report and directs the Department to provide the report to the Committee not less than 30 days after enactment of this act.

The Committee recommends \$5,000,000 to continue to develop and industrialize a low-cost polymer infiltration process for the fabrication of silicon carbide components. The Committee recognizes the Department's expertise in developing materials and processes for very high temperature applications. Silicon carbide ceramic matrix composites are a proven, capable material for high temperature applications.

The Committee recommends not less than \$5,000,000 to apply the Department the Office of Science's leadership computing facility expertise in machine learning to increase efficiencies in large scale, high rate, aerospace structures manufacturing. The Department is encouraged to leverage best practices from large-scale, high-rate commercial composite aerospace structure manufacturing.

BUILDING TECHNOLOGIES

The Committee recommends \$382,000,000 for Building Technologies.

Across all of these efforts, where appropriate, the Buildings Technologies Office is encouraged to collaborate with OE and CESER, especially including efforts pertaining to improved building-to-grid interactions and integration of energy storage and renewable energy. Within available funds for Emerging Technologies, the Committee encourages the Department to make funding available for Heating, Ventilation, and Air Conditioning [HVAC] and Refrigeration Research, Development and deployment, including heat pumps, heat pump water heaters and boilers. The Department shall focus its efforts to address whole building energy performance and cost issues to inform efforts to advance beneficial electrification and greenhouse gas mitigation without compromising building energy performance. The Committee encourages the Department to

develop strategies and activities to increase adoption of energy-saving and emissions-saving technologies for low-income households, multi-family buildings, and minority communities.

Within the amounts provided for the Building Technologies Office, the recommendation includes not less than \$50,000,000 for advanced HVAC and dehumidification manufacturing scale-up projects.

Equipment and Building Standards.—The Committee recommends \$62,000,000 for Equipment and Buildings Standards.

The Committee recommends \$20,000,000 for the Building Energy Codes Program to increase training, including certifications, and provide technical assistance to states, local governments, regional collaboratives, workforce development providers, homebuilders, office builders, architects and engineers, and other organizations that develop, adopt, or assist with the adoption or compliance with model building energy codes and standards to improve energy efficiency and resilience.

The Committee supports continued research to quantify the resilience impacts of energy codes for buildings, occupants, and communities. Recognizing that the pandemic has presented challenges to permit processing for building departments reliant on paper-based systems, the Committee encourages the development of cloud-based software that can facilitate permit processing for projects that conserve energy or promote resilience as well as efforts to help departments modernize systems.

The Committee directs EERE to carry out the Grid-interactive Efficient Buildings [GEB] program to ensure that a high level of energy efficiency is a core element of the program and a baseline characteristic for GEBs, which are also connected, smart, and flexible. EERE shall engage with the public and private sectors, including the building and manufacturing industries and state and local governments, to share information on GEB technologies, costs, and benefits, and to provide information to position American companies to lead in this area. In addition, EERE is reminded to follow the National Technology Transfer and Advancement Act and related guidance in testing and applying relevant existing and emerging standards developed by non-governmental organizations.

Within available funds, the Committee recommends \$72,000,000 for the Residential Building Integration program. The Committee recommends this increase to advance building upgrades and weatherization of homes, as well as to advance work in grid-integrated efficient buildings and inclusion of smart grid systems, demand flexibility and new initiatives in workforce training to ensure the technology and research findings reach practitioners. The Committee encourages funding to be concentrated on industry teams to facilitate research, demonstrate and test new systems, and facilitate widespread deployment and dissemination of information and best practices through direct engagement with builders, the construction trades, equipment manufacturers, smart grid technology and systems suppliers, integrators, and state and local governments and other market transformation activities. Further, the Committee recommends funding to facilitate deep whole-house energy efficiency retrofits, including outreach, engagement and training to private sector contractors, including continuing efforts to ad-

vance smart home technology. The Committee supports continued efforts to address property rating and valuation in commercial and residential buildings as a way to improve the transparency of energy utilization in buildings for persons and companies buying or leasing property.

The Committee encourages the Department to continue to explore research and development that can advance future natural gas and propane gas systems and appliances to meet consumer demand for high efficiency and environmentally friendly products. The Committee recommends continued research, development, and market transformation programs on energy efficiency efforts related to the direct use of natural gas and propane gas in residential applications, including gas heat pump heating with power generation and water heating, on-site combined heat and power, and gas appliance venting, and on site (micro) combined heat and power to include cooling integration with renewables.

Within available funds, the Committee recommends \$74,000,000 for the Commercial Building Integration program for core research and development of more cost-effective integration techniques and technologies that could help the transition toward deep retrofits. In addition, the Committee encourages the Department to increase engagement with private sector stakeholders to develop market-transforming policies and investments in commercial building retrofits.

The Department is encouraged to prioritize understanding of regional differences in energy systems and their impact on adoption of transactive energy technologies. The recommendation provides not less than \$30,000,000 for Buildings-to-Grid integration research and development consistent with a transactive energy system and in coordination with the OE transactive energy systems program.

The Committee notes that the Department has missed over 30 legal deadlines related to energy efficiency standards mandated by Congress. The Committee understands that the Department is working to complete these rulemakings expeditiously and directs the Department to finalize these standards as soon as practicable. The Committee directs the Department to report within 30 days of enactment of this act on the status of each of these standards, and any funding or staffing barriers to finalizing these standards.

FEDERAL ENERGY MANAGEMENT PROGRAM

The Committee recommends \$60,000,000 for the Federal Energy Management Program. The recommendation provides not less than \$20,000,000 for the Department to continue its work through the Assisting Federal Facilities with Energy Conservation Technologies program.

The recommendation provides not less than \$2,000,000 for work force development and the Performance Based Contract National Resource Initiative. The fiscal year 2020 Act directed the Department to provide a report that outlines the types of technical and financial expertise the Department is suited to provide and includes an analysis of the available infrastructure work that can be accomplished through performance-based contracts over a 10-year period and the resources necessary to achieve this goal. The Com-

mittee is still awaiting this report and directs the Department to provide this report not later than 15 days after enactment of this act.

The Committee directs the Secretary to establish an improved process to assist in guiding infrastructure investments through energy performance contracts management, including, but not limited to Energy Savings Performance Contracts and Utility Energy Savings Contracts, in order to effectively and efficiently reduce energy costs, reduce greenhouse gas emissions, and improve facilities. The Committee directs the Secretary to ensure the availability of sufficient acquisition FTEs to address energy saving measures, as well as to streamline and find efficiencies in the approval of projects to continue to provide climate, resilience, and economic benefits. The Committee encourages the Secretary to leverage energy savings performance contracts so capital improvement projects involving energy systems, energy controls, and building envelopes awarded in fiscal year 2022 ensure maximum return on investment to the taxpayer.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAM

The Committee recommends \$508,000,000 for the Weatherization and Intergovernmental Program.

Within this amount, \$398,000,000 is recommended for Weatherization, including \$375,000,000 for the Weatherization Assistance Program [WAP] and \$8,000,000 for Training and Technical Assistance. The Committee recommends \$70,000,000 for State Energy Program [SEP] grants. The Committee encourages the Department to work with all relevant stakeholders to identify efficiencies for delivering weatherization services and examine options to streamline policies and procedures when other funding sources are utilized in conjunction with funds from the Department.

The Committee supports WAP's continued participation in the interagency working group on Healthy Homes and Energy with the Department of Housing and Urban Development. The Department is encouraged to further coordinate with the Office of Lead Hazard Control and Healthy Homes on energy-related housing projects. The Committee encourages the Department to begin tracking the occurrence of window replacements, which supports the reduction of lead-based paint hazards in homes.

The Committee recognizes the importance of providing Federal funds under the Weatherization and Intergovernmental Program to States and Tribes in a timely manner 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 recommended for WAP and the SEP shall be obligated to States, Tribes, and other direct grantees not later than 60 days after enactment of this act. The Committee is concerned with the reduction of mission-critical staff at the Office of Weatherization and Intergovernmental Programs and directs the office to achieve staffing levels that will allow it to provide robust training, technical assistance, and oversight for WAP and SEP.

Within available funds, the Committee recommends that \$1,000,000 be made available to WAP grant recipients that have

previously worked with the Department via the Weatherization Innovation Pilot Program, for the purpose of developing and implementing state and regional programs to treat harmful substances, including vermiculite.

Weatherization Readiness Fund.—The Committee supports the creation of a new Weatherization Readiness Fund to enable more low-income households to receive WAP support by providing funds to address structural and health and safety issues to reduce the frequency of deferred homes that are not weatherization ready when WAP work crews enter the home to perform retrofit services.

Local Government Clean Energy Workforce Program.—The Committee supports the Local Government Clean Energy Workforce Program to provide competitive awards, on-site capacity, peer exchanges, and technical assistance to support the development and deployment of transformative clean energy programs that create good paying jobs working with qualifying local governments and Tribal Nations, with a focus on energy communities and disadvantaged or small-to-medium jurisdictions.

The Department is encouraged to consider projects that implement best practices to advance energy efficiency adoption, building and vehicle electrification, grid modernization, distributed electricity generation, and workforce development at the local level. These activities shall include work with and support for organizations that convene and support municipal governments.

CORPORATE SUPPORT

Strategic Programs.—The Committee recommends \$20,000,000 for Strategic Programs.

Facilities and Infrastructure.—The Committee recommends \$8,000,000 for the Energy Materials and Processing at Scale research capability at the National Renewable Energy Laboratory.

Congressionally Directed Spending.—The Committee recommends \$77,047,000 for the following list of projects that provide for research, development, and demonstration for Energy Efficiency and Renewable Energy activities or programs. The Committee reminds recipients that statutory cost sharing requirements may apply to these projects.

ENERGY EFFICIENCY AND RENEWABLE ENERGY

[In thousands of dollars]

Project Name	Recommendation
Accelerating Heat Pump Adoption by Lower-Income Households, AK	420
Asia-Pacific Microgrid Development and Training, HI	1,000
Blue Earth County's Energy Efficiency Project, MN	4,330
Built to Last Pilot Project, PA	2,100
Chicago Clean Energy Retrofits Program, IL	500
Cogency Power Solar Project, CO	5,000
Community Ductless Heat Pump Co-Op, OR	301
Community of Hope Solar Parking Structure, NM	200
Cully Community Solar Pilot, OR	344
Derry Landfill Solar Project, NH	500
Detroit/Wayne County Port Authority Hydrokinetic Energy Project, MI	680
Development of an Electric Vehicle Associate's Degree Curriculum Standards and Educational Materials for Automotive Educators and Technicians Nationwide, WV	1,000
District Energy Construction, VT	5,166
DWCPA Solar Energy Project, MI	200

ENERGY EFFICIENCY AND RENEWABLE ENERGY—Continued

[In thousands of dollars]

Project Name	Recommendation
Electric Future for America's Rural Mobility Stakeholders (E-FARMS), OR	1,500
Electrical Substation for Garrison Oak Business and Technology Park, DE	5,000
Energy Improvements for Rhode Island Schools, RI	5,000
Enhanced Biogas Collection and Energy Recovery Project, RI	2,900
Evanston Accessible Solar Program, IL	500
Expanding Solar Research and Generation for a Brighter Energy Future, VT	150
Fuel for Seniors: Energy Efficiency, CT	288
Grid Resilience and Equity in the Energy Transition, MA	995
Hanover LED Streetlight Conversion, NH	271
Heartland Green Energy and Manufacturing Valley Initiative, OH	500
Heat Recovery System, AK	659
Hybrid Solar Testing Platform for Cold Weather Climates, VT	4,000
Kauai North Shore Energy Resiliency Project, HI	1,000
Kivalina Biomass Reactor, AK	100
Klucitkat Valley Health Central Utility Plant Modernization, WA	2,500
Makushin Geothermal Project, AK	2,500
Marquette Affordable Solar Clean Energy Planning Grant, MI	100
Microgrid Integration with Biomass Gasification as a Pathway to Hydrogen Production, NY	1,000
Municipal Building Upgrades, NY	303
New Jersey Green Hydrogen Demonstration Project, NJ	3,840
Newport Town Office Energy Improvements, NH	250
Northeast Kingdom Home Weatherization, VT	500
Off-Grid residential solar project on the Navajo Nation, NM	1,000
Overland Industrial park Solar Community Project, OH	1,500
Oyster River Resiliency Project, NH	1,150
Reducing Inequity in Access to Solar Power, DE	2,000
Rio Arriba County Energy Efficient Vehicle & Solar Charging Stations, NM	1,000
Salisbury Square Redevelopment: Achieving Home Affordability and Energy Resilience via a Microgrid, VT ...	750
San Juan College Clean Hydrogen Workforce Development Program, NM	500
San Juan College Electric Vehicle Technician Certification Program, NM	50
Solar Testbed, WV	1,900
Sustainable Energy in Schools and Public Buildings, VT	1,000
Tacoma Public Utilities EV charging program, WA	1,000
Thermal Energy Storage to Support Renewable Energy Deployment, VT	5,000
Twin Lakes Reservoir Floating Solar Study, OH	500
Updated Renewable Energy Development Feasibility Study by the Pueblo of Zia, NM	250
Utility Upgrades for the Bedford Landfill Solar Project, NH	500
Vermont Electrification and Clean Energy Deployment, VT	1,000
WMU Center for Interdisciplinary Research on Secure, Efficient and Sustainable Energy Technology, MI	350
Wood-fiber Insulated Panels for Modular Construction and Retrofit Applications/Energy Efficient Community Cross-Laminated Timber Demonstration Project, ME	2,000

CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE

Appropriations, 2021	\$156,000,000
Budget estimate, 2022	201,000,000
Committee recommendation	177,000,000

The Committee recommends \$177,000,000 for the Office of Cybersecurity, Energy Security, and Emergency Response. Within available funds, the Committee recommends \$14,000,000 for program direction.

Additional direction related to Department-wide crosscutting initiatives is provided under the heading Crosscutting Initiatives in the front matter of the Department of Energy.

CESER was established in 2018 to protect the U.S. from emerging cyber threats and improve our energy security and infrastructure. To date, the program has received \$461,000,000 in annual appropriations and undergone several internal reorganizations. In 2019, the Inspector General Office was notified about several com-

plaints about lack of internal control policies and allegations about improper use of funds. The Committee is alarmed about the Inspector General's findings and directs CESER to follow through with addressing their recommendations expeditiously. Further, the Committee is concerned about the longstanding lack of clarity on the Department's cyber research and development responsibilities and directs CESER to coordinate with the OE and relevant applied energy offices in clearly defining these program activities. Finally, the Department is directed to include an itemization of funding levels below the control point in future budget submissions and provide the Committee quarterly updates on the requests outlined above.

Risk Management Technology and Tools.—The Committee recommends \$112,000,000 for Risk Management Technology Tools. Within available funds, the Committee recommends \$5,000,000 for Consequence-driven Cyber-informed Engineering. Within available funding, the Committee recommends research funds for universities to develop scalable cyber-physical platforms for resilient and secure electric power systems that are flexible, modular, self-healing, and autonomous. This activity shall be conducted in coordination with OE. The recommendation provides not less than \$5,000,000 to conduct a demonstration program of innovative technologies, such as technologies for monitoring vegetation management to improve grid resiliency from wildfires. 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 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. The Committee supports Departmental initiatives focused on cybersecurity risk information-sharing and secure data anonymization and analysis for both operational and information technology components of equipment commonly utilized in both the bulk power system and distribution systems. The Department is encouraged to prioritize enrolling under-resourced electric utilities in such programs, particularly rural electric cooperatives and municipally-owned entities.

Response and Restoration.—The Committee recommends \$23,000,000 for Response and Restoration. The Committee places a high priority on ensuring the protection of the electric grid against cyberattacks and extreme weather events. The Response and Restoration program coordinates a national effort to secure the U.S. energy infrastructure against all hazards, reduce impacts from disruptive events, and assist industry with restoration efforts. The program delivers a range of capabilities including energy sector emergency response and recovery, including emergency response of a cyber nature; near-real-time situational awareness and information sharing about the status of the energy systems to improve risk management; and analysis of evolving threats and hazards to energy infrastructure.

Information Sharing, Partnerships, and Exercises.—The Information Sharing, Partnerships, and Exercises program supports energy sector security and resilience through coordination with government and industry partners. This program provides technical as-

sistance that incorporates exercises to strengthen Federal, regional, state, tribal, and territorial abilities to work together to prepare for and mitigate the effects of an energy sector emergency and focuses on training the next generation workforce on energy sector risks.

Congressionally Directed Spending.—The Committee recommends \$5,000,000 for the following list of projects that provide for research, development, and demonstration for CESER activities or programs. The Committee reminds recipients that statutory cost sharing requirements may apply to these projects.

CONGRESSIONALLY DIRECTED SPENDING FOR CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE PROJECTS

[In thousands of dollars]

Project Name	Recommendation
Emerging Threat Information Sharing and Analysis Center, University of Arkansas Little Rock, AR	1,000
Oakland University Cybersecurity Center, MI	2,000
Virtual Cybersecurity Training Simulator, MA	2,000

ELECTRICITY

Appropriations, 2021	\$211,720,000
Budget estimate, 2022	327,000,000
Committee recommendation	303,000,000

The Committee recommends \$303,000,000 for the Office of Electricity. Within available funds, the Committee recommends \$20,000,000 for program direction.

The Department is directed to include an itemization of funding levels below the control point in future budget submissions. Additional direction related to Department-wide crosscutting initiatives is provided under the heading Crosscutting Initiatives in the front matter of the Department of Energy.

TRANSMISSION RELIABILITY AND RESILIENCE

The Committee recommends \$30,000,000 for Transmission Reliability and Resilience.

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.

In fiscal year 2021, Congress directed the Department to conduct a case study on regional, wide-spread deployment of dynamic line rating technologies to assess the potential benefits and costs. The Committee is still awaiting this case study and directs the Department to provide the report immediately.

In fiscal year 2021, Congress directed the Department to provide a report on ways to maximize utilization of the existing electricity delivery system by enabling dynamic line ratings, dynamically controlling the flow of electricity, and optimizing electricity delivery system topology. The Committee is still awaiting this report and directs the Department to provide the report immediately.

In fiscal year 2021, Congress directed the Department to provide a report summarizing the results of a 12-month non-contact sensor monitoring study. The Committee is still awaiting this report and directs the Department to provide the report immediately.

The Committee encourages the Department to prioritize funding to incorporate and expand big data analytics capabilities into the pre-operational development, assessment, and demonstration of transmission system situational awareness technologies.

ENERGY DELIVERY GRID OPERATIONS TECHNOLOGY

Within available funds, the Committee recommends \$5,000,000 to support research on Silicon Carbide semiconductors.

Within available funds, the Committee recommends \$10,000,000 for the DarkNet project to explore opportunities for getting the nation's critical infrastructure off the Internet and shielding the nation's electricity infrastructure from disruptive cyber penetration, including expansion of the communications network architecture and development of cutting-edge networking technologies.

RESILIENT DISTRIBUTION SYSTEMS

The Committee recommends \$50,000,000 for Resilient Distribution Systems.

The Committee directs that funds recommended for OE 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 directs the Department to 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.

Within available funds, the Committee directs the Department to continue efforts to support the integration of sensors into the nation's electric distribution systems, fundamental research and field validation of microgrid controllers and systems, and transactive energy concepts, including studies and evaluations of energy usage behavior in response to price signals. The Committee places a high priority on addressing the challenges facing the electric power grid by developing the innovative technologies, tools, and techniques to modernize the distribution portion of the electricity delivery system. Resilient Distribution Systems pursue strategic investments to improve reliability, resilience, outage, recovery, and operational efficiency, building upon previous and ongoing grid modernization efforts. In addition to emerging fuel technologies for distributed grids, the Committee directs that fuels commonly available across the United States, such as propane and other diesel alternatives, be evaluated.

The recommendation provides not less than \$10,000,000 for demonstration projects with the Grid Sensors and Sensor Analytics program. The demonstration activities may focus on utilizing data from advanced sensors that are deployed on existing transmission and distribution lines to predict or detect vegetation contact to mitigate wildfires and wildfire impacts. Further, the demonstration activities may focus on measuring the condition of utility poles in

terms of their position, impacts, the presence of high temperatures, and measuring the condition of conductors at the attachment points to utility poles in terms of their position and impacts. Data from the sensors shall be utilized to provide useful and immediate analytics to improve the safety of the general public and improve electrical distribution network performance indices. The demonstration activities may also include a focus on utilizing data from distribution utilities that have deployed advanced metering infrastructure.

Within available funds, the Committee recommends up to \$10,000,000 for coordinated research and development of microgrid-related technologies, with a focus on underserved and Indigenous communities. The research shall focus on development and deployment of advanced microgrid-enabling technologies, including renewable generation and storage systems, multi-nodal small-scale high-voltage direct current, advanced demand-side management strategies, and microgrid control systems. The research will aim to provide replicable microgrid solutions to address the broad array of challenges facing underserved and Indigenous communities in remote and islanded regions throughout the United States.

ENERGY STORAGE

The Committee recommends \$139,000,000 for Energy Storage, including \$47,000,000 for the Grid Storage Launchpad.

The Committee urges the Department to continue furthering coordination between OE, the Office of Science, EERE and other Department offices to achieve commercially viable grid-scale storage with the most efficient use of taxpayer dollars.

The recommendation provides not less than \$20,000,000 for a competitive pilot demonstration grant program, as authorized in section 3201 of the Energy Act of 2020, for energy storage projects that are wholly U.S.-made, sourced, and supplied. The Department is directed to include large scale commercial development and deployment of long cycle life, lithium-grid scale batteries and their components.

The Committee encourages the Department to allocate resources to provide training and technical assistance to firefighters and code inspectors on battery storage, such as through scenario-based in-person or online training.

To continue and further advance the development and demonstration of grid-scale battery energy storage projects with the funds provided, the Committee directs the Secretary to provide \$5,000,000 to continue a battery storage demonstration project that is located in areas where grid capacity constraints result in curtailment of renewable generation; improve grid resilience for a public utility that is regularly affected by weather-related natural disasters; and provide rate reduction and renewable energy benefits to businesses, farms, and residents in an economically-stressed rural areas. Direct storage from solar generation may also be incorporated.

CYBER R&D

Within available funds, the Committee recommends \$5,000,000 for university-based research and development of scalable cyber-

physical platforms for hyper-resilient and secure electric power systems that are flexible, modular, self-healing, and autonomous. This activity shall be conducted in coordination with CESER.

TRANSFORMER RESILIENCE AND ADVANCED COMPONENTS

The Committee recommends \$10,000,000 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 electronics to control electromagnetic devices and enable improved controllability, flexibility, and resiliency.

The recommendation provides up to \$2,500,000 to further assess composite utility poles in controlled and field tests. In fiscal year 2021, Congress directed the Department to submit to the Committee a report that assesses the performance of composite poles. The Committee is still awaiting this report and directs the Department to provide the report immediately.

Within available funds, the Department is encouraged 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 electronics to control electromagnetic devices and enable improved controllability, flexibility, and resiliency. Because there are limited viable alternatives to Sulfur Hexafluoride [SF6] in power generation and transmission equipment above 72kV, the Department is encouraged to support research and development to advance safe and effective capture and reuse technologies for the use of SF6 in components like circuit breakers. Below 72kV power generation and distribution equipment is fully capable of being designed and manufactured without SF6 therefore, the Department is directed to support research and development to advance safe and effective alternatives to SF6, including in circuit breakers, reclosers, sectionalizers, load break switches, switchgear and gas insulated lines.

TRANSMISSION PERMITTING AND TECHNICAL ASSISTANCE

Within available funds, the Committee directs OE to collaborate with and provide technical assistance to interested states to ensure state energy officials and state regulatory officials have access to grid, economic, and emissions modeling related to multi-state wholesale market design. In addition, states shall be provided market governance, planning and policy, and regulatory development assistance related to the formation, expansion, or improvement of regional transmission organizations. The Committee believes this effort should include studying the benefits of interstate sharing of electric resources to provide reliable and affordable service, planning for significant additions of new variable electric resources, major new grid demands presented by state or Federal electrification and climate policies, and considering system and fuel interdependencies that create emergency conditions during extreme weather events.

Congressionally Directed Spending.—The Committee recommends \$2,850,000 for the following list of projects that provide for research, development, and demonstration for Electricity activities or programs. The Committee reminds recipients that statutory cost sharing requirements may apply to these projects.

CONGRESSIONALLY DIRECTED SPENDING FOR ELECTRICITY PROJECTS
 [In thousands of dollars]

Project Name	Recommendation
Cuyahoga County Utility Microgrid Design Project, OH	300
Electrical transmission and distribution infrastructure for PUD No 1 of Lewis County, WA	2,500
Village of Old Brookville Village Hall expansion: 52 kW standby backup generator, NY	50

NUCLEAR ENERGY

Appropriations, 2021	\$1,507,600,000
Budget estimate, 2022	1,850,500,000
Committee recommendation	1,590,800,000

The Committee recommends \$1,590,800,000 for Nuclear Energy. Within available funds, the Committee recommends \$85,000,000 for program direction. The Committee’s recommendation prioritizes funding for programs, projects, and activities that will ensure a strong future for nuclear power in the United States.

Nuclear Energy provides nearly one-fifth of our Nation’s electricity, and nearly 60 percent of our carbon free electricity. Advanced nuclear technologies hold promising potential for reliable, safe, emission-free energy. The Department is encouraged to prioritize funds for public-private partnerships to demonstrate advanced reactor designs and fuel types by the late 2020s, including through the Advanced Reactor Demonstration and Accident Tolerant Fuels Programs.

While the Committee supports nuclear energy research and development, it recognizes that the accumulation of spent nuclear fuel presents a challenge to communities accepting new plants. The Committee also 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 supports continued funding for consolidation of spent nuclear fuel from around the United States to one or more interim central storage facilities.

Nuclear Energy University Program [NEUP].—Since 2009, the Department has allocated up to 20 percent of funds appropriated to Nuclear Energy Research and Development programs to fund university-led R&D and university infrastructure projects through an open, competitive solicitation process using formally certified peer reviewers. The Committee is concerned that the requirements in section 954(a)(6) of the Energy Policy Act of 2005, as amended, are unnecessarily constraining the implementation of the budget that develops advanced nuclear fuels and technologies. The Department is directed to provide to the Committee, not later than 180 days after enactment of this act, a plan to address these concerns, as well as an implementation plan for improvements recommended by the Nuclear Engineering Department Heads Organization. Further, the Department is directed to provide to the Committee quar-

terly briefings on the status of NEUP and the university work being funded.

Integrated University Program.—The Committee recommends \$6,000,000 for the Integrated University Program. The Committee notes the importance of this program in developing highly qualified nuclear specialists to meet national needs.

NUCLEAR ENERGY ENABLING TECHNOLOGY

The Committee recommends \$100,000,000 for Nuclear Energy Enabling Technology.

Within Nuclear Energy Enabling Technology, the Committee recommends an additional \$3,000,000 to complete the preliminary engineering and design of a secure, separate, and shielded beamline at the NSLS II at Brookhaven National Laboratory to examine radioactive materials. Currently, there is no U.S. facility dedicated to the study of radioactive materials with the high spatial and temporal resolution, superb chemical sensitivity, and unique capabilities offered by the NSLS II. This beamline shall complement and be compatible with irradiation tests and infrastructure for materials characterization and sample preparation at Idaho National Laboratory [INL]. In conjunction with the infrastructure and capabilities at INL, the information on materials in radiation environments derived from this beamline will be used to improve the reliability, sustain the safety, extend the life of current reactors, and support development of new advanced reactors.

The Committee recommendation provides \$10,000,000 for integrated energy systems.

Joint Modeling and Simulation Program.—The Committee understands the importance of modeling and simulation for nuclear energy applications, and recommends \$30,000,000 for the Joint Modeling and Simulation Program. Use and application of the codes and tools shall be funded by the end user, not by the Joint Modeling and Simulation Program.

New Materials Development.—The Committee recommends \$5,000,000 for the New Materials Development program, a new program to strengthen the pipeline of new materials that can make the current fleet, as well as new advanced reactors, more resilient and economically competitive.

FUEL CYCLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$288,650,000 for Fuel Cycle Research, Development, and Demonstration.

To support availability of high-assay low-enriched uranium [HALEU] and other advanced nuclear fuels, consistent with section 2001 of the Energy Act of 2020, the recommendation includes \$47,000,000, including \$2,000,000 for Mining, Shipping, and Transportation; \$25,000,000 for Advanced Nuclear Fuel Availability; and not less than \$20,000,000 within Material Recovery and Waste Form Development.

Advanced Nuclear Fuel Availability.—The Committee supports establishment of an Advanced Nuclear Fuel Availability program to make available small quantities of HALEU in the short term and supports the transition of these activities to the private sector for

commercial HALEU production and domestic supply chain capabilities for the long term.

The fiscal year 2020 Act directed the Department to provide an evaluation on the anticipated demand for HALEU, the timing of that demand, and options for meeting that demand. The Committee is still awaiting this report. Section 2001(b)(2) of the Energy Act of 2020 requires the Department to submit to Congress a report on a program to support the availability of HALEU for civilian domestic demonstration and commercial use. The Department is directed to submit these reports to the Committee not later than 30 days after enactment of this act and not less than 60 days prior to the obligation of more than 75 percent of these funds. The Department is encouraged to disburse these funds on a competitive basis as the Department progresses its Advanced Nuclear Fuels Availability program. Further, the Committee encourages the Department to ensure that all federally-funded transfers and shipments of uranium hexafluoride and depleted uranium hexafluoride, shall to the extent practicable, use American manufactured shipping cylinders and transportation casks.

Material Recovery and Waste Form Development.—The Committee recommends \$20,000,000 for Material Recovery and Waste Form Development, including \$10,000,000 to continue work on the ZIRCEX process to recover Highly Enriched Uranium from used naval fuel or unirradiated research reactor fuel.

Accident Tolerant Fuels.—The Committee recommends \$110,150,000 for development of nuclear fuels with enhanced accident-tolerant characteristics to significantly mitigate the potential consequences of a nuclear accident. The Committee continues to place a high priority on this program and urges the Department to maintain focus and priority on achieving results in these efforts. The recommendation provides not less than \$10,000,000 for further development of silicon carbide ceramic matrix composite fuel cladding for light water reactors. The Committee also remains concerned that funding for the industry-led portions of the Accident Tolerant Fuels program, and for the testing and development of higher-enriched and higher-burnup fuels, is not being obligated by the Department in a timely manner. The Department is directed to brief its plan to allocate and obligate funds required in this act and any negative schedule impacts caused by the delays in allocating or obligating funding.

TRISO Fuel and Graphite Qualification.—Within the funds recommended for Tristructural Isotropic [TRISO] fuels, \$10,000,000 is recommended to continue the transition of TRISO fuel to a multiple-producer market, ensuring that more than one industry source would be available to the commercial and government markets.

REACTOR CONCEPTS RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$232,000,000 for Reactor Concepts Research, Development, and Demonstration.

Advanced Small Modular Reactor Research, Development, and Demonstration.—The Committee recommends \$140,000,000 for ongoing work to support regulatory development, design, and deployment activities.

Advanced Reactor Technologies.—The Committee recommends up to \$5,000,000 for continued work on Supercritical Transformational Electric Power Research and Development. The Committee supports the collaboration between the national laboratories and industry partners to develop and validate sCO₂ power conversion, specifically for modular micronuclear reactors by spring of 2023. This work will continue to be coordinated with FECM.

The Committee recommends \$22,000,000 for MW-scale reactor research and development, including \$9,000,000 for MARVEL. The Department is encouraged to move expeditiously on the solicitation and award of these funds and to streamline its procurement process to ensure implementation is not delayed. The fiscal year 2021 Act directed the Department to submit a report outlining a strategy for siting a microreactor at an institution of higher education with existing infrastructure to support the reactor siting, perform fundamental research, test enabling technologies and cyber security solutions for grid integration, train the future workforce, and de-risk deployment for future private sector applications. The Committee is still awaiting this case study and directs the Department to provide the report immediately.

Advanced Reactor Concepts Industry Awards.—The Advanced Reactor Concepts [ARC] program provided a platform to support innovative advanced reactor designs. With the award of funds by the Department for its comprehensive Advanced Reactor Demonstration program, ARC funding has become duplicative. Therefore, no funds are provided for awards under ARC.

Light Water Reactor Sustainability.—The Committee recommends \$45,000,000 for Light Water Reactor Sustainability. 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. The Committee encourages the Department to maximize benefits of the operating light water reactor fleet under the program.

ADVANCED REACTOR DEMONSTRATION PROGRAM

The Committee recommends \$370,350,000 for the Advanced Reactor Demonstration Program to demonstrate multiple advanced reactor designs.

The primary goal of this program is to focus government and industry resources on actual construction of real demonstration reactors that are safe and affordable to build and operate in the near and mid-term. The Committee continues to believe that the only way the United States will regain its leadership in nuclear energy is to begin to deploy advanced reactors. The Department is directed to continue to ensure the program moves forward expeditiously and within original scope and budget. The Department is directed to continue to focus resources on partners capable of project delivery in the next five to seven years. The Committee encourages the Department to consider including the Milestone-Based Demonstration Projects approach, as authorized in section 9005 of the Energy Act of 2020, for existing ARDP awards.

INFRASTRUCTURE

INL Facilities Operations and Maintenance.—The recommendation provides \$290,000,000 for INL Facilities Operations and Maintenance to support the reliability and sustainability of the Materials and Fuels Complex and the Advanced Test Reactor.

ORNL Facilities Operations and Maintenance.—The Committee recommends \$19,000,000 for the continued safe operations and maintenance of Oak Ridge National Laboratory’s hot cells.

Idaho Sitewide Safeguard and Security.—The recommendation provides \$149,800,000 for Idaho Sitewide Safeguards and Security.

FOSSIL ENERGY AND CARBON MANAGEMENT

Appropriations, 2021	\$750,000,000
Budget estimate, 2022	890,000,000
Committee recommendation	850,000,000

The Committee recommends \$850,000,000 for Fossil Energy Research and Development. Within available funds, the Committee recommends \$65,800,000 for program direction.

Additional direction related to Department-wide crosscutting initiatives is provided under the heading Crosscutting Initiatives in the front matter of the Department of Energy.

The Committee supports the budget request, which refocuses funding toward industrial emission reduction and climate-centric activities focused on decarbonization. Further, the Committee is concerned about the cost of carbon capture, storage, and utilization projects and encourages the Department to prioritize Carbon Capture Utilization and Storage [CCUS] funding on projects and research that look to reduce the cost of these technologies for commercial deployment.

National Carbon Capture Center.—The Committee recommends funding for the National Carbon Capture Center consistent with the cooperative agreement.

Industrial Decarbonization.—The Committee notes the lack of commercially viable carbon capture technology available for industrial manufacturers to significantly reduce emissions in a globally competitive manner. Further, the Committee recommendation supports research and development on industrial decarbonization and catalyzing industry-government research partnerships, including carbon capture, utilization, and storage with an emphasis on reuse utilization within industry processes and materials; low-carbon fuels (e.g. hydrogen); transformative technology that will allow deep industrial decarbonization (including demonstration and deployment at scale); materials efficiency and circular economy; and carbon intensity definitions and labeling across key product groups. The Committee supports the budget request to focus on industrial CCUS pilot and demonstration projects.

Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization.—The Committee supports the Administration’s efforts to assist coal communities through their Interagency Working Group on Coal and Power Plant Communities and Economic Revitalization which is led by the Department. The Committee directs the Department to include an itemization of funding for these activities in future budget submissions. Within

available funds, the Committee also encourages the Department to allocate sufficient funds for the working group's activities in fiscal year 2022.

Solid Oxide Fuel Cell Systems & Hydrogen.—The recommendation provides not less than \$90,000,000 for the research, development, and demonstration of solid oxide fuel cell systems and hydrogen production. The committee recognizes the importance of advancing solid oxide fuel cell systems, especially for distributed and central power generation electrolysis, combined heat and power, and storage applications.

Special Recruitment Programs and HBCUs.—The Committee supports the Department's efforts to offer undergraduate, graduate, and post-graduate students majoring in scientific, technology, engineering, and mathematics disciplines the opportunity to learn about programs, policies, and research, development, demonstration, and deployment initiatives within FECM. Further the Committee supports the budget request increase for the University Training and Research, which comprises funding for University Coal Research, Historically Black Colleges and Universities [HBCUs], and other Minority Serving Institutions.

Ethane Study.—The Committee directs the Department to provide a status update and expected timeline for release on their congressionally requested report on ethane production and consumption trends no later than 30 days after the enactment of this act.

CARBON CAPTURE UTILIZATION AND STORAGE AND POWER SYSTEMS

The Committee recommends \$527,500,000 for CCUS and Power Systems.

CCUS is a process that captures carbon dioxide emissions from sources and either reuses or stores it so it will not enter the atmosphere. The potential for these technologies is considerable, and the use of these technologies will decrease the costs for mitigating climate change, in addition to deploying clean energy and energy efficient technologies.

The Department is directed to conduct CCUS activities, including front-end engineering and design studies, large pilot projects, and demonstration projects that capture and securely store commercial volumes of carbon dioxide from fossil energy power plants, industrial facilities, or directly from the air consistent with the objectives of title IV of the Energy Act of 2020.

The Committee supports funding for activities that promote the reuse of captured carbon dioxide from coal, natural gas, industrial facilities, direct air capture, and other sources for the production of fuels and other valuable products. The Committee further encourages the Department to establish and pursue a comprehensive carbon sequestration and utilization effort to combine research and development capacity and expertise to solve the carbon sequestration and utilization challenge within 10 years, with the goals of improving the economics associated with domestic energy production, achieving optionality in carbon management, and further reducing carbon dioxide emissions.

The Committee supports the integrated carbon and energy management activities of the offices of NE, FECM, and EERE and collaboration on high-efficiency electrochemical conversion of fossil re-

sources to monomers and chemicals utilizing nuclear reactor thermal energy.

Carbon Capture.—The recommendation provides \$200,000,000 within carbon capture. Within available funds, the Committee recommends up to \$100,000,000 to support front-end engineering and design studies, large pilot projects, and demonstration projects, including for the development of a first-of-its-kind carbon capture project at an existing natural gas combined cycle plant.

As industrial deployment of CCUS technology expands, the demand for the transportation of captured carbon oxides is anticipated to increase significantly. In preparation to meet this demand, the Department, in collaboration with the Department of Transportation, is directed to review existing freight transportation infrastructure and the capacity of the various modes of freight transportation to provide cost-effective service. The Department is directed to provide to the Committee not later than 180 days after enactment of this act a report of the findings of the review. This report shall ensure that anticipated short- and long-term freight transportation demand associated with the expanded industrial deployment of CCUS technology is met. Additionally, the report shall include analysis of locations where CCUS projects are likely to be located and where carbon sequestration or utilization is likely to occur and the unique aspects of those areas for freight transportation infrastructure. Finally, in conducting this review, the Department shall consult with stakeholders, including representatives from the various modes of freight transportation.

Carbon Dioxide Removal.—Within available funds, the Committee recommends \$5,000,000 for research, development, and demonstration activities related to the indirect sequestration of carbon dioxide in deep ocean waters.

Within available funds, the recommendation provides \$5,000,000 for a competitive solicitation for a study for the development of a direct air capture facility co-located with a geothermal energy resource. Priority for such a grant shall be given to entities that are engaged in the generation of electricity from geothermal resources.

Carbon Utilization.—The Committee encourages research and development activities in the Carbon Utilization Program to support valuable and innovative uses of captured carbon, including biological utilization by the conversion of carbon dioxide to high-value products such as chemicals, plastics, building materials, curing for cement, and the integration of carbon utilization technologies with fossil fuel power plants, such as biological conversion systems. Within available funds for Carbon Utilization, not less than \$6,000,000 for a competitive solicitation to conduct tests of technologies for carbon dioxide absorption integrated with algae systems for capturing and reusing carbon dioxide to produce useful fuels and chemicals, giving priority for teams with university participants.

Carbon Storage.—Within available funds, the Committee recommends \$85,000,000 for Storage Infrastructure. Within available funds, the recommendation provides not less than \$40,000,000 for CarbonSAFE. Further, the Committee recognizes the successful work of the Regional Carbon Sequestration Partnerships (RCSPs) and the important role they play in supporting the research and

development of carbon utilization and storage. The Committee recommends not less than \$20,000,000 for the work of RCSPs.

The Department is encouraged to facilitate development and deployment of monitoring technologies at carbon capture utilization and storage projects, with considerable progress towards commercial implementation (e.g. a Class VI permit, in-hand or pending). Currently available seismic data with respect to carbon storage can take several-to-many months for processing, and there are concerns about the ability to identify low levels of carbon dioxide concentrations in underground storage. Technologies that promise near real-time results, and/or employ big data, machine learning, and artificial intelligence are further encouraged to be given particular attention to better address issues such as leak detection, monetization of credits, and permit compliance.

In order to mitigate the detrimental effects of climate change and to meet net-zero goals, it is necessary to accelerate the use of methods for carbon removal and storage, including the use and management of natural systems to sequester carbon and to store it permanently underground via mineralization processes. The Department is directed to establish a program to support research and development of novel, proof-of-principle carbon containment projects with the goal of finding and de-risking methods and locations to remove atmospheric carbon dioxide that are effective, safe, low cost, and scalable. The recommendation provides up to \$10,000,000 to support work at multiple sites, including within significant basalt formations, to pursue research, development, and deployment of carbon containment technologies and proximate carbon dioxide capturing systems that also meet regional economic and ecological restoration policy goals, such as catastrophic wildfire mitigation and job creation.

Advanced Energy and Hydrogen Systems.—The recommendation provides up to \$35,000,000 for materials research and development. The Department is encouraged to support the Advanced Ultrasupercritical Program to fabricate, qualify, and develop domestic suppliers capable of producing components from high temperature materials. Further, the Department is encouraged to support the Extreme Environments Materials Multi-Laboratory Consortium and the development of advanced ceramics under the Materials that Withstand Harsh Environments and Extend Service Lifetimes. The Department is directed to support the development of ceramic matrix composite [CMC] materials in accordance with the CMC Manufacturing Roadmap and section 4005 of the Energy Act of 2020.

The Committee recognizes the significant grid resilience benefits that distributed-scale highly-efficient natural gas engines can provide to the Nation's electricity grid. The Committee encourages FECM to jointly issue a competitive solicitation to industry with OE with the goal to develop highly efficient natural gas engines to be used in electricity generation. Further, preference is encouraged to be given to projects that prioritize fast demand response and improved integration with building and institution-based micro-grid systems.

The Committee encourages the Department to continue expanding its research and demonstration capabilities toward production,

storage, transport and utilization of hydrogen. This work shall focus on net-negative carbon hydrogen production from modular gasification and co-gasification of mixed wastes, biomass, and traditional feedstocks, solid oxide electrolysis cell technology development, carbon capture, advanced turbines, natural gas-based hydrogen production, hydrogen pipeline infrastructure, and subsurface hydrogen storage.

The Committee recognizes the value in the production of carbon-neutral chemicals in decarbonizing the industrial sector. Therefore, the Committee recommends \$10,000,000 for a laboratory demonstration project for carbon-neutral methanol synthesis from direct air capture and carbon-free hydrogen production.

The Committee encourages continued work on coal and coal biomass to both liquids and solids activities and encourages the Department to focus on research and development to improve cost and efficiency of coal-to-fuels technology implementation and polygeneration.

Crosscutting Research.—The recommendation includes \$1,000,000 for research, development, and commercialization of value-added natural gas technologies by supporting university research and pilot projects for rural economic development focusing on research in green fuels, solid oxide cells and modular reactors for natural gas upgrading, especially in smaller and more remote wells.

Minerals Sustainability.—The Mineral Sustainability subprogram will support domestic supply chain networks required for the economically, environmentally, and geopolitical sustainable production of critical minerals. The Committee remains concerned that the United States continues to import most of its rare earth elements needs from overseas and believes that finding near-term and future domestic sources is a top national security priority.

Within available funds, the Committee directs the Department to continue its external agency activities to develop and test advanced separation technologies and accelerate the advancement of commercially viable technologies for the recovery of rare earth elements and minerals from byproduct sources. The Committee expects research to support pilot-scale and experimental activities for near-term applications, which encompass the extraction and recovery of rare earth elements and minerals. The Committee encourages the Department to continue investments to accelerate the advancement of commercially viable technologies for the recovery of rare earth elements and critical minerals, including from lignite. Further, the Committee encourages the Department to fund a more detailed assessment of lignite resources and to devise cost-effective methods of removing rare earths from lignite.

The Committee directs the Department to continue the Carbon Ore, Rare Earths, and Critical Minerals [CORE-CM] Program, from within available funds.

Within available funds, the Committee recommends up to \$6,000,000 for the Department, in collaboration with the Department of Commerce, and U.S. Geological Survey, to pilot a research and development project to enhance the security and stability of the rare earth element supply chain. Research shall include approaches to mining of domestic rare earth elements that are critical

to U.S. technology development and manufacturing, as well as emphasize environmentally responsible mining practices. The Department is encouraged to partner with universities in these efforts.

Supercritical Transformational Electric Power [STEP] Generation.—Within available funds, the Committee supports efforts, consistent with the current cooperative agreement, to complete the necessary design and construction of the 10-MW pilot and to conduct the necessary testing for the facility. The Committee remains concerned about repeated cost overruns for the project, and the Department is directed to brief the Committee prior to any change to scope or cost profile of the project. The recommendation provides additional funds for competitively awarded research and development activities, coordinated with NE and EERE to advance the use of supercritical power cycles and related research.

NATURAL GAS TECHNOLOGIES

The Committee recommends \$82,501,000 for Natural Gas Technologies.

The Committee directs the Department to continue efforts to support natural gas demand response pilot programs and expects the Department to proceed with awards expeditiously.

Methane Hydrate Activities.—The Committee supports university research and field investigations in the Gulf of Mexico to confirm the nature, regional context, and hydrocarbon system behavior of gas hydrate deposits and recommends \$5,000,000 for these activities.

Environmentally Prudent Development.—The Committee recommends \$28,000,000 for the Environmentally Prudent Development subprogram.

The Committee recommends up to \$5,200,000 to continue the Risk Based Data Management System [RBDMS]. The Committee supports continued funding of RBDMS and in particular, its functions under FracFocus. The Committee believes FracFocus should maintain its autonomy and not be incorporated into any Federal agency.

The Department is encouraged to partner with university-led consortium for research and development of biofilm-based barrier technologies to reduce methane emissions from orphan wells.

The Committee recommends \$10,000,000 for further research on multipronged approaches for characterizing the constituents of and managing the cleaning of water produced during the extraction of oil and natural gas, of which \$8,000,000 is available to partner with research universities engaged in the study of characterizing, cleaning, treating, and managing produced water and who are willing to engage through public private partnerships with the energy industry to develop and assess commercially viable technology to achieve the same. The Committee encourages the Department to work with industry to identify and develop commercial-scale technologies that can characterize, clean and effectively treat produced water to have beneficial reuse.

Emissions Mitigation from Midstream Infrastructure.—The Committee recommends \$36,000,000 for Emissions Mitigation from the Midstream Infrastructure subprogram. The Committee rec-

ommends funds to support natural gas infrastructure research, including advanced materials and novel sensor technologies.

Within available funds, the Committee recommends \$5,000,000 to develop and demonstrate an easily implementable, maintainable, and low-cost integrated methane monitoring platform to enable early detection of leaks at natural gas production, processing and transmission sites, which may include autonomous, real-time, low cost optical methane sensors and imagers on unmanned aerial systems, integration of carbon emissions data from geospatial satellites, and new multidimensional data modeling and predictive capabilities using machine learning tools.

Emissions Quantification from Natural Gas Infrastructure.—The Committee recommends \$12,000,000 for the Emissions Quantification from Natural Gas Infrastructure research subprogram.

Within available funds, the Committee recommends \$1,500,000 to accelerate development and deployment of high-temperature harsh-environment sensors, sensor packaging, and wireless sensor hardware for power generation to improve generating efficiency, reduce emissions, and lower maintenance costs.

Natural Gas Hydrogen Research.—Within available funds, the Committee recommends up to \$5,000,000 for a demonstration project focused on producing hydrogen from the processing of produced water and mineral substances, and transporting hydrogen using existing energy infrastructure.

NATIONAL ENERGY TECHNOLOGY LABORATORY

No funds may be used to plan, develop, implement, or pursue the consolidation or closure of any NETL sites.

The Committee recommends \$83,000,000 for NETL Research and Operations and \$70,000,000 for NETL Infrastructure. Further, within NETL Infrastructure, the Department is directed to prioritize funds for Joule, the Computational Science and Engineering Center, the Center for Artificial Intelligence and Machine Learning, site-wide upgrades for safety, and addressing and avoiding deferred maintenance. Further, the Committee recommends \$25,000,000 to establish a direct air capture facility.

Congressionally Directed Spending.—The Committee recommends \$20,199,000 for the following list of projects that provide for research, development, and demonstration for Fossil Energy and Carbon Management activities or programs. The Committee reminds recipients that statutory cost sharing requirements may apply to these projects.

CONGRESSIONALLY DIRECTED SPENDING FOR FOSSIL ENERGY AND CARBON MANAGEMENT PROJECTS

[In thousands of dollars]

Project Name	Recommendation
Coal Communities Regional Innovation Cluster, WV	4,000
Coal Mine Methane Solutions, CO	1,200
Emergency Backup Generator, AK	540
Enhanced Outcrop Methane Capture, CO	2,500
FEED Study for the implementation of a Carbon Capture and Sequestration System, LA	9,000
Mercer County Gas Line Extension, WV	2,959

NAVAL PETROLEUM AND OIL SHALE RESERVES

Appropriations, 2021	\$13,006,000
Budget estimate, 2022	13,650,000
Committee recommendation	13,650,000

The Committee recommends \$13,650,000 for Naval Petroleum and Oil Shale Reserves.

STRATEGIC PETROLEUM RESERVE

Appropriations, 2021	\$188,000,000
Budget estimate, 2022	197,000,000
Committee recommendation	197,000,000

The Committee recommends \$197,000,000 for the Strategic Petroleum Reserve.

SPR PETROLEUM ACCOUNT

Appropriations, 2021	\$1,000,000
Budget estimate, 2022	7,350,000
Committee recommendation	7,350,000

The Committee recommends \$7,350,000 for the SPR Petroleum Account.

NORTHEAST HOME HEATING OIL RESERVE

Appropriations, 2021	\$6,500,000
Budget estimate, 2022	6,500,000
Committee recommendation	6,500,000

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

ENERGY INFORMATION ADMINISTRATION

Appropriations, 2021	\$126,800,000
Budget estimate, 2022	126,800,000
Committee recommendation	129,087,000

The Committee recommends \$129,087,000 for the Energy Information Administration.

The Committee encourages the Department to continue important data collection, analysis, and reporting activities on energy use and consumption, including the Commercial Buildings Energy Consumption Survey and the Residential Buildings Energy Consumption Survey.

NON-DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2021	\$319,200,000
Budget estimate, 2022	338,860,000
Committee recommendation	338,863,000

The Committee recommends \$338,863,000 for Non-Defense Environmental Cleanup.

Gaseous Diffusion Plants.—The Committee recommends \$121,203,000 for cleanup activities at the Gaseous Diffusion Plants, including an additional \$5,000,000 for treatment and shipping of cylinders. The Committee recognizes that less than 10 percent of

the cylinders have been treated and encourages the Department to prioritize getting the processing lines running at both sites.

Small Sites.—The Committee recommends \$124,340,000 for Small Sites. Within available funds, the Committee recommends \$21,340,000 for the Energy Technology Engineering Center, \$11,000,000 for Idaho National Laboratory, \$67,000,000 for Moab, \$5,000,000 to continue work at Lawrence Berkeley National Laboratory, and \$20,000,000 for excess Office of Science facilities.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING
FUND

Appropriations, 2021	\$841,000,000
Budget estimate, 2022	831,340,000
Committee recommendation	860,000,000

The Committee recommends \$860,000,000 for activities funded from the Uranium Enrichment Decontamination and Decommissioning Fund. The Committee understands that cleanup at the Oak Ridge East Tennessee Technology Park is estimated to be completed by 2027. However, cleanup at Portsmouth is estimated to be done between 2039 and 2045. Further, Paducah cleanup is estimated to be completed between 2065 and 2070. These date estimates are based upon the recent funding profiles for the two sites. Significant life-cycle cost-savings would occur with greater funding up front. In future budget requests, the Department is encouraged to seek funding that will bring forward the completion dates for Portsmouth and Paducah.

The Department shall not barter, transfer, or sell uranium during fiscal year 2022 to generate additional funding for Portsmouth cleanup that is in excess of the amount of funding recommended.

SCIENCE

Appropriations, 2021	¹ \$7,026,000,000
Budget estimate, 2022	7,440,000,000
Committee recommendation	7,490,000,000

¹ \$2,300,000,000 of this total was designated as emergency funding in fiscal year 2021.

The Committee recommends \$7,490,000,000 for Science. The recommendation includes \$202,000,000 for program direction.

Additional direction related to Department-wide crosscutting initiatives is provided under the heading Crosscutting Initiatives in front matter for the Department of Energy.

Quantum Information Science.—The Committee supports the Office of Science’s coordinated and focused research program in quantum information science to support the Department’s science, energy, and national security missions, as authorized in sections 401 and 402 of Public Law 115–368, the National Quantum Initiative. This industry promises to yield revolutionary new approaches to computing, sensing, communication, data security, and metrology, as well as our understanding of the universe, and accordingly, the Committee recommends not less than \$245,000,000 for quantum information science, including not less than \$120,000,000 toward activities authorized under Section 401 of the National Quantum Initiative and \$125,000,000 towards activities authorized the National Quantum Information Science Research Centers in Section

402 of the National Quantum Initiative. Within available funding, the Committee encourages the Department to support a quantum internet and communications research program consistent with the Department's "America's Blueprint for the Quantum Internet" strategy. The Department is directed to continue its coordination efforts with the National Science Foundation, other Federal agencies, private sector stakeholders, and the user community to promote researcher access to quantum systems, enhance the U.S. quantum research enterprise, develop the U.S. quantum computing industry, and educate the future quantum computing workforce.

Artificial Intelligence and Machine Learning.—The Committee recommends not less than \$120,000,000 for Artificial Intelligence and Machine Learning across the Office of Science Programs. As the stewards of the leadership computing facilities, the Committee expects Advanced Scientific Computing Research to take a lead role in the Department's artificial intelligence and machine learning activities. The Committee appreciates the Department's focus on the development of foundational artificial intelligence and machine learning capabilities, and directs the Office of Science to apply those capabilities to the Office of Science's mission with a focus on accelerating scientific discovery in its Scientific User Facilities and large experiments.

Reaching a New Energy Sciences Workforce.—The Committee supports the new Reaching a New Energy Sciences Workforce initiative for targeted efforts to increase participation and retention of underrepresented groups in the Office of Science's research activities. The Committee encourages the Department to continue funding to support research and development needs of graduate and post-graduate science programs at HBCUs and minority serving institutions. The Department is directed to provide to the Committee not later than 90 days after enactment of this act and yearly thereafter briefings on implementation of this program.

Lawrence Awards.—Within available funding, the Department is directed to award up to 10 Lawrence Awards with an honorarium of no less than \$20,000 per awardee.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee recommends \$1,040,000,000 for Advanced Scientific Computing Research [ASCR].

The Committee strongly supports ASCR's leadership in emerging areas relevant to the Department's mission, including artificial intelligence and quantum information science. The Committee commends ASCR's pursuit of machine learning tools for scientific applications and its support for the development of algorithms for future deployable quantum computers. The Committee recognizes that a robust research program in applied and computational mathematics and computer science will be critical to continued progress in these areas and is supportive of the Department's efforts to prioritize these programs.

The Committee recommends \$129,000,000 for the Exascale Computing Project. In addition, the Committee recommends \$250,000,000 for the Oak Ridge Leadership Computing Facility, \$160,000,000 for the Argonne Leadership Computing Facility,

\$130,000,000 for the National Energy Research Scientific Computing Center, and \$93,926,000 for ESnet.

Maintaining international leadership in high performance computing requires a long term and sustained commitment to basic research in computing and computational sciences, including applied math, software development, networking science, and computing competency among scientific fields. The Committee recommends not less than \$270,000,000 for Mathematical, Computational, and Computer Sciences Research. Further, the Committee supports the computational sciences workforce programs and recommends not less than \$20,000,000 for the Computational Science Graduate Fellowship.

BASIC ENERGY SCIENCES

The Committee recommends \$2,323,000,000 for Basic Energy Sciences [BES].

The Committee continues to support the EPSCoR program and its goals of broadening participation in sustainable and competitive basic energy research in eligible jurisdictions. The Committee recommends \$25,000,000 for EPSCoR and directs the Department to continue annual or at minimum, biennial implementation grant solicitations.

The Committee recommends \$538,000,000 to provide for operations at the five BES light sources and \$293,000,000 for the high-flux neutron sources. The Committee recommends not less than \$130,000,000 for the Energy Frontier Research Centers to continue multi-disciplinary, fundamental research needed to address scientific grand challenges. The Committee recommends not less than \$142,000,000 for operations at the five BES Nanoscale Science Research Centers and to adequately invest in the recapitalization of key instruments and infrastructure, and in staff and other resources necessary to deliver critical scientific capabilities to users. The Committee recognizes that leveraging advances in artificial intelligence for chemistry and materials science presents a unique opportunity to accelerate discovery and innovation. The Department is encouraged to explore opportunities to develop an autonomous chemistry and materials synthesis platform as part of the Nanoscale Science Research Centers. The capabilities will leverage advances in artificial intelligence to enable greater efficiencies and scientific throughput, leading to significant reduction of the total time and cost in novel materials discovery and innovation.

The Committee recommends \$25,000,000 for the Batteries and Energy Storage Innovation Hub, and \$20,000,000 for the Fuels from Sunlight Innovation Hub.

Within available funds, the Committee is encouraged to use funds to support national lab-academic-industry teams for research to identify and develop entirely solar-driven processes for hydrogen production, adsorbents for sequestering carbon dioxide, and catalysts needed to convert carbon dioxide and hydrogen into fuels. To test these processes at scale, funds may be used for laboratory scale prototypes that integrate such systems. Further, the Committee encourages the Office of Science to work with EERE to address the need to quickly scale up efforts to develop cleaner production of hydrogen at lower costs to attract industrial investment.

The recommendation provides not less than \$14,300,000 for other project costs, including \$4,300,000 for Linac Coherent Light Source-II, \$5,000,000 for Advanced Photon Source Upgrade, \$3,000,000 for Linac Coherent Light Source-II-HE, and \$2,000,000 for Cryomodule Repair & Maintenance Facility. The recommendation includes \$15,000,000 for NSRC Recapitalization. Further, the Second Target Station is supported for other project costs and total estimated costs.

The Committee recommends not less than \$15,000,000 for the NSLS II Experimental Tools II. The Department is directed to continue supporting the construction of additional beamlines in future budget requests so the nation's scientists can more fully leverage the investment that has been made in the NSLS II while it is the most powerful X-Ray light source in the Nation.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

The Committee recommends \$828,000,000 for Biological and Environmental Research. The recommendation includes not less than \$406,450,000 for Biological Systems Science and not less than \$421,500,000 for Earth and Environmental Systems Sciences.

The Department is directed to give priority to optimizing the operation of Biological and Environmental Research User Facilities. The Committee supports the budget request for Earth and Environmental Systems Sciences Facilities and Infrastructure, and supports the proposal for the Environmental Molecular Sciences Laboratory to initiate planning for a high throughput multiomics pipeline.

The Committee directs the Department to enhance investments in machine learning to advance the use of diverse and increasingly autonomous datasets to understand environmental and climate dynamics; rapidly incorporate datasets into predictive watershed, ecosystem and climate models; and project the onset of and track extreme events, such as atmospheric rivers and hurricanes.

The Committee recommends not less than \$100,000,000 for the four Bioenergy Research Centers. The Committee directs the Department to maintain Genomic Science as a top priority and recommends not less than \$109,000,000 for Foundational Genomics Research. Further, the Committee recommends not less than \$45,000,000 for Biomolecular Characterization and Imaging Science, including \$15,000,000 to continue the development of a multi-scale genes-to ecosystems approach that supports a predictive understanding of gene functions and how they scale with complex biological and environmental systems. The Committee recommends \$85,000,000 for the Joint Genome Institute, an essential component for genomic research. The Committee supports the Department's establishment of a national microbiome database collaborative.

The Committee continues to support the prototyping and establishment of fabricated ecosystems, automation, sensors, and computational tools to enable a predictive understanding of soil-plant-microbe interactions across molecular to ecosystem scales. The novel tools and capabilities will accelerate discovery and speed the delivery of solutions to climate change, environmental sustainability, and clean energy. The recommendation provides not less than \$6,000,000 for fabricated ecosystems and sensors. Within

available funds, the recommendation includes up to \$4,000,000 for second generation SmartSoils fabricated ecosystem testbeds, new sensors, and computational tools to enable real-time connectivity between lab-controlled, instrumented SmartSoil testbeds and naturally varying field experiments. Within available funds, the recommendation includes up to \$8,000,000 to develop and test novel sensor technologies, procure second generation EcoPOD units, and create the computational and experimental infrastructures necessary to dissect field observations at atomic and molecular levels in fabricated ecosystems.

The Committee recommends the Department provide \$2,000,000 in funding for academia to perform independent evaluations of climate models using existing data sets and peer-reviewed publications of climate-scale processes to determine various models' ability to reproduce the actual climate.

The Committee recommends not less than \$109,500,000 for Environmental System Science.

The Committee directs the Department to continue to support NGEA Arctic, NGEA Tropics, the SPURCE field site, the Watershed Function and Mercury Science Focus Areas, and the AmeriFLUX project.

The Committee supports the Department's efforts to advance understanding of coastal ecosystems, as initiated with the terrestrial-aquatic interfaces pilot in fiscal year 2019, and recommends \$30,000,000 to build upon the current modeling-focused effort and to develop observational assets and associated research to study the Nation's major land-water interfaces, including the Great Lakes and Puget Sound, by leveraging national laboratories' assets as well as local infrastructure and expertise at universities and other research institutions. The Committee encourages the Department to continue to support the River Corridor Science Focus Area.

Within available funds, the Department is encouraged to develop integrated mountainous hydroclimate modeling and observational capabilities. The new effort shall leverage activities supported by other Federal agencies active in investigating how snow-dominated Upper Colorado mountainous systems are responding to extreme events and gradual warming, and the implications for water resilience in the western U.S.

The Committee continues to support the Department's investment in observational studies, modeling, and computing to reduce the uncertainty in understanding cloud aerosol effects and recommends \$30,000,000 to build upon this research. Of the increase provided, \$15,000,000 is made available for the modernization and acceleration of the Energy, Exascale, and Earth System Model program to improve earth system prediction and climate risk management in the service of U.S. public safety, security, and economic interests. This work shall coordinate with DHS on the modernization and adaptation capabilities from the National Infrastructure Simulation and Analysis Center to support climate impacts on infrastructure and communities.

FUSION ENERGY SCIENCES

The Committee recommends \$660,000,000 for Fusion Energy Sciences.

U.S. Contribution to the International Thermonuclear Experimental Reactor [ITER] Project.—The Committee recommends \$211,000,000 for the U.S. contribution to the ITER Project, of which not less than \$40,000,000 is for in-cash contributions.

Operations, Research, and Development.—The Department is encouraged to support optimal facility operations levels for DIII-D. The Committee recommends not less than \$25,000,000 for the Material Plasma Exposure eXperiment.

The Committee recommends not less than \$50,000,000 for NSTX-U Operations, and not less than \$27,000,000 for NSTX-U Research. The Committee recommends not less than \$20,000,000 for the High-Energy-Density Laboratory Plasmas program to support initiatives in quantum information science, advance cutting-edge research in extreme states of matter, expand the capabilities of the LaserNetUS facilities, and provide initial investments in new intense, ultrafast laser technologies needed to retain U.S. leadership in these fields.

Given the recent FESAC Long-Range Plan, the Committee recognizes the need for the initiation of design studies of various future fusion experimental facilities in the program. The Committee encourages that the stellarator concept be considered as part of that program and that there be broad community participation in these studies.

To maintain U.S. leadership in intense, ultrafast lasers, the Committee directs the Department, within 180 days of enactment of this act, to submit a report to the Committees on Appropriations of Houses of Congress describing the Department's plans to respond to the recommendations of the Brightest Light Initiative Workshop Report, including facility investments and improvements needed to advance laser science technology and applications.

HIGH ENERGY PHYSICS

The Committee recommends \$1,079,000,000 for High Energy Physics.

Research.—The Committee recommends \$30,000,000 for the Sanford Underground Research Facility and not less than \$40,000,000 for the HL-LHC Upgrade projects.

The Committee recommends \$20,000,000 for the Cosmic Microwave Background-Stage 4.

The Committee encourages the Department to fund facility operations at levels for optimal operations. Further, the Committee encourages the Department to fund facility operations and MIEs at optimal levels.

NUCLEAR PHYSICS

The Committee recommends \$744,000,000 for Nuclear Physics.

Research.—The Department is directed to give priority to optimizing operations for all Nuclear Physics user facilities.

The Committee recommends up to \$15,800,000 for the Gamma-Ray Energy Tracking Array; completion for sPHENIX; up to \$16,200,000 for MOLLER; up to \$1,400,000 for Ton-Scale Neutrinoless Double Beta Decay; and up to \$13,000,000 for the High Rigidity Spectrometer;

ISOTOPE R&D AND PRODUCTION

Isotope R&D and Production ensures robust supply chains of critical radioactive and stable isotopes for the Nation that no domestic entity has the infrastructure or core competency to produce. The Committee supports the FRIB Isotope Harvesting projects.

ACCELERATOR R&D AND PRODUCTION

Accelerator R&D and Production supports cross-cutting research and development in accelerator science and technology, access to unique Office of Science accelerator research and development infrastructure, workforce development, and public-private partnerships to advance new technologies for use in the Office of Science's scientific facilities and in commercial products.

WORKFORCE DEVELOPMENT FOR TEACHERS AND SCIENTISTS

The Committee recommends \$35,000,000 for Workforce Development for Teachers and Scientists.

Within available funds, the Committee recommends \$14,000,000 for Science Undergraduate Laboratory Internships; \$2,000,000 for Community College Internships; \$5,000,000 for the Graduate Student Research Program; \$2,100,000 for the Visiting Faculty Program; \$5,000,000 for Workforce Training for Underrepresented Minorities; \$1,200,000 for the Albert Einstein Distinguished Educator Fellowship; \$2,900,000 for the National Science Bowl; \$700,000 for Technology Development and Online Application; \$600,000 for Evaluation Studies; and \$1,500,000 for Outreach.

Within Outreach, the Committee directs the Department to establish a working group comprised of the Office of Science and national laboratories and a consortium of universities to assist universities in the development of a curriculum to promote the next generation of scientists utilizing artificial intelligence, quantum information science, and machine learning.

The Department is encouraged to allocate funding 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, with an emphasis on training programs focused on building retrofit and the construction industry. The Department is encouraged to continue to work with two-year community and technical colleges, labor, and non-governmental and industry consortia to pursue job training programs, including programs focused on displaced fossil fuel workers, that lead to an industry-recognized credential in the energy workforce.

Further, the Department is directed to submit to the Committee not later than 120 days after enactment of this act a plan describing a five-year educational and workforce development program for expanding engagement with and support for high school, undergraduate, and graduate students, as well as recent graduates, teachers, and faculty in STEM fields. This plan may include paid internships, fellowships, temporary employment, training programs, visiting student and faculty programs, sabbaticals, and research support. The plan shall also include an outreach strategy to more effectively advertise, recruit, and promote educational and

workforce programs to community colleges, Minority Serving Institutions, and non-research universities.

SCIENCE LABORATORIES INFRASTRUCTURE

The Committee recommends \$295,000,000 for Science Laboratories Infrastructure.

The fiscal year 2021 Act directed the Department to submit to the Committee a report on the funding levels required for operations and maintenance of Oak Ridge National Laboratory nuclear facilities. The Committee is still awaiting this report and directs the Department to provide the report not later than 15 days after enactment of this act.

NUCLEAR WASTE DISPOSAL

Appropriations, 2021	\$27,500,000
Budget estimate, 2022	7,500,000
Committee recommendation	27,500,000

The Committee recommends \$27,500,000 for Nuclear Waste Disposal, of which \$20,000,000 is for interim storage and \$7,500,000 is for Nuclear Waste Fund oversight activities. Funds for the Nuclear Waste Fund oversight activities are to be derived from the Nuclear Waste Fund.

TECHNOLOGY TRANSITIONS

Appropriations, 2021	
Budget estimate, 2022	\$19,470,000
Committee recommendation	19,470,000

The Committee supports funding the Office of Technology Transition [OTT] through a new, separate appropriation to increase transparency and reflect the need for multi-year funding for programmatic activities.

CLEAN ENERGY DEMONSTRATIONS

Appropriations, 2021	
Budget estimate, 2022	\$400,000,000
Committee recommendation	100,000,000

The Committee supports the establishment of an Office of Clean Energy Demonstrations. The Department is directed to conduct these activities on a competitive basis and include cost-share requirements pursuant to section 988 of the Energy Policy Act of 2005. The Department is encouraged to conduct these activities through technology neutral solicitations.

ADVANCED RESEARCH PROJECTS AGENCY—ENERGY

Appropriations, 2021	\$427,000,000
Budget estimate, 2022	500,000,000
Committee recommendation	500,000,000

The Committee recommends \$500,000,000 for the Advanced Research Projects Agency-Energy, equal to the budget request. Within available funds, the Committee recommends \$37,000,000 for program direction.

The budget request proposes the establishment of an Advanced Research Projects Agency-Climate [ARPA-C]. The Committee sup-

ports the budget’s approach to focus on climate innovations and emission reduction; however, the budget request justification notes that ARPA–C will require legislation beyond the current ARPA–E authorization. The Committee encourages ARPA–E to consider proposed activities under ARPA–C that are consistent with ARPA–E’s mission and authorization in addition to its other current and proposed activities. Additionally, ARPA–E shall coordinate funding from other Federal agencies in support of ARPA–C, if such funds are provided.

The Committee recognizes the importance of helping promising, early-stage energy technologies bridge the gap between lab-scale trials and commercial viability. Further, the Committee supports the recent activities of ARPA–E aimed to support the scaling of high-risk and potentially disruptive ARPA–E funded technologies across the full spectrum of energy applications.

INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

ADMINISTRATIVE EXPENSES

GROSS APPROPRIATION

Appropriations, 2021	\$32,000,000
Budget estimate, 2022	182,000,000
Committee recommendation	32,000,000

OFFSETTING COLLECTIONS

Appropriations, 2021	–\$3,000,000
Budget estimate, 2022	–3,000,000
Committee recommendation	–3,000,000

NET APPROPRIATION

Appropriations, 2021	\$29,000,000
Budget estimate, 2022	179,000,000
Committee recommendation	29,000,000

The Committee recommends \$29,000,000 in administrative expenses for the Innovative Technology Loan Guarantee Program.

The Committee recognizes the important need to have a domestic capacity to develop and process critical minerals. Within existing authorities for carrying out the Title XVII loan guarantee program, the Committee encourages the Department to prioritize projects that expand the domestic supply of critical minerals and rare earth elements.

The Department is reminded that it does not have authority to redirect any appropriated loan authority for the Advanced Fossil Energy Projects solicitation.

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

Appropriations, 2021	\$5,000,000
Budget estimate, 2022	5,000,000
Committee recommendation	5,000,000

The Committee recommends \$5,000,000 for the Advanced Technology Vehicles Manufacturing Loan Program.

TRIBAL ENERGY LOAN GUARANTEE PROGRAM

Appropriations, 2021	\$2,000,000
Budget estimate, 2022	2,000,000
Committee recommendation	2,000,000

The Committee recommends \$2,000,000 for the Tribal Energy Loan Guarantee Program.

Many American Indian and Alaska Native communities face extremely challenging energy realities and pay some of the Nation’s highest prices for energy and electricity. Yet, Tribal lands are known to have significant potential for energy development. Congress recognized this challenge and authorized Tribal Energy Loan Guarantee Program [TELGP] in the Energy Policy Act of 2005 (Public Law 109–58). TELGP was authorized with \$2,000,000,000 in partial loan guarantees in support of debt financing for tribal energy development projects. Yet, the Department to date has not awarded any loans. The Committee directs the Department to expedite their efforts to award loans from the Tribal Energy Loan Guarantee Program.

The Department is also encouraged to take formal steps to market this program and ensure the program’s availability, benefits, and application process are made known to potential applicants who are ready to seek financing.

OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

Appropriations, 2021	\$22,000,000
Budget estimate, 2022	122,000,000
Committee recommendation	122,000,000

The Committee recommends \$122,000,000 for the Office of Indian Energy Policy and Programs.

The Committee encourages the Department to use its cost share waiver authority under section 2602 of the Energy Policy Act of 1992, as modified by section 8013 of the Energy Act of 2020, when appropriate. The Committee encourages the Department to coordinate with other Federal agencies to increase outreach about the availability of the assistance of the Office of Indian Energy Policy and Programs.

The Committee supports the budget request to provide financing options to help provide power to tribal homes that current lack electricity. Within available funds, the Committee recommends not less than \$45,000,000 to advance technical assistance, demonstration, and deployment of clean energy for households and communities in tribal nations to improve reliability, resilience, and alleviate energy poverty. The Department is encouraged to prioritize households and communities that lack connection to the electric grid. The Department is directed to collaborate with the Office of EERE, including the Solar Energy Technologies Office, and the Office of Electricity in issuing these funds.

The Committee supports the Office of Indian Energy’s efforts to utilize local Subject Matter Experts to assist Indian Tribes and Alaska Native Villages in the development of energy projects and providing support for energy planning. The Committee encourages the Office of Indian Energy to design funding opportunity announcements that do not exclude Tribes based on local land owner-

ship structures, consistent with expanded authority under section 2602 of the Energy Policy Act of 1992, as modified by section 8013 of the Energy Act of 2020.

DEPARTMENTAL ADMINISTRATION

(GROSS)

Appropriations, 2021	\$259,378,000
Budget estimate, 2022	422,378,000
Committee recommendation	343,578,000

(MISCELLANEOUS REVENUES)

Appropriations, 2021	-\$93,378,000
Budget estimate, 2022	-100,578,000
Committee recommendation	-100,578,000

NET APPROPRIATION

Appropriations, 2021	\$161,000,000
Budget estimate, 2022	321,760,000
Committee recommendation	243,000,000

The Committee recommends \$343,578,000 in funding for Departmental Administration. This funding is offset by \$100,578,000 in revenue for a net appropriation of \$243,000,000.

International Affairs.—Within available funds, the Committee recommends \$2,000,000 for the Israel Binational Industrial Research and Development [BIRD] Foundation and \$4,000,000 to continue the U.S. Israel Center of Excellence in Energy Engineering and Water Technology.

U.S. Energy Employment Report.—Within available funds for the Office of Policy, the Committee encourages the Department to use up to \$2,000,000 to complete an annual U.S. energy employment report that includes a comprehensive statistical survey to collect data, publish the data, and provide a summary report.

The Department is directed to continue to expand and drive Department-wide implementation of the CIO Business Operations Support Services [CBOSS] program to maximize, consolidate, and fully meet the multiple mission requirements and support the Department’s critical cybersecurity mission. CBOSS shall be used to support Departmental initiatives for information technology modernization, data center optimization, and Departmental transition to the cloud. Funding resources shall continue to be prioritized to ensure that the CIO continues to work closely with OE, CESER, and emergency response to ensure coordinated protection of the Power Marketing Administrations and unified support for cybersecurity of the energy sector. The Committee encourages the Department to utilize the CBOSS program to continue to enhance the stewardship of information technology spending in accordance with the Federal Information Technology Acquisition Reform Act [FITARA] by continuing to demonstrate progress in implementing technology business management, enhancing transparency in information technology chargeback, and expanding the use of category management. The Committee requests the Department to detail meaningful new actions taken to achieve these outcomes in its Fiscal Year 2023 budget justifications.

OFFICE OF THE INSPECTOR GENERAL

Appropriations, 2021	\$57,739,000
Budget estimate, 2022	78,000,000
Committee recommendation	78,000,000

The Committee recommends \$78,000,000 for the Office of the Inspector General.

The budget request increase is due to a new proposal for independent auditing of the Department's management and operating contractors. Prior to obligating any funds for the new audit strategy, the Inspector General shall submit to the Committee, within 90 days of enactment of this act, a detailed implementation plan for the new auditing proposal.

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 the need for underground testing.

The Committee supports continuing important efforts to secure and permanently eliminate remaining stockpiles of nuclear and radiological materials both here and abroad to reduce the global danger from the proliferation of weapons of mass destruction. The Committee also supports Naval Reactors and the important role they play in enabling the Navy's nuclear fleet.

A highly skilled and diverse workforce is required to maintain and modernize the nuclear weapons stockpile and execute the global nonproliferation initiatives of the NNSA. The Committee commends the NNSA for considerable progress made to recruit and retain this unique workforce, but reminds NNSA to remain within authorized staffing levels in the coming fiscal year.

PROJECT MANAGEMENT

The Committee is concerned about the 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 Committee in a timely manner.

WEAPONS ACTIVITIES

Appropriations, 2021	\$15,345,000,000
Budget estimate, 2022	15,484,295,000
Committee recommendation	15,484,295,000

The Committee recommends \$15,484,295,000 for Weapons Activities to ensure the safety, security, reliability, and effectiveness of the Nation's nuclear weapons stockpile without the need for nuclear testing.

STOCKPILE MANAGEMENT

The Committee notes that the Administration is expected to release its nuclear posture review and encourages the Administration to ensure future budget requests reflect a sustainable path forward for the NNSA in order to meet its budget and schedule commitments.

Prior to obligating funding for the B83-1 service life extension and the W80-4 Alteration of the Sea-Launched Cruise Missile, the Administrator, after consultation with the Department of Defense, is directed to certify to the committees on appropriations that there are operational requirements justifying these programs. If, after consultation, the Administrator finds there are not operational requirements justifying these programs, the Administrator is directed to seek a reprogramming of any such funds to other projects and programs within Weapons Activities.

The Committee continues to support the program of record for plutonium pit production to maintain the readiness of our aging systems. However, the Committee notes that it has not received a comprehensive, integrated ten-year research plan for pit and plutonium aging as requested. The Committee will be unable to continue to support the program without this information. The Committee further notes that the GAO recommended that the NNSA complete an integrated master schedule for the overall pit production effort and stated that the GAO could not fully assess “the extent to which the two pit production facilities will be ready to produce pits” without such a schedule. The Committee directs the NNSA to complete an integrated master schedule for pit production no later than 180 days after the enactment of this act.

The Committee encourages the NNSA to provide funding for next-generation machining and assembly technology development for high volume pit production.

STOCKPILE RESEARCH, TECHNOLOGY AND ENGINEERING

The Committee recommends \$2,793,033,000 for Stockpile Research, Technology, and Engineering.

Academic Programs.—The Committee recommends \$111,912,000 for Academic Programs, recognizing the importance of the Academic Programs in supporting fundamental science and technology research at universities that support stockpile stewardship, the development of the next generation of highly-trained workforce, and the maintenance of a strong network of independent technical peers. Of the funds provided for the NNSA’s Academic Alliances Programs, \$10,000,000 is designated for the Tribal Colleges and Universities Partnership Program and \$40,000,000 for the Minority Serving Institution Partnership Program. The Committee directs the Department to fully distribute the designated funding to Tribal Colleges and Universities and Minority Serving Institution Partnership Program.

Inertial Confinement Fusion Ignition and High-Yield.—The Committee recommends \$580,000,000 for the Inertial Confinement Fusion Ignition and High-Yield Campaign program. Within available funds, not less than \$82,000,000 is for the OMEGA Laser Facility, \$349,000,000 for the National Ignition Facility, \$66,900,000 for the

Z Facility and \$6,000,000 for the NIKE Laser at the Naval Research Laboratory. The Committee recognizes that a predictable and sustained availability of targets is essential to the operations of NNSA’s laser facilities and recommends not less than \$31,000,000 be provided by the NNSA to target vendors for target research, development and fabrication to cost-effectively operate the NIF, Z, and OMEGA facilities.

Advanced Simulation and Computing.—The Committee recommends \$747,012,000 for Advanced Simulation and Computing. Within funds provided, \$15,000,000 is recommended for scalable computational NVMe over fabrics for exascale computing applications at Los Alamos National Laboratory.

INFRASTRUCTURE AND OPERATIONS

The Committee recommends \$3,507,136,000 for Infrastructure and Operations.

DEFENSE NUCLEAR NONPROLIFERATION

Appropriations, 2021	\$2,260,000,000
Budget estimate, 2022	1,934,000,000
Committee recommendation	¹ 2,264,000,000

¹The budget request includes a \$330,000,000 rescission of prior year funds, resulting in a net appropriation of \$1,934,000,000.

The Committee recommends \$2,264,000,000 for Defense Nuclear Nonproliferation.

Defense Nuclear Nonproliferation is critically important to our national security by preventing nuclear materials and weapons from falling into the wrong hands, including non-weapons nations, terrorist organizations, and non-state actors. Defense Nuclear Nonproliferation helps protect our Nation from emerging and ever evolving threats.

As the Office of Nuclear Energy works to promote delivery of advanced reactors, NNSA will play a vital role in making sure appropriate safeguards are considered early in the process. The Committee directs NNSA to cooperate and support the Office of Nuclear Energy in developing safeguards concepts, policies, and technologies to address the proliferation challenges unique to advanced nuclear reactors. Further, NNSA shall cooperate with the national laboratories and industry to support the implementation of “safeguards-by-design” features in advanced nuclear reactors.

UNIVERSITY CONSORTIA FOR NUCLEAR NONPROLIFERATION RESEARCH

The Department of Energy’s three University Consortia for Nuclear Nonproliferation Research educate undergraduate and graduate students in specialized fields essential to sustaining the workforce in nonproliferation technology, while contributing research and development to DOE’s nuclear complex. The Committee recognizes the importance of this program and fully funds these efforts within Defense Nuclear Nonproliferation Research and Development.

NAVAL REACTORS

Appropriations, 2021	\$1,684,000,000
Budget estimate, 2022	1,860,705,000
Committee recommendation	¹ 1,840,505,000

¹The budget request requests a \$6,000,000 rescission of prior year funds, resulting in a net appropriation of \$1,834,505,000.

The Committee recommends \$1,840,505,000 for Naval Reactors.

COLUMBIA-CLASS REACTOR SYSTEMS DEVELOPMENT

The Committee recommends \$55,000,000 for Columbia-Class Reactor Systems Development. Columbia-class submarines remain vital to maintaining our survivable deterrent.

The Committee recommends \$630,684,000 for Naval Reactors Development. Within the available funds, the Committee recommends \$89,108,000 for the Advanced Test Reactor. The Committee remains concerned that Naval Reactors does not have a clearly defined research and development plan for the future. The Committee notes that Naval Reactors has not provided the report directed last year on its research and development program and directs Naval Reactors to provide the report within 30 days of enactment of this act.

FEDERAL SALARIES AND EXPENSES

Appropriations, 2021	\$443,200,000
Budget estimate, 2022	464,000,000
Committee recommendation	453,000,000

The Committee recommends \$453,000,000 for Federal Salaries and Expenses. The Committee continues to support funding for the necessary recruitment and retention of the highly-skilled personnel needed to meet NNSA's important mission. However, the Committee directs NNSA to only hire within authorized personnel numbers provided for a given fiscal year. The Committee directs NNSA to continue providing monthly updates on the status of hiring and retention.

DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2021	\$6,426,000,000
Budget estimate, 2022	6,841,670,000
Committee recommendation	6,510,000,000

The Committee recommendation for Defense Environmental Cleanup is \$6,510,000,000. Within available funds, the Department is directed to fund the hazardous waste worker training program at \$10,000,000.

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.—As a signatory to the Tri-Party Agreement, the Department is required to meet specific compliance milestones toward the cleanup of the Hanford site. Among other things, the Department committed to provide the funding necessary to enable full compliance with its cleanup milestones. The Committee recognizes

that significant progress has been made at the Hanford site, but greater funding will be necessary to meet compliance milestones.

The Department is directed to carry out maintenance and public safety efforts at historical sites, including the B Reactor. This includes facility improvements needed to expand public access and interpretive programs. Specifically, within available funds, \$10,000,000 is recommended for B Reactor roof replacement and other work to preserve the facility. The Department is directed to request any additional funding needed to complete the identified work starting with the fiscal year 2023 budget. The Department of Energy Richland Operations Office is encouraged to complete the development and verification of plans and processes for the permanent off-site removal of 90Sr capsules currently stored at the Waste Encapsulation and Storage Facility.

Furthermore, the Department is reminded of its authority under the Atomic Energy Act to make available Payment in Lieu of Taxes [PILT] to communities that host Department of Energy sites based on property taxes they would have received if the property remained on their tax rolls. This funding provides a wide variety of public services, such as emergency response, road maintenance, and funding for public schools. It is crucial that eligible PILT communities, such as Hanford and Savannah River, continue to receive payments given their historical contribution to the Federal government and continued inability to raise adequate revenue on Federal land.

None of the Richland Operations funds shall be used to carry out activities with the Office of River Protection's tank farms.

Office of River Protection.—The Committee recommends \$1,645,000,000 for the Office of River Protection. Funds are provided for full engineering, procurement, and construction work on the High-Level Waste Treatment Facility, for design and engineering on the Pre-Treatment Facility, to ensure compliance with the 2016 Consent Decree and Tri-Party Agreement milestones, and to continue tank waste retrievals.

Program Direction.—The Committee recognizes the need to prepare the next generation of the environmental management workforce and recommends \$1,000,000 to continue its program to mentor, train, and recruit the needed personnel.

Technology Development.—Within the funds recommended for Technology Development, the Department is encouraged to pursue the development and deployment of Wearable Robotic Devices for Worker Safety. Within the amount recommended, up to \$7,000,000 is recommended 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.

DEFENSE URANIUM ENRICHMENT DECONTAMINATION AND
DECOMMISSIONING

Appropriations, 2021 .....	.....
Budget estimate, 2022 .....	.....
Committee recommendation	\$860,000,000

The Committee recommendation for Defense Uranium Enrichment Decontamination and Decommissioning is \$860,000,000.

OTHER DEFENSE ACTIVITIES

Appropriations, 2021	\$920,000,000
Budget estimate, 2022	1,170,000,000
Committee recommendation	930,400,000

The Committee recommends \$930,400,000 for Other Defense Activities. The Committee does not support the administration's request to move funding for formerly Utilized Sites Remedial Action Program [FUSRAP] to the Office of Legacy Management, so there is no funding for that purpose included within Other Defense Activities. The recommendation includes \$10,000,000 above the budget request for targeted investments to defend the U.S. energy sector against the evolving threat of cyber and other attacks in support of the resiliency of the Nation's electric grid and energy infrastructure.

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.

OPERATIONS AND MAINTENANCE, SOUTHEASTERN POWER ADMINISTRATION

Appropriations, 2021 .....	.....
Budget estimate, 2022 .....	.....
Committee recommendation .....	.....

OPERATIONS AND MAINTENANCE, SOUTHWESTERN POWER ADMINISTRATION

Appropriations, 2021	\$10,400,000
Budget estimate, 2022	10,400,000
Committee recommendation	10,400,000

The Committee recommends a net appropriation of \$10,400,000 for the Southwestern Power Administration.

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

Appropriations, 2021	\$89,372,000
Budget estimate, 2022	90,772,000
Committee recommendation	90,772,000

The Committee recommends a net appropriation of \$90,772,000 for the Western Area Power Administration.

FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND

Appropriations, 2021	\$228,000
Budget estimate, 2022	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, 2021	\$404,350,000
Budget estimate, 2022	463,900,000
Committee recommendation	466,426,000

REVENUES APPLIED

Appropriations, 2021	-\$404,350,000
Budget estimate, 2022	-463,900,000
Committee recommendation	466,426,000

The Committee recommendation for the Federal Energy Regulatory Commission [FERC] is \$466,426,000. Additional funds are provided for FERC to initiate an Office of Public Participation. Revenues for FERC are established at a rate equal to the budget authority, resulting in a net appropriation of \$0.

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, review processes shall remain transparent and consistent, and ensure the health, safety, and security of the environment and each affected community.

DEPARTMENT OF ENERGY
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
ENERGY PROGRAMS					
ENERGY EFFICIENCY AND RENEWABLE ENERGY					
Sustainable Transportation:					
Vehicle Technologies	400,000	595,000	553,114	+ 153,114	- 41,886
Bioenergy Technologies	255,000	340,000	284,500	+ 29,500	- 55,500
Hydrogen and Fuel Cell Technologies	150,000	197,500	200,000	+ 50,000	+ 2,500
Subtotal, Sustainable Transportation	805,000	1,132,500	1,037,614	+ 232,614	- 94,886
Renewable Energy:					
Solar Energy Technologies	280,000	386,575	300,000	+ 20,000	- 86,575
Wind Energy Technologies	110,000	204,870	204,870	+ 94,870	.....
Water Power Technologies	150,000	196,560	196,560	+ 46,560	.....
Geothermal Technologies	106,000	163,760	130,380	+ 24,380	- 33,380
Renewable Energy Grid Integration .....	.....	.....	40,000	+ 40,000	+ 40,000
Subtotal, Renewable Energy	646,000	951,765	871,810	+ 225,810	- 79,955
Energy Efficiency:					
Advanced Manufacturing	396,000	550,500	560,500	+ 164,500	+ 10,000
Building Technologies	290,000	382,000	382,000	+ 92,000	.....
Federal Energy Management Program	40,000	438,150	60,000	+ 20,000	- 378,150
Weatherization and Intergovernmental Program:					
Weatherization:					
Weatherization Assistance Program	310,000	390,000	375,000	+ 65,000	- 15,000
Training and Technical Assistance	5,000	10,000	8,000	+ 3,000	- 2,000
Weatherization Readiness Fund .....	.....	21,000	15,000	+ 15,000	- 6,000
Subtotal, Weatherization	315,000	421,000	398,000	+ 83,000	- 23,000
State Energy Program Grants	62,500	62,500	70,000	+ 7,500	+ 7,500
Local Government Clean Energy Workforce Program .....	.....	25,000	20,000	+ 20,000	- 5,000

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Build Back Better Challenge Grants		300,000	20,000	+ 20,000	— 280,000
Subtotal, Weatherization and Intergovernmental Program	377,500	808,500	508,000	+ 130,500	— 300,500
Subtotal, Energy Efficiency	1,103,500	2,179,150	1,510,500	+ 407,000	— 668,650
Corporate Support:					
Facilities and Infrastructure:					
National Renewable Energy Laboratory (NREL)	130,000	167,000	152,000	+ 22,000	— 15,000
21-EE-001, Energy Materials Processing at Scale (EMAPS)		8,000	8,000	+ 8,000	.....
Subtotal, Facilities and Infrastructure	130,000	175,000	160,000	+ 30,000	— 15,000
Program Direction	165,000	250,000	220,000	+ 55,000	— 30,000
Strategic Programs	14,500	43,585	20,000	+ 5,500	— 23,585
Subtotal, Corporate Support	309,500	468,585	400,000	+ 90,500	— 68,585
Subtotal, Energy Efficiency and Renewable Energy	2,864,000	4,732,000	3,819,924	+ 955,924	— 912,076
Congressionally Directed Spending			77,047	+ 77,047	+ 77,047
Rescission	— 2,240	.....	.....	+ 2,240	.....
TOTAL ENERGY EFFICIENCY AND RENEWABLE ENERGY	2,861,760	4,732,000	3,896,971	+ 1,035,211	— 835,029
CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE					
Risk Management Technology and Tools	96,000	135,000	112,000	+ 16,000	— 23,000
Infrastructure Security and Energy Restoration	48,000	.....	.....	— 48,000	.....
Response and Restoration .....	.....	25,000	23,000	+ 23,000	— 2,000
Information Sharing, Partnerships and Exercises .....	.....	25,000	23,000	+ 23,000	— 2,000
Program Direction	12,000	16,000	14,000	+ 2,000	— 2,000
Floor Amendments .....	.....	.....	.....	.....	.....

Congressionally Directed Spending						5,000	+ 5,000	+ 5,000
TOTAL, CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE	156,000	201,000	177,000			177,000	+ 21,000	- 24,000
ELECTRICITY								
Transmission Reliability and Resilience	48,220	37,000	30,000			30,000	- 18,220	- 7,000
Energy Delivery Grid Operations Technology		43,500	27,150			27,150	+ 27,150	- 16,350
Resilient Distribution Systems	50,000	50,000	50,000			50,000		
Energy Storage:								
Research	57,000	72,000	92,000			92,000	+ 35,000	+ 20,000
Construction: 20-0E-100 Grid Storage Launchpad	23,000	47,000	47,000			47,000	+ 24,000	
Subtotal, Energy Storage	80,000	119,000	139,000			139,000	+ 59,000	+ 20,000
Cyber R&D		25,000	14,000			14,000	+ 14,000	- 11,000
Transformer Resilience and Advanced Components	7,500	22,500	10,000			10,000	+ 2,500	- 12,500
DCEI Energy Mission Assurance	1,000						- 1,000	
Transmission Permitting and Technical Assistance	7,000	10,000	10,000			10,000	+ 3,000	
Program Direction	18,000	20,000	20,000			20,000	+ 2,000	
Congressionally Directed Spending			2,850			2,850	+ 2,850	+ 2,850
TOTAL, ELECTRICITY	211,720	327,000	303,000			303,000	+ 91,280	- 24,000
NUCLEAR ENERGY								
Integrated University Program	5,000	6,000	6,000			6,000	+ 1,000	
STEP R&D	5,000						- 5,000	
Nuclear Energy Enabling Technologies:								
Crosscutting Technology Development	28,000	47,000	37,000			37,000	+ 9,000	- 10,000
Joint Modeling and Simulation Program	35,000	35,000	30,000			30,000	- 5,000	- 5,000
Nuclear Science User Facilities	30,000	42,000	33,000			33,000	+ 3,000	- 9,000
Transformational Challenger Reactor	29,869						- 29,869	
Subtotal, Nuclear Energy Enabling Technologies	122,869	124,000	100,000			100,000	- 22,869	- 24,000
Fuel Cycle Research and Development:								
Front End Fuel Cycle:								
Mining, Conversion, and Transportation	2,000	2,000	2,000			2,000		
Civil Nuclear Enrichment	40,000						- 40,000	

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Advanced Nuclear Fuel Availability		33,075	25,000	+ 25,000	— 8,075
Subtotal, Front End Fuel Cycle	42,000	35,075	27,000	— 15,000	— 8,075
Material Recovery and Waste Form Development	25,000	35,000	20,000	— 5,000	— 15,000
Advanced Fuels:					
Accident Tolerant Fuels	105,800	115,000	110,150	+ 4,350	— 4,850
Triso Fuel and Graphite Qualification	36,000	36,000	31,000	— 5,000	— 5,000
Subtotal, Advanced Fuels	141,800	151,000	141,150	— 650	— 9,850
Fuel Cycle Laboratory R&D	20,000	46,925	20,000	.....	— 26,925
Used Nuclear Fuel Disposition R&D	62,500	62,500	62,500	.....	.....
Integrated Waste Management System	18,000	38,000	18,000	.....	— 20,000
Subtotal, Fuel Cycle Research and Development	309,300	368,500	288,650	— 20,650	— 79,850
Reactor Concepts RD&D:					
Advanced Small Modular Reactor RD&D	115,000	115,000	140,000	+ 25,000	+ 25,000
Light Water Reactor Sustainability	47,000	60,000	45,000	— 2,000	— 15,000
Advanced Reactor Technologies	46,000	65,000	47,000	+ 1,000	— 18,000
Subtotal, Reactor Concepts RD&D	208,000	240,000	232,000	+ 24,000	— 8,000
Versatile Test Reactor Project:					
Other Project Costs	43,000	55,000	.....	— 43,000	— 55,000
21-E-200 VTR Project	2,000	90,000	.....	— 2,000	— 90,000
Subtotal, Versatile Test Reactor Project	45,000	145,000	.....	— 45,000	— 145,000
Advanced Reactors Demonstration Program:					
National Reactor Innovation Center	30,000	55,000	55,000	+ 25,000	.....
Demonstration 1	80,000	108,700	108,700	+ 28,700	.....
Demonstration 2	80,000	136,650	136,650	+ 56,650	.....

Risk Reduction for Future Demonstrations	40,000	50,000	50,000	50,000	+ 10,000	.....
Regulatory Development	15,000	15,000	15,000	15,000	.....	.....
Advanced Reactors Safeguards	5,000	5,000	5,000	5,000	.....	.....
Subtotal, Advanced Reactors Demonstration Program	250,000	370,350	370,350	370,350	+ 120,350	.....
Infrastructure:							
OPNL Nuclear Facilities O&M	20,000	.....	19,000	19,000	- 1,000	+ 19,000
INL Facilities Operations and Maintenance	280,000	300,000	290,000	290,000	+ 10,000	- 10,000	
Research Reactor Infrastructure	11,500	15,000	15,000	15,000	+ 3,500	.....
Construction:							
16-E-200 Sample Preparation Laboratory, INL	26,000	41,850	35,000	35,000	+ 9,000	- 6,850	
Subtotal, Construction	26,000	41,850	35,000	35,000	+ 9,000	- 6,850	
Subtotal, Infrastructure	337,500	356,850	359,000	359,000	+ 21,500	+ 2,150	
Idaho Site-wide Safeguards and Security	149,800	149,800	149,800	149,800	.....	.....
International Nuclear Energy Cooperation .....	.....	5,000	.....	.....	.....	- 5,000
Program Direction	75,131	85,000	85,000	85,000	+ 9,869	.....
TOTAL, NUCLEAR ENERGY	1,507,600	1,850,500	1,590,800	1,590,800	+ 83,200	- 259,700	
FOSSIL ENERGY AND CARBON MANAGEMENT							
CCUS and Power Systems:							
Carbon Capture	86,300	150,000	200,000	200,000	+ 113,700	+ 50,000	
Carbon Dioxide Removal	40,000	63,000	50,000	50,000	+ 10,000	- 13,000	
Carbon Utilization	23,000	38,000	35,000	35,000	+ 12,000	- 3,000	
Carbon Storage	79,000	117,000	97,000	97,000	+ 18,000	- 20,000	
Advanced Energy and Hydrogen Systems	108,100	82,000	75,000	75,000	- 33,100	- 7,000	
Crosscutting Research	32,900	36,500	30,500	30,500	- 2,400	- 6,000	
Mineral Sustainability	53,000	45,000	25,000	25,000	- 28,000	- 20,000	
STEP (Supercritical CO2)	14,500	.....	15,000	15,000	+ 500	+ 15,000
Transformational Coal Pilots	10,000	.....	.....	.....	- 10,000	.....
Subtotal, CCUS and Power Systems	446,800	531,500	527,500	527,500	+ 80,700	- 4,000	
Natural Gas Technologies	57,000	130,000	82,501	82,501	+ 25,501	- 47,499	
Unconventional Fossil Energy Technologies from Petroleum—Oil Technologies	46,000	.....	.....	.....	- 46,000	.....
Program Direction	61,500	66,800	65,800	65,800	+ 4,300	- 1,000	

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Special Recruitment Programs	700	700	1,000	+ 300	+ 300
NETL Research and Operations	83,000	83,000	83,000		
NETL Infrastructure	55,000	78,000	70,000	+ 15,000	- 8,000
Congressionally Directed Spending			20,199	+ 20,199	+ 20,199
TOTAL FOSSIL ENERGY AND CARBON MANAGEMENT	750,000	890,000	850,000	+ 100,000	- 40,000
NAVAL PETROLEUM AND OIL SHALE RESERVES	13,006	13,650	13,650	+ 644	
STRATEGIC PETROLEUM RESERVE					
Strategic Petroleum Reserve	188,000	197,000	197,000	+ 9,000	
Sale of Crude Oil		-25,000			+ 25,000
Use of Sale Proceeds		25,000			- 25,000
Sale of gas reserves			- 108,000	- 108,000	- 108,000
TOTAL STRATEGIC PETROLEUM RESERVE	188,000	197,000	89,000	- 99,000	- 108,000
SPR PETROLEUM ACCOUNT					
SPR Petroleum Reserve	1,000	7,350	7,350	+ 6,350	
TOTAL SPR PETROLEUM ACCOUNT	1,000	7,350	7,350	+ 6,350	
NORTHEAST HOME HEATING OIL RESERVE					
Northeast Home Heating Oil Reserve	6,500		6,500		+ 6,500
TOTAL, NORTHEAST HOME HEATING OIL RESERVE	6,500		6,500		+ 6,500
ENERGY INFORMATION ADMINISTRATION	126,800	126,800	129,087	+ 2,287	+ 2,287

NON-DEFENSE ENVIRONMENTAL CLEANUP						
Fast Flux Test Reactor Facility (WA)	2,500	3,100	3,100	3,100	+ 600	.....
Gaseous Diffusion Plants	115,554	116,203	116,203	121,203	+ 5,649	+ 5,000
Small Sites	110,933	129,337	129,337	124,340	+ 13,407	- 4,997
West Valley Demonstration Project	88,113	88,120	88,120	88,120	+ 7	.....
Management and Storage of Elemental Mercury	2,100	2,100	2,100	2,100	.....	.....
US Enrichment Corporation Fund Receipts	.....	- 116,203	.....	.....	.....	+ 116,203
Use of USEC Fund Receipts	.....	116,203	.....	.....	.....	- 116,203
Mercury Receipts	3,000	.....	.....	.....	- 3,000	.....
Use of Mercury Receipts	- 3,000	.....	.....	.....	+ 3,000	.....
TOTAL NON-DEFENSE ENVIRONMENTAL CLEANUP	319,200	338,860	338,863	338,863	+ 19,663	+ 3
URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND						
Oak Ridge	134,701	105,000	105,000	105,000	- 29,701	.....
Nuclear Facility D&D, Paducah	240,000	198,995	198,995	240,000	.....	+ 41,005
Portsmouth:						
Nuclear Facility D&D, Portsmouth	367,193	397,311	397,311	397,311	+ 30,118	.....
Construction:						
15-U-408 On-site Waste Disposal Facility, Portsmouth	46,639	5,000	5,000	5,000	- 41,639	.....
20-U-401 On-site Waste Disposal Facility (Cell Line 2&3)	16,500	65,235	65,235	65,235	+ 48,735	.....
Subtotal, Portsmouth	430,332	467,546	467,546	467,546	+ 37,214	.....
Pension and Community and Regulatory Support	30,967	26,299	31,299	31,299	+ 332	+ 5,000
Title X Uranium/Thorium Reimbursement Program	5,000	33,500	16,155	16,155	+ 11,155	- 17,345
TOTAL UED&D FUND	841,000	831,340	860,000	860,000	+ 19,000	+ 28,660
SCIENCE						
Advanced Scientific Computing Research:						
Research	846,055	911,000	911,000	911,000	+ 64,945	.....
Construction:						
17-SC-20 Office of Science Exascale Computing Project (SC-ECP)	168,945	129,000	129,000	129,000	- 39,945	.....
Subtotal, Advanced Scientific Computing Research	1,015,000	1,040,000	1,040,000	1,040,000	+ 25,000	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Basic Energy Sciences:					
Research	1,856,000	1,995,800	2,018,800	+ 162,800	+ 23,000
Construction:					
13-SC-10 LINAC coherent light source II (LCLS-II), SLAC	33,000	28,100	28,100	- 4,900	.....
18-SC-10 Advanced Photon Source Upgrade (APS-U), ANL	160,000	101,000	101,000	- 59,000	.....
18-SC-11 Spallation Neutron Source Proton Upgrade (PPU), ORNL	52,000	17,000	17,000	- 35,000	.....
18-SC-12 Advanced Light Source Upgrade (ALS-U), LBNL	62,000	75,100	75,100	+ 13,100	.....
18-SC-13 Linac Coherent Light Source-II-High Energy (LCLS-II-HE), SLAC	52,000	50,000	50,000	- 2,000	.....
19-SC-14 Second Target Station (STS), ORNL	29,000	32,000	32,000	+ 3,000	.....
21-SC-10 Cryomodule Repair and Maintenance Facility	1,000	1,000	1,000	.....	.....
Subtotal, Construction	389,000	304,200	304,200	- 84,800	.....
Subtotal, Basic Energy Sciences	2,245,000	2,300,000	2,323,000	+ 78,000	+ 23,000
Biological and Environmental Research	753,000	828,000	828,000	+ 75,000	.....
Fusion Energy Sciences:					
Research	415,000	449,000	434,000	+ 19,000	- 15,000
Construction:					
14-SC-60 US Contributions to ITER (US ITER)	242,000	221,000	211,000	- 31,000	- 10,000
20-SC-61 Matter in Extreme Conditions (MEC) Petawatt Upgrade, SLAC	15,000	5,000	15,000	.....	+ 10,000
Subtotal, Construction	257,000	226,000	226,000	- 31,000	.....
Subtotal, Fusion Energy Sciences	672,000	675,000	660,000	- 12,000	- 15,000
High Energy Physics					
Research	777,065	782,000	800,000	+ 22,935	+ 18,000
Construction:					
11-SC-40 Long Baseline Neutrino Facility / Deep Underground Neutrino Experiment (LBNF/DUNE), FNAL	171,000	176,000	176,000	+ 5,000	.....
11-SC-41 Muon to electron conversion experiment, FNAL	2,000	13,000	13,000	+ 11,000	.....

18-SC-42 Proton Improvement Plan II (PIP-II), FNAL	79,000	90,000	90,000	+ 11,000	.....
Subtotal, Construction	252,000	279,000	279,000	+ 27,000	.....
Subtotal, High Energy Physics	1,029,065	1,061,000	1,079,000	+ 49,935	+ 18,000
Nuclear Physics:					
Research	624,700	700,000	724,000	+ 99,300	+ 24,000
Construction:					
14-SC-50 Facility for Rare Isotope Beams, MSU	5,300	.....	.....	- 5,300	.....
20-SC-52 Electron Ion Collider, BNL	5,000	20,000	20,000	+ 15,000	.....
Subtotal, Construction	10,300	20,000	20,000	+ 9,700	.....
Subtotal, Nuclear Physics	635,000	720,000	744,000	+ 109,000	+ 24,000
Isotope R&D and Production:					
Research	66,000	78,000	78,000	+ 12,000	.....
Construction:					
20-SC-51 US Stable Isotope Production and Research Center, ORNL	12,000	12,000	12,000	.....	.....
Subtotal, Construction	12,000	12,000	12,000	.....	.....
Subtotal, Isotope R&D and Production	78,000	90,000	90,000	+ 12,000	.....
Accelerator R&D and Production	16,935	24,000	24,000	+ 7,065	.....
Workforce Development for Teachers and Scientists	29,000	35,000	35,000	+ 6,000	.....
Science Laboratories Infrastructure:					
Infrastructure Support:					
Payment in Lieu of Taxes	4,650	4,820	4,820	+ 170	.....
Oak Ridge Landlord	5,860	6,430	6,430	+ 570	.....
Facilities and Infrastructure	29,790	17,200	17,200	- 12,590	.....
Oak Ridge Nuclear Operations	26,000	20,000	20,000	- 6,000	.....
Subtotal, Infrastructure Support	66,300	48,450	48,450	- 17,850	.....
Construction:					
17-SC-71 Integrated Engineering Research Center, FNAL	10,250	10,250	10,250	.....	.....
18-SC-71 Energy Sciences Capability, PNNL	23,000	.....	.....	- 23,000	.....
19-SC-71 Science User Support Center, BNL	20,000	38,000	38,000	+ 18,000	.....
19-SC-73 Translational Research Capability, ORNL	22,000	21,500	21,500	- 500	.....
19-SC-74 BioEPIC, LBNL	20,000	35,000	35,000	+ 15,000	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
20-SC-71 Critical Utilities Rehabilitation Project, BNL	20,000	26,000	26,000	+ 6,000	.....
20-SC-72 Seismic and Safety Modernization, LBNL	5,000	27,500	27,500	+ 22,500	.....
20-SC-73 CEBAF Renovation and Expansion, TJNAF	2,000	10,000	10,000	+ 8,000	.....
20-SC-74 Craft Resources Support Facility, ORNL	25,000	.....	.....	- 25,000	.....
20-SC-75 Large Scale Collaboration Center, SLAC	11,000	12,000	21,000	+ 10,000	+ 9,000
20-SC-76 Tritium System Demolition and Disposal, PPPL	13,000	6,400	6,400	- 6,600	.....
20-SC-77 Argonne Utilities Upgrade, ANL	500	10,000	8,500	+ 8,000	- 1,500
20-SC-78 Linear Assets Modernization Project, LBNL	500	12,850	10,400	+ 9,900	- 2,450
20-SC-79 Critical Utilities Infrastructure Revitalization, SLAC	500	13,300	10,500	+ 8,000	- 1,500
20-SC-80 Utilities Infrastructure Project, FNL	150	7,750	7,000	+ 10,000	- 2,800
21-SC-71 Princeton Plasma Innovation Center, PPPL	150	2,000	2,000	+ 6,850	- 750
21-SC-72 Critical Infrastructure Recovery & Renewal, PPPL	150	2,000	2,000	+ 1,850	.....
21-SC-73 Ames Infrastructure Modernization	150	2,000	2,000	+ 1,850	.....
22-SC-71, Critical Infrastructure Modernization Project (CIMP), ORNL .....	.....	1,000	1,000	+ 1,000	.....
22-SC-72, Thomas Jefferson Infrastructure Improvements (TII), TJNAF .....	.....	1,000	1,000	+ 1,000	.....
Subtotal, Construction:	173,700	246,550	246,550	+ 72,850	.....
Subtotal, Science Laboratories Infrastructure	240,000	295,000	295,000	+ 55,000	.....
Safeguards and Security	121,000	170,000	170,000	+ 49,000	.....
Program Direction	192,000	202,000	202,000	+ 10,000	.....
TOTAL, SCIENCE	7,026,000	7,440,000	7,490,000	+ 464,000	+ 50,000
NUCLEAR WASTE DISPOSAL	27,500	7,500	27,500	.....	+ 20,000
TECHNOLOGY TRANSITIONS					
Technology Transitions Programs .....	.....	11,095	11,095	+ 11,095	.....
Program Direction .....	.....	8,375	8,375	+ 8,375	.....

TOTAL, TECHNOLOGY TRANSITIONS	19,470	19,470	+ 19,470	.....
CLEAN ENERGY DEMONSTRATIONS				
Demonstrations	386,500	91,600	+ 91,600	- 294,900
Program Direction	13,500	8,400	+ 8,400	- 5,100
TOTAL, CLEAN ENERGY DEMONSTRATIONS	400,000	100,000	+ 100,000	- 300,000
ADVANCED RESEARCH PROJECTS AGENCY—ENERGY				
ARPA-E Projects	392,000	463,000	+ 71,000	.....
Program Direction	35,000	37,000	+ 2,000	.....
TOTAL, ARPA-E	427,000	500,000	+ 73,000	.....
ADVANCED RESEARCH PROJECTS AGENCY—CLIMATE				
ARPA-C Projects	180,000	.....	.....	- 180,000
Program Direction	20,000	.....	.....	- 20,000
TOTAL, ARPA-C	200,000	.....	.....	- 200,000
TITLE 17—INNOVATIVE TECHNOLOGY LOAN GUARANTEE PGM				
Administrative Expenses	32,000	32,000	.....	.....
Title XVII Loan Guarantee Credit Subsidy	150,000	.....	.....	- 150,000
Offsetting Collection	- 3,000	- 3,000	.....	.....
Rescission of emergency funding	- 392,000	.....	+ 392,000	.....
TOTAL, TITLE 17—INNOVATIVE TECHNOLOGY LOAN	- 363,000	29,000	+ 392,000	- 150,000
GUARANTEE PROGRAM				
ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PGM	5,000	5,000	.....	.....
Administrative Expenses .....	.....	.....	.....	.....
Rescission of emergency funding	- 1,908,000	.....	+ 1,908,000	.....
TOTAL, ADVANCED TECHNOLOGY VEHICLES	- 1,903,000	5,000	+ 1,908,000	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
MANUFACTURING LOAN PROGRAM					
TRIBAL ENERGY LOAN GUARANTEE PROGRAM					
Administrative Expenses	2,000	2,000	2,000		
TOTAL, TRIBAL ENERGY LOAN GUARANTEE PROGRAM	2,000	2,000	2,000		
INDIAN ENERGY POLICY AND PROGRAMS					
Indian Energy Program	17,000	116,477	116,477	+99,477	
Program Direction	5,000	5,523	5,523	+523	
TOTAL, INDIAN ENERGY POLICY AND PROGRAMS	22,000	122,000	122,000	+100,000	
DEPARTMENTAL ADMINISTRATION					
Salaries and Expenses:					
Office of the Secretary	5,582	5,582	5,582		
Congressional and Intergovernmental Affairs	5,000	6,000	6,000	+1,000	
Chief Financial Officer	53,590	56,591	56,591	+3,001	
Economic Impact and Diversity	10,169	20,000	20,000	+9,831	
Chief Information Officer	140,200	232,258	190,000	+49,800	-42,258
Artificial Intelligence and Technology Office	2,500	1,500	1,000	-1,500	-500
International Affairs	26,825	30,500	28,000	+1,175	-2,500
Other Departmental Administration	159,301	193,617	160,115	+814	-33,502
Subtotal, Salaries and Expenses	403,167	546,048	467,288	+64,121	-78,760
Strategic Partnership Projects	40,000	40,000	40,000		
Subtotal, Departmental Administration	443,167	586,048	507,288	+64,121	-78,760

Funding from Other Defense Activities	- 183,789	- 163,710	- 163,710	+ 20,079	.....
Total, Departmental Administration (Gross)	259,378	422,338	343,578	+ 84,200	- 78,760
Miscellaneous revenues	- 93,378	- 100,578	- 100,578	- 7,200	.....
TOTAL, DEPARTMENTAL ADMINISTRATION (Net)	166,000	321,760	243,000	+ 77,000	- 78,760
OFFICE OF THE INSPECTOR GENERAL					
Office of the Inspector General	57,739	78,000	78,000	+ 20,261	.....
TOTAL, OFFICE OF THE INSPECTOR GENERAL	57,739	78,000	78,000	+ 20,261	.....
TOTAL, ENERGY PROGRAMS	12,444,825	18,790,230	16,878,191	+ 4,433,366	- 1,912,039
ATOMIC ENERGY DEFENSE ACTIVITIES					
NATIONAL NUCLEAR SECURITY ADMINISTRATION					
WEAPONS ACTIVITIES					
Stockpile Management:					
Stockpile Major Modernization:					
B61 Life Extension Program	815,710	771,664	771,664	- 44,046	.....
W88 Alteration Program	256,922	207,157	207,157	- 49,765	.....
W80-4 Life Extension Program	1,000,314	1,080,400	1,080,400	+ 80,086	.....
W80-4 Alteration-SLCM .....	.....	10,000	10,000	+ 10,000	.....
W87-1 Modification Program	541,000	691,031	691,031	+ 150,031	.....
W93	53,000	72,000	72,000	+ 19,000	.....
Subtotal, Stockpile Major Modernization	2,666,946	2,832,252	2,832,252	+ 165,306	.....
Stockpile Sustainment:					
B61 Stockpile systems .....	.....	102,679	102,679	+ 102,679	+ 102,679
W76 Stockpile systems .....	.....	169,220	169,220	+ 169,220	+ 169,220
W78 Stockpile systems .....	.....	94,766	94,766	+ 94,766	+ 94,766
W80 Stockpile systems .....	.....	91,669	91,669	+ 91,669	+ 91,669
B83 Stockpile systems .....	.....	98,456	98,456	+ 98,456	+ 98,456
W87 Stockpile systems .....	.....	117,297	117,297	+ 117,297	+ 117,297
W88 Stockpile systems .....	.....	142,841	142,841	+ 142,841	+ 142,841

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Multi-Weapon Systems			363,555	+ 363,555	+ 363,555
Subtotal, Stockpile Sustainment			1,180,483	+ 1,180,483	+ 1,180,483
Stockpile Sustainment	998,357	1,180,483		- 998,357	- 1,180,483
Weapons Dismantlement and Disposition	56,000	51,000	51,000		
Production Operations	568,941	568,941	568,941		
Subtotal, Stockpile Management	4,290,244	4,632,676	4,632,676	+ 342,432	
Production Modernization:					
Primary Capability Modernization:					
Plutonium Modernization:					
Los Alamos Plutonium Operations	610,599	660,419	660,419	+ 49,820	
21-D-512, Plutonium Pit Production Project, LANL	226,000	350,000	350,000	+ 124,000	
Subtotal, Los Alamos Plutonium Modernization	836,599	1,010,419	1,010,419	+ 173,820	
Savannah River Plutonium Operations	200,000	128,000	128,000	- 72,000	
21-D-511, Savannah River Plutonium Processing Facility, SRS	241,896	475,000	475,000	+ 233,104	
Subtotal, Savannah River Plutonium Modernization	441,896	603,000	603,000	+ 161,104	
Enterprise Plutonium Support	90,782	107,098	107,098	+ 16,316	
Subtotal, Plutonium Modernization	1,369,277	1,720,517	1,720,517	+ 351,240	
High Explosives & Energetics	63,620	68,785	68,785	+ 5,165	
HESE OPCs	3,750			- 3,750	
Subtotal, HE & Energetics	67,370	68,785	68,785	+ 1,415	
Subtotal, Primary Capability Modernization	1,436,647	1,789,302	1,789,302	+ 352,655	
Secondary Capability Modernization:		488,097	488,097	+ 488,097	

Uranium Sustainment	242,732			-242,732	
Uranium Modernization					
Process Technology Development	63,957			-63,957	
Depleted Uranium Modernization	110,915			-110,915	
Lithium Modernization	39,400			-39,400	
Subtotal, Secondary Capability Modernization	457,004	488,097	488,097	+31,093	
Tritium and Domestic Uranium Enrichment:		489,017	489,017	+489,017	
Tritium Sustainment and Modernization	312,109			-312,109	
Domestic Uranium Enrichment	70,000			-70,000	
HEU Downblend	90,000			-90,000	
Uranium Reserve	75,000			-75,000	
Subtotal, Tritium & DUE	547,109	489,017	489,017	-58,092	
Non-Nuclear Capability Modernization	107,137	144,563	144,563	+37,426	
Subtotal, Production Modernization	2,547,897	2,910,979	2,910,979	+363,082	
Stockpile Research, Technology, and Engineering:					
Assessment Science:		689,578			-689,578
Primary Assessment Technologies	150,000		150,000		+150,000
Dynamic Materials Properties	130,981		130,981		+130,981
Advanced Diagnostics	35,989		35,989		+35,989
Secondary Assessment Technologies	84,000		84,000		+84,000
Enhanced Capabilities for Subcritical Experiments	215,579		215,579		+215,579
Hydrodynamic & Subcritical Execution Support	152,845		152,845		+152,845
Subtotal, Assessment Science	769,394	689,578	769,394	+79,816	
Engineering and Integrated Assessments:		336,766			-336,766
Archiving & Support	45,760		45,760		+45,760
Delivery Environments	39,235		39,235		+39,235
Weapons Survivability	59,500		59,500		+59,500
Aging & Lifetimes	62,260		77,260	+15,000	+77,260
Stockpile Responsiveness	70,000		10,000	-60,000	+10,000
Advanced Certification & Qualification	60,649		60,330	-319	+60,330
Subtotal, Engineering and Integrated Assessments	337,404	336,766	292,085	-45,319	-44,681
Inertial Confinement Fusion	575,000	529,000	580,000	+5,000	+51,000
Advanced Simulation and Computing	732,014	747,012	747,012	+14,998	

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Weapon Technology and Manufacturing Maturation:		292,630	292,630	+ 292,630	.....
Surety Technology	54,365	.....	.....	- 54,365	.....
Weapon Technology Development	131,692	.....	.....	- 131,692	.....
Advanced Manufacturing Development	111,908	.....	.....	- 111,908	.....
Subtotal, Weapon Technology and Manufacturing Maturation	297,965	292,630	292,630	- 5,335	.....
Academic Programs	101,912	95,645	111,912	+ 10,000	+ 16,267
Subtotal, Stockpile Research, Technology, and Engineering	2,813,689	2,690,631	2,793,033	- 20,656	+ 102,402
Infrastructure and Operations:					
Operations of facilities	1,014,000	1,014,000	1,014,000	.....	.....
Safety and environmental operations	165,354	165,354	165,354	.....	.....
Maintenance and repair of facilities	667,000	670,000	625,000	- 42,000	- 45,000
Subtotal, Operations	1,846,354	1,849,354	1,804,354	- 42,000	- 45,000
Recapitalization:					
Infrastructure and safety	573,717	508,664	482,664	- 91,053	- 26,000
Capability based investments	149,117	143,066	143,066	- 6,051	.....
Planning for Programmatic Construction (Pre-CD-1)	10,000	.....	.....	- 10,000	.....
Subtotal, Recapitalization	732,834	651,730	625,730	- 107,104	- 26,000
I&O Construction:					
Programmatic Construction:					
06-D-141 Uranium Processing Facility, Y-12	750,000	524,000	524,000	- 226,000	.....
07-D-220-04 TRU Liquid Waste Facility, LANL	36,687	.....	.....	- 36,687	.....
15-D-301 HE Science & Engineering Facility, PX	43,000	.....	.....	- 43,000	.....
15-D-302 TA-55 Reinvestment project III, LANL	30,000	27,000	27,000	- 3,000	.....
17-D-640 U1a complex enhancements project, NNSA	160,600	135,000	135,000	- 25,600	.....
18-D-620 Exascale Computing Facility Modernization Project, LLNL	29,200	.....	.....	- 29,200	.....

18-D-650 Tritium Finishing Facility, SRS	27,000	27,000	27,000	27,000	.....
18-D-690 Lithium processing facility, Y-12	109,405	167,902	167,902	167,902	+ 58,497
21-D-510 HE Synthesis, Formulation, and Production, PX	31,000	44,500	44,500	36,200	+ 5,200
22-D-513, Power Sources Capability, SNL .....	.....	13,827	13,827	13,827	+ 13,827
Chemistry and Metallurgy Replacement (CMRR):					
404-D-125 Chemistry and metallurgy replacement project, LANL	169,427	138,123	138,123	138,123	- 31,304
Subtotal, Programmatic Construction and CMMR	1,386,319	1,077,352	1,069,052	1,069,052	- 8,300
Mission Enabling:					
15-D-611 Emergency Operations Center, SNL	36,000	.....	.....	.....	- 36,000
15-D-612 Emergency Operations Center, LLNL	27,000	.....	.....	.....	- 27,000
19-D-670 138kV Power Transmission System Replacement, MNSS	59,000	.....	.....	.....	- 59,000
22-D-514 Digital Infrastructure Capability Expansion, LLNL .....	.....	8,000	8,000	8,000	+ 8,000
Subtotal, Mission Enabling	122,000	8,000	8,000	8,000	- 114,000
Subtotal, I&O Construction:	1,508,319	1,085,352	1,077,052	1,077,052	- 431,267
Subtotal, Infrastructure and Operations	4,087,507	3,586,436	3,507,136	3,507,136	- 580,371
Secure Transportation Asset:					
STA Operations and Equipment	225,000	213,704	213,704	213,704	- 11,296
Program Direction	123,684	117,060	117,060	117,060	- 6,624
Subtotal, Secure Transportation Asset	348,684	330,764	330,764	330,764	- 17,920
Defense Nuclear Security:					
Defense Nuclear Security (DNS)	763,078	824,623	801,521	801,521	+ 38,443
Construction:					
17-D-710 West End Protected Area Reduction Project, Y-12	26,000	23,000	23,000	23,000	- 3,000
Subtotal, Defense Nuclear Security	789,078	847,623	824,521	824,521	+ 35,443
Information Technology and Cyber Security	366,233	406,530	406,530	406,530	+ 40,297
Legacy Contractor Pensions (WA)	101,668	78,656	78,656	78,656	- 23,012
TOTAL WEAPONS ACTIVITIES	15,345,000	15,484,295	15,484,295	15,484,295	+ 139,295

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
DEFENSE NUCLEAR NONPROLIFERATION					
Material Management and Minimization:					
Conversion	110,000	100,660	100,660	- 9,340	.....
Nuclear Material Removal	40,000	42,100	42,100	+ 2,100	.....
Material Disposition	190,711	200,186	200,186	+ 9,475	.....
Laboratory and Partnership Support	60,000	.....	.....	- 60,000	.....
Subtotal, Material Management and Minimization	400,711	342,946	342,946	- 57,765	.....
Global Material Security:					
International Nuclear Security	78,939	79,939	79,939	+ 1,000	.....
Domestic Radiological Security	185,000	158,002	158,002	- 26,998	.....
International Radiological Security	90,000	85,000	85,000	- 5,000	.....
Nuclear Smuggling Detection and Deterrence	175,000	175,000	175,000	.....	.....
Subtotal, Global Material Security	528,939	497,941	497,941	- 30,998	.....
Nonproliferation and Arms Control	148,000	184,795	184,795	+ 36,795	.....
National Technical Nuclear Forensics R&D	40,000	.....	.....	- 40,000	.....
Defense Nuclear Nonproliferation R&D:					
Proliferation Detection	255,000	269,407	269,407	+ 14,407	.....
Nuclear Detonation Detection	267,000	271,000	271,000	+ 4,000	.....
Nonproliferation Fuels Development	20,000	.....	.....	- 20,000	.....
Nonproliferation Stewardship Program	59,900	87,329	87,329	+ 27,429	.....
National Technical Nuclear Forensics .....	.....	45,000	45,000	+ 45,000	.....
Subtotal, Defense Nuclear Nonproliferation R&D	601,900	672,736	672,736	+ 70,836	.....
Nonproliferation Construction:					
18-D-150 Surplus Plutonium Disposition Project, SRS	148,589	156,000	156,000	+ 7,411	.....
Subtotal, Nonproliferation Construction	148,589	156,000	156,000	+ 7,411	.....

Nuclear Counterterrorism and Incident Response:							
Nuclear Counterterrorism and Incident Response	356,185	356,185	+ 356,185				
Emergency Operations	14,597	14,597	- 21,403				
Counterterrorism and Counterproliferation	341,513		- 341,513				
Subtotal, Nuclear Counterterrorism and Incident Response	377,513	370,782	- 6,731				
Legacy contractor pensions	14,348	38,800	+ 24,452				
Rescission		- 330,000					+ 330,000
TOTAL, DEFENSE NUCLEAR NONPROLIFERATION	2,260,000	1,934,000	+ 4,000				+ 330,000
NAVAL REACTORS							
Naval Reactors Development	568,000	640,684	+ 62,684				- 10,000
Columbia-class Reactor Systems Development	64,700	55,000	- 9,700				
S8G Prototype Refueling	135,000	126,000	- 9,000				
Naval Reactors Operations and Infrastructure	530,600	594,017	+ 47,217				- 16,200
Program Direction	51,700	55,579	+ 3,879				
Construction:							
14-D-901 Spent Fuel Handling Recapitalization project, NRF	330,000	348,705	+ 18,705				
21-D-530 KL Steam and Condensate Upgrades	4,000		- 4,000				
22-D-531 KL Chemistry and Radiological Health Building		41,620	+ 41,620				
22-D-532 KL Security Upgrades		5,100	+ 5,100				
Subtotal, Construction	334,000	395,425	+ 61,425				
Rescission		- 6,000					+ 6,000
TOTAL, NAVAL REACTORS	1,684,000	1,860,705	+ 156,505				- 20,200
FEDERAL SALARIES AND EXPENSES							
TOTAL, NATIONAL NUCLEAR SECURITY ADMINISTRATION	443,200	464,000	+ 9,800				- 11,000
Subtotal, National Nuclear Security Administration	19,732,200	20,041,800	+ 309,600				+ 298,800
DEFENSE ENVIRONMENTAL CLEANUP							
Closure Sites Administration	4,987	3,987	- 1,000				
Richland:							
River Corridor and Other Cleanup Operations	232,479	196,000	- 21,479				+ 15,000

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Central Plateau Remediation	670,000	689,776	681,805	+ 11,805	- 7,971
RL Community and Regulatory Support	8,621	5,121	10,221	+ 1,600	+ 5,100
Construction:					
18-D-404 WESF Modifications and Capsule Storage	15,000	8,000	8,000	- 7,000	.....
22-D-401 L-888, 400 Area Fire Station .....	.....	15,200	15,200	+ 15,200	.....
22-D-402 L-897, 200 Area Water Treatment Facility .....	.....	12,800	12,800	+ 12,800	.....
Subtotal, Construction	15,000	36,000	36,000	+ 21,000	.....
Subtotal, Richland	926,100	926,897	939,026	+ 12,926	+ 12,129
Office of River Protection:					
Waste Treatment and Immobilization Plant Commissioning	50,000	50,000	50,000	.....	.....
Rad Liquid Tank Waste Stabilization and Disposition	784,000	817,642	837,642	+ 53,642	+ 20,000
Construction:					
01-D-16 D High-level Waste Facility	25,000	60,000	144,358	+ 119,358	+ 84,358
01-D-16 E Pretreatment Facility .....	.....	20,000	20,000	+ 20,000	.....
18-D-16 Waste Treatment and Immobilization Plant—LBL/Direct Feed LAW	786,000	586,000	586,000	- 200,000	.....
Subtotal, Construction	811,000	666,000	750,358	- 60,642	+ 84,358
ORP Low-level Waste Offsite Disposal .....	.....	7,000	7,000	+ 7,000	.....
Subtotal, Office of River Protection	1,645,000	1,540,642	1,645,000	.....	+ 104,358
Idaho National Laboratory:					
Idaho Cleanup and Waste Disposition	430,000	358,925	358,925	- 71,075	.....
Idaho Community and Regulatory Support	3,500	2,658	2,658	- 842	.....
Construction:					
22-D-403 Idaho Spent Nuclear Fuel Staging Facility .....	.....	3,000	3,000	+ 3,000	.....
22-D-404 Additional ICDF Landfill Disposal Cell and Evaporation Ponds Project .....	.....	5,000	5,000	+ 5,000	.....

Subtotal, Construction				8,000	8,000	+ 8,000	.....
Total, Idaho National Laboratory	433,500	369,583	369,583			- 63,917	.....
NNSA Sites and Nevada Offsites:							
Lawrence Livermore National Laboratory	1,764	1,806	1,806			+ 42	.....
Separations Process Research Unit	15,000	15,000	15,000				.....
Nevada	60,737	60,737	60,737				.....
Sandia National Laboratory	4,860	4,576	4,576			- 284	.....
Los Alamos National Laboratory	226,000	275,119	275,119			+ 49,119	.....
Los Alamos Excess Facilities D&D		58,381	17,000			+ 17,000	.....
LLNL Excess Facilities D&D	35,000	35,000	35,000			- 41,381	.....
Total, NNSA Sites and Nevada Off-sites	343,361	450,619	409,238			+ 65,877	- 41,381
Oak Ridge Reservation:							
OR Nuclear Facility D&D	254,132	274,923	274,923			+ 20,791	.....
U233 Disposition Program	55,000	55,000	55,000				.....
OR Cleanup and Disposition	112,471	73,725	73,725			- 38,746	.....
Construction:							
14-D-403 Outfall 200 Mercury Treatment Facility	20,500					- 20,500	.....
17-D-401 On-site Waste Disposal Facility	22,380	12,500	12,500			- 9,880	.....
Subtotal, Construction	42,880	12,500	12,500			- 30,380	.....
OR Community & Regulatory Support	5,900	5,096	5,096			- 804	.....
OR Technology Development and Deployment	5,000	3,000	3,000			- 2,000	.....
Total, Oak Ridge Reservation	475,383	424,244	424,244			- 51,139	.....
Savannah River Site:							
SR Site Risk Management Operations	500,000	452,724	446,724			- 53,276	- 6,000
Construction:							
18-D-402 Emergency Operations Center Replacement, SR	6,500	8,999	8,999			+ 2,499	.....
19-D-701 SR Security System Replacement	1,000	5,000	5,000			+ 4,000	.....
20-D-402 Advanced Manufacturing Collaborative Facility (AMC)	25,000					- 25,000	.....
Total, SR Site Risk Management Operations	532,500	466,723	460,723			- 71,777	- 6,000
SR Community and Regulatory Support	11,549	5,805	11,805			+ 256	+ 6,000
SR Radioactive Liquid Tank Waste Stabilization and Disposition	910,832	890,865	890,865			- 19,967	.....
Construction:							
17-D-402 Saltstone Disposal Unit #7, SRS	10,716					- 10,716	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
18-D-402 Saltstone Disposal unit #8/9	65,500	68,000	68,000	+ 2,500	.....
20-D-401 Saltstone Disposal Unit #10, 11, 12	562	19,500	19,500	+ 18,938	.....
Subtotal, Construction	76,778	87,500	87,500	+ 10,722	.....
Savannah River Legacy Pensions .....	.....	130,882	130,882	+ 130,882	.....
Total, Savannah River Site	1,531,659	1,581,775	1,581,775	+ 50,116	.....
Waste Isolation Pilot Plant:					
Waste Isolation Pilot Plant	313,260	350,424	350,424	+ 37,164	.....
Construction:					
15-D-411 Safety Significant Confinement Ventilation System, WIPP	35,000	55,000	55,000	+ 20,000	.....
15-D-412 Exhaust Shaft, WIPP	55,000	25,000	25,000	- 30,000	.....
21-D-401 Hoisting Capability Project	10,000	.....	.....	- 10,000	.....
Total, Waste Isolation Pilot Plant	413,260	430,424	430,424	+ 17,164	.....
Program Direction	289,000	293,106	297,000	+ 8,000	+ 3,894
Program Support	12,979	62,979	62,979	+ 50,000	.....
Safeguards and Security	320,771	316,744	316,744	- 4,027	.....
Technology Development	30,000	25,000	30,000	.....	+ 5,000
Subtotal, Defense Environmental Cleanup	6,426,000	6,426,000	6,510,000	+ 84,000	+ 84,000
Federal Contribution to the Uranium Enrichment D&D Fund .....	.....	415,670	.....	.....	- 415,670
TOTAL, DEFENSE ENVIRONMENTAL CLEANUP	6,426,000	6,841,670	6,510,000	+ 84,000	- 331,670
DEFENSE UED&D .....	.....	.....	860,000	+ 860,000	+ 860,000
OTHER DEFENSE ACTIVITIES					
Environment, Health, Safety and Security:					
Environment, Health, Safety and Security	134,320	132,732	132,732	- 1,588	.....

Program Direction—Environment, Health, Safety and Security	72,000	73,588	71,665	- 335	- 1,923
Subtotal, Environment, Health, Safety and Security	206,320	206,320	204,397	- 1,923	- 1,923
Enterprise Assessments	24,435	27,335	27,335	+ 2,900	.....
Program Direction	54,635	56,049	56,049	+ 1,414	.....
Subtotal, Enterprise Assessments	79,070	83,384	83,384	+ 4,314	.....
Specialized Security Activities	283,500	283,500	299,823	+ 12,323	+ 12,323
Office of Legacy Management:					
Legacy Management Activities—Defense	142,797	408,797	158,797	+ 16,000	- 250,000
Program Direction—Legacy Management	20,262	19,933	19,933	- 329	.....
Subtotal, Office of Legacy Management	163,059	428,730	178,730	+ 15,671	- 250,000
Defense Related Administrative Support	183,789	163,710	163,710	- 20,079	.....
Office of Hearings and Appeals	4,262	4,356	4,356	+ 94	.....
TOTAL, OTHER DEFENSE ACTIVITIES	920,000	1,170,000	930,400	+ 10,400	- 239,600
TOTAL, ATOMIC ENERGY DEFENSE ACTIVITIES	27,078,200	27,754,670	28,342,200	+ 1,264,000	+ 587,530
POWER MARKETING ADMINISTRATIONS ¹					
SOUTHEASTERN POWER ADMINISTRATION					
Operation and Maintenance:					
Purchase Power and Wheeling	66,163	88,339	88,339	+ 22,176	.....
Program Direction	11,246	7,284	7,284	- 3,962	.....
Subtotal, Operation and Maintenance	77,409	95,623	95,623	+ 18,214	.....
Less Alternative Financing (for PPW)	- 14,163	- 13,353	- 13,353	+ 810	.....
Less Alternative Financing (for PD)	- 4,000	- 100	- 100	+ 3,900	.....
Offsetting Collections (for PPW)	- 52,000	- 74,986	- 74,986	- 22,986	.....
Offsetting Collections (for PD)	- 7,246	- 7,184	- 7,184	+ 62	.....
TOTAL, SOUTHEASTERN POWER ADMINISTRATION .....	.....	.....	.....	.....	.....
SOUTHWESTERN POWER ADMINISTRATION					
Operation and Maintenance:					
Operation and Maintenance	13,292	11,082	11,082	- 2,210	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Purchase Power and Wheeling	54,000	93,000	93,000	+ 39,000	.....
Program Direction	35,635	36,833	36,833	+ 1,198	.....
Construction	13,267	15,901	15,901	+ 2,634	.....
Subtotal, Operation and Maintenance	116,194	156,816	156,816	+ 40,622	.....
Less Alternative Financing (for O&M)	-5,635	-4,591	-4,591	+ 1,044	.....
Less Alternative Financing (for PPW)	-20,000	-23,000	-23,000	- 3,000	.....
Less Alternative Financing (for Construction)	-8,167	-10,901	-10,901	- 2,734	.....
Less Alternative Financing (for PD)	-852	.....	.....	+ 852	.....
Offsetting Collections (for PD)	-31,483	-33,529	-33,529	- 2,046	.....
Offsetting Collections (for O&M)	-5,657	-4,395	-4,395	+ 1,262	.....
Offsetting Collections (for PPW)	-34,000	-70,000	-70,000	- 36,000	.....
TOTAL, SOUTHWESTERN POWER ADMINISTRATION	10,400	10,400	10,400	.....	.....
WESTERN AREA POWER ADMINISTRATION					
Operation and Maintenance:					
Construction and Rehabilitation	26,251	35,185	35,185	+ 8,934	.....
Operation and Maintenance	77,874	81,983	81,983	+ 4,109	.....
Purchase Power and Wheeling	485,890	589,677	589,677	+ 103,787	.....
Program Direction	253,575	267,246	267,246	+ 13,671	.....
Subtotal, Operation and Maintenance	843,590	974,091	974,091	+ 130,501	.....
Less Alternative Financing (for O&M)	-6,297	-7,122	-7,122	- 825	.....
Less Alternative Financing (for Construction)	-20,353	-31,090	-31,090	- 10,737	.....
Less Alternative Financing (for PD)	-48,546	-51,849	-51,849	- 3,303	.....
Less Alternative Financing (for PPW)	-293,890	-273,677	-273,677	+ 20,213	.....
Offsetting Collections (for PD)	-145,010	-166,935	-166,935	- 21,925	.....
Offsetting Collections (for O&M)	-24,744	-27,530	-27,530	- 2,786	.....
Purchase Power & Wheeling Financed from Offsetting (Public Law 108-447/109-103)	-192,000	-316,000	-316,000	- 124,000	.....

Offsetting Collections—Colorado River Dam (Public Law 98-381)	-8,378	-9,116	-9,116	-738	.....
Use of Prior-Year Balances	-15,000	.....	.....	+15,000	.....
TOTAL, WESTERN AREA POWER ADMINISTRATION	89,372	90,772	90,772	+1,400	.....
FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND					
Falcon And Amistad Operation And Maintenance	7,302	7,545	7,545	+243	.....
Offsetting Collections—Falcon and Amistad Fund	-5,548	-5,580	-5,580	-32	.....
Less Alternative Financing—Falcon and Amistad Fund	-1,526	-1,737	-1,737	-211	.....
TOTAL, FALCON AND AMISTAD O&M FUND	228	228	228	.....	.....
TOTAL, POWER MARKETING ADMINISTRATIONS	100,000	101,400	101,400	+1,400	.....
FEDERAL ENERGY REGULATORY COMMISSION					
Federal Energy Regulatory Commission	404,350	463,900	466,426	+62,076	+2,526
FERC Revenues	-404,350	-463,900	-466,426	-62,076	-2,526
TOTAL, FEDERAL ENERGY REGULATORY COMMISSION .....	.....	.....	.....	.....	.....
GENERAL PROVISIONS					
Colorado River Basin Fund (305(b))	2,000	.....	.....	-2,000	.....
Sale of Petroleum Product .....	.....	.....	.....	.....	.....
Defense Nuclear Nonproliferation Construction Project 99-D-143 Rescission .....	.....	-330,000	-330,000	-330,000	-330,000
Naval Reactors Rescission .....	.....	.....	-6,000	-6,000	-6,000
Total, General Provisions	2,000	.....	-336,000	-338,000	-336,000
GRAND TOTAL, DEPARTMENT OF ENERGY	39,625,025	46,646,300	44,985,791	+5,360,766	-1,660,509
(Total amount appropriated)	(41,927,265)	(46,982,300)	(45,321,791)	(+3,394,526)	(-1,660,509)
(Rescissions)	(-2,240)	(-336,000)	(-336,000)	(-333,760)	.....
SUMMARY OF ACCOUNTS					
Energy Efficiency and Renewable Energy	2,861,760	4,732,000	3,896,971	+1,035,211	-835,029
Cybersecurity, Energy Security, and Emergency Response	156,000	201,000	177,000	+21,000	-24,000
Electricity	211,720	327,000	303,000	+91,280	-24,000

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2021 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2021 appropriations	Budget estimate
Nuclear Energy	1,507,600	1,850,500	1,590,800	+ 83,200	- 259,700
Fossil Energy and Carbon Management	750,000	890,000	850,000	+ 100,000	- 40,000
Naval Petroleum & Oil Shale Reserves	13,006	13,650	13,650	+ 644	.....
Strategic Petroleum Reserve	188,000	197,000	89,000	- 99,000	- 108,000
SPR Petroleum Account	1,000	7,350	7,350	+ 6,350	.....
Northeast Home Heating Oil Reserve	6,500	.....	6,500	.....	+ 6,500
Energy Information Administration	126,800	126,800	129,087	+ 2,287	+ 2,287
Non-Defense Environmental Cleanup	319,200	338,860	338,863	+ 19,663	+ 3
Uranium Enrichment D&D Fund	841,000	831,340	860,000	+ 19,000	+ 28,660
Science	7,026,000	7,440,000	7,490,000	+ 464,000	+ 50,000
Nuclear Waste Disposal	27,500	7,500	27,500	.....	+ 20,000
Technology Transitions .....	.....	19,470	19,470	+ 19,470	.....
Clean Energy Demonstrations .....	.....	400,000	100,000	+ 100,000	- 300,000
Advanced Research Projects Agency—Energy	427,000	500,000	500,000	+ 73,000	.....
Advanced Research Projects Agency—Climate .....	.....	200,000	.....	.....	- 200,000
Title 17 Innovative technology loan guarantee program	- 363,000	179,000	29,000	+ 392,000	- 150,000
Advanced Technology Vehicles Manufacturing Loan Program	- 1,903,000	5,000	5,000	+ 1,908,000	.....
Tribal Energy Loan Guarantee program	2,000	2,000	2,000	.....	.....
Indian Energy Policy and Programs	22,000	122,000	122,000	+ 100,000	.....
Departmental administration	166,000	321,760	243,000	+ 77,000	- 78,760
Office of the Inspector General	57,739	78,000	78,000	+ 20,261	.....
Atomic Energy Defense Activities:					
National Nuclear Security Administration:					
Weapons Activities	15,345,000	15,484,295	15,484,295	+ 139,295	.....
Defense Nuclear Nonproliferation	2,260,000	1,934,000	2,264,000	+ 4,000	+ 330,000
Naval Reactors	1,684,000	1,860,705	1,840,505	+ 156,505	- 20,200
Federal Salaries and Expenses	443,200	464,000	453,000	+ 9,800	- 11,000
Subtotal, National Nuclear Security Admin	19,732,200	19,743,000	20,041,800	+ 309,600	+ 298,800
Defense Environmental Cleanup	6,426,000	6,841,670	6,510,000	+ 84,000	- 331,670

Defense UED&D	920,000	.....	860,000	+ 860,000	+ 860,000
Other Defense Activities	27,078,200	1,170,000	930,400	+ 10,400	- 239,600
Total, Atomic Energy Defense Activities	27,998,200	27,754,670	28,342,200	+ 1,264,000	+ 587,530
Power Marketing Administrations: ¹					
Southwestern Power Administration	10,400	10,400	10,400	.....	.....
Western Area Power Administration	89,372	90,772	90,772	+ 1,400	.....
Falcon and Amistad Operating and Maintenance Fund	228	228	228	.....	.....
Total, Power Marketing Administrations	100,000	101,400	101,400	+ 1,400	.....
Federal Energy Regulatory Commission:					
Salaries and Expenses	404,350	463,900	466,426	+ 62,076	+ 2,526
Revenues	-404,350	-463,900	-466,426	- 62,076	- 2,526
General Provision:					
Sale of Petroleum Product	2,000	.....	.....	.....	.....
Colorado River Basin Fund (305 (b)) .....	.....	.....	2,000	.....	+ 2,000
Defense Nuclear Nonproliferation Construction Project 99-D-143 Rescission .....	.....	.....	- 330,000	- 330,000	- 330,000
Naval Reactors Rescission .....	.....	.....	- 6,000	- 6,000	- 6,000
Subtotal, General Provisions	2,000	.....	- 334,000	- 336,000	- 334,000
Total Summary of Accounts, Department of Energy	66,803,225	74,302,370	73,767,391	+ 6,964,166	- 534,979
FUNCTION RECAP:					
DEFENSE	27,228,000	27,904,470	28,156,000	+ 928,000	+ 251,530
NON-DEFENSE	12,397,025	18,741,830	16,829,791	+ 4,432,766	- 1,912,039

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. The bill includes a provision related to reprogramming.

Section 302. The bill includes a provision to authorize intelligence activities pending enactment of the fiscal year 2022 Intelligence Authorization Act.

Section 303. The bill includes a provision related to high-hazard nuclear facilities.

Section 304. The bill includes a provision regarding the approval of critical decision-2 and critical decision-3 for certain construction projects.

Section 305. The bill includes a provision to prohibit certain payments.

Section 306. The bill includes a provision regarding an experienced worker program.

Section 307. The bill includes a provision permanently rescinding prior year funding.

Section 308. The bill includes a provision regarding a pilot program for storage of used nuclear fuel.

TITLE IV
INDEPENDENT AGENCIES

APPALACHIAN REGIONAL COMMISSION

Appropriations, 2021	\$180,000,000
Budget estimate, 2022	235,000,000
Committee recommendation	210,000,000

The Committee recommends \$210,000,000 for the Appalachian Regional Commission [ARC].

Within available funds, the Committee recommends up to \$13,000,000 to address the substance abuse crisis that disproportionately affects Appalachia.

Within available funds, the Committee recommends up to \$16,000,000 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 to States that have distressed counties in Southern and South Central Appalachia using the ARC Area Development Formula.

Within available funds, the Committee recommends up to \$16,000,000 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 up to \$15,000,000 to continue a program of high-speed broadband deployment in economically distressed counties within the North Central and Northern Appalachian regions.

DEFENSE NUCLEAR FACILITIES SAFETY BOARD

SALARIES AND EXPENSES

Appropriations, 2021	\$31,000,000
Budget estimate, 2022	31,000,000
Committee recommendation	31,000,000

The Committee recommends \$31,000,000 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 \$1,146,000 within the Office of Inspector General of the Nuclear Regulatory Commission to perform these services.

DELTA REGIONAL AUTHORITY

Appropriations, 2021	\$30,000,000
Budget estimate, 2022	30,100,000
Committee recommendation	30,100,000

The Committee recommends \$30,100,000 for the Delta Regional Authority.

Within available funds, not less than \$15,000,000 shall be used for flood control, basic public infrastructure development and transportation improvements, which shall be allocated separate from the State formula funding method.

DENALI COMMISSION

Appropriations, 2021	\$15,000,000
Budget estimate, 2022	15,100,000
Committee recommendation	15,100,000

The Committee recommends \$15,100,000 for the Denali Commission.

NORTHERN BORDER REGIONAL COMMISSION

Appropriations, 2021	\$30,000,000
Budget estimate, 2022	30,100,000
Committee recommendation	35,000,000

The Committee recommends \$35,000,000 for the Northern Border Regional Commission [NBRC]. Within available funds, not less than \$4,000,000 is recommended for initiatives that seek to address the decline in forest-based economies throughout the region, \$5,000,000 is recommended for broadband initiatives, and \$1,000,000 is recommended for the State Capacity Building Grant Program authorized in the 2018 Farm Bill, provided that the funds support dedicated in-state resources focused on NBRC programs.

The Committee notes the importance of ensuring that infrastructure assets are designed, built and operated to account for the climate changes that may occur over their lifetime. Therefore, the Committee directs the Commission to develop criteria for the prioritization of projects that demonstrate evidence of planning for climate resiliency, which will help reduce direct losses or indirect costs of disruption due to climate-related risks.

The Committee supports the work of the Commission to develop rural community indicators. Once these publicly available and community-specific resilience indicators are fully developed, the NBRC is encouraged to use them in informing investment opportunities.

SOUTHEAST CRESCENT REGIONAL COMMISSION

Appropriations, 2021	\$1,000,000
Budget estimate, 2022	2,500,000
Committee recommendation	2,500,000

The Committee recommends \$2,500,000 for the Southeast Crescent Regional Commission.

SOUTHWEST BORDER REGIONAL COMMISSION

Appropriations, 2021	\$250,000
Budget estimate, 2022	2,500,000
Committee recommendation	2,500,000

The Committee recommends \$2,500,000 for the Southwest Border Regional Commission.

NUCLEAR REGULATORY COMMISSION

SALARIES AND EXPENSES

Appropriations, 2021	\$830,900,000
Budget estimate, 2022	873,901,000
Committee recommendation	873,901,000

REVENUES

Appropriations, 2021	-\$710,293,000
Budget estimate, 2022	- 745,258,000
Committee recommendation	- 745,258,000

NET APPROPRIATION

Appropriations, 2021	\$120,607,000
Budget estimate, 2022	128,643,000
Committee recommendation	128,643,000

The Committee recommendation for the Nuclear Regulatory Commission [NRC] provides the following amounts:

[Dollars in thousands]

Account	Fiscal year 2021 enacted	Fiscal year 2022 request	Committee recommended
Nuclear Reactor Safety	\$452,849	\$477,430	\$477,430
Nuclear Materials and Waste Safety	102,864	107,337	107,337
Decommissioning and Low-Level Waste	22,771	22,856	22,856
Integrated University Program	16,000	.....	16,000
Corporate Support	271,416	266,278	266,278
TOTAL, Program Level	865,900	873,901	889,901
Savings and Carryover	- 35,000	.....	- 16,000
TOTAL	830,900	873,901	873,901

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.

Advanced Nuclear Reactor Regulatory Infrastructure.—The recommendation includes \$23,000,000 for the development of regulatory infrastructure for advanced nuclear technologies, which is not subject to the Commission’s general fee recovery collection requirements. The Committee encourages the Commission to incorporate nuclear safeguards and security requirements into its development of the advanced reactor regulatory infrastructure and to work with the Department of Energy, the International Atomic Energy Agency, and other groups in the formulation of its licensing requirements.

Budget Execution Plan.—The Commission is directed to provide to the Committee not later than 30 days after enactment of this act

a specific budget execution plan. The plan shall include details at the product line level within each of the control points.

Rulemaking.—The Commission shall list all planned rulemaking activities, including their priority, schedule, and actions taken to adhere to the backfit rule, in the annual budget request and the semi-annual report to Congress on licensing and regulatory activities.

Integrated University Program.—The Commission is directed to use \$16,000,000 of prior year, unobligated balances for the Integrated University Program, including for grants to support research projects that do not align with programmatic missions but are critical to maintaining the discipline of nuclear science and engineering. 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.

Accident Tolerant Fuels Program.—The Committee is encouraged by recent progress regarding lead test assemblies in the accident tolerant fuel [ATF] program. The Commission is directed to submit a report to the Committee on the preparedness for ATF licensing with a focus on what steps are being taken to ensure that licensing activities (including higher burnup and enrichment) support projected deployment schedules.

Re-Evaluation of Nuclear Medicine Event Reporting.—Evidence shows that certain nuclear medicine extravasations may exceed medical event reporting provided in 10 C.F.R. Part 35 Subpart M. These events may harm patients through unintended radiation exposure, compromised imaging that negatively affects care, additional interventional procedures, and repeated imaging procedures. The Committee continues to encourage the Commission to consider the inclusion of significant extravasations in medical event reporting to improve safety, quality, and transparency for patients, treating physicians, and the Commission itself.

OFFICE OF INSPECTOR GENERAL

GROSS APPROPRIATION

Appropriations, 2021	\$13,499,000
Budget estimate, 2022	13,799,000
Committee recommendation	13,799,000

REVENUES

Appropriations, 2021	-\$11,106,000
Budget estimate, 2022	- 11,442,000
Committee recommendation	- 11,442,000

NET APPROPRIATION

Appropriations, 2021	\$2,393,000
Budget estimate, 2022	2,357,000
Committee recommendation	2,357,000

The Committee recommends \$13,799,000 for the Office of Inspector General, the same as the budget request, which is offset by revenues estimated at \$11,442,000 for a net appropriation of

\$2,357,000 The Office of Inspector General serves both the Nuclear Regulatory Commission and the Defense Nuclear Facilities Safety Board, and the recommendation includes \$1,146,000 for that purpose, which is not available from fee revenues.

NUCLEAR WASTE TECHNICAL REVIEW BOARD

Appropriations, 2020	\$3,600,000
Budget estimate, 2021	3,800,000
Committee recommendation	3,800,000

The Committee recommends \$3,800,000 for the Nuclear Waste Technical Review Board [Board] to be derived from the Nuclear Waste Fund.

GENERAL PROVISIONS

Section 401. The bill includes a provision regarding Congressional requests for information.

Section 402. The bill includes a provision regarding reprogramming.

TITLE V

GENERAL PROVISIONS

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

Section 501. The bill includes a provision regarding influencing congressional action.

Section 502. The bill includes a provision regarding transfer authority.

Section 503. The bill includes a provision regarding environmental justice.

Section 504. The bill includes a provision regarding requirements for computer networks.

Section 505. The bill includes a provision regarding drought.

PROGRAM, PROJECT, AND ACTIVITY

In fiscal year 2022, 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 Appropriations 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 Act, 2022, and the explanatory statement accompanying the bill.

If a sequestration order is necessary pursuant to the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99–177), in implementing the Presidential order, departments and agencies shall apply any percentage reduction required for fiscal year 2022 pursuant to the provisions of such Public Law to all items specified in the report accompanying the bill by the Senate Committee on Appropriations in support of the fiscal year 2022 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 2022:

[In thousand of dollars]

Agency/Program	Last Year of Authorization	Authorization Level	Appropriation in Last Year of Authorization	Net Appropriation in this Bill
Corps FUSRAP ¹			250,000	260,000
Reclamation, WIIN Act, Subtitle J, Sections 4007, 4009(a) and 4009(c)	2021	415,000	166,000	166,000
EERE State Energy Programs	2012	125,000	50,000	70,000
Nuclear Energy Infrastructure and Facilities	2009	145,000	245,000	290,000
Nuclear Energy Safeguards and Security	2021	137,800	149,800	149,800
Energy Information Administration	1984	not specified	55,870	129,087
Office of Science	2013	6,007,000	4,876,000	7,490,000
Departmental Administration	1984	246,963	185,682	243,000
Atomic Energy Defense Activities:				
National Nuclear Security Administration:				
Weapons Activities	2021	15,550,428	15,345,000	15,484,295
Defense Nuclear Nonproliferation	2021	2,041,000	2,260,000	2,264,000
Naval Reactors	2021	1,684,000	1,684,000	1,840,505
Federal Salaries and Expenses	2021	454,000	443,200	453,000
Defense Environmental Cleanup	2021	5,815,767	6,426,000	6,510,000
Other Defense Activities	2021	901,048	920,000	928,077
Power Marketing Administrations:				
Southwestern	1984	40,254	36,229	10,400
Western Area	1984	259,700	194,630	90,772
Federal Energy Regulatory Commission	1984	not specified	29,582	.....
Defense Nuclear Facilities Safety Board	2021	28,836	31,000	31,000
Appalachian Regional Commission	2021	110,000	175,000	210,000
Denali Commission	2021	15,000	15,000	15,100
Southeast Crescent Regional Commission	2018	30,000	250	2,500
Southwest Border Regional Commission	2012	30,000	.....	2,500
Nuclear Regulatory Commission	1985	460,000	448,200	131,000

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 August 4, 2021, the Committee ordered favorably reported a bill (S. 2605) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2022, and for other purposes, provided, that the bill be subject to amendment and that any amendment increasing budget authority be offset by a reduction of equal or greater budget authority, by a recorded vote of 25–5, a quorum being present. The vote was as follows:

Yeas	Nays
Chairman Leahy	Mr. McConnell
Ms. Murray	Mr. Kennedy
Mrs. Feinstein	Mr. Braun
Mr. Durbin	Mr. Hagerty
Mr. Reed	Mr. Rubio
Mr. Tester	
Mrs. Shaheen	
Mr. Merkley	
Mr. Coons	
Mr. Schatz	
Ms. Baldwin	
Mr. Murphy	
Mr. Manchin	
Mr. Van Hollen	
Mr. Heinrich	
Mr. Shelby	
Ms. Collins	
Ms. Murkowski	
Mr. Graham	
Mr. Blunt	
Mr. Moran	
Mr. Hoeven	
Mr. Boozman	
Mrs. Capito	
Mrs. Hyde-Smith	

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.”

In compliance with this rule, changes in existing law proposed to be made by the bill are shown as follows: existing law to be omitted

is enclosed in black brackets; new matter is printed in italic; and existing law in which no change is proposed is shown in roman.

TITLE 42—THE PUBLIC HEALTH AND WELFARE

CHAPTER 109B—SECURE WATER

§ 10364. Water management improvement

(a) Authorization of grants and cooperative agreements

* * * * *

(e) Authorization of appropriations

There is authorized to be appropriated to carry out this section **[\$610,000,000]** *\$730,000,000*, to remain available until expended.

TITLE 43—PUBLIC LANDS

CHAPTER 40—RECLAMATION STATES EMERGENCY DROUGHT RELIEF

SUBCHAPTER I—DROUGHT PROGRAM

§ 2214. Applicable period of drought program

(c) Termination of authority

The authorities established under this subchapter shall terminate on September 30, **[2021]** *2022*.

* * * * *

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 \$120,000,000 in total for the period of fiscal years 2006 through **[2021]** *2022*.

RECLAMATION PROJECTS AUTHORIZATION AND ADJUSTMENT ACT OF 1992, PUBLIC LAW 102-575

TITLE XI—SALTON SEA RESEARCH PROJECT, CALIFORNIA

SEC. 1101. RESEARCH PROJECT.

(a) RESEARCH PROJECT.—* * *

* * * * *

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated **[\$10,000,000]** *\$13,000,000* to carry out the purposes of this title.

WATER SUPPLY, RELIABILITY, AND ENVIRONMENTAL IMPROVEMENT ACT, 2005, PUBLIC LAW 108-361

TITLE I—CALIFORNIA WATER SECURITY AND ENVIRONMENTAL ENHANCEMENT

SEC. 101. SHORT TITLE.

* * * * *

SEC. 103. BAY DELTA PROGRAM.

(a) IN GENERAL.—

* * * * *

(e) NEW AND EXPANDED AUTHORIZATIONS FOR FEDERAL AGENCIES.—

(1) IN GENERAL.—The heads of the Federal agencies described in this subsection are authorized to carry out the activities described in subsection (f) during each of fiscal years 2005 through [2021] 2022, in coordination with the Governor.

* * * * *

(f) DESCRIPTION OF ACTIVITIES UNDER NEW AND EXPANDED AUTHORIZATIONS.—

(1) CONVEYANCE.— * * *

* * * * *

(3) LEVEE STABILITY.—

(A) IN GENERAL.— * * *

(B) REPORT.—Not later than 180 days after the date of enactment of this Act, the Secretary of the Army shall submit to the appropriate authorizing and appropriating committees of the Senate and the House of Representatives a report that describes the levee stability reconstruction projects and priorities that will be carried out under this title during each of fiscal years 2005 through [2021] 2022.

* * * * *

SEC. 107. FEDERAL SHARE OF COSTS.

(a) IN GENERAL.—The Federal share of the cost of implementing the Calfed Bay-Delta Program for fiscal years 2005 through [2021] 2022 in the aggregate, as set forth in the Record of Decision, shall not exceed 33.3 percent.

* * * * *

SEC. 109. AUTHORIZATION OF APPROPRIATION.

There are authorized to be appropriated to the Secretary and the heads of the Federal agencies to pay the Federal share of the cost of carrying out the new and expanded authorities described in subsections (e) and (f) of section 103 \$389,000,000 for the period of fiscal years 2005 through [2021] 2022, to remain available until expended.

**OMNIBUS PUBLIC LAND MANAGEMENT ACT OF 2009,
PUBLIC LAW 111-11**

**TITLE IX—BUREAU OF RECLAMATION
AUTHORIZATIONS**

SUBTITLE B—PROJECT AUTHORIZATIONS

SEC. 9016. RIO GRANDE PUEBLOS, NEW MEXICO.

* * * * *

(g) AUTHORIZATION OF APPROPRIATIONS.

(1) STUDY.—* * *

(2) PROJECTS.—There is authorized to be appropriated to carry out subsection (d) \$6,000,000 for each of fiscal years 2010 through ~~2021~~ 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 allocation ¹	Amount in bill	Committee allocation ¹	Amount in bill
Comparison of amounts in the bill with the subcommittee allocation for 2022: Subcommittee on Energy and Water Development:				
Mandatory				
Discretionary		53,625		² 51,120
Defense		28,447	NA	NA
Non-defense		25,178	NA	NA
Projection of outlays associated with the recommendation:				
2022				³ 28,248
2023				17,677
2024				6,499
2025				1,864
2026 and future years				1,475
Financial assistance to State and local governments for 2022	NA	257	NA	³ 234

¹ As of the date that this bill was reported, there is no section 302(a) allocation to the Committee on Appropriations for fiscal year 2022.

² Includes outlays from prior-year budget authority.

³ Excludes outlays from prior-year budget authority.

NA: Not applicable.

NOTE.—Pursuant to section 14003 of division B of the Coronavirus Aid, Relief, and Economic Security Act (Public Law 116-136), as amended, \$2,099,000,000 in budget authority and the resulting outlays do not count for the purposes of estimates under the Congressional Budget and Impoundment Control Act of 1974 or the Balanced Budget and Emergency Deficit Control Act of 1985. Pursuant to section 4112(b) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, \$450,000,000 in budget authority and the resulting outlays do not count for the purposes of section 302 of the Congressional Budget Act of 1974.

DISCLOSURE OF CONGRESSIONALLY DIRECTED SPENDING ITEMS

The Constitution vests in the Congress the power of the purse. The Committee believes strongly that Congress should make the decisions on how to allocate the people's money.

As defined in Rule XLIV of the Standing Rules of the Senate, the term "congressionally directed spending item" means a provision or report language included primarily at the request of a Senator, providing, authorizing, or recommending a specific amount of discretionary budget authority, credit authority, or other spending authority for a contract, loan, loan guarantee, grant, loan authority, or other expenditure with or to an entity, or targeted to a specific State, locality or congressional district, other than through a statutory or administrative, formula-driven, or competitive award process.

For each item, a Member is required to provide a certification that neither the Member nor the Member's immediate family has a pecuniary interest in such congressionally directed spending item. Such certifications are available to the public on the website of the Senate Committee on Appropriations (<https://www.appropriations.senate.gov/congressionally-directed-spending-requests>).

Following is a list of congressionally directed spending items included in the Senate recommendation discussed in this report, along with the name of each Senator who submitted a request to the Committee of jurisdiction for each item so identified. Neither the Committee recommendation nor this report contains any limited tax benefits or limited tariff benefits as defined in rule XLIV.

CONGRESSIONALLY DIRECTED SPENDING ITEMS

[In thousands of dollars]

Agency	Account	Project title	Recipient	Funding	Member(s)
Corps of Engineers	Construction	Acequias Environmental Infrastructure, NM	U.S. Army Corps of Engineers	9,060	Heinrich, Luján
Corps of Engineers	Construction	Calaveras County, Section 219, CA	U.S. Army Corps of Engineers	1,300	Feinstein, Padilla
Corps of Engineers	Construction	Carolina Beach and Vicinity, NC	U.S. Army Corps of Engineers	11,550	Burr, Tillis
Corps of Engineers	Construction	Chesapeake & Ohio Canal, Cumberland, MD & Ridgeley, WV	U.S. Army Corps of Engineers	390	Cardin
Corps of Engineers	Construction	Chesapeake Bay Environmental Restoration & Protection, MD, VA & PA	U.S. Army Corps of Engineers	5,750	Cardin
Corps of Engineers	Construction	City of Norwalk, Section 219, CA	U.S. Army Corps of Engineers	250	Feinstein
Corps of Engineers	Construction	Columbia River Fish Mitigation, Willamette River, WA, OR, ID	U.S. Army Corps of Engineers	34,800	Merkley, Wyden
Corps of Engineers	Construction	Dalles Tribal Village Development Plan, WA	U.S. Army Corps of Engineers	1,200	Cantwell, Merkley, Murray, Wyden
Corps of Engineers	Construction	Delaware Bay Coastline, Oakwood Beach, NJ	U.S. Army Corps of Engineers	5,000	Menendez
Corps of Engineers	Construction	Delaware Coast Protection, DE	U.S. Army Corps of Engineers	1,200	Carper, Coons
Corps of Engineers	Construction	Delaware Coast, Cape Henlopen to Fenwick Island, DE	U.S. Army Corps of Engineers	4,000	Carper, Coons
Corps of Engineers	Construction	Delaware Coast, Rehoboth Beach to Dewey Beach, DE	U.S. Army Corps of Engineers	7,650	Carper, Coons
Corps of Engineers	Construction	Desert Hot Springs, Section 219, CA	U.S. Army Corps of Engineers	250	Feinstein
Corps of Engineers	Construction	Gloucester City Seawall (Camden County), NJ	U.S. Army Corps of Engineers	100	Booker
Corps of Engineers	Construction	Grand River Bank Street, City of Plainesville, OH	U.S. Army Corps of Engineers	2,600	Brown
Corps of Engineers	Construction	Great Egg Harbor Inlet and Peck Beach (Ocean City), NJ	U.S. Army Corps of Engineers	17,000	Brown, Menendez
Corps of Engineers	Construction	Hamilton Airfield Wetlands Restoration, CA	U.S. Army Corps of Engineers	1,000	Feinstein, Padilla
Corps of Engineers	Construction	Kanawha River Streambank Stabilization, WV	U.S. Army Corps of Engineers	4,780	Manchin
Corps of Engineers	Construction	Lake Champlain Basin, Section 542, VT	U.S. Army Corps of Engineers	5,500	Leahy
Corps of Engineers	Construction	Lakes Marion and Moultrie, SC	U.S. Army Corps of Engineers	18,000	Graham
Corps of Engineers	Construction	Lower Santa Cruz River, Eloy Levee, AZ	U.S. Army Corps of Engineers	100	Kelly, Sinema
Corps of Engineers	Construction	Madison and St. Clair Counties, IL	U.S. Army Corps of Engineers	6,025	Durbin
Corps of Engineers	Construction	Martown Sanitary Sewer Extension, Section 219, WV	U.S. Army Corps of Engineers	3,200	Capito
Corps of Engineers	Construction	McCormick Wash, Globe, AZ	U.S. Army Corps of Engineers	100	Kelly, Sinema
Corps of Engineers	Construction	Mid-Chesapeake Bay Island, MD	U.S. Army Corps of Engineers	37,500	Cardin
Corps of Engineers	Construction	Mills Memorial Park Recycled Water, Section 219, CA	U.S. Army Corps of Engineers	3,790	Feinstein, Padilla
Corps of Engineers	Construction	Monarch-Chesterfield, MO	U.S. Army Corps of Engineers	12,600	Blunt
Corps of Engineers	Construction	Morgan State University Stadium Way Slope Stabilization, MD	U.S. Army Corps of Engineers	100	Van Hollen
Corps of Engineers	Construction	New River, Imperial County, CA	U.S. Army Corps of Engineers	650	Feinstein, Padilla

CONGRESSIONALLY DIRECTED SPENDING ITEMS—Continued

[In thousands of dollars]

Agency	Account	Project title	Recipient	Funding	Member(s)
Corps of Engineers	Construction	Ohio Riverfront, Cincinnati, OH	U.S. Army Corps of Engineers	600	Brown
Corps of Engineers	Construction	Port of Muskegon, MI	U.S. Army Corps of Engineers	100	Peters, Stabenow
Corps of Engineers	Construction	Puget Sound and Adjacent Water Restoration (Spencer Island), WA	U.S. Army Corps of Engineers	5,000	Cantwell
Corps of Engineers	Construction	Resilient San Francisco Bay Pilot Project, CA	U.S. Army Corps of Engineers	3,600	Padilla
Corps of Engineers	Construction	River Road, Town of Rosendale, NY	U.S. Army Corps of Engineers	100	Schumer
Corps of Engineers	Construction	Rondout Riverport, City of Kingston, NY	U.S. Army Corps of Engineers	100	Schumer
Corps of Engineers	Construction	Rose and Palm Garden Washes Flood Control Project, AZ	U.S. Army Corps of Engineers	200	Kelly, Sinema
Corps of Engineers	Construction	Rose Larisa Park, RI	U.S. Army Corps of Engineers	50	Reed, Whitehouse
Corps of Engineers	Construction	Roseville-PCWA Cooperative Water Reliability, Section 219, CA	U.S. Army Corps of Engineers	75	Feinstein, Padilla
Corps of Engineers	Construction	San Francisco Bay, CA	U.S. Army Corps of Engineers	3,600	Feinstein
Corps of Engineers	Construction	Section 219, Crowley County, Water Tower, CO	U.S. Army Corps of Engineers	7,000	Bennet
Corps of Engineers	Construction	Section 596, Environmental Infrastructure, City of Biwabik, MN	U.S. Army Corps of Engineers	2,000	Klobuchar
Corps of Engineers	Construction	Section 596, Environmental Infrastructure, Virginia Street, MN	U.S. Army Corps of Engineers	2,000	Klobuchar
Corps of Engineers	Construction	Shepherdstown System Improvements, Section 571, WV	U.S. Army Corps of Engineers	1,668	Capito
Corps of Engineers	Construction	Southwest Coastal Louisiana, LA	U.S. Army Corps of Engineers	10,000	Cassidy
Corps of Engineers	Construction	Sturgeon Point, Town of Evans, NY	U.S. Army Corps of Engineers	100	Schumer
Corps of Engineers	Construction	Townsend Inlet to Cape May Inlet, NJ	U.S. Army Corps of Engineers	15,500	Booker, Menendez
Corps of Engineers	Construction	Tulsa and West Tulsa Levee System, OK	U.S. Army Corps of Engineers	13,789	Inhofe
Corps of Engineers	Construction	Upper Mississippi River—Illinois WW System, IL, IA, MN, MO & WI	U.S. Army Corps of Engineers	45,100	Baldwin, Blunt, Duckworth, Durbin, Klobuchar
Corps of Engineers	Construction	Upper Ohio Navigation (Montgomery Lock), PA	U.S. Army Corps of Engineers	21,500	Casby
Corps of Engineers	Construction	URI Narragansett Erosion Protection, RI	U.S. Army Corps of Engineers	150	Reed
Corps of Engineers	Construction	Watch Hill Lighthouse, RI	U.S. Army Corps of Engineers	50	Reed
Corps of Engineers	Construction	Wheeling Elm Run Flash Flooding, Section 219, WV	U.S. Army Corps of Engineers	546	Capito, Manchin
Corps of Engineers	Construction	Willamette River at Willamette Falls, OR	U.S. Army Corps of Engineers	6,200	Merkley, Wyden
Corps of Engineers	Construction	Wrightsville Beach, NC	U.S. Army Corps of Engineers	9,295	Burr, Tillis
Corps of Engineers	Investigations	Adams & Denver, South Platte River, CO	U.S. Army Corps of Engineers	400	Bennet, Hickenlooper
Corps of Engineers	Investigations	Arkansas River Navigation Study, (McClellan-Kerr Arkansas River Navigation System (MKARNS) 12 ft. Channel), AR, OK	U.S. Army Corps of Engineers	500	Inhofe

Corps of Engineers	Investigations	Columbia River Turning Basin Navigation Improvements, WA & OR.	U.S. Army Corps of Engineers	200	Cantwell, Murray
Corps of Engineers	Investigations	Deepening Study for the Tennessee—Tombigbee Waterway (TTWW), AL and MS and Black Warrior and Tombigbee (BWT) Rivers.	U.S. Army Corps of Engineers	400	Shelby
Corps of Engineers	Investigations	Hartford and East Hartford, CT	U.S. Army Corps of Engineers	200	Blumenthal, Murphy
Corps of Engineers	Investigations	Honolulu Harbor Modifications Feasibility Study, HI	U.S. Army Corps of Engineers	800	Hirono, Schatz
Corps of Engineers	Investigations	Hudson Raritan Estuary Ecosystem Restoration, NY and NJ.	U.S. Army Corps of Engineers	1,200	Menendez, Schumer
Corps of Engineers	Investigations	IL Riv. 519 Fox River Dams Restoration, IL	U.S. Army Corps of Engineers	250	Durbin
Corps of Engineers	Investigations	Imperial Streams, Salton Sea, CA	U.S. Army Corps of Engineers	200	Feinstein, Padilla
Corps of Engineers	Investigations	Kanawha River Basin Feasibility, WV	U.S. Army Corps of Engineers	500	Capito, Manchin
Corps of Engineers	Investigations	Little Colorado River, Winslow, AZ	U.S. Army Corps of Engineers	500	Kelly, Sinema
Corps of Engineers	Investigations	Lowell Creek Tunnel, AK	U.S. Army Corps of Engineers	3,000	Murkowski
Corps of Engineers	Investigations	Lower Cache Creek, CA	U.S. Army Corps of Engineers	2,000	Feinstein, Padilla
Corps of Engineers	Investigations	Lower Missouri Basin—Brunswick L-246, MO	U.S. Army Corps of Engineers	500	Blunt
Corps of Engineers	Investigations	Lower Missouri Basin—Holt County, MO, Doniphan County, KS	U.S. Army Corps of Engineers	300	Blunt
Corps of Engineers	Investigations	Lower Missouri Basin—Jefferson City L-142, MO	U.S. Army Corps of Engineers	300	Blunt
Corps of Engineers	Investigations	Lower San Joaquin River (Lathrop & Manteca), CA	U.S. Army Corps of Engineers	200	Feinstein, Padilla
Corps of Engineers	Investigations	Menominee River Deepening, MI & WI	U.S. Army Corps of Engineers	200	Baldwin, Peters, Stabenow
Corps of Engineers	Investigations	New York and New Jersey Harbor, NY & NJ	U.S. Army Corps of Engineers	1,125	Menendez
Corps of Engineers	Investigations	Peckman River Basin, NJ	U.S. Army Corps of Engineers	500	Menendez
Corps of Engineers	Investigations	Port Fourchon Belle Pass Channel, LA	U.S. Army Corps of Engineers	1,500	Cassidy
Corps of Engineers	Investigations	Puget Sound Nearshore Marine Habitat Restoration, WA	U.S. Army Corps of Engineers	250	Murray
Corps of Engineers	Investigations	Raritan Bay & Sandy Hook Bay—Highlands, NJ	U.S. Army Corps of Engineers	750	Menendez
Corps of Engineers	Investigations	Raritan River Basin, Green Brook Sub-Basin, NJ	U.S. Army Corps of Engineers	300	Menendez
Corps of Engineers	Investigations	San Diego Shoreline, Oceanside, Special Shoreline Study, CA.	U.S. Army Corps of Engineers	750	Feinstein
Corps of Engineers	Investigations	Santa Paula Creek, CA	U.S. Army Corps of Engineers	200	Feinstein
Corps of Engineers	Investigations	South San Francisco Bay Shoreline (Santa Clara County), CA	U.S. Army Corps of Engineers	1,600	Feinstein, Padilla
Corps of Engineers	Investigations	Upper Des Plaines River Flooding and Restoration, IL	U.S. Army Corps of Engineers	1,525	Durbin
Corps of Engineers	Investigations	Watertown Flood Risk Management Feasibility Study, SD.	U.S. Army Corps of Engineers	200	Rounds
Corps of Engineers	Investigations	Willamette River Environmental Dredging, OR	U.S. Army Corps of Engineers	732	Merkley, Wyden
Corps of Engineers	Investigations	Wilmington Harbor Navigation Improvements, NC	U.S. Army Corps of Engineers	500	Burr, Tillis
Corps of Engineers	Investigations	Bayou Meto Basin, AR	U.S. Army Corps of Engineers	24,000	Boozman
Corps of Engineers	Investigations	Mississippi River and Tributaries	U.S. Army Corps of Engineers	13,000	Boozman
Corps of Engineers	Investigations	Grand Prairie Region, AR	U.S. Army Corps of Engineers	19,333	Cassidy
Corps of Engineers	Investigations	Morganza to the Gulf, LA	U.S. Army Corps of Engineers		

CONGRESSIONALLY DIRECTED SPENDING ITEMS—Continued

[In thousands of dollars]

Agency	Account	Project title	Recipient	Funding	Member(s)
Corps of Engineers	Mississippi River and Tributaries	Yazoo Basin, Delta Headwaters Project, MS	U.S. Army Corps of Engineers	12,900	Hyde-Smith
Corps of Engineers	Mississippi River and Tributaries	Yazoo Basin, Upper Yazoo Projects, MS	U.S. Army Corps of Engineers	12,000	Hyde-Smith
Corps of Engineers	Mississippi River and Tributaries	Yazoo Basin, Yazoo Backwater Area, MS	U.S. Army Corps of Engineers	20,750	Hyde-Smith, Wickler
Corps of Engineers	Operation and Maintenance	Alabama River Lakes, AL	U.S. Army Corps of Engineers	8,380	Shelby
Corps of Engineers	Operation and Maintenance	Barcelona Harbor, NY	U.S. Army Corps of Engineers	1,150	Gilibrand, Schumer
Corps of Engineers	Operation and Maintenance	Bayou Coden, AL	U.S. Army Corps of Engineers	3,000	Shelby
Corps of Engineers	Operation and Maintenance	Bayou La Batre, AL	U.S. Army Corps of Engineers	4,972	Shelby
Corps of Engineers	Operation and Maintenance	Black Warrior and Tombigbee (BWT) Rivers, AL	U.S. Army Corps of Engineers	3,200	Shelby
Corps of Engineers	Operation and Maintenance	Bon Secour River, AL	U.S. Army Corps of Engineers	4,493	Shelby
Corps of Engineers	Operation and Maintenance	Cattaraugus Breakwater, NY	U.S. Army Corps of Engineers	1,000	Gilibrand, Schumer
Corps of Engineers	Operation and Maintenance	Chammel Islands Harbor, CA	U.S. Army Corps of Engineers	8,696	Feinstein
Corps of Engineers	Operation and Maintenance	Cole Rivers Hatchery, Applegate and Lost Creek, OR	U.S. Army Corps of Engineers	1,819	Merkley, Wyden
Corps of Engineers	Operation and Maintenance	Coots Bay (Major Maintenance), OR	U.S. Army Corps of Engineers	32,720	Merkley, Wyden
Corps of Engineers	Operation and Maintenance	Dauphin Island Bay, AL	U.S. Army Corps of Engineers	3,000	Shelby
Corps of Engineers	Operation and Maintenance	Dunkirk Harbor Breakwater and Dredging, NY	U.S. Army Corps of Engineers	5,250	Gilibrand, Schumer
Corps of Engineers	Operation and Maintenance	Fox Point Barrier, Narragansett Bay, RI	U.S. Army Corps of Engineers	225	Reed
Corps of Engineers	Operation and Maintenance	George's River, ME	U.S. Army Corps of Engineers	75	Collins
Corps of Engineers	Operation and Maintenance	Isle au Haut Thoroughfare, ME	U.S. Army Corps of Engineers	100	Collins, King
Corps of Engineers	Operation and Maintenance	Josias River, ME	U.S. Army Corps of Engineers	150	Collins
Corps of Engineers	Operation and Maintenance	Kanawha River Locks and Dams, WV	U.S. Army Corps of Engineers	6,900	Capito
Corps of Engineers	Operation and Maintenance	Lake River, WA	U.S. Army Corps of Engineers	124	Cantwell
Corps of Engineers	Operation and Maintenance	Little Sodus Bay Harbor, NY	U.S. Army Corps of Engineers	1,000	Schumer
Corps of Engineers	Operation and Maintenance	Lynnhaven Inlet, VA	U.S. Army Corps of Engineers	4,150	Kaine, Warner
Corps of Engineers	Operation and Maintenance	Merrimack Spur Jetty, MA	U.S. Army Corps of Engineers	240	Markey, Warren
Corps of Engineers	Operation and Maintenance	Mobile Harbor, AL	U.S. Army Corps of Engineers	33,000	Shelby
Corps of Engineers	Operation and Maintenance	Perdido Pass Channel, AL	U.S. Army Corps of Engineers	2,000	Shelby
Corps of Engineers	Operation and Maintenance	Pocomoke River, MD	U.S. Army Corps of Engineers	8	Cardin
Corps of Engineers	Operation and Maintenance	Rollinson Channel, NC	U.S. Army Corps of Engineers	1,670	Burr
Corps of Engineers	Operation and Maintenance	Rudee Inlet, VA	U.S. Army Corps of Engineers	580	Kaine, Warner
Corps of Engineers	Operation and Maintenance	Saint Paul Small Boat Harbor, MN	U.S. Army Corps of Engineers	500	Klobuchar, Smith
Corps of Engineers	Operation and Maintenance	Santa Cruz Harbor, CA	U.S. Army Corps of Engineers	525	Feinstein, Padilla
Corps of Engineers	Operation and Maintenance	Searsport Harbor, ME	U.S. Army Corps of Engineers	1,650	Collins
Corps of Engineers	Operation and Maintenance	South Beach, MI	U.S. Army Corps of Engineers	1,000	Stabenow
Corps of Engineers	Operation and Maintenance	Swinomish Channel, WA	U.S. Army Corps of Engineers	215	Cantwell, Murray
Corps of Engineers	Operation and Maintenance	Tennessee—Tombigbee Waterway (TTW), AL and MS	U.S. Army Corps of Engineers	4,000	Shelby

Corps of Engineers	Operation and Maintenance	Tuttle Creek Lake, KS	U.S. Army Corps of Engineers	1,300	Moran
Corps of Engineers	Operation and Maintenance	Two Rivers Harbor, WI	U.S. Army Corps of Engineers	20	Baldwin
Corps of Engineers	Operation and Maintenance	Ventura Harbor, CA	U.S. Army Corps of Engineers	2,146	Feinstein, Padilla
Corps of Engineers	Operation and Maintenance	West Arrowhead Breakwater, NY	U.S. Army Corps of Engineers	300	Schlumer
Corps of Engineers	Operation and Maintenance	Westport Harbor & Sagatuck River, CT	U.S. Army Corps of Engineers	2,810	Blumenthal, Murphy
Corps of Engineers	Operation and Maintenance	Woonsocket Local Protection Project, RI	U.S. Army Corps of Engineers	125	Reed
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Lewis and Clark Rural Water System, IA, MN, SD	Bureau of Reclamation	21,914	Klobuchar, Rounds, Smith, Thune
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Eastern New Mexico Water Supply, NM	Bureau of Reclamation	17,400	Heinrich
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	San Gabriel Basin Restoration Fund, CA	Bureau of Reclamation	10,000	Feinstein, Padilla
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Klamath Project, SCADA Acquisition, OR	Bureau of Reclamation	5,000	Merkley, Wyden
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Sacramento River Basin Floodplain Reactivation, CA	Bureau of Reclamation	5,000	Feinstein, Padilla
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Sacramento River Fish Screen Program, CA	Bureau of Reclamation	3,900	Feinstein, Padilla
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Lake Mead/Las Vegas Wash Program, NV	Bureau of Reclamation	3,655	Cortez Masto, Rosen
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Tualatin Project, Scoggins Dam, OR	Bureau of Reclamation	1,300	Merkley, Wyden
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Wapato Irrigation Project, WA	Bureau of Reclamation	995	Cantwell
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Upper Yakima Bull Trout Facility, WA	Bureau of Reclamation	700	Murray
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Los Banos Creek Appraisal Study, CA	Bureau of Reclamation	500	Feinstein, Padilla
Department of the Interior	Bureau of Reclamation, Water and Related Resources.	Odessa Subarea, WA	Bureau of Reclamation	500	Cantwell
Department of Energy	Cybersecurity, Energy Security, and Emergency Response.	Emerging Threat Information Sharing and Analysis Center, University of Arkansas Little Rock.	University of Arkansas at Little Rock.	1,000	Bozeman
Department of Energy	Cybersecurity, Energy Security, and Emergency Response.	Oakland University Cybersecurity Center	Automation Alley	2,000	Stabenow
Department of Energy	Cybersecurity, Energy Security, and Emergency Response.	Virtual Cybersecurity Training Simulator	Bridgewater State University	2,000	Markey, Warren
Department of Energy	Energy Efficiency and Renewable Energy.	Accelerating Heat Pump Adoption by Lower-Income Households.	Alaska Heat Smart	420	Murkowski
Department of Energy	Energy Efficiency and Renewable Energy.	Asia-Pacific Microgrid Development and Training	Hawaii Natural Energy Institute, University of Hawaii.	1,000	Hirono

CONGRESSIONALLY DIRECTED SPENDING ITEMS—Continued

[In thousands of dollars]

Agency	Account	Project title	Recipient	Funding	Member(s)
Department of Energy	Energy Efficiency and Renewable Energy.	Blue Earth County's Energy Efficiency Project	Blue Earth County	4,330	Klobuchar, Smith
Department of Energy	Energy Efficiency and Renewable Energy.	Built to Last Pilot Project	Philadelphia Energy Authority	2,100	Casey
Department of Energy	Energy Efficiency and Renewable Energy.	Chicago Clean Energy Retrofits Program	City of Chicago	500	Durbin
Department of Energy	Energy Efficiency and Renewable Energy.	Cogency Power Solar Project	Town of Rangely	5,000	Bennet, Hickenlooper
Department of Energy	Energy Efficiency and Renewable Energy.	Community of Hope Solar Parking Structure	Mesilla Valley Community of Hope	200	Luján
Department of Energy	Energy Efficiency and Renewable Energy.	Cully Community Solar Pilot	Verde	344	Merkley, Wyden
Department of Energy	Energy Efficiency and Renewable Energy.	Derry Landfill Solar Project	Town of Derry	500	Shaheen
Department of Energy	Energy Efficiency and Renewable Energy.	Development of an Electric Vehicle Associate's Degree Curriculum Standards and Educational Materials for Automotive Educators and Technicians Nationwide.	West Virginia University	1,000	Capito
Department of Energy	Energy Efficiency and Renewable Energy.	District Energy Construction	Burlington Electric Department	5,166	Leahy
Department of Energy	Energy Efficiency and Renewable Energy.	Ductless Heat Pump Installation	Verde	301	Merkley, Wyden
Department of Energy	Energy Efficiency and Renewable Energy.	DWCPA Hydrokinetic Energy Harvester	Detroit/Wayne County Port Authority	680	Peters, Stabenow
Department of Energy	Energy Efficiency and Renewable Energy.	DWCPA Solar Energy Project	Detroit/Wayne County Port Authority	200	Peters
Department of Energy	Energy Efficiency and Renewable Energy.	Electric Future for America's Rural Mobility Stakeholders (E-FARMS).	Forth	1,500	Merkley, Wyden
Department of Energy	Energy Efficiency and Renewable Energy.	Electrical Substation for Garrison Oak Business and Technology Park.	City of Dover	5,000	Carper, Coons
Department of Energy	Energy Efficiency and Renewable Energy.	Energy Efficient Community Cross-Laminated Timber Demonstration Project/Wood-fiber Insulated Panels for Modular Construction and Retrofit Applications.	University of Maine System	2,000	Collins, King
Department of Energy	Energy Efficiency and Renewable Energy.	Energy Improvements for Rhode Island Schools	Rhode Island Office of Energy Resources.	5,000	Reed

Department of Energy	Energy Efficiency and Renewable Energy.	Enhanced Biogas Collection and Energy Recovery Project.	Narragansett Bay Commission	2,900	Reed, Whitehouse
Department of Energy	Energy Efficiency and Renewable Energy.	Evanston Accessible Solar Program	City of Evanston	500	Durbin
Department of Energy	Energy Efficiency and Renewable Energy.	Expanding Solar Research and Generation for a Brighter Energy Future.	University of Vermont	150	Sanders
Department of Energy	Energy Efficiency and Renewable Energy.	Fuel for Seniors: Energy Efficiency	The Towers Foundation	288	Blumenthal, Murphy
Department of Energy	Energy Efficiency and Renewable Energy.	Grid Resilience and Equity in the Energy Transition	University of Massachusetts at Amherst.	995	Markey, Warren
Department of Energy	Energy Efficiency and Renewable Energy.	Hanover LED Streetlight Conversion	Town of Hanover	271	Shaheen
Department of Energy	Energy Efficiency and Renewable Energy.	Heartland Green Energy and Manufacturing Valley Initiative.	Southern Ohio Diversification Initiative.	500	Brown
Department of Energy	Energy Efficiency and Renewable Energy.	Heat Recovery System	City of Togalak	659	Murkowski
Department of Energy	Energy Efficiency and Renewable Energy.	Hybrid Solar Testing Platform for Cold Weather Climates.	University of Vermont	4,000	Leahy
Department of Energy	Energy Efficiency and Renewable Energy.	Kauai North Shore Energy Resiliency Project	Kauai Island Utility Cooperative	1,000	Schatz
Department of Energy	Energy Efficiency and Renewable Energy.	Kivalina Biomass Reactor	City of Kivalina	100	Murkowski
Department of Energy	Energy Efficiency and Renewable Energy.	Kickitat Valley Health Central Utility Plant Modernization.	Kickitat Valley Health	2,500	Murray
Department of Energy	Energy Efficiency and Renewable Energy.	Makushin Geothermal Project	Qawalangin Tribe of Unalaska	2,500	Murkowski
Department of Energy	Energy Efficiency and Renewable Energy.	Marquette Affordable Solar Clean Energy Planning Grant.	Community Action Alger-Marquette	100	Stabenow
Department of Energy	Energy Efficiency and Renewable Energy.	Microgrid Integration with Biomass Gasification as a Pathway to Hydrogen Production.	City of Ithaca	1,000	Gillibrand, Schumer
Department of Energy	Energy Efficiency and Renewable Energy.	Municipal Building Upgrades	City of Salamanca	303	Gillibrand
Department of Energy	Energy Efficiency and Renewable Energy.	New Jersey Green Hydrogen Demonstration Project	New Jersey Clean Cities Coalition	3,840	Booker, Menendez
Department of Energy	Energy Efficiency and Renewable Energy.	Newport Town Office Energy Improvements	Town of Newport	250	Shaheen
Department of Energy	Energy Efficiency and Renewable Energy.	Northeast Kingdom Home Weatherization	Rutland West Neighborhood Housing Service, Inc..	500	Leahy, Sanders
Department of Energy	Energy Efficiency and Renewable Energy.	Off-Grid residential solar project on the Navajo Nation	Navajo Tribal Utility Authority	1,000	Heinrich

CONGRESSIONALLY DIRECTED SPENDING ITEMS—Continued

[In thousands of dollars]

Agency	Account	Project title	Recipient	Funding	Member(s)
Department of Energy	Energy Efficiency and Renewable Energy	Overland Industrial park Solar Community Project	The Greater Toledo Community Foundation	1,500	Brown
Department of Energy	Energy Efficiency and Renewable Energy	Oyster River Resiliency Project	University of New Hampshire	1,150	Shaheen
Department of Energy	Energy Efficiency and Renewable Energy	Reducing Inequity in Access to Solar Power	Delaware DNREC	2,000	Carper, Coons
Department of Energy	Energy Efficiency and Renewable Energy	Rio Arriba County Energy Efficient Vehicle & Solar Charging Stations	Rio Arriba County Government	1,000	Luján
Department of Energy	Energy Efficiency and Renewable Energy	Salisbury Square Redevelopment: Achieving Home Affordability and Energy Resilience via a Microgrid	Randolph Area Community Development Corporation	750	Leahy
Department of Energy	Energy Efficiency and Renewable Energy	San Juan College Clean Hydrogen Workforce Development Program	San Juan College	500	Heinrich
Department of Energy	Energy Efficiency and Renewable Energy	San Juan College Electric Vehicle Technician Certification Program	San Juan College	50	Heinrich
Department of Energy	Energy Efficiency and Renewable Energy	Solar Testbed	High Technology Foundation	1,900	Manchin
Department of Energy	Energy Efficiency and Renewable Energy	Sustainable Energy in Schools and Public Buildings	Vermont Department of Public Service	1,000	Sanders
Department of Energy	Energy Efficiency and Renewable Energy	Tacoma Public Utilities EV charging program	Tacoma Public Utilities	1,000	Murray
Department of Energy	Energy Efficiency and Renewable Energy	Thermal Energy Storage to Support Renewable Energy Deployment	Vermont Energy Investment Corporation (VEIC)	5,000	Leahy
Department of Energy	Energy Efficiency and Renewable Energy	Twin Lakes Reservoir Floating Solar Study	City of Lima	500	Brown
Department of Energy	Energy Efficiency and Renewable Energy	Updated Renewable Energy Development Feasibility Study by the Pueblo of Zia	Pueblo of Zia	250	Heinrich
Department of Energy	Energy Efficiency and Renewable Energy	Utility Upgrades for the Bedford Landfill Solar Project	Town of Bedford	500	Shaheen
Department of Energy	Energy Efficiency and Renewable Energy	Vermont Electrification and Clean Energy Deployment	Vermont Public Power Supply Authority	1,000	Sanders
Department of Energy	Energy Efficiency and Renewable Energy	WMU Center for Interdisciplinary Research on Secure, Efficient and Sustainable Energy Technology	Western Michigan University	350	Peters
Department of Energy	Office of Electricity	Cuyahoga County Utility Microgrid Design Project	Cuyahoga County	300	Brown

Department of Energy	Office of Electricity	Electrical transmission and distribution infrastructure for PUD No 1 of Lewis County.	Public Utility District No. 1 of Lewis County.	2,500	Murray
Department of Energy	Office of Electricity	Village of Old Brookville Village Hall expansion: 52 MW standby backup generator.	Incorporated Village of Brookville ...	50	Schumer
Department of Energy	Office of Fossil Energy	Coal Communities Regional Innovation Cluster	Region 2 Planning and Development Council.	4,000	Manchin
Department of Energy	Office of Fossil Energy	Coal Mine Methane Solutions	Community Office for Resource Efficiency/Pitkin County.	1,200	Bennet, Hickenlooper
Department of Energy	Office of Fossil Energy	Emergency Backup Generator	Melakata Indian Community	540	Murkowski
Department of Energy	Office of Fossil Energy	Enhanced Outcrop Methane Capture	Southern Ute Indian Tribe	2,500	Bennet, Hickenlooper
Department of Energy	Office of Fossil Energy	FEED Study for the implementation of a Carbon Capture and Sequestration System.	Louisiana Department of Economic Development.	9,000	Cassidy
Department of Energy	Office of Fossil Energy	Mercer County Gas Line Extension	Development Authority of Mercer County.	2,959	Capito

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2021 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2022
 [In thousands of dollars]

Item	2021 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2021 appropriation	Budget estimate
TITLE I—DEPARTMENT OF DEFENSE—CIVIL					
DEPARTMENT OF THE ARMY					
Corps of Engineers—Civil					
Investigations	153,000	105,837	153,000	.....	+ 47,163
Construction	2,692,645	1,792,378	3,002,003	+ 309,358	+ 1,209,625
Mississippi River and Tributaries	380,000	269,688	380,000	.....	+ 110,312
Operation and Maintenance	3,849,655	2,502,901	4,682,797	+ 833,142	+ 2,179,896
Regulatory Program	210,000	204,400	212,000	+ 2,000	+ 7,600
Formerly Utilized Sites Remedial Action Program (FUSRAP)	250,000	.....	260,000	+ 10,000	+ 260,000
Flood Control and Coastal Emergencies	35,000	35,000	35,000	.....	.....
Expenses	206,000	199,290	216,000	+ 10,000	+ 16,710
Office or Assistant Secretary of the Army (Civil Works)	5,000	5,000	5,000	.....	.....
Rescission	- 500	.....	.....	+ 500	.....
Water Infrastructure Finance and Innovation Program	14,200	.....	14,200	.....	+ 14,200
Harbor Maintenance Trust Fund .....	.....	1,625,856	.....	.....	- 1,625,856
Inland Waterways Trust Fund .....	.....	52,150	.....	.....	- 52,150
Total, title I, Department of Defense—Civil	7,795,000	6,792,500	8,960,000	+ 1,165,000	+ 2,167,500
TITLE II—DEPARTMENT OF THE INTERIOR					
Central Utah Project					
Central Utah Project Completion Account	21,000	20,000	21,000	.....	+ 1,000
Bureau of Reclamation					
Water and Related Resources	1,521,125	1,379,050	1,832,101	+ 310,976	+ 453,051
Central Valley Project Restoration Fund	55,875	56,499	56,499	+ 624	.....
California Bay-Delta Restoration	33,000	33,000	33,000	.....	.....

Policy and Administration	60,000	64,400	64,400	+ 4,400	.....
Total, Bureau of Reclamation	1,670,000	1,532,949	1,986,000	+ 316,000	+ 453,051
Total, title II, Department of the Interior	1,691,000	1,552,949	2,007,000	+ 316,000	+ 454,051
TITLE III—DEPARTMENT OF ENERGY					
Energy Programs					
Energy Efficiency and Renewable Energy	2,864,000	4,732,000	3,896,971	+ 1,032,971	- 835,029
Rescission	- 2,240	.....	.....	+ 2,240	.....
Subtotal	2,861,760	4,732,000	3,896,971	+ 1,035,211	- 835,029
Cybersecurity, Energy Security, and Emergency Response	156,000	201,000	177,000	+ 21,000	- 24,000
Electricity	211,720	327,000	303,000	+ 91,280	- 24,000
Nuclear Energy	1,357,800	1,700,700	1,441,000	+ 83,200	- 259,700
Defense function	149,800	149,800	149,800	.....	.....
Subtotal	1,507,600	1,850,500	1,590,800	+ 83,200	- 259,700
Fossil Energy and Carbon Management	750,000	890,000	850,000	+ 100,000	- 40,000
Naval Petroleum and Oil Shale Reserves	13,006	13,650	13,650	+ 644	.....
Strategic Petroleum Reserve	188,000	197,000	197,000	+ 9,000	.....
Sale of crude oil .....	.....	- 25,000	- 25,000	- 25,000	.....
Sale of gas reserves .....	.....	.....	- 108,000	- 108,000	.....
Use of sale proceeds .....	.....	25,000	25,000	+ 25,000	.....
Subtotal	188,000	197,000	89,000	- 99,000	- 108,000
SPR Petroleum Account	1,000	7,350	7,350	+ 6,350	.....
Northeast Home Heating Oil Reserve	6,500	.....	6,500	.....	+ 6,500
Energy Information Administration	126,800	126,800	129,087	+ 2,287	+ 2,287
Non-defense Environmental Cleanup	319,200	338,860	338,863	+ 19,663	+ 3
U.S. Enrichment Corporation Fund receipts .....	.....	- 116,203	.....	.....	+ 116,203
Use of USEC Fund receipts .....	.....	116,203	.....	.....	- 116,203
Mercury receipts	- 3,000	.....	.....	+ 3,000	.....
Use of Mercury receipts	3,000	.....	.....	- 3,000	.....
Subtotal	319,200	338,860	338,863	+ 19,663	+ 3
Uranium Enrichment Decontamination and Decommissioning Fund	841,000	831,340	860,000	+ 19,000	+ 28,660

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2021 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2022—Continued

[In thousands of dollars]

Item	2021 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2021 appropriation	Budget estimate
Science					
Emergency funding	4,725,000	7,440,000	7,490,000	+ 2,764,000	+ 50,000
	2,300,000			- 2,300,000	
Subtotal	7,025,000	7,440,000	7,490,000	+ 464,000	+ 50,000
Nuclear Waste Disposal		7,500	27,500		+ 20,000
Technology Transitions	27,500	19,470	19,470	+ 19,470	
Clean Energy Demonstrations		400,000	100,000	+ 100,000	- 300,000
Advanced Research Projects Agency—Energy	427,000	500,000	500,000	+ 73,000	
Advanced Research Projects Agency—Climate		200,000			- 200,000
Title 17 Innovative Technology Loan Guarantee Program:					
Guaranteed loan subsidy		150,000			- 150,000
Administrative costs	32,000	32,000	32,000		
Offsetting collections	- 3,000	- 3,000	- 3,000		
Rescission of emergency funding	- 392,000			+ 392,000	
Subtotal	- 363,000	179,000	29,000	+ 392,000	- 150,000
Advanced Technology Vehicles Manufacturing Loan Program	5,000	5,000	5,000		
Rescission of emergency funding	- 1,908,000			+ 1,908,000	
Subtotal	- 1,903,000	5,000	5,000	+ 1,908,000	
Tribal Energy Loan Guarantee Program	2,000	2,000	2,000		
Indian Energy Policy and Programs	22,000	122,000	122,000	+ 100,000	
Departmental Administration	259,378	422,338	343,578	+ 84,200	- 78,760
Miscellaneous revenues	- 93,378	- 100,578	- 100,578	- 7,200	
Net appropriation	166,000	321,760	243,000	+ 77,000	- 78,760
Office of the Inspector General	57,739	78,000	78,000	+ 20,261	

Total, Energy programs	12,444,825	18,790,230	16,878,191	+ 4,433,366	- 1,912,039
Atomic Energy Defense Activities					
National Nuclear Security Administration					
Weapons Activities	15,345,000	15,484,295	15,484,295	+ 139,295	.....
Defense Nuclear Nonproliferation	2,260,000	2,264,000	2,264,000	+ 4,000	.....
Rescission .....	.....	- 330,000	.....	.....	+ 330,000
Subtotal	2,260,000	1,934,000	2,264,000	+ 4,000	+ 330,000
Naval Reactors	1,684,000	1,866,705	1,840,505	+ 156,505	- 26,200
Rescission .....	.....	- 6,000	.....	.....	+ 6,000
Subtotal	1,684,000	1,860,705	1,840,505	+ 156,505	- 20,200
Federal Salaries and Expenses	443,200	464,000	453,000	+ 9,800	- 11,000
Total, National Nuclear Security Administration	19,732,200	19,743,000	20,041,800	+ 309,600	+ 298,800
Environmental and Other Defense Activities					
Defense Environmental Cleanup	6,426,000	6,841,670	6,510,000	+ 84,000	- 331,670
Subtotal	6,426,000	6,841,670	6,510,000	+ 84,000	- 331,670
Defense UED&D .....	.....	.....	860,000	+ 860,000	+ 860,000
Other Defense Activities	920,000	1,170,000	930,400	+ 10,400	- 239,600
Total, Environmental and Other Defense Activities	7,346,000	8,011,670	8,300,400	+ 954,400	+ 288,730
Total, Atomic Energy Defense Activities	27,078,200	27,754,670	28,342,200	+ 1,264,000	+ 587,530
Power Marketing Administrations ¹					
Operation and Maintenance, Southeastern Power					
Administration	7,246	7,184	7,184	- 62	.....
Offsetting collections	- 7,246	- 7,184	- 7,184	+ 62	.....
Subtotal .....	.....	.....	.....	.....	.....

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2021 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2022—Continued
(In thousands of dollars)

Item	2021 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2021 appropriation	Budget estimate
Operation and Maintenance, Southwestern Power					
Administration	47,540	48,324	48,324	+ 784	.....
Offsetting collections	- 37,140	- 37,924	- 37,924	- 784	.....
Subtotal	10,400	10,400	10,400	.....	.....
Construction Rehabilitation, Operation and Maintenance, Western Area Power Administration					
Offsetting collections	259,126	285,237	285,237	+ 26,111	.....
.....	- 169,754	- 194,465	- 194,465	- 24,711	.....
Subtotal	89,372	90,772	90,772	+ 1,400	.....
Falcon and Amistad Operating and Maintenance Fund					
Offsetting collections	5,776	5,808	5,808	+ 32	.....
.....	- 5,548	- 5,580	- 5,580	- 32	.....
Subtotal	228	228	228	.....	.....
Total, Power Marketing Administrations	100,000	101,400	101,400	+ 1,400	.....
Federal Energy Regulatory Commission					
Salaries and expenses	404,350	463,900	466,426	+ 62,076	+ 2,526
Revenues applied	- 404,350	- 463,900	- 466,426	- 62,076	- 2,526
Subtotal .....	.....	.....	.....	.....	.....
General Provision—Department of Energy					
Colorado River Basin Fund (Sec. 306(b))	2,000	.....	2,000	.....	+ 2,000
Defense Nuclear Nonproliferation Construction Project 99-D-143 Rescission (Sec. 308) .....	.....	.....	- 330,000	- 330,000	- 330,000
Naval Reactors Rescission (Sec. 308) .....	.....	.....	- 6,000	- 6,000	- 6,000

**COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2021 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2022—Continued**

[In thousands of dollars]

Item	2021 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2021 appropriation	Budget estimate
Appropriations	(49,527,615)	(55,808,849)	(56,751,791)	(+ 7,224,176)	(+ 942,942)
Emergency appropriations	(2,300,000)	.....	(450,000)	(- 1,850,000)	(+ 450,000)
Rescissions	(- 2,740)	(- 336,000)	(- 336,000)	(- 333,260)	.....
Rescissions of emergency appropriations	(- 2,300,000)	.....	.....	(+ 2,300,000)	.....
Grand total less emergencies	49,524,875	55,472,849	56,415,791	+ 6,890,916	+ 942,942

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.