

EXPLANATORY STATEMENT FOR ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES APPROPRIATIONS BILL, 2021

PURPOSE

The purpose of this bill is to provide appropriations for fiscal year 2021, beginning October 1, 2020 and ending September 30, 2021, 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.

The Committee is aware of the impact the COVID-19 pandemic has had on agency operations across the Federal government. To date, Congress has provided over \$2,900,000,000,000 in emergency supplemental relief in order to prevent, prepare for, and respond to COVID-19. The Committee continues to monitor agency needs directly related to COVID-19 and, to the extent necessary, will seek to address them in future supplemental appropriations vehicles. Accordingly, funding provided in the Committee's regular fiscal year 2021 appropriations bills is focused on annual funding needs unrelated to the COVID-19 pandemic. Additionally, comparisons of appropriations in this explanatory statement between fiscal year 2020 and fiscal year 2021 are based on regular appropriations and exclude emergency appropriations from fiscal year 2020.

SUMMARY OF ESTIMATES AND RECOMMENDATIONS

The fiscal year 2021 budget estimates for the bill total \$42,576,341,000 in new budget (obligational) authority. The recommendation of the Committee totals \$51,752,000,000. This is \$3,187,600,000 above the budget estimates and \$9,175,659,000 above the enacted appropriation for the prior fiscal year, excluding emergency appropriations.

SUBCOMMITTEE HEARINGS

To develop this recommendation, the Committee held two budget hearings in March 2020 in connection with the fiscal year 2021 budget requests. The hearings provided officials from the agencies with an opportunity to present the administration's most pressing

priorities to the Committee. The Committee also invited and received recommendations from Senators and outside witnesses.

INTRODUCTION

The Subcommittee on Energy and Water Development's 302(b) allocation totals \$51,752,000,000 of net budget authority for fiscal year 2021, including adjustments, which represents an increase of \$3,409,000,000 above fiscal year 2020 enacted levels. Within the amount recommended, \$27,509,000,000 is classified as defense (050) spending and \$24,243,000,000 is classified as non-defense (non-050) spending.

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 \$7,722,149,000 for the Corps of Engineers [Corps], an increase of \$1,755,963 above the budget request.

The Committee's recommendation sets priorities by supporting our Nation's water infrastructure. Specifically, for the seventh consecutive year, the Committee recommendation provides adequate appropriations to utilize all of the estimated fiscal year 2021 revenues from the Inland Waterways Trust Fund [IWTF] and meets the target prescribed in the Water Resources Reform and Development Act of 2014 (Public Law 113–121) [WRRDA], as amended, for Corps projects eligible for Harbor Maintenance Trust Funds.

INTRODUCTION

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

The Corps maintains our inland waterways, keeps our ports open, manages a portion of our drinking water supply, provides emission-free electricity from dams, 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 2021 budget request for the Corps proposed numerous structural changes, including the creation of two new accounts—Harbor Maintenance Trust Fund and Inland Waterways Trust Fund; 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 Harbor Maintenance Trust Fund account are shown in the Construction, Mississippi River and Tributaries, or Operation and Maintenance accounts, as appropriate;
- Dam safety modification studies requested in the Investigations account are shown in the Dam Safety and Seepage/Stability Correction Program in the Construction account;
- Sand mitigation projects requested in the Harbor Maintenance Trust Fund account are shown in the Construction account;
- National Shoreline Management Study and Interagency and International Support activities are 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;
- Access to Water Data, Coastal Field Data Collection, Hydrologic Studies, Remote Sensing/Geographic Information System Support, Scientific and Technical Information Centers, and Tri-Service CADD/GIS Technology Center are not consolidated under the new proposed Technology Application Program in Investigations;
- 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
- Inspection of Completed Works will continue to be funded under the individual States instead of consolidated into a na-

tional program as requested in the Mississippi River and Tributaries account.

Additionally, the recommendation includes the Poplar Island, Maryland beneficial use of dredged material project within the Environmental Restoration business line as in previous years.

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.

DEEP DRAFT NAVIGATION

The budget request this year fails to adequately fund our Nation's harbors. The Committee is disappointed the fiscal year 2021 budget request only proposes to spend \$1,015,000,000 for Harbor Maintenance Trust Fund [HMTF]-related activities, which is \$663,000,000 below the spending target of \$1,678,000,000 established by WRRDA, as amended. For fiscal year 2021, the Committee recommends an estimated \$1,678,000,000 for HMTF-related activities, which meets the WRRDA spending target.

INLAND WATERWAYS SYSTEM

The Committee is disappointed and perplexed by the budget request's proposal to not spend any of the estimated deposits for fiscal year 2021 into the IWTF. 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 provide an efficient mode of freight transportation compared to alternative forms of 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 have 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 why the Committee does not understand why the administration would propose to delay progress by zeroing out 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 Committee recommends appropriations that make full use of all estimated revenues from the IWTF for ongoing construction projects.

The Committee rejects the budget request's proposal to reform Inland Waterways financing by increasing the amount paid by commercial navigation users of inland waterways. It is absurd not to spend any of the fees already being collected while imposing additional fees on the same commercial users.

Any report prepared pursuant to section 2002(d) of WRRDA will need to be reviewed by Congress prior to the Corps incorporating any part of the report into funding decisions. Therefore, the Corps shall continue to prioritize funding for ongoing construction

projects. The Committee considers the 20-year Capital Investment Strategy a planning document and not subject to administration budget metrics.

ADDITIONAL FUNDING

The Committee recommends funding above the budget request for Investigations, Construction, Operation and Maintenance, Mississippi River and Tributaries, Flood Control and Coastal Emergencies, 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 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. Except for funding allocated to new study starts in Investigations, the focus of the allocation process shall favor the obligation, rather than the expenditure, of funds for work in fiscal year 2021.

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 2021 and the specific reasons each study or project was considered less competitive for an allocation of funds.

The Committee urges the Corps within its Flood and Coastal Storm Damage Reduction mission to strive for a balance between inland and coastal projects.

New Starts.—The recommendation includes nine new study starts (including one new study start in the Mississippi River and Tributaries account) and seven new construction starts to be distributed across the authorized mission areas of the Corps. Of the new starts in the Investigations account, three shall be for flood and storm damage reduction studies, of which one shall be for a Coastal Storm Damage Reduction study; two shall be for environmental restoration studies; two shall be for navigation studies and; one shall be for a multi-purpose watershed study to assess coastal resiliency. Of the new construction starts, two shall be for navigation projects, of which one shall be for a small or medium-sized

harbor; two shall be for environmental restoration projects; two shall be for flood and storm damage reduction and; one shall be for a multi-purpose project with flood risk management components and environmental restoration components or hurricane storm damage reduction components and environmental restoration components. The Corps is reminded that public-private partnership (P3) pilot projects are eligible to compete for new starts in Construction. The Corps shall only allocate up to \$500,000 for studies and reevaluations that are being funded in their first year.

The Corps is directed to propose a single group of new starts as a part of the work plan. The Corps may not change or substitute the new starts selected once the work plan has been provided to the Committee. As all new starts are to be chosen by the Corps, all shall be considered of equal importance, and the expectation is that future budget submissions will include appropriate funding for all new starts selected. The initiation of construction of an individually authorized project funded within a programmatic line item may not require a new start designation provided that 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. When evaluating proposals for new feasibility studies, the Corps is encouraged to give priority to those studies with executed Feasibility Cost Share Agreements and a sponsor with the ability to provide any necessary cost share for the study phase. The Corps is encouraged to support opportunities to restore critical habitat and enhance the Nation's economic development, job growth, and international competitiveness.

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.

ASIAN CARP

The Corps is undertaking multiple efforts to stop Asian 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 Asian carp at the Brandon Road Lock and Dam, a critical choke point to halt the spread of invasive species in the Illinois River. In addition, the electric dispersal barrier in the Chicago Sanitary and Ship Canal [CSSC Fish Barrier] is presently the only structural measure to deter Asian carp from reaching Lake Michigan. The Committee un-

derstands the Corps is finalizing an agreement with the state of Illinois to be the lead non-federal sponsor of the project. The Committee recognizes this project is critical to preventing Asian carp from causing irreparable harm to the Great Lakes. Once approved by the Corps, the Committee urges the Corps to initiate PED for this critical project and understands the states of Illinois and Michigan have provided enough funding to allow PED for the project to move forward.

The Corps is reminded that this project is eligible to compete for funding in the Investigations account for PED.

The Committee notes that the Corps has invested significant resources to building and maintaining a permanent electric barrier on the Chicago waterway system, the CSSC Fish Barrier. The Committee is concerned that the administration has not allocated funds to enable the Corps and the U.S. Coast Guard to complete safety assessments necessary to ensure that upgrades to the electric barrier are operational, and encourages the Corps to prioritize these purposes when allocating funds in the fiscal year 2021 work plan. The Corps is encouraged to provide the additional funding needed to complete the second electrode array, which would improve the effectiveness of the barrier system and provide operational redundancy.

The Corps is directed to provide quarterly updates to the Committee on the progress and status of efforts to prevent the further spread of Asian carp including the status of completing the upgrades to and testing of the CSSC Fish Barrier; of implementing the Brandon Road Recommended Plan; 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.

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 Asian 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 Asian 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 and other Federal and State agencies are conducting ongoing research on potential solutions. 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 should 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 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 that is currently under construction.

REGIONAL DREDGE DEMONSTRATION PROGRAM

In fiscal year 2020, the Committee worked with the Corps to develop a demonstration program to explore innovative ways of executing dredging in a logical, sequenced, and efficient manner. The goals of the program include being more responsive to dredging demands within the region, while minimizing disruption to critical construction and maintenance dredging requirements enterprise-wide.

The Committee is very pleased with the progress made by the Corps to-date implementing the demonstration program. The Committee understands the Corps has performed its first comprehensive dredging analysis/execution plan formulation and has already identified millions of dollars in mobilization savings through this regional approach.

The Corps shall continue to provide quarterly briefings to Congress on the status of the demonstration program including regular updates on the effectiveness of the program, savings realized, and lessons learned. The Corps is encouraged to apply effective approaches and lessons learned under this program to other areas such as the Atlantic region that could also achieve cost and schedule savings.

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 2021 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.

UNMANNED AERIAL SYSTEMS

As follow-up to the reporting requirement found in the fiscal year 2019 Senate Report, the Corps shall brief the Committee about their findings and subsequent actions as it relates to foreign-made small Unmanned Aerial Systems [sUAS]. The briefing shall occur not later than 90 days after enactment and shall include the following: the total number of sUAS in inventory and operation, including a breakdown of those sUAS manufactured in or with com-

ponents produced in the People's Republic of China; the justification for the January 2020 grounding of all sUAS by the Department; the number of exceptions made for emergency missions; the plan to source additional sUAS from American manufacturers; and the plan to resume operations while mitigating the exposure or inadvertent release of sensitive data.

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).

CONGRESSIONALLY DIRECTED SPENDING

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

SAVINGS AND SLIPPAGE

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

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, 2020	\$151,000,000
Budget estimate, 2021	102,635,000
Committee recommendation	151,149,000

The Committee recommends \$151,149,000 for Investigations, an increase of \$48,514,000 above the budget request. The Committee’s recommendation allows the Corps to begin nine new feasibility study starts.

INTRODUCTION

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. The Committee recognizes that the budget request does not provide adequate funding for Investigations, and specifically PED funding, to allow many of America’s most important water resource projects to move efficiently from planning to construction. The Committee, therefore, recommends additional funding to be used to seamlessly continue feasibility studies into the PED phase.

NEW STARTS

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

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
ALASKA		
ELIM SUBSISTENCE HARBOR, AK	110 *
ARIZONA		
BIRD SPRINGS WATERSHED ASSESSMENT, AZ	50 *
ARKANSAS		
THREE RIVERS, AR	3,292	3,292
CALIFORNIA		
CARBON CANYON DAM, SANTA ANA RIVER BASIN, CA	1,500 *
CLEAR CREEK ECOSYSTEM RESTORATION, CA	100 *
LOS ANGELES COUNTY DRAINAGE AREA (CHANNELS), CA	715 *
PRADO DAM, SANTA ANA RIVER BASIN, CA	2,400 *
SALINAS RESERVOIR (SANTA MARGARITA LAKE), CA	79 *
SOUTH SAN FRANCISCO BAY SHORELINE, CA (PHASE II)	400	400
SUISUN BAY CHANNEL (SLOUGH), CA	150 *
WEST SACRAMENTO, CA	2,028	2,028
COLORADO		
JOHN MARTIN RESERVOIR, CO	800 *
GEORGIA		
SAVANNAH RIVER BELOW AUGUSTA, GA	150 *

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

Project title	Budget estimate	Committee recommendation
IDAHO		
SWEETWATER CREEK RESTORATION, ID	100 *
ILLINOIS		
INTERBASIN CONTROL OF GREAT LAKES—MISSISSIPPI RIVER AQUATIC NUISANCE SPECIES, IL, IN, OH & WI	50	50
PEORIA SMALL BOAT HARBOR, IL	110 *
KANSAS		
SOLDIER CREEK WATERSHED, KS	45 *
LOUISIANA		
BAYOU COCODERIE AND TRIBUTARIES, LA	500 *
MICHIGAN		
BAY MILLS SHORELINE EROSION, MI	45 *
MINNESOTA		
ST ANTHONY FALLS, MISSISSIPPI RIVER, MN	186 *
NEW MEXICO		
PUEBLOS OF ZIA WATERSHED ASSESSMENT, NM	50 *
NORTH CAROLINA		
CAPE FEAR LOCKS AND DAMS 1–3, NC	110 *
NORTH DAKOTA		
GARRISON DAM, LAKE SAKAKAWEA, ND	2,000 *
OHIO		
BOLIVAR DAM (MAGNOLIA LEVEE), OH	3,000 *
OKLAHOMA		
KEYSTONE LAKE, OK	2,700 *
OREGON		
BONNEVILLE LOCK AND DAM, OR AND WA	1,500 *
COLUMBIA RIVER TREATY 2024 IMPLEMENTATION, OR & WA	10,260 *
COUGAR LAKE, OR	2,672 *
FOSTER LAKE, OR	2,000 *
GREEN PETER LAKE, OR	2,000 *
HILLS CREEK LAKE, OR	2,400 *
LOOKOUT POINT LAKE, OR	2,400 *
TEXAS		
BENBROOK LAKE, TX	1,500 *
PROCTOR LAKE, TX	3,000 *
VERMONT		
NORTH SPRINGFIELD LAKE, VT	1,500 *
WASHINGTON		
PUGET SOUND NEARSHORE MARINE HABITAT RESTORATION, WA	2,563	2,563
SUBTOTAL, ITEMS UNDER STATES	52,465	8,333
REMAINING ITEMS ADDITIONAL FUNDING FOR ONGOING WORK		
FLOOD AND STORM DAMAGE REDUCTION		10,000
FLOOD CONTROL		4,000
SHORE PROTECTION		5,000
NAVIGATION		9,000

CORPS OF ENGINEERS—INVESTIGATIONS—Continued

[In thousands of dollars]

Project title	Budget estimate	Committee recommendation
COASTAL AND DEEP-DRAFT		6,000
INLAND		5,000
OTHER AUTHORIZED PROJECT PURPOSES		5,000
ENVIRONMENTAL RESTORATION OR COMPLIANCE		17,000
ACCESS TO WATER DATA		360 *
AUTOMATED INFORMATION SYSTEMS SUPPORT TRI-CADD		250 *
COASTAL FIELD DATA COLLECTION		2,000 *
COORDINATION WITH OTHER WATER RESOURCE AGENCIES	350	1,000 *
DISPOSITION OF COMPLETED PROJECTS		2,000 *
ENVIRONMENTAL DATA STUDIES	80	80
FERC LICENSING	100	100
FLOOD DAMAGE DATA	280	280
FLOOD PLAIN MANAGEMENT SERVICES	15,000	18,000
HYDROLOGIC STUDIES		500 *
INTERNATIONAL WATER STUDIES	125	125
INTERAGENCY AND INTERNATIONAL SUPPORT		100
INTERAGENCY WATER RESOURCE DEVELOPMENT	100	100
INVENTORY OF DAMS	400	400
NATIONAL FLOOD RISK MANAGEMENT PROGRAM	5,000	5,000
NATIONAL SHORELINE MANAGEMENT STUDY		400
PLANNING ASSISTANCE TO STATES	5,000	14,000
PLANNING SUPPORT PROGRAM	3,500	3,500
PRECIPITATION STUDIES	200	200
REMOTE SENSING/GEOGRAPHIC INFORMATION SYSTEM SUPPORT		575 *
RESEARCH AND DEVELOPMENT	15,000	33,700
SCIENTIFIC AND TECHNICAL INFORMATION CENTERS		50 *
SPECIAL INVESTIGATIONS	1,000	1,000
STREAM GAGING	550	550
TECHNOLOGY APPLICATION PROGRAMS	2,485 *
TRANSPORTATION SYSTEMS	1,000	1,000
TRIBAL PARTNERSHIP PROGRAM		4,036 *
SUBTOTAL, REMAINING ITEMS	50,170	150,306
SAVINGS AND SLIPPAGE		-7,490
GRAND TOTAL	102,635	151,149

* Includes funds requested in other lines or accounts.

Arkansas River Flooding.—In the late Spring of 2019, historic flooding along the Arkansas River and its tributaries resulted in billions of dollars in damages, forced communities to evacuate, caused energy companies to shut down, and damaged or destroyed hundreds of homes and businesses. Disruptive floods along the Arkansas River in northeast Oklahoma have become increasingly routine, raising questions about whether additional easements are needed to lessen the impact of future flooding. The Corps is directed to evaluate all of its authorities for assessing whether the purchase of additional flood easements along the Arkansas River in northeast Oklahoma and western Arkansas would significantly reduce the severity and duration of flood events and is directed to brief the Committee within 60 days of enactment of this act on their findings. The Corps is further directed to work with the Federal Emergency Management Agency [FEMA] on opportunities to implement such measures.

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, the Corps to brief the Committee within 90 days of enactment.

Central & South Florida Project.—The Committee recognizes the importance of the Central & 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.

Chicago River.—The Committee encourages 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.

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.

Coastal Field Data Collection.—The Committee does not support combining Coastal Field Data Collection in the remaining item titled Technology Application Programs. The Committee has included the \$1,000,000 proposed in the budget request for this work in the Coastal Field Data Collection remaining item. 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 \$1,000,000 above the budget request amount of \$1,000,000 to continue data collection and research on the impact of extreme storms in coastal regions. The Corps is encouraged to include increased funding in future budget submissions.

Flood Policy in Urban Areas.—The Committee is concerned by the delay in receiving the Flood Policy Within Urban Areas report as required by section 1211 of America's Water Infrastructure Act of 2018 (Public Law 115-270) [AWIA 2018]. The Committee directs the Corps, within 45 days of enactment, to provide a briefing on the findings of this report.

Great Lakes Mississippi River Interbasin Study [GLMRIS].—The budget request does not reflect the urgency of moving forward as quickly as possible on interim steps to prevent the upstream movement of Asian carp through the Illinois River towards Lake Michigan. Of the additional funds recommended in this account, the Committee encourages the administration to prioritize funding for the ongoing efforts for the GLMRIS.

Great Lakes Coastal Resiliency Study.—The Committee is disappointed by the administration's lack of support for the Great Lakes Coastal Resiliency Study. The Committee urges the Corps to prioritize this important effort to develop a coordinated strategy to manage and protect the Great Lakes and its 5,200-mile coastline from threats associated with lake level fluctuations, erosion, flooding, nutrient runoff, and aging infrastructure.

Hartford and East Hartford, Connecticut Levee Systems.—The Committee recognizes the need and urgency to address the serious

deficiencies of the levee systems in Hartford and East Hartford, Connecticut. The Committee encourages the Corps to consider the urgency of this effort when allocating the additional funding recommended in this account.

Kanawha River Basin Study.—The Kanawha River Basin covers approximately 12,300 square miles within portions of West Virginia, Virginia, and North Carolina, and is home to approximately 900,000 people. Severe flooding in the Basin continues to be an issue, with a recent flood event in June 2016 claiming 23 lives and damaging over 4,600 homes. A 2017 report approved by the Corps recommended a comprehensive flood risk management study to address residual risk and flooding in areas not protected by current Corps projects. The Corps is reminded this study is eligible for funding in this account and is strongly encouraged to prioritize studies with a primary focus on flood risk management within a basin that experiences recurring flash flooding, and where there are significant life and safety concerns.

Kenai Bluffs Erosion.—The Committee understands the city of Kenai has been working to make progress on the Kenai Bluffs Erosion project to preserve the life and safety of its residents and prevent economic loss. The Committee is disappointed with the numerous deadlines missed by the Corps and with the amount of time the administration has taken to approve reports. The Committee understands the Corps has received all necessary actions from the Office of Management and Budget, and has completed a report under section 116 of Public Law 111–85. The Committee encourages the Corps to move as expeditiously as possible to PED, reminds the Corps this project is eligible to receive additional funds recommended in this account and urges the Corps to include funding in future budget requests.

Laurel, Maryland.—The Committee encourages the Corps to continue its partnership with the city of Laurel, Maryland to provide assistance in updating tools needed to develop flood risk reduction alternatives to assist local communities in flood resiliency efforts along the Patuxent River.

Lower Missouri River Basin.—In the Spring of 2019, the Missouri River Basin experienced record flooding as result of saturated soils and high water levels from unprecedented rainfall and snowmelt runoff. This resulted in billions of dollars in damage to homes, businesses, and levees along the river. Between 2018 and 2019, 218 flood or flash flood events occurred in the state of Missouri alone. In response to these events, the Committee provided resources and the Corps included in its work plan a new start flood risk management study called the Lower Missouri Basin Flood Risk and Resiliency Study, IA, KS, NE and MO. Flooding in the Lower Missouri River Basin continues to increase, proving the need for a more comprehensive, system-wide plan for long-term flood risk reduction. The Committee urges the Corps to work with pertinent state and Federal agencies and stakeholders to identify authorities, resources, and opportunities available to support such an effort. Not later than 60 days after enactment of this act, the Corps shall brief the Committee on recommendations for development of a comprehensive, system-wide plan for the Lower Missouri Basin. This briefing shall include what resources and additional authori-

ties would be needed; the challenges and limitations, including policy and funding concerns; and an overview of the steps that would be necessary to complete the comprehensive system plan.

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 10.9 million tons of commerce worth \$3,500,000,000 annually. MKARNS is a vital corridor for agriculture commerce (soybeans and wheat) from the Gulf Coast to the Mid-West. 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 in fiscal year 2021 to update the economic impacts of the project and strongly urges the Corps to prioritize this effort in the fiscal year 2021 work plan. 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.

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 shall brief the Committee within 45 days of enactment of this act, on how it considers the value of national security in prioritizing and formulating studies and projects.

National Historic Landmarks.—The Committee encourages the Corps to expedite the completion of flood and storm damage reduction studies related to preserving National Historic Landmarks that are immediately threatened by shoreline erosion, such as the bridge in Selma, Alabama.

Natural Infrastructure Options.—The Committee directs the Corps to engage with State and local governments and non-profit organizations, where appropriate, on projects in diverse geographic areas that incorporate natural infrastructure. The Corps is encouraged to incorporate such features into projects during the project formulation phase, where appropriate and effective.

North Atlantic Coast Focus Area Studies.—The Committee is disappointed the administration discontinued funding for several ongoing studies to address flood damage and loss of life along the Atlantic coastline. In the wake of Hurricane Sandy, the North Atlantic Coast Comprehensive Study was authorized to address coastal storm and flood risk to vulnerable populations, property, ecosystems, and infrastructure affected by Hurricane Sandy. The study identified nine vulnerable areas for further study and action in six states and the District of Columbia. Without completion of these focus area investigations, communities, properties, and peo-

ple will not have guidance for the best course of action to mitigate future damage and will remain vulnerable to future coastal storm and flood risks. The Committee reminds the Corps these studies are eligible for additional funding provided in this account and urges the Corps to prioritize these studies in the fiscal year 2021 work plan.

North Atlantic Division Report on Hurricane Barriers and Harbors of Refuge.—Within 90 days of enactment of this act, the Corps shall brief the Committee on the status and path forward for the North Atlantic Division report on hurricane barriers and harbors of refuge mandated under Section 1218 of AWIA 2018.

Planning Assistance to States.—The administration 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, 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 the Water Resources Development Act of 2000 (Public Law 106–541). The Committee notes that the Water Infrastructure Improvements for the Nation Act (Public Law 1140332) [WIIN Act] authorized construction of the Puget Sound Nearshore Ecosystem Restoration Project, and reminds the Corps that 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. Potential specific topics include, but are not limited to: the use of biopolymers to improve the integrity of earthen structures; increasing resilience through natural infrastructure on drought-prone lands; forecasting coastal processes to protect infrastructure; developing capabilities to improve the structural integrity of levees and dams; the opportunities for polymer components to increase the durability of infrastructure; and the impacts of freshwater intrusion into estuaries.

Research and Development—Geophysical Modeling.—Additional funding has been recommended to continue research using geophysical computational modeling. The Committee understands that with continued funding this effort will be completed in 4 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. High loss of functionally viable oyster reefs result in significant impacts to water quality, affecting other aquatic life and predisposing estuaries to hypoxia, harmful algal blooms, parasitic diseases, and other environmental degradation. The Committee recommends an additional \$2,220,000 to continue the oyster reef efforts funded in fiscal year 2020. The Committee understands that with continued funding this effort will be completed in fiscal year 2022.

Research and Development—Urban Flood Damage Reduction and Stream Restoration in Arid Regions.—The Committee recommendation includes an additional \$3,000,000 in the Research and Development remaining item for the Corps' Flood and Coastal Systems R&D Program for Post-Wildfire and Debris Flow Urban Flood Damage Reduction in Arid Regions. This ongoing R&D program should continue its focus on science and technology efforts to address needs for resilient water resources infrastructure, specifically as impacted by post-wildfire conditions including increased sedimentation and debris flow. The tools and technologies developed under this program should also be applicable to other parts of the country. The Committee understands that with continued funding this effort will be completed in 4 years.

San Diego County, California (Formerly Encinitas and Solana Beach, California).—In the project vicinity, eight people have lost their lives of the past several years due to multiple bluff collapses caused by coastal erosion. Therefore, the Committee encourages the Corps to continue prioritizing investment in the design for the San Diego County project (formerly known as the Encinitas and Solana Beach Coastal Storm Damage Reduction Project).

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 ensure due consideration of near-shore marine habitat with potential impacts of coastal flooding and inundation, including coral reefs, oyster reefs, mangrove forests, and saltwater marsh, within the scope of this comprehensive study. To enhance the value and reach of this vital planning effort, the Committee strongly urges the Corps, where possible, to ensure the full interoperability of modeling work and data analysis conducted for the South Atlantic Coastal Study and other inland flood control and aquatic ecosystem restoration projects bordering the study area, including the Central & Southern Florida Project and South Florida Ecosystem Restoration Program.

Technology Application Programs.—The Committee rejects the combining of six historical remaining items into one single remaining item titled "Technology Application Programs". The Corps is di-

rected to identify specific amounts requested for each of these programs in future budget requests.

Upper Des Plaines River and Tributaries Project.—The Committee is aware of local concerns about the impact the proposed Foxconn project in Wisconsin may have on flooding in communities downriver in Illinois surrounding the Des Plaines River. As the Corps re-evaluates the project, the Committee encourages the Corps to take the impacts of the proposed project into consideration.

Upper Mississippi River-Illinois Waterway System.—The Committee recognizes the importance of advancing the Navigation and Ecosystem Sustainability Program [NESP], as authorized in Title VIII of the Water Resources and Development Act of 2007 (Public Law 110–114), for the Upper Mississippi region and the Nation’s economy. Congress has already appropriated more than \$66,000,000 in PED funding for this program. The Committee urges the Corps to provide the appropriate PED funding needed to advance the projects towards construction as soon as possible.

Upper Missouri River Basin Flood and Drought Monitoring.—In fiscal year 2020, the Committee provided an additional \$1,000,000 in the Stream Gaging remaining item to fully fund the capability for soil moisture and snowpack monitoring. It was the Committee’s understanding when providing the additional \$1,000,000 that the fiscal year 2020 capability for this program was \$3,000,000 and that the fiscal year 2020 budget request had included \$2,000,000 for this purpose. After the administration determined that Stream Gaging was not the appropriate remaining item for these activities, the Corps reprogrammed the funding to the Hydrologic Studies remaining item in this account. To prevent additional unnecessary delays to the implementation of this program, the Committee has created a new remaining item in the O&M account titled “Soil Moisture and Snowpack Monitoring” for these activities. The Corps is directed to use the funding provided in fiscal year 2020 in the Hydrologic Studies remaining item along with the additional funding provided in the new remaining item to carry out the activities authorized in section 4003(a) of WRRDA.

Upper Ohio Navigation System.—The Committee understands the importance of the Upper Ohio Navigation system and of modernizing its facilities. The Committee encourages the Corps to consider allocating additional funding for continued PED work.

Watertown, South Dakota.—The Committee understands the periodic flooding from the Big Sioux River and high soil moisture conditions continue to threaten the city of Watertown in northeastern South Dakota. Recent flooding has renewed interest in examining flood risk management solutions. The Corps is reminded this study is eligible to compete for additional funding recommended in this account.

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.

Willamette River.—The Committee directs the Corps to prioritize environmental restoration for urban area floodplain and aquatic habitat through cost effective means, such as fish passage and culvert replacement. These efforts should benefit all Columbia River and Willamette River salmon and steelhead listed under the Endangered Species Act [ESA] and Pacific Lamprey, which is a culturally, and ecologically important species and treaty-reserved resource to the Pacific Northwest Tribal Nations.

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”. Of the additional funding recommended in this account, not less than \$3,500,000 shall be to continue progress on studies that address coastal resilience identified in the North Atlantic Coast Comprehensive Study. Of the additional funding recommended for environmental restoration or compliance and other authorized project purposes, the Corps shall allocate not less than \$2,340,000 for ecosystem restoration projects that are modifications to flood protection project authorizations to address degraded conditions due to prior flood protection work. Of the additional funding recommended in this account, the Corps shall allocate not less than \$1,100,000 to PED activities for ecosystem restoration projects that also provide additional flood storage capacity by restoring the natural habitat. Of the additional funding recommended in this account for environmental restoration or compliance, the Corps shall allocate not less than \$8,300,000 for ecosystem restoration projects in the PED phase that have been funded for PED within the last 3 years and provide benefits to multiple states. Of the additional funding recommended in this account, \$559,000 shall be to update project economics on the inland waterways system. Of the additional funding recommended in this account, not less than \$500,000 shall be allocated to studies that would re-evaluate options to address eroding shorelines. Of the additional funding recommended for shore protection projects, \$1,500,000 shall be for ongoing beach re-nourishment projects in the PED phase that are authorized for construction. 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 Corps is encouraged to consider studies that investigate the impacts of ship channels on beach nourishment projects. 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; and
- The Corps shall include appropriate requests for funding in future budget submissions for PED and new feasibility studies initiated in fiscal year 2021. The Corps shall prepare the budget to reflect study completions, defined as completion of PED.

CONSTRUCTION

Appropriations, 2020	\$2,681,000,000
Budget estimate, 2021	2,173,189,000
Committee recommendation	2,661,000,000

The Committee recommends \$2,661,000,000 for Construction, an increase of \$487,811,000 above the budget request. The Committee's recommendation requires the Corps to select seven new construction starts to begin in fiscal year 2021.

INTRODUCTION

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

NEW STARTS

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

COMMITTEE RECOMMENDATION

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

CORPS OF ENGINEERS—CONSTRUCTION

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CALIFORNIA		
AMERICAN RIVER COMMON FEATURES, NATOMAS BASIN, CA	131,500	131,500
WHITTIER NARROWS, CA (DAM SAFETY)	384,900	384,900
FLORIDA		
JACKSONVILLE HARBOR, FL	35,457	35,457
SOUTH FLORIDA ECOSYSTEM RESTORATION (EVERGLADES), FL	250,000	250,000
GEORGIA		
SAVANNAH HARBOR EXPANSION, GA	93,600	93,600
ILLINOIS		
CALUMET HARBOR AND RIVER, IL AND IN		16,000 *
MELVIN PRICE LOCK AND DAM (DEFICIENCY CORRECTION), IL & MO	12,211	12,211
UPPER MISSISSIPPI RIVER RESTORATION, IL, IA, MN, MO & WI	33,170	33,170
IOWA		
MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	9,700	9,700
KENTUCKY		
ROUGH RIVER LAKE, KY	8,750	8,750
LOUISIANA		
CALCASIEU RIVER AND PASS, LA		9,000 *
MISSISSIPPI RIVER SHIP CHANNEL GULF TO BATON ROUGE, LA	45,707	45,707

CORPS OF ENGINEERS—CONSTRUCTION—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MARYLAND		
ASSATEAGUE, MD		600 *
POPLAR ISLAND, MD		14,500 *
MASSACHUSETTS		
BOSTON HARBOR, MA	68,433	68,433
MICHIGAN		
SAULT STE MARIE (REPLACEMENT LOCK), MI	123,220	123,220
NEW JERSEY		
CAPE MAY INLET TO LOWER TOWNSHIP, NJ		12,500 *
LOWER CAPE MAY MEADOWS, CAPE MAY POINT, NJ		400 *
RARITAN RIVER BASIN, GREEN BROOK SUB-BASIN, NJ	157,460	157,460
NORTH CAROLINA		
WILMINGTON HARBOR, NC		6,600 *
NORTH DAKOTA		
PIPESTEM LAKE, ND	40,000	40,000
OREGON		
COLUMBIA RIVER AT THE MOUTH, OR & WA	119,003	119,003
PENNSYLVANIA		
GENERAL EDGAR JADWIN DAM AND RESERVOIR, PA	11,000	11,000
TEXAS		
CORPUS CHRISTI SHIP CHANNEL, TX (MAIN CHANNEL AND BARGE LANES)	100,366	100,366
WASHINGTON		
COLUMBIA RIVER FISH MITIGATION, WA, OR & ID (CRFM)	15,377	15,377
SUBTOTAL, ITEMS UNDER STATES	1,639,854	1,699,454
REMAINING ITEMS ADDITIONAL FUNDING		
FLOOD AND STORM DAMAGE REDUCTION		150,000
FLOOD CONTROL		170,000
SHORE PROTECTION		30,000
NAVIGATION		345,000
INLAND WATERWAYS TRUST FUND REVENUES		110,100
OTHER AUTHORIZED PROJECT PURPOSES		20,000
ENVIRONMENTAL RESTORATION OR COMPLIANCE		120,000
ENVIRONMENTAL INFRASTRUCTURE		80,000
AQUATIC PLANT CONTROL PROGRAM		20,000
BENEFICIAL USE OF DREDGED MATERIAL PILOT PROGRAM (SEC 1122)		7,500
CONTINUING AUTHORITIES PROGRAM		
AQUATIC ECOSYSTEM RESTORATION (SECTION 206)	1,000	12,000
BENEFICIAL USES OF DREDGED MATERIAL (SECTION 204)		4,500 *
EMERGENCY STREAMBANK AND SHORELINE PROTECTION (SECTION 14)		8,000
FLOOD CONTROL PROJECTS (SECTION 205)	1,000	18,000
MITIGATION OF SHORE DAMAGES (SECTION 111)		
NAVIGATION PROGRAM (SECTION 107)		1,000
REMOVAL OF OBSTRUCTIONS (SECTION 208)		
PROJECT MODIFICATIONS FOR IMPROVEMENT OF THE ENVIRONMENT (SECTION 1135)	1,000	10,000
SHORE PROTECTION (SECTION 103)		1,500
DAM SAFETY AND SEEPAGE/STABILITY CORRECTION PROGRAM	13,000	44,372 *
EMPLOYEES' COMPENSATION	17,000	17,000
INLAND WATERWAYS USERS BOARD—BOARD EXPENSE	60	60

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

Item	Budget estimate	Committee recommendation
INLAND WATERWAYS USERS BOARD—CORPS EXPENSE	275	275
INNOVATIVE FUNDING PARTNERSHIPS	250,000	.....
RESTORATION OF ABANDONED MINES .....	.....	2,000
TRIBAL PARTNERSHIP PROGRAM .....	.....	7,029
WRRDA 2014, SECTION 1043 NON-FEDERAL CONSTRUCTION OF FEDERAL PROJECTS	250,000	.....
SUBTOTAL	533,335	1,178,336
SAVINGS AND SLIPPAGE .....	.....	- 216,790
TOTAL	2,173,189	2,661,000

* 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. Alternative Delivery funding is recommended in this account under the new funding line “Alternative Delivery” for ongoing and planned P3s and projects that utilize a split-delivery approach. The Committee also encourages the Corps to continue the rulemaking process for 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; \$6,000,000 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; \$11,000,000 shall be for watercraft inspection stations and rapid response, as authorized by section 1039 of WRRDA, as amended; and \$2,000,000 shall be for related monitoring.

Aquatic Plant Control Program—Salt Cedar.—The Committee recognizes that non-native salt cedar trees along riparian areas in the desert southwest exacerbate drought conditions, pose a greater wildfire risk, and increase the risk of flooding. Therefore, the Committee encourages the Corps to prioritize funding for projects that will remove non-native plant species like Salt Cedars, replace non-native plant species with native plants, and monitor riparian areas where non-native plant species have been removed and replaced. Within 180 days of enactment of this act, the Corps shall brief the Committee detailing its work to remove, replace, and monitor to prevent the spread of non-native plant species along riparian areas.

Barrow Alaska Coastal Erosion.—The Committee is disappointed funding was not provided for this critical project in the fiscal year

2020 work plan. The flooding and erosion experienced in Barrow, Alaska presents significant risks to life and safety, threatens the community's only drinking water source, and risks from contamination to the environment. The Committee continues to support this project, understands the Corps is prepared to enter into a Design Agreement with the non-Federal sponsor, and urges the Corps to expeditiously proceed with PED. The Corps is reminded this project is eligible to receive additional funds recommended in this act and is urged to include funding in future budget submissions.

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 \$7,500,000 for the ten pilot projects selected to date within the "Beneficial Use of Dredged Material Pilot Program." The Corps shall brief the Committee not later than 90 days after enactment of this act on the status, cost estimates, and potential timelines for each of the ten selected pilot projects. 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.

Bird Drive Basin Conveyance, Seepage Collection, and Recharge.—The Committee acknowledges the unique opportunity for Miami-Dade County 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 the Miami-Dade Expressway Authority, or any successor organization, 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 supports this vital ecosystem restoration project and continuing the Biscayne Bay Coastal Wetlands and C-111 Spreader Canal projects to restore and protect wetland and estuarine habitats in south Florida. The Committee notes support from the South Florida Water Management District to consider changed conditions, reassess prior assumptions, and use new information that was unavailable during previous efforts in this area. The Committee also notes support from Miami-Dade County and the possible benefits of this restoration project to aid in the potential reduction of saltwater intrusion into the Biscayne Aquifer. The Committee encourages the Corps to consider all available opportunities to increase environmental benefits to the coastal estuarine and glades habitats included in the study area.

Camp Ellis Beach, Saco, Maine.—The Committee is concerned by the continued delay in implementing a solution at Camp Ellis Beach in Saco, Maine. To address continued erosion which has de-

stroyed 38 homes to date, the Committee is aware that the Corps' initial study recommended a shore damage mitigation project consisting of a 750-foot-long spur jetty, and placement of about 360,000 cubic yards of beach fill along the beach. The Committee is aware that the Corps is working with the city on detailing a path ahead on the project. Accordingly, the Committee directs the Secretary to continue collaborative efforts to address the continued erosion.

Caño Martin Peña Ecosystem Restoration Project.—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 communities surrounding this historically important tidal channel as well as for the re-establishment of 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 high-profile 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. The Corps shall brief the Committee not later than 30 days after enactment of this act on the status of, and its future plans, for this project. The briefing shall address any circumstances that may be disadvantaging this project from selection as a new construction start.

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. The Corps is encouraged 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 Management District. The Committee considers the Everglades Agricultural Area [EAA] Storage Reservoir an element of CEPP, consistent with section 1308 of AWIA 2018 which anticipated the EAA Storage Reservoir to be designed and constructed as a component of CEPP, rather than as a discrete project.

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 2021 work plan.

Chicago Sanitary and Ship Canal Dispersal Barrier, Illinois.—The Committee strongly urges the Corps to ensure that the facility is operational as expeditiously as possible to reduce the risk of Asian carp entering the Great Lakes ecosystem Hydrologic separa-

tion issues should be fully studied by the Corps, vetted by the appropriate congressional authorizing committees, and specifically enacted into law. 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 eliminating discharges from Lake Okeechobee that help fuel harmful algal blooms in the St. Lucie River and Indian River Lagoon. The Committee urges the Corps to move on to 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 project to collect and clean Lake Okeechobee discharges and basin runoff before excess nutrients are able to enter the fragile lagoon ecosystem.

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 active 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 \$50,000,000 for the Continuing Authorities Program [CAP], an increase of \$46,000,000 above the budget request. CAP is a useful tool for the Corps to undertake small localized projects without being encumbered by the lengthy study and authorization phases typical of most Corps projects. The management of CAP should continue consistent with direction provided in previous fiscal years. Within 90 days of enactment of this act, the Corps shall brief the Committee on how the Corps prioritizes CAP projects for funding and on program execution.

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.

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.

Deep Creek Bridge Replacement.—The Committee recognizes the importance of the ongoing Atlantic Intracoastal Waterway bridge replacement at Deep Creek in Chesapeake, Virginia, and encourages the Corps to prioritize completion of the project. The current bridge is functionally obsolete and is a major bottleneck for hurricane evacuation routes in the region. Once complete, the non-Federal sponsor will assume ownership and future operation and maintenance for the bridge, which will reduce future Federal expenditures by removing the bridge from the Corps' inventory.

Duwamish River at South Park, Washington.—The Committee is aware of the tidal flooding risks and low elevations of the basin in the South Park neighborhood of Seattle, which will subject the area to increased flooding annually if no flood risk reduction measures are implemented. This location is the principal industrial area and economic engine for the city of Seattle, serving the Port of Seattle and the Manufacturing and Industrial Center and generating almost \$300 million in annual taxable revenues while supporting more than 10,000 industrial jobs. Given expected sea level rise, the need to reduce risk to residents and businesses from economic and safety impacts of tidal flooding, and the increased risk to the environment from contaminants released during flooding, the Committee urges the Corps to continue its ongoing work with local stakeholders to determine appropriate flood risk mitigation measures. The Committee reminds the Corps that this project is eligible to compete for additional funding recommend in CAP section 205.

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 Water Resources Development Act 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. The Corps is reminded that it was directed to develop metrics for the selection of Environmental Infrastructure projects that receive funds and provide a report on such metrics to the Congress within 180 days of enactment of this act. Within 45 days of enactment of this act, the Corps shall brief the Committee on the status of these efforts.

Howard Hanson Dam—Additional Water Storage Project (HAHD–AWSP).—Completing the HAHD–AWSP is vital to providing reliable supplies of clean drinking water to the communities served by the Green River and to fulfilling the government's Endangered Species Act [ESA] responsibilities for fish populations in the Green-Duwamish River Basin. The Committee is supportive of 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.

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 Water Resources Development Act 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. The Corps is encouraged to consider projects in the Lake Champlain Watershed when allocating the additional funds recommended in this account.

Mud Mountain Dam.—The Committee commends the Corps for continued construction to support the October 2014 Mud Mountain BiOp and mitigate the impact of the ongoing operation of Mud Mountain Dam on species listed under the ESA by replacing the barrier structure and building a new fish passage facility. The Committee encourages the Corps to uphold the agency’s ESA and Tribal treaty responsibilities by completing construction of the fish passage facility and fully implementing the BiOp requirements by the end of 2020.

New Savannah Bluff Lock and Dam, Georgia and South Carolina.—The Secretary shall brief the Committee not later than 30 days after enactment of this act on its plan (Alternative 2–6d) for the New Savannah Bluff Lock and Dam. The brief shall include, at a minimum, how the plan for the New Savannah Lock and Dam complies with section 1319 of the WIIN Act; details on the impact of the February 2019 on the water levels along the Savannah River, including the impact to the local communities; on the water supply to the towns and commercial businesses that use the Savannah River for any part of their water supply if the plan is implemented; potential impacts to the recreational activities along the river if the plan is implemented; other options that were considered and reasons for not selecting those options; and an analysis and update on any pending authorization language that would directly impact this project.

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.

Norfolk Harbor and Channels Deepening, Virginia.—The Committee notes that construction has begun on the first constructible element using non-Federal funds, the Corps is nearing completion of design for the next constructible element of channel improve-

ments, and the project is eligible for Federal construction funding. The Committee recognizes the non-Federal sponsor is prepared to rapidly provide its required non-Federal cost-share once Federal construction funding is received, and this project is part of a larger non-Federal investment strategy that will improve transportation and stimulate economic development. This project has a high benefit-to-cost ratio and will greatly enhance the ability and efficiency of the Port of Virginia to move imports and exports to and from the East Coast and Middle America. The Committee supports this important project and reminds the Corps that the Norfolk Harbor and Channels Deepening project is eligible to compete for funding from the additional funds recommended in this account.

Oyster Restoration.—The Committee supports Gulf Coast oyster restoration efforts and the Chesapeake Bay Oyster Recovery Program and encourages the Corps to provide sufficient funding in future budget requests to meet restoration objectives.

Portsmouth and Piscataqua River, New Hampshire.—The Committee reminds the Corps that the Portsmouth Harbor and Piscataqua River navigation project is eligible for construction funding. This project, with a high benefit-to-cost ratio, will widen the uppermost turning basin on the Piscataqua River to improve safety and navigability for commercial vessels.

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

South Florida Ecosystem Restoration [SFER].—For fiscal year 2021, 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, 2021.

Strategic Arctic Port.—The Committee is aware of increased vessel traffic in the Arctic, including for Department of Defense and Homeland Security assets, and recognizes the importance of enhancing the strategic presence of the United States in the Arctic region. The Committee urges the Corps to move expeditiously to the PED phase on the Arctic Deep Draft Port in Nome, Alaska, to decrease risks to life and safety from the increased traffic in the region, and to provide a port to military assets.

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.

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 Upper Mississippi River Restoration Program.

West Sacramento Project.—The Committee understands the West Sacramento project would significantly reduce annual flood damages in West Sacramento by eighty 5 percent by addressing issues related to seepage, stability, and erosion control for levees along the Sacramento River, Yolo Bypass, and Sacramento River Deep Water Ship Channel. The Committee reminds the Corps that this project is eligible to compete for the additional funds recommended in this account and encourages the Corps to prioritize advancing the corrections identified in the General Re-evaluation Report.

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 recommended under the heading “Environmental Restoration or Compliance”, not less than \$15,000,000 shall be for multistate ecosystem restoration programs for which a comprehensive restoration plan is in development or has been completed, of which not less than \$5,000,000 shall be for projects that restore and rehabilitate native oyster reefs. Of the additional funding provided in this account, the Corps shall allocate not less than \$15,400,000 to hurricane and storm damage risk reduction projects in a comprehensive plan with authorized environmental restoration components.

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, 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 2021 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, 2020	\$375,000,000
Budget estimate, 2021	209,863,000
Committee recommendation	395,000,000

The Committee recommends \$395,000,000 for Mississippi River and Tributaries, an increase of \$185,137,000 above the budget request. 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 Committee recommends one new study start in this account.

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

MISSISSIPPI RIVER AND TRIBUTARIES

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CONSTRUCTION		
CHANNEL IMPROVEMENT, AR, IL, KY, LA, MS, MO & TN	22,975	22,975
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	21,950	21,950
ATCHAFALAYA BASIN, LA .....	.....	.....
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA	300	300
SUBTOTAL, CONSTRUCTION	45,225	45,225

MISSISSIPPI RIVER AND TRIBUTARIES—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
OPERATION AND MAINTENANCE		
CHANNEL IMPROVEMENT, AR, IL, KY, LA, MS, MO & TN	73,700	73,700
MISSISSIPPI RIVER LEVEES, AR, IL, KY, LA, MS, MO & TN	10,077	10,077
HELENA HARBOR, PHILLIPS COUNTY, AR		540 *
INSPECTION OF COMPLETED WORKS, AR		211 *
LOWER ARKANSAS RIVER, NORTH BANK, AR	225	225
LOWER ARKANSAS RIVER, SOUTH BANK, AR	298	298
RED-OUACHITA RIVER BASIN LEVEES, AR & LA		
ST FRANCIS BASIN, AR & MO	11,061	11,061
TENSAS BASIN, BOEUF AND TENSAS RIVERS, AR & LA	1,291	1,291
WHITE RIVER BACKWATER, AR	1,100	1,100
INSPECTION OF COMPLETED WORKS, IL		30 *
INSPECTION OF COMPLETED WORKS, KY		25 *
ATCHAFALAYA BASIN, LA	13,310	13,310
ATCHAFALAYA BASIN FLOODWAY SYSTEM, LA	1,517	1,517
BATON ROUGE HARBOR, DEVIL SWAMP, LA		560 *
BAYOU COCODRIE AND TRIBUTARIES, LA	48	48
BONNET CARRE, LA	3,505	3,505
INSPECTION OF COMPLETED WORKS, LA		348 *
LOWER RED RIVER, SOUTH BANK LEVEES, LA	470	470
MISSISSIPPI DELTA REGION, LA	500	500
OLD RIVER, LA	8,381	8,381
TENSAS BASIN, RED RIVER BACKWATER, LA	2,368	2,368
GREENVILLE HARBOR, MS		930 *
INSPECTION OF COMPLETED WORKS, MS		243 *
VICKSBURG HARBOR, MS		940 *
YAZOO BASIN, ARKABUTLA LAKE, MS	5,326	5,326
YAZOO BASIN, BIG SUNFLOWER RIVER, MS	146	146
YAZOO BASIN, ENID LAKE, MS	5,113	5,113
YAZOO BASIN, GREENWOOD, MS	980	980
YAZOO BASIN, GRENADA LAKE, MS	5,326	5,326
YAZOO BASIN, MAIN STEM, MS	893	893
YAZOO BASIN, SARDIS LAKE, MS	6,238	6,238
YAZOO BASIN, TRIBUTARIES, MS	421	421
YAZOO BASIN, WILL M WHITTINGTON AUX CHAN, MS	278	278
YAZOO BASIN, YAZOO BACKWATER AREA, MS	425	425
YAZOO BASIN, YAZOO CITY, MS	364	364
INSPECTION OF COMPLETED WORKS, MO		90 *
WAPPAPELLO LAKE, MO	4,505	4,505
INSPECTION OF COMPLETED WORKS, TN		25 *
MEMPHIS HARBOR, MCKELLAR LAKE, TN		2,163 *
SUBTOTAL, OPERATION AND MAINTENANCE	157,866	163,971
REMAINING ITEMS ADDITIONAL FUNDING FOR ONGOING WORK		
DREDGING		5,000
FLOOD CONTROL		130,004
OTHER AUTHORIZED PURPOSES		65,000
COLLECTION AND STUDY OF BASIC DATA	5,710	5,710
MAPPING		
MISSISSIPPI RIVER COMMISSION	90	90
INSPECTION OF COMPLETED WORKS, AR, IL, KY, LA, MS, MO AND TN	972	
SUBTOTAL, REMAINING ITEMS	6,772	205,804
SAVINGS AND SLIPPAGE		-20,000
TOTAL, MISSISSIPPI RIVER AND TRIBUTARIES	209,863	395,000

* Includes funds requested in other lines or accounts.

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. This may include work on remaining unconstructed features of projects permitted and 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.

When allocating the additional funding recommended in this account, the Corps shall allocate not less than \$30,000,000 for additional flood control construction projects outside of the Lower Mississippi River Main Stem, of which \$15,560,000 shall be for those projects with flood control, water quality, and sediment reduction benefits. Of the additional funds recommended in this account for other authorized project purposes, the Corps shall allocate not less than \$1,160,000 for operation and maintenance of facilities that are educational or to continue land management of mitigation features. Of the additional funds recommended in this account, the Corps shall allocate not less than \$3,000,000 for dredging of ports and harbors. Of the additional funding recommended in this account, not less than \$400,000 shall be to initiate a new feasibility study.

OPERATION AND MAINTENANCE

Appropriations, 2020	\$3,790,000,000
Budget estimate, 2021	1,996,499,000
Committee recommendation	3,781,000,000

The Committee recommends \$3,781,000,000 for Operation and Maintenance, an increase of \$1,784,501,000 above the budget request.

INTRODUCTION

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

vessels, and the collection of domestic waterborne commerce statistics.

COMMITTEE RECOMMENDATION

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

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
ALABAMA		
ALABAMA RIVER LAKES, AL	13,005	13,005
BAYOU LA BATRE, AL		26 *
BLACK WARRIOR AND TOMBIGBEE RIVERS, AL	23,266	23,266
GULF INTRACOASTAL WATERWAY, AL	5,605	5,605
INSPECTION OF COMPLETED WORKS, AL		186 *
MOBILE HARBOR, AL		24,968 *
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	28,880	28,880
WALTER F GEORGE LOCK AND DAM, AL & GA	8,657	8,657
ALASKA		
ANCHORAGE HARBOR, AK		11,300 *
CHENA RIVER LAKES FLOOD CONTROL PROJECT, NORTH POLE, AK	5,802	5,802
DILLINGHAM HARBOR, AK		815 *
HOMER HARBOR, AK		650 *
INSPECTION OF COMPLETED WORKS, AK		190 *
NINILCHIK HARBOR, AK		470 *
NOME HARBOR, AK		2,317 *
PROJECT CONDITION SURVEYS, AK		750 *
WRANGELL HARBOR, AK		150 *
ARIZONA		
ALAMO LAKE, AZ	5,156	5,156
INSPECTION OF COMPLETED WORKS, AZ		140 *
PAINTED ROCK DAM, AZ	4,570	4,570
SCHEDULING RESERVOIR OPERATIONS, AZ		110 *
WHITLOW RANCH DAM, AZ	817	817
ARKANSAS		
BEAVER LAKE, AR	9,614	9,614
BLAKELY MT DAM, LAKE OUACHITA, AR	8,385	8,385
BLUE MOUNTAIN LAKE, AR	2,949	2,949
BULL SHOALS LAKE, AR	8,348	8,348
DEGRAY LAKE, AR	6,605	6,605
DEQUEEN LAKE, AR	2,925	2,925
DIERKS LAKE, AR	2,540	2,540
GILLHAM LAKE, AR	1,598	1,598
GREERS FERRY LAKE, AR	8,271	8,271
HELENA HARBOR, PHILLIPS COUNTY, AR		15 *
INSPECTION OF COMPLETED WORKS, AR		885 *
MCCLELLAN—KERR ARKANSAS RIVER NAVIGATION SYSTEM, AR	49,486	49,486
MILLWOOD LAKE, AR	3,405	3,405
NARROWS DAM, LAKE GREESON, AR	5,851	5,851
NIMROD LAKE, AR	2,326	2,326
NORFORK LAKE, AR	6,337	6,337
OSCEOLA HARBOR, AR		15 *
OUACHITA AND BLACK RIVERS, AR & LA	7,625	7,625
PROJECT CONDITION SURVEYS		5 *
WHITE RIVER, AR	25	25
YELLOW BEND PORT, AR		125 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
CALIFORNIA		
BLACK BUTTE LAKE, CA	2,654	2,654
BUCHANAN DAM, HV EASTMAN LAKE, CA	2,619	2,619
COYOTE VALLEY DAM, LAKE MENDOCINO, CA	4,840	4,840
DRY CREEK (WARM SPRINGS) LAKE AND CHANNEL, CA	7,488	7,488
FARMINGTON DAM, CA	666	666
HIDDEN DAM, HENSLEY LAKE, CA	2,543	2,543
HUMBOLDT HARBOR AND BAY, CA .....	.....	4,310 *
INSPECTION OF COMPLETED WORKS, CA .....	.....	4,197 *
ISABELLA LAKE, CA	2,121	2,121
LOS ANGELES COUNTY DRAINAGE AREA, CA	18,073	18,073
MERCED COUNTY STREAMS, CA	523	523
MOJAVE RIVER DAM, CA	1,029	1,029
MORRO BAY HARBOR, CA .....	.....	2,800 *
MOSS LANDING HARBOR, CA .....	.....	4,100 *
NEW HOGAN LAKE, CA	3,799	3,799
NEW MELONES LAKE, DOWNSTREAM CHANNEL, CA	2,318	2,318
NOYO RIVER AND HARBOR, CA .....	.....	3,600 *
OAKLAND HARBOR, CA .....	.....	21,975 *
OCEANSIDE HARBOR, CA .....	.....	2,470 *
PINE FLAT LAKE, CA	4,722	4,722
PROJECT CONDITION SURVEYS, CA .....	.....	1,420 *
REDWOOD CITY HARBOR, CA .....	.....	8,460 *
RICHMOND HARBOR, CA .....	.....	6,210 *
SACRAMENTO RIVER (30 FOOT PROJECT), CA .....	.....	1,610 *
SACRAMENTO RIVER AND TRIBUTARIES (DEBRIS CONTROL), CA	844	1,649 *
SACRAMENTO RIVER SHALLOW DRAFT CHANNEL, CA .....	.....	190 *
SAN FRANCISCO BAY DELTA MODEL STRUCTURE, CA	949	949
SAN FRANCISCO BAY LONG TERM MANAGEMENT STRATEGY, CA .....	.....	450 *
SAN FRANCISCO HARBOR AND BAY, CA (DRIFT REMOVAL) .....	.....	3,593 *
SAN FRANCISCO HARBOR, CA .....	.....	4,700 *
SAN JOAQUIN RIVER, PORT OF STOCKTON, CA .....	.....	4,610 *
SAN PABLO BAY AND MARE ISLAND STRAIT, CA .....	.....	3,005 *
SANTA ANA RIVER BASIN, CA	9,856	9,856
SANTA BARBARA HARBOR, CA .....	.....	2,900 *
SCHEDULING RESERVOIR OPERATIONS, CA .....	.....	1,680 *
SUCCESS LAKE, CA	3,274	3,274
SUISUN BAY CHANNEL, CA .....	.....	5,774 *
TERMINUS DAM, LAKE KAWEAH, CA	3,482	3,482
VENTURA HARBOR, CA .....	.....	4,795 *
YUBA RIVER, CA	271	1,631 *
COLORADO		
BEAR CREEK LAKE, CO	677	677
CHATFIELD LAKE, CO	1,618	1,618
CHERRY CREEK LAKE, CO	1,127	1,127
INSPECTION OF COMPLETED WORKS, CO .....	.....	302 *
JOHN MARTIN RESERVOIR, CO	3,084	3,084
SCHEDULING RESERVOIR OPERATIONS, CO .....	.....	550 *
TRINIDAD LAKE, CO	2,060	2,060
CONNECTICUT		
BLACK ROCK LAKE, CT	1,455	1,455
COLEBROOK RIVER LAKE, CT	847	847
HANCOCK BROOK LAKE, CT	843	843
HOP BROOK LAKE, CT	1,433	1,433
INSPECTION OF COMPLETED WORKS, CT .....	.....	833 *
MANSFIELD HOLLOW LAKE, CT	929	929
NORTHFIELD BROOK LAKE, CT	1,224	1,224
PROJECT CONDITION SURVEYS, CT .....	.....	1,100 *
STAMFORD HURRICANE BARRIER, CT	606	606

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
THOMASTON DAM, CT	1,273	1,273
WEST THOMPSON LAKE, CT	1,910	1,910
DELAWARE		
INSPECTION OF COMPLETED WORKS, DE		47 *
INTRACOASTAL WATERWAY, DELAWARE RIVER TO CHESAPEAKE BAY, DE & MD		18,520 *
INTRACOASTAL WATERWAY, REHOBOTH BAY DELAWARE BAY		30 *
PROJECT CONDITION SURVEYS, DE		225 *
WILMINGTON HARBOR, DE		7,970 *
DISTRICT OF COLUMBIA		
INSPECTION OF COMPLETED WORKS, DC		71 *
POTOMAC AND ANACOSTIA RIVERS, DC (DRIFT REMOVAL)		1,250 *
PROJECT CONDITION SURVEYS, DC		30 *
WASHINGTON HARBOR, DC		25 *
FLORIDA		
AAIWW, NORFOLK, VA TO ST JOHNS RIVER, FL, GA, SC, NC AND VA	100	100
CANAVERAL HARBOR, FL		8,355 *
CENTRAL AND SOUTHERN FLORIDA, FL	16,073	17,667
FERNANDINA HARBOR, FL		36 *
INSPECTION OF COMPLETED WORKS, FL		940 *
INTRACOASTAL WATERWAY, CALOOSAHATCHEE R TO ANCLOTE R, FL		110 *
INTRACOASTAL WATERWAY, JACKSONVILLE TO MIAMI, FL	280	280
JACKSONVILLE HARBOR, FL		7,850 *
JIM WOODRUFF LOCK AND DAM, LAKE SEMINOLE, FL, AL & GA	8,099	8,099 *
MANATEE HARBOR, FL		75 *
MIAMI HARBOR, FL		230 *
OKEECHOBEE WATERWAY, FL	1,329	3,084 *
PALM BEACH HARBOR, FL		320 *
PANAMA CITY HARBOR, FL		1,803 *
PENSACOLA HARBOR, FL		1,290 *
PONCE DE LEON INLET, FL		36 *
PORT EVERGLADES HARBOR, FL		380 *
PROJECT CONDITION SURVEYS, FL		1,043 *
REMOVAL OF AQUATIC GROWTH, FL		3,432 *
SCHEDULING RESERVOIR OPERATIONS, FL		100 *
SOUTH FLORIDA ECOSYSTEM RESTORATION (EVERGLADES), FL	10,052	10,052
TAMPA HARBOR, FL		9,687 *
GEORGIA		
ALLATOONA LAKE, GA	8,740	8,740
APALACHICOLA, CHATTAHOOCHEE AND FLINT RIVERS, GA, AL & FL	1,514	1,514
ATLANTIC INTRACOASTAL WATERWAY, GA	202	202
BRUNSWICK HARBOR, GA		4,085 *
BUFORD DAM AND LAKE SIDNEY LANIER, GA	10,771	10,771
CARTERS DAM AND LAKE, GA	7,783	7,783
HARTWELL LAKE, GA & SC	10,744	10,781 *
INSPECTION OF COMPLETED WORKS, GA		222 *
J STROM THURMOND LAKE, GA & SC	10,446	10,518 *
PROJECT CONDITION SURVEYS, GA		75 *
RICHARD B RUSSELL DAM AND LAKE, GA & SC	9,895	9,895
SAVANNAH HARBOR, GA		29,418 *
SAVANNAH RIVER BELOW AUGUSTA, GA		161 *
WEST POINT DAM AND LAKE, GA & AL	8,132	8,132
HAWAII		
BARBERS POINT DEEP DRAFT HARBOR, OAHU, HI	305	305
HILO HARBOR, HI		200 *
INSPECTION OF COMPLETED WORKS, HI		591 *
PROJECT CONDITION SURVEYS, HI		684 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
IDAHO		
ALBENI FALLS DAM, ID	1,332	1,332
DWORSHAK DAM AND RESERVOIR, ID	2,750	2,750
INSPECTION OF COMPLETED WORKS, ID		421 *
LUCKY PEAK LAKE, ID	2,459	2,459
SCHEDULING RESERVOIR OPERATIONS, ID		728 *
ILLINOIS		
CALUMET HARBOR AND RIVER, IL & IN		6,236 *
CARLYLE LAKE, IL	6,570	6,570
CHICAGO HARBOR, IL		3,800 *
CHICAGO RIVER, IL	619	619 *
CHICAGO SANITARY AND SHIP CANAL DISPERSAL BARRIER, IL	14,301	14,301
FARM CREEK RESERVOIRS, IL	2,712	2,712
ILLINOIS WATERWAY (MVR PORTION), IL & IN	42,413	42,413
ILLINOIS WATERWAY (MVS PORTION), IL & IN	2,128	2,128
INSPECTION OF COMPLETED WORKS, IL		2,377 *
KASKASKIA RIVER NAVIGATION, IL	2,206	2,206
LAKE MICHIGAN DIVERSION, IL		1,170 *
LAKE SHELBYVILLE, IL	6,310	6,310
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVR PORTION), IL	78,659	78,659
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVS PORTION), IL	40,790	40,790
PROJECT CONDITION SURVEYS, IL		107 *
REND LAKE, IL	6,743	6,743
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IL		560 *
WAUKEGAN HARBOR, IL		11 *
INDIANA		
BROOKVILLE LAKE, IN	1,731	1,731
BURNS WATERWAY HARBOR, IN		4,467 *
CAGLES MILL LAKE, IN	1,485	1,485
CECIL M HARDEN LAKE, IN	1,436	1,436
INDIANA HARBOR, IN		7,576 *
INSPECTION OF COMPLETED WORKS, IN		1,365 *
J EDWARD ROUSH LAKE, IN	2,098	2,098
MICHIGAN CITY HARBOR, IN		10 *
MONROE LAKE, IN	1,378	1,378
MISSISSINAWA LAKE, IN	2,919	2,919
PATOKA LAKE, IN	1,187	1,187
PROJECT CONDITION SURVEYS, IN		192 *
SALAMONIE LAKE, IN	3,507	3,507
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, IN		100 *
IOWA		
CORALVILLE LAKE, IA	5,027	5,027
INSPECTION OF COMPLETED WORKS, IA		1,106 *
MISSOURI RIVER FISH AND WILDLIFE RECOVERY, IA, KS, MO, MT, NE, ND & SD	4,665	4,665
MISSOURI RIVER—SIOUX CITY TO THE MOUTH, IA, KS, MO & NE	9,465	9,465
PROJECT CONDITION SURVEYS		2 *
RATHBUN LAKE, IA	2,821	2,821
RED ROCK DAM AND LAKE RED ROCK, IA	5,081	5,081
SAYLORVILLE LAKE, IA	6,854	6,854
KANSAS		
CLINTON LAKE, KS	2,615	2,615
COUNCIL GROVE LAKE, KS	2,029	2,029
EL DORADO LAKE, KS	756	756
ELK CITY LAKE, KS	1,029	1,029
FALL RIVER LAKE, KS	1,544	1,544
HILLSDALE LAKE, KS	1,300	1,300
INSPECTION OF COMPLETED WORKS, KS		1,629 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
JOHN REDMOND DAM AND RESERVOIR, KS	1,760	1,760
KANOPOLIS LAKE, KS	2,000	2,000
MARION LAKE, KS	1,869	1,869
MELVERN LAKE, KS	2,734	2,734
MILFORD LAKE, KS	2,532	2,532
PEARSON—SKUBITZ BIG HILL LAKE, KS	1,401	1,401
PERRY LAKE, KS	3,387	3,387
POMONA LAKE, KS	2,530	2,530
SCHEDULING RESERVOIR OPERATIONS, KS	566	566 *
TORONTO LAKE, KS	752	752
TUTTLE CREEK LAKE, KS	3,069	3,069
WILSON LAKE, KS	3,610	3,610
KENTUCKY		
BARKLEY DAM AND LAKE BARKLEY, KY & TN	13,559	13,559
BARREN RIVER LAKE, KY	3,149	3,149
BIG SANDY HARBOR, KY	1,927	1,927 *
BUCKHORN LAKE, KY	2,044	2,044
CARR CREEK LAKE, KY	2,320	2,320
CAVE RUN LAKE, KY	1,259	1,259
DEWEY LAKE, KY	2,115	2,115
ELVIS STAHR (HICKMAN) HARBOR, KY	935	935 *
FALLS OF THE OHIO NATIONAL WILDLIFE, KY & IN	58	58
FISHTRAP LAKE, KY	2,348	2,348
GRAYSON LAKE, KY	2,037	2,037
GREEN AND BARREN RIVERS, KY	2,839	2,839
GREEN RIVER LAKE, KY	3,259	3,259
INSPECTION OF COMPLETED WORKS, KY	1,221	1,221 *
KENTUCKY RIVER, KY	5	5
LAUREL RIVER LAKE, KY	2,571	2,571
MARTINS FORK LAKE, KY	1,642	1,642
MIDDLESBORO CUMBERLAND RIVER BASIN, KY	282	282
NOLIN LAKE, KY	3,173	3,173
OHIO RIVER LOCKS AND DAMS, KY, IL, IN & OH	64,879	64,879
OHIO RIVER OPEN CHANNEL WORK, KY, IL, IN, OH, PA & WV	7,172	7,172
PAINTSVILLE LAKE, KY	1,560	1,560
PROJECT CONDITION SURVEYS	5	5 *
ROUGH RIVER LAKE, KY	3,451	3,451
TAYLORSVILLE LAKE, KY	1,860	1,860
WOLF CREEK DAM, LAKE CUMBERLAND, KY	10,768	10,768
YATESVILLE LAKE, KY	1,409	1,409
LOUISIANA		
ATCHAFALAYA RIVER AND BAYOUS CHENE, BOEUF & BLACK, LA	4,430	4,430 *
BARATARIA BAY WATERWAY, LA	100	100 *
BAYOU BODCAU RESERVOIR, LA	742	742
BAYOU LAFOURCHE AND LAFOURCHE JUMP WATERWAY, LA	250	250 *
BAYOU PIERRE, LA	33	33
BAYOU SEGNETTE WATERWAY, LA	10	10 *
BAYOU TECHE AND VERMILION RIVER, LA	30	30 *
BAYOU TECHE, LA	50	50 *
CADDO LAKE, LA	286	286
CALCASIEU RIVER AND PASS, LA	7,400	7,400 *
FRESHWATER BAYOU, LA	7,577	7,577 *
GULF INTRACOASTAL WATERWAY, LA	12,393	12,393
HOUMA NAVIGATION CANAL, LA	2,750	2,750 *
INSPECTION OF COMPLETED WORKS, LA	1,084	1,084 *
J BENNETT JOHNSTON WATERWAY, LA	11,110	11,110
LAKE PROVIDENCE HARBOR, LA	1,330	1,330 *
MADISON PARISH PORT, LA	207	207 *
MERMENTAU RIVER, LA	1,880	1,880 *
MISSISSIPPI RIVER OUTLETS AT VENICE, LA	2,750	2,750 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MISSISSIPPI RIVER, BATON ROUGE TO THE GULF OF MEXICO, LA		64,000 *
PROJECT CONDITION SURVEYS, LA		25 *
REMOVAL OF AQUATIC GROWTH, LA		200 *
TANGIPAHOA RIVER, LA		20 *
WALLACE LAKE, LA	207	207
WATERWAY FROM EMPIRE TO THE GULF, LA		10 *
WATERWAY FROM INTRACOASTAL WATERWAY TO BAYOU DULAC, LA		15 *
MAINE		
DISPOSAL AREA MONITORING, ME		1,050 *
INSPECTION OF COMPLETED WORKS, ME		183 *
PROJECT CONDITION SURVEYS, ME		1,100 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ME		30 *
MARYLAND		
BALTIMORE HARBOR AND CHANNELS (50 FOOT), MD		20,085 *
BALTIMORE HARBOR, MD (DRIFT REMOVAL)		600 *
CUMBERLAND, MD AND RIDGELEY, WV	215	215
INSPECTION OF COMPLETED WORKS, MD		151 *
JENNINGS RANDOLPH LAKE, MD & WV	2,395	2,395
OCEAN CITY HARBOR AND INLET AND SINEPUXENT BAY, MD		515 *
PROJECT CONDITION SURVEYS, MD		600 *
SCHEDULING RESERVOIR OPERATIONS, MD		167 *
WICOMICO RIVER, MD		4,400 *
MASSACHUSETTS		
BARRE FALLS DAM, MA	698	698
BIRCH HILL DAM, MA	1,217	1,217
BUFFUMVILLE LAKE, MA	1,006	1,006
CAPE COD CANAL, MA	2,012	12,437 *
CHARLES RIVER NATURAL VALLEY STORAGE AREA, MA	388	388
CHATHAM (STAGE) HARBOR, MA		400 *
CONANT BROOK LAKE, MA	480	480
EAST BRIMFIELD LAKE, MA	909	909
GREEN HARBOR, MA		400 *
HODGES VILLAGE DAM, MA	964	964
INSPECTION OF COMPLETED WORKS, MA		437 *
KNIGHTVILLE DAM, MA	1,164	1,164
LITTLEVILLE LAKE, MA	1,768	1,768
NEW BEDFORD FAIRHAVEN AND ACUSHNET HURRICANE BARRIER, MA	1,021	1,021
PROJECT CONDITION SURVEYS, MA		1,250 *
PLYMOUTH HARBOR, MA		100 *
TULLY LAKE, MA	1,323	1,323
WEST HILL DAM, MA	1,049	1,049
WESTVILLE LAKE, MA	861	861
MICHIGAN		
ALPENA HARBOR, MI		5 *
CHANNELS IN LAKE ST CLAIR, MI		201 *
CHEBOYGAN HARBOR, MI		6 *
DETROIT HARBOR, MI		7,228 *
GRAND HAVEN HARBOR AND GRAND RIVER, MI		48 *
HOLLAND HARBOR, MI		16 *
INSPECTION OF COMPLETED WORKS, MI		244 *
KEWEENAW WATERWAY, MI	10	973 *
LUDINGTON HARBOR, MI		7 *
MANISTEE HARBOR, MI		11 *
MANISTIQUE HARBOR, MI		7 *
MARQUETTE HARBOR, MI		5 *
MENOMINEE HARBOR, MI AND WI		5 *
MONROE HARBOR, MI		6 *
MUSKEGON HARBOR, MI		10 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
ONTONAGON HARBOR, MI		11 *
PRESQUE ISLE HARBOR, MI		5 *
PROJECT CONDITION SURVEYS, MI		799 *
ROUGE RIVER, MI		1,132 *
SAGINAW RIVER, MI		3,057 *
SEBEWAING RIVER, MI	137	137
ST CLAIR RIVER, MI		786 *
ST JOSEPH HARBOR, MI		17 *
ST MARYS RIVER, MI	3,285	31,114 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MI		2,975 *
MINNESOTA		
BIGSTONE LAKE—WHETSTONE RIVER, MN & SD	266	266
DULUTH—SUPERIOR HARBOR, MN & WI	358	5,458 *
INSPECTION OF COMPLETED WORKS, MN		359 *
LAC QUI PARLE LAKES, MINNESOTA RIVER, MN	951	951
MINNESOTA RIVER, MN		260 *
MISSISSIPPI RIVER BETWEEN MISSOURI RIVER AND MINNEAPOLIS (MVP PORTION), MN	85,552	85,552
ORWELL LAKE, MN	805	805
PROJECT CONDITION SURVEYS, MN		100 *
RED LAKE RESERVOIR, MN	339	339
RESERVOIRS AT HEADWATERS OF MISSISSIPPI RIVER, MN	4,366	4,366
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, MN		558 *
TWO HARBORS, MN		16 *
MISSISSIPPI		
BILOXI HARBOR, MS		1,993 *
EAST FORK, TOMBIGBEE RIVER, MS	290	290
GULFPORT HARBOR, MS		4,526 *
INSPECTION OF COMPLETED WORKS, MS		70 *
MOUTH OF YAZOO RIVER, MS		30 *
OKATIBBEE LAKE, MS	2,252	2,252
PASCAGOULA HARBOR, MS		6,287 *
PEARL RIVER, MS & LA	140	140
PROJECT CONDITION SURVEYS, MS		155 *
ROSEDALE HARBOR, MS		35 *
YAZOO RIVER, MS		20 *
MISSOURI		
CARUTHERSVILLE HARBOR, MO		15 *
CLARENCE CANNON DAM AND MARK TWAIN LAKE, MO	7,048	7,048
CLEARWATER LAKE, MO	3,386	3,386
HARRY S TRUMAN DAM AND RESERVOIR, MO	11,809	11,809
INSPECTION OF COMPLETED WORKS, MO		1,214 *
LITTLE BLUE RIVER LAKES, MO	2,397	2,397
LONG BRANCH LAKE, MO	961	961
MISSISSIPPI RIVER BETWEEN THE OHIO AND MISSOURI RIVERS (REG WORKS), MO & IL	29,661	29,661
NEW MADRID COUNTY HARBOR, MO		10 *
NEW MADRID HARBOR, MO (MILE 889)		15 *
POMME DE TERRE LAKE, MO	2,993	2,993
PROJECT CONDITION SURVEYS, MO		5 *
SCHEDULING RESERVOIR OPERATIONS, MO		167 *
SMITHVILLE LAKE, MO	1,853	1,853
SOUTHEAST MISSOURI PORT, MISSISSIPPI RIVER, MO		1 *
STOCKTON LAKE, MO	6,015	6,015
TABLE ROCK LAKE, MO & AR	10,267	10,267
MONTANA		
FT PECK DAM AND LAKE, MT	5,308	5,308
INSPECTION OF COMPLETED WORKS, MT		184 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LIBBY DAM, MT	1,789	1,789
SCHEDULING RESERVOIR OPERATIONS, MT		126 *
NEBRASKA		
GAVINS POINT DAM, LEWIS AND CLARK LAKE, NE & SD	10,003	10,003 *
HARLAN COUNTY LAKE, NE	2,510	2,510
INSPECTION OF COMPLETED WORKS, NE		773 *
MISSOURI RIVER—KENSLEERS BEND, NE TO SIOUX CITY, IA	107	107
PAPILLION CREEK, NE	818	818
SALT CREEKS AND TRIBUTARIES, NE	1,159	1,159
NEVADA		
INSPECTION OF COMPLETED WORKS, NV		110 *
MARTIS CREEK LAKE, NV & CA	1,836	1,836
PINE AND MATHEWS CANYONS LAKES, NV	671	671
NEW HAMPSHIRE		
BLACKWATER DAM, NH	955	955
EDWARD MACDOWELL LAKE, NH	955	955
FRANKLIN FALLS DAM, NH	1,346	1,346
HOPKINTON—EVERETT LAKES, NH	2,743	2,743
INSPECTION OF COMPLETED, NH		199 *
OTTER BROOK LAKE, NH	1,014	1,014
PROJECT CONDITION SURVEYS, NH		350 *
SURRY MOUNTAIN LAKE, NH	1,973	1,973
NEW JERSEY		
BARNEGAT INLET, NJ		9 *
COLD SPRING INLET, NJ		400 *
DELAWARE RIVER, PHILADELPHIA TO THE SEA, NJ, PA & DE		22,546 *
INSPECTION OF COMPLETED WORKS, NJ		320 *
MANASQUAN RIVER, NJ		2 *
NEW JERSEY INTRACOASTAL WATERWAY, NJ		1,245 *
NEWARK BAY, HACKENSACK AND PASSAIC RIVERS, NJ		13,275 *
PASSAIC RIVER FLOOD WARNING SYSTEMS, NJ	450	450
PROJECT CONDITION SURVEYS, NJ		2,250 *
SALEM RIVER, NJ		100 *
SHARK RIVER, NJ		1,100 *
NEW MEXICO		
ABIQUIU DAM, NM	3,391	3,391
COCHITI LAKE, NM	3,326	3,326
CONCHAS LAKE, NM	2,755	2,755
GALISTEO DAM, NM	689	689
INSPECTION OF COMPLETED WORKS, NM		563 *
JEMEZ CANYON DAM, NM	780	780
SANTA ROSA DAM AND LAKE, NM	1,374	1,374
SCHEDULING RESERVOIR OPERATIONS, NM		225 *
TWO RIVERS DAM, NM	1,140	1,140
UPPER RIO GRANDE WATER OPERATIONS MODEL STUDY, NM	945	945
NEW YORK		
ALMOND LAKE, NY		
ARKPORT DAM, NY	505	505
BAY RIDGE AND RED HOOK CHANNELS, NY	346	346
BLACK ROCK CHANNEL AND TONAWANDA HARBOR, NY		6,547 *
BUFFALO HARBOR, NY		1,208 *
EAST SIDNEY LAKE, NY	1,053	1,053
FIRE ISLAND INLET TO JONES INLET, NY		25 *
HUDSON RIVER, NY (MAINT)		10,210 *
HUDSON RIVER, NY (O & C)		2,950 *
INSPECTION OF COMPLETED WORKS, NY		1,416 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
MOUNT MORRIS DAM, NY	3,620	3,620
NEW YORK AND NEW JERSEY CHANNELS, NY & NJ		13,500 *
NEW YORK AND NEW JERSEY HARBOR, NY & NJ		18,300 *
NEW YORK HARBOR, NY		7,425 *
NEW YORK HARBOR, NY & NJ (DRIFT REMOVAL)		11,929 *
NEW YORK HARBOR, NY (PREVENTION OF OBSTRUCTIVE DEPOSITS)		1,696 *
OSWEGO HARBOR, NY		6 *
PROJECT CONDITION SURVEYS, NY		2,439 *
ROCHESTER HARBOR, NY		1,300 *
SOUTHERN NEW YORK FLOOD CONTROL PROJECTS, NY	960	960
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, NY		795 *
WHITNEY POINT LAKE, NY	1,167	1,167
NORTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, NC	3,625	3,625
B EVERETT JORDAN DAM AND LAKE, NC	2,546	2,546
CAPE FEAR RIVER ABOVE WILMINGTON, NC	171	496 *
FALLS LAKE, NC	2,991	2,991
INSPECTION OF COMPLETED WORKS, NC		210 *
MANTEO (SHALLOWBAG) BAY, NC		1,286 *
MOREHEAD CITY HARBOR, NC		7,055 *
NEW RIVER INLET, NC		30 *
PROJECT CONDITION SURVEYS, NC		700 *
ROLLINSON CHANNEL, NC		380 *
SILVER LAKE HARBOR, NC		560 *
W KERR SCOTT DAM AND RESERVOIR, NC	3,049	3,049
WILMINGTON HARBOR, NC		15,080 *
NORTH DAKOTA		
BOWMAN HALEY, ND	240	240
GARRISON DAM, LAKE SAKAKAWEA, ND	15,305	15,305
HOMME LAKE, ND	292	292
INSPECTION OF COMPLETED WORKS, ND		451 *
LAKE ASHTABULA AND BALDHILL DAM, ND	1,552	1,552
PIPESTEM LAKE, ND	638	638
SCHEDULING RESERVOIR OPERATIONS, ND		124 *
SOURIS RIVER, ND	387	387
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, ND		81 *
OHIO		
ALUM CREEK LAKE, OH	1,931	1,931
ASHTABULA HARBOR, OH		2,293 *
BERLIN LAKE, OH	3,178	3,178
CAESAR CREEK LAKE, OH	2,250	2,250
CLARENCE J BROWN DAM, OH	1,565	1,565
CLEVELAND HARBOR, OH		8,761 *
CONNEAUT HARBOR, OH		911 *
DEER CREEK LAKE, OH	1,859	1,859
DELAWARE LAKE, OH	2,938	2,938
DILLON LAKE, OH	3,439	3,439
FAIRPORT HARBOR, OH		7 *
HURON HARBOR, OH		1,323 *
INSPECTION OF COMPLETED WORKS, OH		913 *
LORAIN HARBOR, OH		8 *
MASSILLON LOCAL PROTECTION PROJECT, OH	305	305
MICHAEL J KIRWAN DAM AND RESERVOIR, OH	1,744	1,744
MOSQUITO CREEK LAKE, OH	1,969	1,969
MUSKINGUM RIVER LAKES, OH	12,791	12,791
NORTH BRANCH KOKOSING RIVER LAKE, OH	641	641
OHIO—MISSISSIPPI FLOOD CONTROL, OH	1,482	1,482
PAINT CREEK LAKE, OH	2,197	2,197
PROJECT CONDITION SURVEYS, OH		328 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
ROSEVILLE LOCAL PROTECTION PROJECT, OH	52	52
SANDUSKY HARBOR, OH		1,065 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OH		305 *
TOLEDO HARBOR, OH		5,738 *
TOM JENKINS DAM, OH	1,316	1,316
WEST FORK OF MILL CREEK LAKE, OH	983	983
WILLIAM H HARSHA LAKE, OH	1,752	1,752
OKLAHOMA		
ARCADIA LAKE, OK	558	558
BIRCH LAKE, OK	855	855
BROKEN BOW LAKE, OK	2,674	2,674
CANTON LAKE, OK	2,147	2,147
COPAN LAKE, OK	1,593	1,593
EUFULA LAKE, OK	6,264	6,264
FORT GIBSON LAKE, OK	5,073	5,073
FORT SUPPLY LAKE, OK	1,156	1,156
GREAT SALT PLAINS LAKE, OK	443	443
HEYBURN LAKE, OK	971	971
HUGO LAKE, OK	2,180	2,180
HULAH LAKE, OK	900	900
INSPECTION OF COMPLETED WORKS, OK		275 *
KAW LAKE, OK	2,375	2,375
KEYSTONE LAKE, OK	4,916	4,916
MCCELLELLAN—KERR ARKANSAS RIVER NAVIGATION SYSTEM, OK	25,336	25,336
OLOGAH LAKE, OK	2,841	2,841
OPTIMA LAKE, OK	60	60
PENSACOLA RESERVOIR, LAKE OF THE CHEROKEES, OK	153	153
PINE CREEK LAKE, OK	1,497	1,497
SARDIS LAKE, OK	1,459	1,459
SCHEDULING RESERVOIR OPERATIONS, OK		2,000 *
SKIATOOK LAKE, OK	2,547	2,547
TENKILLER FERRY LAKE, OK	4,782	4,782
WAURIKA LAKE, OK	1,635	1,635
WISTER LAKE, OK	1,005	1,005
OREGON		
APPLEGATE LAKE, OR	1,391	1,391
BLUE RIVER LAKE, OR	1,346	1,346
BONNEVILLE LOCK AND DAM, OR & WA	1,889	7,536 *
CHETCO RIVER, OR		1,024 *
COLUMBIA RIVER AT THE MOUTH, OR & WA		19,054 *
COOS BAY, OR		7,524 *
COQUILLE RIVER, OR		563 *
COTTAGE GROVE LAKE, OR	2,279	2,279
COUGAR LAKE, OR	2,436	2,436
DEPOE BAY, OR		51 *
DETROIT LAKE, OR	1,724	1,724
DORENA LAKE, OR	1,249	1,249
ELK CREEK LAKE, OR	355	355
FALL CREEK LAKE, OR	1,589	1,589
FERN RIDGE LAKE, OR	2,158	2,158
GREEN PETER—FOSTER LAKES, OR	2,506	2,506
HILLS CREEK LAKE, OR	1,425	1,425
INSPECTION OF COMPLETED WORKS, OR		923 *
JOHN DAY LOCK AND DAM, OR & WA	6,451	6,451
LOOKOUT POINT LAKE, OR	2,567	2,567
LOST CREEK LAKE, OR	4,542	4,542
MENARY LOCK AND DAM, OR & WA	15,921	15,921
NEHALEM BAY, OR		20 *
PROJECT CONDITION SURVEYS, OR		477 *
ROGUE RIVER AT GOLD BEACH, OR		116 *

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
SCHEDULING RESERVOIR OPERATIONS, OR		101 *
SIUSLAW RIVER, OR		15 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, OR		10,700 *
UMPQUA RIVER, OR		1,074 *
WILLAMETTE RIVER AT WILLAMETTE FALLS, OR	65	65
WILLAMETTE RIVER BANK PROTECTION, OR	155	155
WILLOW CREEK LAKE, OR	783	783
YAQUINA BAY AND HARBOR, OR		4,095 *
PENNSYLVANIA		
ALLEGHENY RIVER, PA	8,244	8,244
ALVIN R BUSH DAM, PA	7,968	7,968
AYLESWORTH CREEK LAKE, PA	705	705
BELTZVILLE LAKE, PA	1,284	1,284
BLUE MARSH LAKE, PA	2,954	2,954
CONEMAUGH RIVER LAKE, PA	1,674	1,674
COWANESQUE LAKE, PA	2,257	2,257
CROOKED CREEK LAKE, PA	5,126	5,126
CURWENSVILLE LAKE, PA	1,215	1,215
DELAWARE RIVER, PHILADELPHIA, PA TO TRENTON, NJ		4,650 *
EAST BRANCH CLARION RIVER LAKE, PA	1,692	1,692
ERIE HARBOR, PA		1,618 *
FOSTER JOSEPH SAYERS DAM, PA	1,349	1,349
FRANCIS E WALTER DAM, PA	910	910
GENERAL EDGAR JADWIN DAM AND RESERVOIR, PA	381	381
INSPECTION OF COMPLETED WORKS, PA		959 *
JOHNSTOWN, PA	2,109	2,109
KINZUA DAM AND ALLEGHENY RESERVOIR, PA	2,768	2,768
LOYALHANNA LAKE, PA	2,022	2,022
MAHONING CREEK LAKE, PA	1,691	1,691
MONONGAHELA RIVER, PA	18,150	18,150
OHIO RIVER LOCKS AND DAMS, PA, OH & WV	34,556	34,556
OHIO RIVER OPEN CHANNEL WORK, PA, OH & WV	826	826
PROJECT CONDITION SURVEYS, PA		174 *
PROMPTON LAKE, PA	559	559
PUNXSUTAWNEY, PA	121	121
RAYSTOWN LAKE, PA	8,124	8,124
SCHEDULING RESERVOIR OPERATIONS, PA		79 *
SCHUYLKILL RIVER, PA		100 *
SHENANGO RIVER LAKE, PA	3,172	3,172
STILLWATER LAKE, PA	523	523
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, PA		120 *
TIOGA—HAMMOND LAKES, PA	5,406	5,406
TIONESTA LAKE, PA	5,631	5,631
UNION CITY LAKE, PA	725	725
WOODCOCK CREEK LAKE, PA	1,241	1,241
YORK INDIAN ROCK DAM, PA	1,241	1,241
YOUGHIOGHENY RIVER LAKE, PA & MD	2,869	2,869
PUERTO RICO		
INSPECTION OF COMPLETED WORKS, PR		126 *
PROJECT CONDITION SURVEYS, PR		100 *
SAN JUAN HARBOR, PR		4,070 *
RHODE ISLAND		
FOX POINT BARRIER, NARRAGANSETT BAY, RI	680	680
GREAT SALT POND, BLOCK ISLAND, RI		350 *
INSPECTION OF COMPLETED WORKS, RI		51 *
PROJECT CONDITION SURVEYS, RI		500 *
WOONSOCKET LOCAL PROTECTION PROJECT, RI	596	596

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
SOUTH CAROLINA		
ATLANTIC INTRACOASTAL WATERWAY, SC	100	100
CHARLESTON HARBOR, SC		19,700 *
COOPER RIVER, CHARLESTON HARBOR, SC		3,931 *
INSPECTION OF COMPLETED WORKS, SC		65 *
PROJECT CONDITION SURVEYS, SC		775 *
SOUTH DAKOTA		
BIG BEND DAM, LAKE SHARPE, SD	9,989	9,989
COLD BROOK LAKE, SD	472	472
COTTONWOOD SPRINGS LAKE, SD	229	229
FORT RANDALL DAM, LAKE FRANCIS CASE, SD	11,795	11,795
INSPECTION OF COMPLETED WORKS, SD		209 *
LAKE TRAVERSE, SD & MN	640	640
OAHE DAM AND LAKE OAHE, SD	13,148	13,148
SCHEDULING RESERVOIR OPERATIONS, SD		144 *
TENNESSEE		
CENTER HILL LAKE, TN	7,765	7,765
CHEATHAM LOCK AND DAM, TN	12,702	12,702
CORDELL HULL DAM AND RESERVOIR, TN	7,983	7,983
DALE HOLLOW LAKE, TN	7,889	7,889
INSPECTION OF COMPLETED WORKS, TN		137 *
J PERCY PRIEST DAM AND RESERVOIR, TN	5,526	5,526
NORTHWEST TENNESSEE REGIONAL HARBOR, LAKE COUNTY, TN		15 *
OLD HICKORY LOCK AND DAM, TN	13,351	13,351
PROJECT CONDITION SURVEYS, TN		5 *
TENNESSEE RIVER, TN	22,380	22,380
WOLF RIVER HARBOR, TN		655 *
TEXAS		
AQUILLA LAKE, TX	1,814	1,814
BARDWELL LAKE, TX	2,662	2,662
BELTON LAKE, TX	4,494	4,494
BENBROOK LAKE, TX	3,566	3,566
BRAZOS ISLAND HARBOR, TX		3,000 *
BUFFALO BAYOU AND TRIBUTARIES, TX	3,433	3,433
CANYON LAKE, TX	3,897	3,897
CHANNEL TO HARLINGEN, TX		1,100 *
CORPUS CHRISTI SHIP CHANNEL, TX		4,600 *
DENISON DAM, LAKE TEXOMA, TX	8,483	8,483
ESTELLINE SPRINGS EXPERIMENTAL PROJECT, TX	39	39
FERRELLS BRIDGE DAM, LAKE O' THE PINES, TX	5,607	5,607
FREEPORT HARBOR, TX		8,500 *
GALVESTON HARBOR AND CHANNEL, TX		10,400 *
GIWW, CHANNEL TO VICTORIA, TX		50 *
GIWW, CHOCOLATE BAYOU, TX		50 *
GRANGER LAKE, TX	2,582	2,582
GRAPEVINE LAKE, TX	3,326	3,326
GULF INTRACOASTAL WATERWAY, TX	24,200	24,200
HORDS CREEK LAKE, TX	1,727	1,727
HOUSTON SHIP CHANNEL, TX		22,300 *
INSPECTION OF COMPLETED WORKS, TX		1,748 *
JIM CHAPMAN LAKE, TX	1,907	1,907
JOE POOL LAKE, TX	2,478	2,478
LAKE KEMP, TX	350	350
LAVON LAKE, TX	3,683	3,683
LEWISVILLE DAM, TX	3,813	3,813
MATAGORDA SHIP CHANNEL, TX		4,450 *
NAVARRO MILLS LAKE, TX	3,877	3,877
NORTH SAN GABRIEL DAM AND LAKE GEORGETOWN, TX	3,026	3,026

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
O C FISHER DAM AND LAKE, TX	1,686	1,686
PAT MAYSE LAKE, TX	1,251	1,251
PROCTOR LAKE, TX	2,367	2,367
PROJECT CONDITION SURVEYS, TX .....	.....	325 *
RAY ROBERTS LAKE, TX	1,683	1,683
SABINE—NECHES WATERWAY, TX .....	.....	10,625 *
SAM RAYBURN DAM AND RESERVOIR, TX	10,668	10,668
SCHEDULING RESERVOIR OPERATIONS, TX .....	.....	401 *
SOMERVILLE LAKE, TX	3,538	3,538
STILLHOUSE HOLLOW DAM, TX	3,491	3,491
TEXAS CITY SHIP CHANNEL, TX .....	.....	350 *
TOWN BLUFF DAM, B A STEINHAGEN LAKE, TX	3,967	3,967
WACO LAKE, TX	4,814	4,814
WALLISVILLE LAKE, TX	2,605	2,605
WHITNEY LAKE, TX	6,813	6,813
WRIGHT PATMAN DAM AND LAKE, TX	4,223	4,223
UTAH		
INSPECTION OF COMPLETED WORKS, UT .....	.....	145 *
SCHEDULING RESERVOIR OPERATIONS, UT .....	.....	400 *
VERMONT		
BALL MOUNTAIN, VT	872	872
INSPECTION OF COMPLETED WORKS, VT .....	.....	162 *
NORTH HARTLAND LAKE, VT	988	988
NORTH SPRINGFIELD LAKE, VT	962	962
TOWNSHEND LAKE, VT	968	968
UNION VILLAGE DAM, VT	855	855
VIRGIN ISLANDS		
INSPECTION OF COMPLETED WORKS, VI .....	.....	34 *
PROJECT CONDITION SURVEYS, VI .....	.....	50 *
VIRGINIA		
ATLANTIC INTRACOASTAL WATERWAY—ACC, VA	685	685
ATLANTIC INTRACOASTAL WATERWAY—DSC, VA	1,262	1,262
GATHRIGHT DAM AND LAKE MOOMAW, VA	3,018	3,018
HAMPTON ROADS DRIFT REMOVAL, VA .....	.....	2,012 *
HAMPTON ROADS PREVENTION OF OBSTRUCTIVE DEPOSITS, VA .....	.....	280 *
INSPECTION OF COMPLETED WORKS, VA .....	.....	161 *
JAMES RIVER CHANNEL, VA .....	.....	420 *
JOHN H KERR LAKE, VA & NC	10,873	10,873
JOHN W FLANNAGAN DAM AND RESERVOIR, VA	2,523	2,523
NORFOLK HARBOR, VA .....	.....	13,160 *
NORTH FORK OF POUND RIVER LAKE, VA	964	964
PHILPOTT LAKE, VA	5,016	5,016
PROJECT CONDITION SURVEYS, VA .....	.....	1,885 *
WATER AND ENVIRONMENTAL CERTIFICATIONS, VA .....	.....	175 *
WASHINGTON		
CHIEF JOSEPH DAM, WA	606	606
COLUMBIA AND LOWER WILLAMETTE RIVERS BELOW VANCOUVER, WA & PORTLAND, OR .....	.....	52,662 *
COLUMBIA RIVER AT BAKER BAY, WA & OR .....	.....	906 *
COLUMBIA RIVER BETWEEN VANCOUVER, WA AND THE DALLES, OR .....	.....	1,001 *
EVERETT HARBOR AND SNOHOMISH RIVER, WA .....	.....	2,228 *
GRAYS HARBOR, WA .....	.....	11,789 *
HOWARD HANSON DAM, WA	3,959	3,959
ICE HARBOR LOCK AND DAM, WA	4,627	4,627
INSPECTION OF COMPLETED WORKS, WA .....	.....	966 *
LAKE WASHINGTON SHIP CANAL, WA	1,257	9,279 *
LITTLE GOOSE LOCK AND DAM, WA	2,687	2,687

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
LOWER GRANITE LOCK AND DAM, WA	3,458	3,458
LOWER MONUMENTAL LOCK AND DAM, WA	2,769	2,769
MILL CREEK LAKE, WA	2,245	2,245
MOUNT SAINT HELENS SEDIMENT CONTROL, WA	373	373
MUD MOUNTAIN DAM, WA	5,819	5,819
PROJECT CONDITION SURVEYS, WA	892	892 *
PUGET SOUND AND TRIBUTARY WATERS, WA	1,070	1,070 *
QUILLAYUTE RIVER, WA	1,980	1,980 *
SCHEDULING RESERVOIR OPERATIONS, WA	469	469 *
SEATTLE HARBOR, WA	1,918	1,918 *
STILLAGUAMISH RIVER, WA	299	299
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WA	66	66 *
TACOMA, PUYALLUP RIVER, WA	214	214
THE DALLES LOCK AND DAM, WA & OR	4,227	4,227
WEST VIRGINIA		
BEECH FORK LAKE, WV	1,671	1,671
BLUESTONE LAKE, WV	2,305	2,305
BURNSVILLE LAKE, WV	2,877	2,877
EAST LYNN LAKE, WV	2,660	2,660
ELKINS, WV	79	79
INSPECTION OF COMPLETED WORKS, WV	558	558 *
KANAWHA RIVER LOCKS AND DAMS, WV	10,982	10,982
OHIO RIVER LOCKS AND DAMS, WV, KY & OH	37,008	37,008
OHIO RIVER OPEN CHANNEL WORK, WV, KY & OH	2,604	2,604
R D BAILEY LAKE, WV	2,490	2,490
STONEWALL JACKSON LAKE, WV	1,741	1,741
SUMMERSVILLE LAKE, WV	3,258	3,258
SUTTON LAKE, WV	2,680	2,680
TYGART LAKE, WV	1,723	1,723
WISCONSIN		
EAU GALLE RIVER LAKE, WI	878	878
FOX RIVER, WI	3,344	3,344
GREEN BAY HARBOR, WI	3,084	3,084 *
INSPECTION OF COMPLETED WORKS, WI	77	77 *
KEWAUNEE HARBOR, WI	25	25 *
MANITOWOC HARBOR, WI	80	80 *
MILWAUKEE HARBOR, WI	11	11 *
PROJECT CONDITION SURVEYS, WI	345	345 *
STURGEON BAY HARBOR AND LAKE MICHIGAN SHIP CANAL, WI	18	1,534 *
SURVEILLANCE OF NORTHERN BOUNDARY WATERS, WI	525	525 *
WYOMING		
INSPECTION OF COMPLETED WORKS, WY	107	107 *
JACKSON HOLE LEVEES, WY	1,002	1,002
SCHEDULING RESERVOIR OPERATIONS, WY	109	109 *
SUBTOTAL, PROJECTS LISTED UNDER STATES	1,831,955	2,755,524
REMAINING ITEMS ADDITIONAL FUNDING FOR ONGOING WORK		
NAVIGATION MAINTENANCE		44,600
DEEP-DRAFT HARBOR AND CHANNEL		591,000
DONOR AND ENERGY TRANSFER PORTS		50,000
INLAND WATERWAYS		70,000
SMALL, REMOTE, OR SUBSISTENCE NAVIGATION		65,000
OTHER AUTHORIZED PURPOSES		50,000
AQUATIC NUISANCE CONTROL RESEARCH	675	16,000
ASSET MANAGEMENT/FACILITIES AND EQUIP MAINT (FEM)	3,300	4,300

CORPS OF ENGINEERS—OPERATION AND MAINTENANCE—Continued

[In thousands of dollars]

Item	Budget estimate	Committee recommendation
BUDGET/MANAGEMENT SUPPORT FOR O&M BUSINESS PROGRAMS		
STEWARDSHIP SUPPORT PROGRAM	900	900
PERFORMANCE-BASED BUDGETING SUPPORT PROGRAM	2,000	2,000
RECREATION MANAGEMENT SUPPORT PROGRAM	1,450	1,450
OPTIMIZATION TOOLS FOR NAVIGATION	392	392
CIVIL WORKS WATER MANAGEMENT SYSTEM (CWWMS)	8,000	8,000
COASTAL INLET RESEARCH PROGRAM	2,500	14,975
COASTAL OCEAN DATA SYSTEM (CODS)	2,250	7,500
CULTURAL RESOURCES (NAGPRA/CURATION)	900	900
CYBERSECURITY	4,000	4,000
DREDGE MCFARLAND READY RESERVE .....	.....	11,300 *
DREDGE WHEELER READY RESERVE .....	.....	14,500 *
DREDGING DATA AND LOCK PERFORMANCE MONITORING SYSTEM	1,120	3,570
DREDGING OPERATIONS AND ENVIRONMENTAL RESEARCH (DOER)	5,250	7,500
DREDGING OPERATIONS TECHNICAL SUPPORT PROGRAM (DOTS)	2,450	6,500
EARTHQUAKE HAZARDS REDUCTION PROGRAM	300	300
ENGINEERING WITH NATURE .....	.....	7,500
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	4,350	4,350
INSPECTION OF COMPLETED FEDERAL FLOOD CONTROL PROJECTS	18,000	18,000
INSPECTION OF COMPLETED WORKS	32,307 *
MONITORING OF COMPLETED NAVIGATION PROJECTS	3,800	10,000
NATIONAL COASTAL MAPPING PROGRAM	5,000	15,000
NATIONAL DAM SAFETY PROGRAM (PORTFOLIO RISK ASSESSMENT)	10,500	10,500
NATIONAL EMERGENCY PREPAREDNESS PROGRAM (NEPP)	5,000	5,000
NATIONAL (LEVEE) FLOOD INVENTORY	4,500	4,500
NATIONAL (MULTIPLE PROJECT) NATURAL RESOURCES MANAGEMENT ACTIVITIES	3,500	3,500
NATIONAL PORTFOLIO ASSESSMENT FOR REALLOCATIONS	500	500
REGIONAL SEDIMENT MANAGEMENT PROGRAM	3,500	8,500
RESPONSE TO CLIMATE CHANGE AT CORPS PROJECTS .....	.....	5,000
REVIEW OF NON-FEDERAL ALTERATIONS OF CIVIL WORKS PROJECTS (SECTION 408)	9,000	9,000
SCHEDULING RESERVOIR OPERATIONS	8,331 *
SOIL MOISTURE AND SNOWPACK MONITORING .....	.....	5,000
SUSTAINABLE RIVERS PROGRAM (SRP)	500	500
VETERAN'S CURATION PROGRAM AND COLLECTIONS MANAGEMENT	5,500	6,500
WATERBORNE COMMERCE STATISTICS	4,670	4,670
WATER OPERATIONS TECHNICAL SUPPORT (WOTS)	500	5,500
SUBTOTAL, REMAINING ITEMS	164,545	1,108,602
SAVINGS AND SLIPPAGE .....	.....	-83,126
ACCOUNTING ADJUSTMENT	-1	.....
TOTAL, OPERATION AND MAINTENANCE	1,996,499	3,781,000

* Includes funds requested in other lines or accounts.

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 Okechobee 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.

Within 180 days of enactment of this act, the Corps is directed to develop a comprehensive research plan for addressing the various and abundant HAB-related research needs. Included in this plan shall be a scope for each activity identified; the required annual funding needs and timeline to complete each research activity; how this research will provide specific value to the Corps' mission; how the Corps will balance needs across multiple regions and system types; and what opportunities will be available to partner with academia, outside organizations, and other Federal agencies, where appropriate. Within 90 days of enactment of this act, the Corps shall brief the Committee on the status of this plan.

The additional funding recommended in the Aquatic Nuisance Control Research remaining item is to supplement and advance Corps activities to address HABs and develop the comprehensive plan. Within these funds, the Corps is encouraged to continue investigating successful methods for combatting HABs; investigate harmful algal blooms across multiple ecoregions to predict HAB occurrence and toxicity, including in riverine ecosystems, and improve early warning capabilities, which may include the use of UAS/drones to detect and monitor HABs.

The Corps is also encouraged to continue next generation modeling.

Asset Management/FEM.—Infrastructure Resilience.—The Corps shall brief the Committee within 90 days of enactment of this act on opportunities to research novel repair and maintenance approaches that will increase Civil Works infrastructure intelligence and resilience.

Asset Management/FEM.—WRRDA Section 6002, Review of Corps Assets.—In fiscal year 2020, Congress provided \$1,000,000 to perform a review of its inventory in accordance with section 6002 of WRRDA. The Committee continues to support this effort and understands this review will be completed within 4 years with continued funding. The Committee recommends \$1,000,000 in the Asset Management/Facilities and Equipment Maintenance remaining item to continue this review. The Corps shall brief the Committee on how much of this work has been accomplished and a timeline for completion of the inventory not later than 60 days after enactment of this act.

Cape Cod Canal Bridges.—The Committee recognizes the urgent need to replace the Cape Cod Canal Bridges, which are both over eighty years old and structurally deficient, but essential to the 250,000 residents of the region who rely on these routes for general transportation, tourism, and evacuations in the event of an emergency. The Committee also recognizes the magnitude of this project, and therefore encourages the Secretary to continue supporting the Commonwealth of Massachusetts in efforts to develop a strategy to replace the bridges based on the findings of the March 2020 Cape Cod Canal Highway Bridges Major Rehabilitation Evaluation Report. The Committee encourages the Corps to continue to maintain the bridges in accordance with the findings of the report.

Coastal Inlet Research Program.—The Committee understands that communities, infrastructure, commerce, and resources that are

ted 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.

Coos Bay, Oregon Jetties.—The Coos Bay North Jetty is losing 20 feet a year and has receded more than 750 feet since its construction. This lack of adequate channel protection creates a very dangerous situation for commercial ships, fishing vessels, and recreational boaters. Such an event occurred in 2016 when lives were lost after three vessels were lost at the channel entrance. Further, the channel condition is degraded, impeding the U.S. Coast Guard's ability to carry out search and rescue missions, reducing the efficiency of the channel, and increasing maintenance dredging costs. The Committee encourages the Corps to proceed with constructing these much-needed improvements.

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

Donor and Energy Transfer Ports.—The additional funding recommended in this account for donor and energy transfer ports shall be allocated in accordance with 33 U.S.C. 2238c. The Committee notes the Corps issued implementation guidance for section 1110 of the WIIN Act, but has not completed the necessary work to execute all authorized uses for this funding. The Committee directs the Corps to fully execute subsection (c) of 33 U.S.C. 2238c within 90 days of enactment of this act.

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

Engineering With Nature.—The Committee recommendation includes \$7,500,000 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..

Fish Hatchery Facilities.—The Corps is encouraged to allocate additional funds recommended in this account to support maintenance needs at mitigation fish hatcheries as needed to maintain conditions suitable to rear and release fish needed to meet the Corps' mitigation responsibilities.

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 shall brief the Committee within 60 days of enactment of this act on the status of funds in the program, guidance the Corps provides to district offices on how to implement the program and share lessons-learned from inspections, and a 5-year plan for funding for the program by state.

Invasive Mussels.—The Committee recognizes that dreissenid mussels, highly invasive species, threaten water delivery systems and hydroelectric facilities operated by the Corps. Additional funds are recommended in this account to prevent the introduction and removal of invasive species like dreissenid mussels at Corps-owned reservoirs. The Corps shall brief the Committee within 90 days of enactment of this act on how funds provided to date have been used for this purpose and a plan for any future needs.

Isle of Shoals North and Cape Arundel Dredged Material Placement Site.—The Cape Arundel Disposal Site in Maine selected by the Department of the Army as an alternative dredged material disposal site under section 103(b) of the Marine Protection Research and Sanctuaries Act of 1972 (Public Law 92-532), shall remain open until April 15, 2024, until the remaining disposal capacity of the site has been utilized, or until final designation of an

Ocean Dredged Material Disposal Site for southern Maine under section 102(c) of the Marine Protection Research and Sanctuaries Act of 1972, whichever first occurs, provided that the site conditions remain suitable for such purpose and that the site may not be used for disposal of more than 80,000 cubic yards from any single dredging project.

Jetties and Breakwaters.—The Committee encourages the Corps to continue progress towards revising its policy and thresholds related to major maintenance and major rehabilitation of Federal jetties and breakwaters. The Corps shall brief the Committee on this topic not later than 90 days of enactment of this act.

Kennebec River Long-Term Maintenance Dredging.—The Committee continues to support the Memorandum of Agreement signed in January 2020 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.

Keystone Lake, Oklahoma.—Northeast Oklahoma sees high amounts of rainfall during many spring seasons, oftentimes creating flooding concerns for residents and businesses in this region. This nearly annual occurrence is particularly problematic around Keystone Lake. Recreation areas that support the local economy can see closures ranging from several days or weeks to the entire recreation season, and residential roads can become impassable. To assist the local community and its economy, the Corps is encouraged to examine modifications that could be made to the management of Keystone Lake that would reduce the frequency and severity of flooding events. The Corps is directed to provide a briefing on possible actions to the Committee within 60 days of enactment of this act.

Lake Champlain-Gordon's Breakwater.—The Corps is encouraged to complete the study pursuant to section 216 of the Flood Control Act of 1970 (Public Law 91-611) to address necessary improvements to the Corps-owned Gordon's Landing breakwater on Lake Champlain in fiscal year 2021, and to pursue the next phase of the project using applicable authorities. The Committee is aware that this structure is important spawning habitat for lake trout and recommends that the Corps consult with the U.S. Fish and Wildlife Service in designing the project.

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 which include collaborating with FEMA on implementation plans; establishing Federal and non-Federal advisory groups; developing voluntary comprehensive national levee safety guidelines; developing state, regional, and tribal program requirements; and developing a strategy for providing assistance to states, regional districts, locals, and tribes. The Corps shall brief the Committee within 90 days of enactment of this act on the status of these activities

including any additional funding needs identified and timeline for implementation of the next phase.

Locks and Dams Levels of Service.—The Committee remains concerned about the level of service reductions and proposed level of service reductions at locks and dams along our nation’s inland waterways and the adverse economic effects this has on impacted communities. The Committee encourages the Corps to conduct remote lock operations at locks and dams in the Ohio River System.

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 is aware of preliminary research that indicates reduced lock operations on certain Corps-designated low-use waterways is directly impacting migration and that there are effective means to mitigate the impacts. The Committee believes maximizing the ability of fish to use these locks to move past the dams has the potential to restore natural and historic long-distance river migrations that may be critical to species survival. In fiscal year 2020, the Committee recommended funding to continue preliminary research on the impact of reduced lock operations on riverine fish.

The Committee understands the research underway is proving valuable and, within available funds for ongoing work, directs the Corps to continue this research at not less than the fiscal year 2020 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.

Multimodal Utilization of Marine Transportation.—The Committee notes that aging infrastructure poses enormous challenges to the Corps’ mission, with a current backlog of nearly \$200,000,000,000 in construction and maintenance alone. The Committee believes advances in navigation optimization modeling tools to integrate rail and road modes of transit with the marine transportation system are critical in meeting increased demand. The Committee supports the Corps’ efforts to improve the performance, efficiency, and resilience of the Nation’s navigation and flood risk management systems and encourages the Corps to consider innovative system optimization technologies for reliable water resources infrastructure. Within 90 days of enactment of this act, the Corps shall brief the Committee on these opportunities.

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 currently not met by existing mapping programs due to gaps caused when mapping agencies distinguish between land mapping and

water charting. The Corps shall use these funds to prioritize, coordinate and conduct Arctic coastal mapping operations, data processing, product development, and data dissemination, to identify and meet priorities in the Arctic region. Within 90 days of enactment of this act, the Corps shall brief the Committee on the status of these activities including future anticipated funding needs, how the Corps will partner with non-Federal stakeholders, and how the Corps will ensure adequate competition for any acquisition requirements.

National Dam Safety Program.—The Committee is interested in the results of the Independent External Peer Review [IEPR] of risk-informed dam safety practices that the Corps of has commissioned, in consultation with the Bureau of Reclamation and the Federal Energy Regulatory Commission. The Corps is directed to brief the Committee as soon as the IEPR is completed on the review's findings, any follow-up actions to implement those findings planned by the Federal agencies, and any potential responses to the findings that Congress could take. If the IEPR review is not completed by Dec 31, 2020, the Corps shall brief the Committee on the schedule to complete this review.

Providence, Rhode Island.—The Corps is encouraged to complete the Dredged Material Management Plan for Providence River, Rhode Island.

Rare Earth Elements in Dredged Material.—The Corps is reminded that nothing precludes the Corps from providing samples of dredged material to another Federal agency whose mission includes activities associated with investigating the presence and potential recovery of rare earth elements.

Regional Sediment Management.—The Committee recommends additional funding in this remaining item 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.

Within 90 days of enactment of this act, the Corps shall brief the Committee on potential research opportunities to address compound flooding issues to meet design, operational, and emergency management needs in Corps Districts and Divisions, including the subsequent local and regional sediment management needs affecting navigation channels and reservoirs. The briefing shall include an overview of how this research could allow for better prediction of compound flooding issues and their relation to management of projects within the Corps, any opportunities to partner with academia, and a breakdown of annual funding requirements a timeline for completion.

San Rafael Channel, California.—The Committee is aware that the last full dredging of the San Rafael Channel was in 2002. This lack of dredging is becoming a public safety issue at the San Rafael Police and Fire Departments, which are based in the channel and need access and capacity for bay patrols, rescues, and other public safety activity. Given public safety concerns, the Committee urges the Corps to prioritize dredging of the San Rafael Channel.

Scheduling of Reservoir Operations.—The Corps shall brief the Committee by January 31, 2021 on the progress in expending the additional \$4,000,000 provided in the Scheduling of Reservoir Operations remaining item in fiscal year 2020 for a water control manual update 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.

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 has included a new remaining item “Soil Moisture and Snowpack Monitoring” to fund activities authorized in section 4003(a) of WRRDA, as amended. These funds shall be used along with the \$3,000,000 the Corps reprogrammed to the Hydrologic Studies remaining item on June 2, 2020 in the Investigations account. Providing these capabilities is critical to enabling the Corps to accurately forecast mountain snowpack and work to avoid flooding Missouri River basin states, which have been under a continuous state of inundation for over a year.

Tennessee-Tombigbee Waterway.—The Tennessee-Tombigbee Waterway (Tenn-Tom) is a 234-mile inland waterway linking 4,500 miles of navigable water and serving 23 states throughout the South and Mid-west United States. The Tenn-Tom allows commercial users to save significant time and transportation costs by providing an alternate route that is 800 miles shorter than by the Mississippi River, but significant flooding events resulting in historic shoaling restricted access to the waterway, impacting navigation traffic and threatening the Nation’s freight network which relies on an efficient and uninterrupted corridor. During the height of this shoaling in 2019, more than a dozen tows were stuck waiting for emergency channel work to restore traffic. Limited availability of emergency funds caused several weeks of additional delays. Identifying pragmatic and innovative solutions to improve the availability of navigation channels and reduced unscheduled closures remains a priority for the Committee. The Corps is directed to evaluate opportunities to improve operational scenarios that lead to re-

duced interruptions in commerce due to waterborne navigation corridor flooding, other silting activities, and unplanned lock closures.

Water Control Manuals.—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]. Last year, the Committee funded the development of a 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. The Committee recommends \$7,500,000 in additional funds to complete water control manual updates at projects identified on the list. If needed, funds shall also be used to operationalize a FIRO-compatible component of the Corps Water Management System [CWMS] to process ensemble and synthetic forecasts to ensure continuous implementation of improvements in forecast skill for water operations.

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

Westport (Saugatuck River), Connecticut.—The Committee encourages the Corps to continue working with local entities to complete dredging of the Saugatuck River in Westport.

Additional Funding for Ongoing Work.—The Committee cannot support a level of funding that does not fund O&M 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, 2020	\$210,000,000
Budget estimate, 2021	200,000,000
Committee recommendation	210,000,000

The Committee recommends \$210,000,000 for the Regulatory Program, \$10,000,000 above the budget request.

The Committee recommends funds above the budget request to address capacity needs related to staffing in Corps districts that handle a high volume of wetland permitting.

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

Appropriations, 2020	\$200,000,000
Budget estimate, 2021	250,000,000
Committee recommendation	250,000,000

The Committee recommends \$250,000,000 for the Formerly Utilized Sites Remedial Action Program.

FLOOD CONTROL AND COASTAL EMERGENCIES

Appropriations, 2020	\$35,000,000
Budget estimate, 2021	77,000,000
Committee recommendation	35,000,000

The Committee recommends \$35,000,000 for Flood Control and Coastal Emergencies, a decrease of \$42,000,000 below the budget request.

EXPENSES

Appropriations, 2020	\$203,000,000
Budget estimate, 2021	187,000,000
Committee recommendation	211,000,000

The Committee recommends \$211,000,000 for Expenses, an increase of \$24,000,000 above the budget request. No funding is recommended for creation of an Office of Congressional Affairs.

The Expenses appropriation is an administrative/operational account which supports the technical, administrative and staff supervision functions assigned to Corps Headquarters, the Major Subor-

dinate 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 \$5.1 billion. The Corps has been operating with approximately 850 FTE, with a fiscal year 2020 appropriation of \$7.65 million, 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.

Deauthorizations and Inventory of Corps Projects.—In fiscal years 2019 and 2020, Congress directed the Corps to provide a list of all projects that have been deauthorized or will be deauthorized in the next two fiscal years as a result of section 1302 of the WIIN Act and a list of all authorized Corps studies and projects in each State. The Corps has yet to provide either of these requirements. Therefore, using available funding recommended in this account, the Corps is directed to develop and submit these requirements within 120 days of enactment of this act and brief the Committee within 30 days of enactment on the status of these activities.

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

Appropriations, 2020	\$5,000,000
Budget estimate, 2021	5,000,000
Committee recommendation	3,000,000

The Committee recommends \$3,000,000 for the Office of the Assistant Secretary of the Army (Civil Works), a decrease of \$2,000,000 below the budget request. This account has carried over an average unobligated balance of more than \$2,000,000. Therefore, the Committee has reduced this account to reflect the significant amount of funds carried into fiscal year 2021.

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 .....	.....
Budget estimate, 2021 .....	.....
Committee recommendation	\$25,000,000

The Committee recommends \$25,000,000 for the Water Infrastructure Finance and Innovation Program, an increase of \$25,000,000 above the budget request.

The financial assistance the Secretary is authorized to provide pursuant to the Water Infrastructure Finance and Innovation Act (Public Law 113–121) [WIFIA] can play an important role in improving the Nation’s infrastructure. The Corps is directed to complete the administrative actions necessary to stand up the WIFIA program (the Corps Water Infrastructure Financing Program) and to provide the financial assistance envisioned in the legislation. The Committee recommendation makes \$2,200,000 available to the Secretary for program development, administration, and oversight, including but not limited to, publishing the final fee and program rules, criteria for project eligibility and Notice of Funding Availability, as well as issuance of guidance to clarify, as Congress intended, that an eligible project to reduce flood damages, includes measures to prevent significant loss of life and property from the failure of high hazard dams, and that the financial assistance program authorized in WIFIA applies to all non-Federal projects and any authorized project that is non-federally owned, operated, and maintained. The Committee recommendation includes \$21,000,000 for the financial assistance authorized by WIFIA.

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, 2020	\$20,000,000
Budget estimate, 2021	10,000,000
Committee recommendation	20,000,000

The Committee recommends \$20,000,000 for the Central Utah Project Completion Account, which includes \$1,800,000 for the Utah Reclamation Mitigation and Conservation Account for use by the Utah Reclamation Mitigation and Conservation Commission, \$1,500,000 for necessary expenses of the Secretary of the Interior, and up to \$1,500,000 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 \$1,670,000,000 for the Bureau of Reclamation [Reclamation], an increase of \$542,125,000 above the budget request. The Committee recommendation sets priorities by supporting our Nation’s water infrastructure.

INTRODUCTION

In addition to the traditional missions of bringing water and power to the West, Reclamation continues to develop programs, initiatives, and activities that will help meet new water needs and balance the multitude of competing uses of water in the West. Reclamation is the largest wholesaler of water in the country, operating 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 2021 WORK PLAN

The Committee recommends \$542,125,000 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 additional 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.

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).

DROUGHT RESILIENCY

Congress has invested approximately \$700,000,000 over the past 6 years in drought and water supply-related activities. The Committee remains intently focused on the need for substantially increased investment in improving drought resiliency as well as in finding opportunities for agencies to combine water supply benefits with other mission priorities. In the Energy and Water Development and Related Agencies Appropriations Act, 2017 (Public Law 115–31), the Committee began the transition from mitigating an ongoing drought in the West to preparing for the next one. The Committee continues that approach in this year's bill by recommending \$206,000,000 for the drought resiliency programs authorized in the WIIN Act.

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

The Committee believes 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.

UNMANNED AERIAL SYSTEMS

Reclamation shall brief the Committee within 90 days of enactment of this act on the total number of small unmanned aerial vehicles [s UAS] in inventory and operation, including a breakdown

of those sUAS manufactured in or with components produced in the People’s Republic of China. The briefing shall include: the justification for the January 2020 grounding of all sUAS by the Department, the number of exceptions made for emergency missions, and the plan to source additional sUAS from American manufacturers.

CONGRESSIONALLY DIRECTED SPENDING

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

WATER AND RELATED RESOURCES

Appropriations, 2020	\$1,512,151,000
Budget estimate, 2021	979,000,000
Committee recommendation	1,521,125,000

The Committee recommends \$1,521,125,000 for Water and Related Resources, an increase of \$542,125,000 above the budget request.

INTRODUCTION

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

The Committee has divided underfinancing between the Resources Management subaccount and the Facilities Operation, Maintenance, and Replacement subaccount. The Committee directs that the underfinancing amount in each subaccount initially be applied uniformly across all projects within the subaccounts. Upon applying the underfinanced amounts, normal reprogramming procedures should be undertaken to account for schedule slippages, accelerations or other unforeseen conditions.

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		\$15,311		\$15,311
COLORADO RIVER BASIN—CENTRAL ARIZONA PROJECT	6,305	648	6,305	648
COLORADO RIVER FRONT WORK AND LEVEE SYSTEM ..	2,303		2,303	

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
SALT RIVER PROJECT	649	250	649	250
SAN CARLOS APACHE TRIBE WATER SETTLEMENT ACT PROJECT	1,550	.....	1,550	.....
YUMA AREA PROJECTS	1,025	26,839	1,025	26,839
CALIFORNIA				
CACHUMA PROJECT	815	1,101	815	1,101
CENTRAL VALLEY PROJECT: .....	.....	.....	.....	.....
AMERICAN RIVER DIVISION, FOLSOM DAM UNIT/MOR-MON ISLAND	1,577	8,770	1,577	8,770
AUBURN-FOLSOM SOUTH UNIT	35	2,184	35	2,184
DELTA DIVISION	4,827	5,745	4,827	5,745
EAST SIDE DIVISION	1,290	2,652	1,290	2,652
FRIANT DIVISION	1,375	3,511	1,375	3,511
SAN JOAQUIN RIVER RESTORATION SETTLEMENT	28,264	.....	28,264	.....
MISCELLANEOUS PROJECT PROGRAMS	7,770	370	7,770	370
REPLACEMENTS, ADDITIONS, AND EXTRAORDINARY MAINT PROGRAM .....	.....	26,359	.....	26,359
SACRAMENTO RIVER DIVISION	1,665	495	1,665	495
SAN FELIPE DIVISION	128	68	128	68
SHASTA DIVISION	494	8,343	494	8,343
TRINITY RIVER DIVISION	10,361	4,077	10,361	4,077
WATER AND POWER OPERATIONS	2,628	10,793	2,628	10,793
WEST SAN JOAQUIN DIVISION, SAN LUIS UNIT	2,704	5,050	2,704	5,050
ORLAND PROJECT .....	.....	873	.....	873
SALTON SEA RESEARCH PROJECT	300	.....	300	.....
SOLANO PROJECT	1,162	2,420	1,162	2,420
VENTURA RIVER PROJECT	305	44	305	44
COLORADO				
ANIMAS-LA PLATA PROJECT	758	2,626	758	2,626
ARMEL UNIT, P-SMBP	15	452	15	452
COLLBRAN PROJECT	154	2,245	154	2,245
COLORADO-BIG THOMPSON PROJECT	160	18,118	160	18,118
FRUITGROWERS DAM PROJECT	67	133	67	133
FRYINGPAN-ARKANSAS PROJECT	76	9,358	76	9,358
FRYINGPAN-ARKANSAS PROJECT-ARKANSAS VALLEY CONDUIT	8,050	.....	8,050	.....
GRAND VALLEY UNIT, CRBSCP, TITLE II	246	1,924	246	1,924
LEADVILLE/ARKANSAS RIVER RECOVERY PROJECT .....	.....	13,303	.....	13,303
MANCOS PROJECT	93	508	93	508
NARROWS UNIT, P-SMBP .....	.....	30	.....	30
PARADOX VALLEY UNIT, CRBSCP, TITLE II	585	6,967	585	6,967
PINE RIVER PROJECT	127	285	127	285
SAN LUIS VALLEY PROJECT, CLOSED BASIN	118	2,832	118	2,832
SAN LUIS VALLEY PROJECT, CONEJOS DIVISION	9	20	9	20
UNCOMPAGRE PROJECT	711	169	711	169
UPPER COLORADO RIVER OPERATIONS PROGRAM	1,450	.....	1,450	.....
IDAHO				
BOISE AREA PROJECTS	2,552	2,444	2,552	2,444
COLUMBIA AND SNAKE RIVER SALMON RECOVERY PROJECT	16,000	.....	16,000	.....
LEWISTON ORCHARDS PROJECT	1,306	5	1,306	5
MINIDOKA AREA PROJECTS	2,129	3,952	2,129	3,952
PRESTON BENCH PROJECT	14	58	14	58
KANSAS				
ALMENA UNIT, P-SMBP	15	434	15	434
BOSTWICK UNIT, P-SMBP	44	929	44	929

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
CEDAR BLUFF UNIT, P-SMBP	9	500	9	500
GLEN ELDER UNIT, P-SMBP	20	16,941	20	16,941
KANSAS RIVER UNIT, P-SMBP		100		100
KIRWIN UNIT, P-SMBP	27	387	27	387
WEBSTER UNIT, P-SMBP	17	4,449	17	4,449
WICHITA PROJECT—CHENEY DIVISION	39	339	39	339
MONTANA				
CANYON FERRY UNIT, P-SMBP	188	5,291	188	5,291
EAST BENCH UNIT, P-SMBP	162	614	162	614
FORT PECK RESERVATION / DRY PRAIRIE RURAL WATER SYSTEM	2,431		2,431	
HELENA VALLEY UNIT, P-SMBP	52	219	52	219
HUNGRY HORSE PROJECT		829		829
HUNTLEY PROJECT	38	27	38	27
LOWER MARIAS UNIT, P-SMBP	86	1,662	86	1,662
LOWER YELLOWSTONE PROJECT	535	37	535	37
MILK RIVER PROJECT	400	2,885	400	2,885
MISSOURI BASIN O&M, P-SMBP	1,015	118	1,015	118
ROCKY BOYS/NORTH CENTRAL MT RURAL WATER SYS- TEM	1,984		1,984	
SUN RIVER PROJECT	107	438	107	438
YELLOWTAIL UNIT, P-SMBP	105	8,933	105	8,933
NEBRASKA				
AINSWORTH UNIT, P-SMBP	62	105	62	105
EASTERN NEW MEXICO WATER SUPPLY—UTE RES- ERVOIR	50		50	
FRENCHMAN—CAMBRIDGE UNIT, P-SMBP	203	1,856	203	1,856
MIRAGE FLATS PROJECT	21	92	21	92
NORTH LOUP UNIT, P-SMBP	47	126	47	126
NEVADA				
LAHONTAN BASIN PROJECT	6,470	4,423	6,470	4,423
LAKE TAHOE REGIONAL DEVELOPMENT PROGRAM	115		115	
LAKE MEAD/LAS VEGAS WASH PROGRAM	595		595	
NEW MEXICO				
CARLSBAD PROJECT	1,870	1,852	1,870	1,852
MIDDLE RIO GRANDE PROJECT	13,975	11,112	13,975	11,112
RIO GRANDE PROJECT	1,741	6,315	1,741	6,315
RIO GRANDE PUEBLOS PROJECT	50		50	
TUCUMCARI PROJECT	15	5	15	5
NORTH DAKOTA				
DICKINSON UNIT, P-SMBP		568		568
GARRISON DIVERSION UNIT, P-SMBP	7,708	13,377	7,708	13,377
HEART BUTTE UNIT, P-SMBP	82	1,173	82	1,173
OKLAHOMA				
ARBUCKLE PROJECT	39	210	39	210
MCGEE CREEK PROJECT	20	856	20	856
MOUNTAIN PARK PROJECT	30	653	30	653
NORMAN PROJECT	76	324	76	324
WASHITA BASIN PROJECT	52	1,071	52	1,071
WC AUSTIN PROJECT	37	514	37	514
OREGON				
CROOKED RIVER PROJECT	345	459	345	459
DESCHUTES PROJECT	449	231	449	231

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
EASTERN OREGON PROJECTS	767	241	767	241
KLAMATH PROJECT	15,129	4,290	15,129	4,290
ROGUE RIVER BASIN PROJECT, TALENT DIVISION	939	492	939	492
TUALATIN PROJECT	545	324	545	324
UMATILLA PROJECT	561	2,526	561	2,526
SOUTH DAKOTA				
ANGOSTURA UNIT, P-SMBP	30	663	30	663
BELLE FOURCHE UNIT, P-SMBP	376	865	376	865
KEYHOLE UNIT, P-SMBP		572		572
LEWIS AND CLARK RURAL WATER SYSTEM	100		100	
MID-DAKOTA RURAL WATER PROJECT		20		20
MNI WICONI PROJECT		14,491		14,491
OAHE UNIT, P-SMBP		110		110
RAPID VALLEY PROJECT		77		77
RAPID VALLEY UNIT, P-SMBP		220		220
SHADEHILL UNIT, P-SMBP	119	495	119	495
TEXAS				
BALMORHEA PROJECT	16	4	16	4
CANADIAN RIVER PROJECT	42	82	42	82
LOWER RIO GRANDE WATER CONSERVATION PROGRAM	36		36	
NUECES RIVER PROJECT	52	1,012	52	1,012
SAN ANGELO PROJECT	23	613	23	613
UTAH				
HYRUM PROJECT	108	250	108	250
MOON LAKE PROJECT	19	130	19	130
NEWTON PROJECT	59	123	59	123
OGDEN RIVER PROJECT	218	248	218	248
PROVO RIVER PROJECT	1,062	2,587	1,062	2,587
SANPETE PROJECT	63	14	63	14
SCOFIELD PROJECT	296	140	296	140
STRAWBERRY VALLEY PROJECT	768	66	768	66
WEBER BASIN PROJECT	1,270	1,057	1,270	1,057
WEBER RIVER PROJECT	2,609	189	2,609	189
WASHINGTON				
COLUMBIA BASIN PROJECT	7,040	18,956	7,040	18,956
WASHINGTON AREA PROJECTS	431	49	431	49
YAKIMA PROJECT	1,570	9,371	1,570	9,371
YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT	14,410		14,410	
WYOMING				
BOYSEN UNIT, P-SMBP	79	2,270	79	2,270
BUFFALO BILL DAM, DAM MODIFICATION, P-SMBP	9	3,339	9	3,339
KENDRICK PROJECT	80	6,935	80	6,935
NORTH PLATTE PROJECT	122	5,130	122	5,130
NORTH PLATTE AREA, P-SMBP	94	2,609	94	2,609
OWL CREEK UNIT, P-SMBP	4	220	4	220
RIVERTON UNIT, P-SMBP	8	707	8	707
SHOSHONE PROJECT	34	1,216	34	1,216
SUBTOTAL, ITEMS UNDER STATES	202,566	364,489	202,566	364,489
REMAINING ITEMS ADDITIONAL FUNDING FOR ONGOING WORK:				
RURAL WATER			117,368	
FISH PASSAGE AND FISH SCREENS			11,400	
WATER CONSERVATION AND DELIVERY			258,077	
ENVIRONMENTAL RESTORATION AND COMPLIANCE			42,500	

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
FACILITIES OPERATION, MAINTENANCE, AND REHABILITATION				4,000
COLORADO RIVER COMPLIANCE ACTIVITIES	21,400			
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE I	1,500	14,739	1,500	14,739
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE II	6,000		6,000	
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 5	2,953	7,346	2,953	7,346
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 8	3,322		3,322	
COLORADO RIVER WATER QUALITY IMPROVEMENT PROJECT	740		740	
DAM SAFETY PROGRAM:				
DEPARTMENT OF THE INTERIOR DAM SAFETY PROGRAM		1,300		1,300
INITIATE SAFETY OF DAMS CORRECTIVE ACTION		86,500		86,500
SAFETY EVALUATION OF EXISTING DAMS		19,284		19,284
EMERGENCY PLANNING & DISASTER RESPONSE PROGRAM		1,250		1,250
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM	11,302		11,302	
ENVIRONMENTAL PROGRAM ADMINISTRATION	1,558		1,558	
EXAMINATION OF EXISTING STRUCTURES		9,421		9,421
GENERAL PLANNING ACTIVITIES	2,112		2,112	
INDIAN WATER RIGHTS SETTLEMENTS:				
AAMODT LITIGATION SETTLEMENT	4,000		4,000	
BLACKFEET SETTLEMENT	25,882		25,882	
CROW TRIBE RIGHTS	12,772		12,772	
NAVAJO-GALLUP	38,601	5,000	38,601	5,000
LAND RESOURCES MANAGEMENT PROGRAM	9,815		9,815	
LOWER COLORADO RIVER OPERATIONS PROGRAM	37,639		37,639	
MISCELLANEOUS FLOOD CONTROL OPERATIONS		897		897
NATIVE AMERICAN AFFAIRS PROGRAM	11,685		11,685	
NEGOTIATION & ADMINISTRATION OF WATER MARKETING	2,308		2,308	
OPERATION & PROGRAM MANAGEMENT	806	2,537	806	2,537
POWER PROGRAM SERVICES	2,113	307	2,113	307
PUBLIC ACCESS AND SAFETY PROGRAM	610	206	610	206
RECLAMATION LAW ADMINISTRATION	1,784		1,784	
RECREATION & FISH & WILDLIFE PROGRAM ADMINISTRATION	4,811		4,811	
RESEARCH AND DEVELOPMENT:				
DESALINATION AND WATER PURIFICATION PROGRAM ..	1,753	1,150	18,850	1,150
SCIENCE AND TECHNOLOGY PROGRAM	11,014		17,500	
SITE SECURITY ACTIVITIES		27,296		27,296
UNITED STATES/MEXICO BORDER ISSUES—TECHNICAL SUPPORT	80		80	
WATERSMART PROGRAM:				
WATERSMART GRANTS	7,861		55,000	
WATER CONSERVATION FIELD SERVICES PROGRAM	2,140		4,000	
COOPERATIVE WATERSHED MANAGEMENT	250		2,250	
BASIN STUDIES	2,000		5,200	
DROUGHT RESPONSE & COMPREHENSIVE DROUGHT PLANS	2,901		4,000	

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued

[In thousands of dollars]

Project title	Budget estimate		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R
TITLE XVI WATER RECLAMATION & REUSE PROGRAM	3,000	.....	63,617	.....
SUBTOTAL, REMAINING ITEMS	234,712	177,233	782,155	181,233
TOTAL, WATER AND RELATED RESOURCES	437,278	541,722	975,403	545,722
UNDERFINANCING .....	.....	.....	(9,318)	.....
GRAND TOTAL, WATER AND RELATED RESOURCES .....	.....	979,000	.....	1,521,125

Aamodt Litigation Settlement Act.—The Committee directs Reclamation to use funds on hand for this settlement to initiate construction of features necessary to prevent additional cost over-runs.

Anadromous Fish Screen Program.—The Committee is concerned that insufficient resources are being devoted to completing work on the last two remaining priority unscreened diversions on the Sacramento River, both of which have been specifically identified as priorities in the California Natural Resources Agency Sacramento Valley Salmon Resiliency Strategy. The Committee strongly urges Reclamation to allocate sufficient resources from within available funds to complete the screening of these high priority diversions.

Aquifer Recharge.—The Committee directs Reclamation 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 funding recommended, \$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 (Montana, North Dakota, South Dakota, Wyoming, Nebraska, Kansas, Colorado, Oklahoma, Texas, and New Mexico), with shared or multi-use aquifers for municipal, agricultural irrigation, industrial, recreation and domestic users.

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

CALFED Water Storage Feasibility Studies.—The Committee notes that these studies have taken more than 15 years and expects Reclamation to take such steps as are necessary to ensure that each of these studies is completed as soon as possible. The Committee directs Reclamation to expeditiously complete financial assistance agreements requested by the non-Federal sponsors of these projects to help move the projects forward more efficiently.

Columbia Basin Project.—The Committee is aware of the Odessa Groundwater Replacement Project as part of the larger Columbia Basin Irrigation Project. The Odessa Groundwater Replacement project exists to address the severely declining Odessa groundwater aquifer within the Columbia Basin Irrigation Project boundary. The 2013 Odessa Groundwater Replacement Project Environmental Impact Statement and Record of Decision developed by Washington State's Department of Ecology's Office of Columbia River and Rec-

lamation provides the legal and regulatory framework to implement the Odessa Groundwater Replacement Project. The Committee is supportive of the Odessa Groundwater Replacement Project and encourages Reclamation to move forward on implementing authorized components of the plan.

Drought Contingency Plans.—The Committee commends Reclamation, the Department of 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.

Pick-Sloan Ability-to-Pay.—The Committee is aware of the significant financial impacts to more than 20 Pick-Sloan irrigation districts if Reclamation moves forward with the proposal to change the eligibility requirements for the program related to users’ “ability to pay” [ATP] contrary to the original intent of the program. The Committee believes that to be consistent with the 1944 Flood Control Act (Public Law 78–534) and ensure the continued operation of irrigation districts that rely on Pick-Sloan power, total Pick-Sloan power costs delivered to Pick-Sloan Irrigation Districts should not exceed their longstanding ATP threshold, as included in all previous power contracts. Therefore, Reclamation is directed to continue to consider irrigation district ATP consistent with the original intent of Congress and the 1944 Flood Control Act. Reclamation shall not raise rates unless an ATP study shows there is the ability to pay.

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.

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. Additionally, the Committee is concerned by the public health, environmental, agricultural, and natural resource impacts 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.

San Joaquin River Restoration.—The Committee is concerned that Reclamation’s fiscal year 2021 budget request proposes only \$28,300,000 for the San Joaquin River Restoration Program, even though Reclamation’s 2018 Funding-Constrained Framework for Implementation identifies over \$643,000,000 in needed program work through fiscal year 2024. The Committee encourages Reclamation to continue to seek annual funding at recent levels for the program. Permanent appropriations, newly available for the Program in fiscal year 2020 should not supplant continued annual appropriations.

Scoggins Dam, Tualatin Project, Oregon.—The Committee supports the budget request for preconstruction activities at Scoggins Dam under the Safety of Dams program. While safety is the paramount consideration regarding this project, the Committee is encouraged that Reclamation has been using its authority provided by Public Law 114–113 to work with the non-Federal project sponsors to evaluate alternatives, including new or supplementary works, to address both dam safety modifications and increased storage capacity. Considering the high risk associated with Scoggins Dam, the Committee urges Reclamation to work with local stakeholders and repayment contractors to prioritize this joint project and continue to review measures to protect public safety, water security and the economic health of the region. In addition, the Committee understands Reclamation is finalizing the Joint Project Contributed Funds Act and cost-share agreements in order to account for previous and future investments by the non-Federal joint project partner, prior to the Notice of Intent. 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.

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 the WIIN Act.

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, \$3,000,000 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. The Committee directs Reclamation to continue and expand its partnerships with other Federal water management agencies, including the Corps, the Agricultural Research Service, and the Natural Resources Conservation Service on the use of new technologies related to improved direct measurements and derived projects that allow for better water resources management.

St. Mary’s Diversion Dam and Conveyance Works.—The Committee recognizes the financial difficulty of upgrading, repairing, and replacing the century-old water infrastructure of the Milk River Project. Given the recent drop structure failure and the potential impacts to Reclamation’s ability to deliver water, the Committee directs Reclamation to continue working with local stakeholders to find innovative ways to maintain and repair this infrastructure without undue impact to water users.

Water and Energy Efficiency Grants.—Water and Energy Efficiency Grants are an important tool for building drought resiliency in the West. However, the Committee is concerned that many of the Water and Energy Efficiency Grants fund projects that may increase water scarcity at the basin scale by allowing conservation grant recipients to use conserved water for consumptive use.

The Committee directs Reclamation to ensure that all projects funded under 42 U.S.C. 10364 comply with 42 U.S.C. 10364(a)(3)(B) and to articulate the use of the conserved water with its annual award announcement. The Committee directs Reclamation to report to the Committees on Appropriations of both Houses of Congress by September 1, 2021, on how much water each activity awarded a grant in fiscal year 2020 and 2021 anticipated the activity would conserve annually and how the grantee was, or would be, using the conserved water, or was or would be ensuring that the conserved water did not go to increase consumptive use.

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: 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 an additional \$542,125,000 above 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,” \$30,000,000 shall be for water conservation and banking or infrastructure projects in areas that are experiencing extended drought conditions; and

may include activities related to the implementation of the agreements authorized by the Colorado River Drought Contingency Plan Authorization Act of 2019 (Public Law No: 116–14). These water conservation activities shall 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. Reclamation is directed to brief the Committees on Appropriations of both houses of Congress no later than 180 days after enactment of this Act on the status of carrying out these activities.

- Of the additional funding recommended under the heading “Water Conservation and Delivery,” not less than \$20,000,000, 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; and
- Of the additional funding recommended under the heading “Environmental Restoration or Compliance”, not less than \$40,000,000 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, 2020	\$54,849,000
Budget estimate, 2021	55,875,000
Committee recommendation	55,875,000

The Committee recommends \$55,875,000 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, 2020	\$33,000,000
Budget estimate, 2021	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, 2020	\$60,000,000
Budget estimate, 2021	60,000,000
Committee recommendation	60,000,000

The Committee recommends \$60,000,000 for Policy and Administration, the same as the budget request.

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

Reclamation Project Reimbursability Decisions.—In September 2017, the Department of the Interior’s Office of Inspector General released a report calling into question Reclamation’s method of financial participation in the State of California’s Bay-Delta Conservation Plan. The Committee is concerned that Reclamation was not satisfactorily transparent in its use of funds for activities that were not included in the budget request. Reclamation is directed to submit an annual report 60 days after the end of each fiscal year detailing the use of financial assistance agreements to redirect appropriated funds from their intended purpose outlined in the previous year’s budget request. Reclamation is directed to review and report to the Committee within 90 days after enactment of this act, on the advisability of developing additional financial controls and requiring more extensive written justifications for determinations of what costs are reimbursable for complex projects involving major Federal expenditures and multiple funding sources.

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 recommends \$42,039,126,000 for the Department of Energy, an increase of \$6,310,057,000 above the budget request.

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

REPROGRAMMING GUIDELINES

The Committee's recommendation includes control points to ensure 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 explanatory statement.

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.

DIRECTION ON RESEARCH AND DEVELOPMENT ACTIVITIES

The Department's budget request proposes to focus on early-stage research and development activities at the expense of later-stage research and development, field validation, deployment, demonstration, consumer education and technical assistance. The Committee believes that such a limited approach will not successfully integrate the results of early-stage research and development into the U.S. energy system, and thus will not adequately deliver innovative advanced energy technologies, practices, and information to American consumers and companies. The Committee directs the Department to support a comprehensive strategy that includes early-, mid-, and later-stage research, development and market transformation activities in each applied energy research and development program office. The Department is further directed to fully execute the funds appropriated in a timely manner and to keep the Committee apprised of progress on implementing funding programs, projects, and activities.

CROSSCUTTING INITIATIVES

Grid Modernization.—The Department is directed to continue the ongoing work between the national laboratories, industry, and universities to improve grid reliability and resiliency through the stra-

tegic goals of the Grid Modernization Initiative [GMI]. The Committee recognizes the accomplishment of more than 200 partners from industry, academia and state governments in these efforts. The Department shall brief the Committee on the funding profiles, portfolio of funding opportunities and programmatic investments for the Initiative. The Committee supports the Grid Modernization Laboratory Consortium and continued implementation of the Grid Multi-Year Program Plan [MYPP] to ensure coordination across all applied program offices, including the addition of Cybersecurity, Energy Security, and Emergency Response and the Offices of Nuclear Energy and Fossil Energy recently added to the MYPP. The Committee directs the Department to emphasize national energy systems resilience 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 encourages 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.

The Committee is concerned about the increasing frequency of large-scale weather events, such as severe thunderstorms, hurricanes, ice storms, and blizzards that have the capability to cause power outages and disable power grids at the state and regional level. While the ability to forecast and model extreme weather events has drastically improved in recent decades, most power grid operators lack similarly sophisticated tools to combine specific weather forecasts and data on state and regional grid infrastructure to better predict where specifically outages will be most severe, based on the specific type of weather. The GMI has excelled in recent years in working with public and private partners to develop the concepts, tools, and technologies needed to measure, analyze, predict, protect, and control the grid of the future. The Committee strongly encourages the GMI to include efforts to develop regional predictive models of weather-caused power outages in its next Grid Modernization Lab Call to address this pressing need.

Energy Storage.—The Committee supports the Department's proposed Advanced Energy Storage Initiative and urges the Department to continue furthering coordination between the Office of Electricity, the Office of Science, the Office of Energy Efficiency and Renewable Energy, and other Department offices to achieve commercially viable grid-scale storage with the most efficient use of taxpayer dollars.

The Department shall continue to use all of its capabilities to accelerate the development of storage technologies, including the basic research capabilities of the Office of Science, the technology expertise of the Office of Energy Efficiency and Renewable Energy, the grid-level knowledge of the Office of Electricity, and the rapid technology development capabilities of ARPA-E. The Committee directs the Department to coordinate efforts among various existing

Department programs to maximize efficiency of funds and expand vital research.

The Committee supports the Department's ongoing efforts to formulate 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. Within 180 days of enactment of this act, the Department is directed to provide to the Committee and make publically available a crosscutting 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 encourages the Department and the national laboratories to have a stronger collaboration with National Aeronautics Space Administration to develop an energy storage road-map that address challenges for mobility such as electric air flight. Additionally, the Committee encourages efforts to overcome technological barriers in demonstrating the capability of electrified aircraft, such as higher energy density batteries, development of new, lower-cost materials, and the establishments of testing methods and protocols.

Long Duration Energy Storage.—To spur advances in battery storage efficacy, the Committee directs the Department to develop a research and technology development effort to investigate Long-Duration Energy Storage—in all its forms (chemical, electrochemical, thermal and mechanical)—as a critical enabler of high volumes of renewables on the grid and as the key to the future of energy innovation in buildings, transportation and the electric grid.

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

Researching effects of Per- and polyfluoroalkyl substances [PFAS].—The Committee recognizes the potential long-term impacts of PFAS contamination in humans and that supercomputers are critical in this field of research. Therefore, the Committee di-

rects the Department, in coordination with the Environmental Protection Agency and the National Institute of Environmental Health Sciences Superfund Research Program, to prioritize the use of supercomputers to study the computational toxicology of PFAS.

DISLOCATED COAL MINERS ASSISTANCE

The Committee is aware of the challenges faced by dislocated coal miners due to the ongoing shifts in the energy sector. Therefore, the Committee directs the Secretary to coordinate with the Secretary of Labor to ensure dislocated coal miners receive re-employment services they are currently eligible for under the Workforce Innovation and Opportunity Act Programs.

ETHANE LONG TERM TRENDS

Not later than 1 year after the date of enactment of this act, the Secretary of Energy, in consultation with the heads of other relevant Federal departments or agencies and stakeholders, as appropriate, is encouraged to conduct a study assessing the long-term trends related to the domestic production and consumption of ethane, the export of ethane, and the opportunities for and economic benefit of investments for further domestic use. The study should include an examination of the following questions: (i) what is the potential value (direct investment, direct and indirect job creation, tax generation, etc.) of domestic manufacturing growth based on available domestic ethane supply; (ii) given demonstrated historical investment in ethane-based domestic manufacturing, and assuming it will continue given sufficient projected ethane supply, what is the opportunity cost of exporting available ethane supply in support of foreign manufacturing; (iii) what is the impact of progressive import tariffs (such as those imposed by China where value-added goods are tariffed at higher rates than the raw materials used to make them are tariffed) on ethane, ethylene and polyethylene; (iv) could these strategies by other countries, result in capital flight from the U.S. to other countries where U.S. raw materials will be upgraded to higher value-added goods and sold back to America; and (v) have other countries enacted policies around use versus exporting purity ethane.

CONTRACT COMPETITION

The Committee notes the Department and National Nuclear Security Administration [NNSA] consistently award large contracts, such as their Management and Operating contracts and contracts for cleanup and construction, to a relatively small number of companies. Although this is not prohibited, the Committee is concerned about whether the Department and NNSA are maximizing competition with these awards. Therefore, the Committee directs the Comptroller General to assess aspects of the Department and NNSA's acquisition processes. The Committee is particularly interested in the following issues:

—*Competition in recent awards.*— The Committee notes there is a perception that contracts are awarded to a small number of companies, the Committee is interested in information on how many companies in recent years have bid on and received

awards for large DOE and NNSA contracts, and the extent to which the companies are bidding on multiple solicitations.

—*Barriers to entry.*— There are a number of challenges to obtaining awards for large DOE and NNSA contracts. The Committee is interested in understanding whether there are systemic impediments that affect whether companies will do business with DOE and NNSA, whether DOE and NNSA are aware of these impediments, and if so, what the agencies have done to address them.

—*Selection criteria.*— The Committee is interested in understanding the selection criteria DOE and NNSA have used for their large contracts, how the agencies determine the selection criteria to use for a solicitation, and how the agencies determine the relative priority of those criteria.

—*Past performance information.*— The Federal Acquisition Regulations [FAR] requires contracting officers to consider past performance when awarding a contract. One source of information on contractors’ past performance is the Contractor Performance Assessment Reporting System [CPARS]. The Committee is interested in understanding how DOE and NNSA use information on past performance in making awards, particularly when many large DOE and NNSA contracts are awarded to several companies that come together to form a single purpose limited liability company, and how reliable the information in CPARS is for making determinations about companies’ past performance.

The Committee recognizes that these are interrelated and complex issues. The Comptroller General shall provide a briefing to the Committee on GAO’s plan for addressing these issues within 180 days of enactment of the act.

COMMONLY RECYCLED PAPER

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

FREEDOM OF INFORMATION ACT REVIEW REQUESTS

The Department is directed to provide sufficient funding to increase the number of classifiers to review document requests submitted to the Department through the Freedom of Information Act.

ENERGY PROGRAMS

ENERGY EFFICIENCY AND RENEWABLE ENERGY

(INCLUDING RESCISSION OF FUNDS)

Appropriations, 2020	\$2,790,000,000
Budget estimate, 2021	719,563,000
Committee recommendation	2,848,000,000

The Committee recommends a net appropriation of \$2,848,000,000 for Energy Efficiency and Renewable Energy [EERE], an increase of \$2,128,437,000 above the budget request. Within available funds, the Committee recommends \$161,000,000 for program direction. The recommendation also includes the use of \$6,300,000 of prior year balances from fiscal year 2014 and prior.

Congressional Direction.—The Committee directs the Department to give priority to stewarding the assets and optimizing the operations of EERE-designated user facilities across the Department's complex and commends the Department for their commitment to the transformation of the National Wind Technology Center to support a large-scale grid integration research platform linked to national laboratories, universities and industry. In future budget requests, the Committee directs the Department to demonstrate a commitment to operations and maintenance of facilities that support the Department's critical missions.

Workforce Development.—The development of a skilled workforce is critical to the successful deployment and long-term sustainability of energy efficient and renewable energy technologies. The Committee encourages funding within EERE programs to be allocated to training and workforce development programs that assist and support workers in trades and activities required for the continued growth of the U.S. energy efficiency and clean energy sectors, with an emphasis on training programs focused on building retrofit and construction industries. Furthermore, the Committee encourages the Department to work with two-year, public community, and technical colleges for job training programs that lead to an industry-recognized credential in the energy workforce.

Cybersecurity.—The Committee believes cybersecurity vulnerabilities must be addressed as renewable energy technologies enter the marketplace. The Committee also believes there is a gap with respect to distributed generators and behind-the-substation generators, storage, smart buildings technologies and electric vehicles where the potential for cyberattacks will continue to grow and threaten the modern grid. Within funds recommended for EERE, not less than \$20,000,000 is recommended to bring cybersecurity into early-stage technology research and development so that it is built into new technology.

Energy Star.—The Committee supports the Department's ongoing role in Energy Star including through Home Performance with Energy Star, as well as establishing and verifying energy conservation standards and test procedures for building appliances and equipment. The Committee directs the Department to continue these activities in their current form and recommends continued robust funding. Further, the Committee previously directed the Department in the Energy and Water Development and Related Agencies Appropriations Act, 2018 (Public Law 115–141), to provide to the Committees on Appropriations of both Houses of Congress not later than 90 days after enactment, a report to review the 2009 Memorandum of Understanding related to the Energy Star Program on whether the expected efficiencies for home appliance products have been achieved. The Committee has yet to receive the report and the Department has not provided a sufficient update as to why the report is delayed. Within 30 days of enactment of this

act, the Committee directs the Department to provide a briefing to the Committee on the status of the report, and subsequently provide the report.

Plastics Innovation Challenge.—The Committee supports joint research between the Bioenergy Technologies Office and the Advanced Manufacturing Office to bring unique capabilities from the national laboratories to focus on designing new bio-derived plastics that are recyclable by design and develop new recycling technology strategies. The Committee believes that in order to address the full lifecycle and end-of-life considerations of plastics and energy-related technologies, research is necessary to focus on developing a hybrid, multidisciplinary chemical, material, and biological technology approach in process integration—from bench scale innovations to producing quantities suitable for pilot scale processing and demonstration.

Any funds obligated or expended in fiscal year 2021 by the Department for activities involving plastics recycling or management of plastic waste shall explicitly incorporate the nation's solid waste management hierarchy into such activities and place as a high priority therein the reduction of the use of virgin plastic materials. The Committee takes note that the Department has expressed an interest in innovation related to plastics use, but expects the Department to consult with the Environmental Protection Agency on the most effective means to reduce virgin plastic consumption and to report to the Committee 180 days on how its activities will help reduce virgin plastic consumption.

Reduced Emissions Study.—The Committee directs the Department to conduct a study, in consultation with outside stakeholders, evaluating potential pathways to reducing emission from the home and small commercial heating and cooling sector through the use of advanced biofuels and biofuels blends, geothermal district heating and cooling system, electric heat pumps and low-emission refrigerants. The Department shall submit the study to the Committee Congress not later than 1 year after enactment of this act.

North American Energy Research.—Improved energy research collaboration between the United States and its bordering neighbors achieves several critical strategic objectives. The three nations are each other's largest trading partners and share an abundance of energy resources. Increasing cooperation on energy research in North America creates opportunities for increased commercial collaboration and workforce development, and creates a hedge against expansive and aggressive development by nations who are seeking to overtake the United States with respect to next generation energy technologies and resources. 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.

VEHICLE TECHNOLOGIES

The Committee recommends \$410,000,000 for Vehicle Technologies. The Committee recommends not less than \$7,000,000 for operations and maintenance of the National Transportation Re-

search Center, including not less than \$2,000,000 for early-stage industry technical collaborations.

Within this amount, the Committee recommends not less than \$179,700,000 for Battery and Electrification Technologies to lower the cost of batteries across light-, medium- and heavy-duty vehicles through battery processing science, advanced battery chemistries, materials research, and modeling and simulation of battery performance. The Committee recommends not less than \$40,000,000 for electric drive research and development, of which not less than \$7,000,000 is to enable extreme fast charging and advanced battery analytics. 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.

The Committee recognizes the need for clarity regarding the availability, affordability, and reliability of direct current fast chargers for electric vehicles [EVs]. The Committee directs 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 [NIST] Handbook 44, Section 3.40. The Department is directed to provide this report to the Committee within 180 days of enactment of this act.

The Committee encourages the Department to continue the Programs for Energy Efficient Mobility Systems, Batteries, Charging, & Electric Vehicles, and Technology Integration. These investments, which include initiatives in SMART Mobility and Big Data Solutions for Mobility, are critical to expanding U.S. energy security, economic vitality, and quality of life. Therefore, the Committee supports continued funding for research that allows the U.S. to continue its leadership in advancing state-of-the-art transportation systems science and technology. The Committee also supports early stage research to lower the cost of batteries for electric vehicles through battery processing science, materials research, and modeling and simulation of battery performance, including research on extreme fast charging.

The Committee also continues to encourage early-stage research to lower the cost of batteries for electric vehicles through battery processing science, materials research, and modeling and simulation of battery performance, including research on extreme fast charging.

The Committee recommends \$75,000,000 for Advanced Engine and Fuel Technologies for research focused on advanced fuel formulations that optimize engine performance. Within available funds, not less than \$12,500,000 is recommended for the Co-Optimization of Engine and Fuels Multi-Laboratory Consortium.

The Committee recommends \$45,000,000 for Materials Technology. Within available funds, \$35,000,000 is recommended for early-stage research on metals and research on carbon fiber-reinforced composites at the Carbon Fiber Technology Facility.

The Committee recommends \$20,000,000 to launch the SuperTruck III program to further improve the energy and freight efficiency of heavy and medium duty long- and regional- haul vehicles.

Within available funds, the Committee recommends \$66,300,000 for Outreach, Deployment, and Analysis. Within this amount, \$40,000,000 is recommended for deployment through the Clean Cities Program. The Department is encouraged to ensure balance in the award of funds to achieve varied aims in fostering broader adoption of clean vehicles and installation of supporting infrastructure. The Committee encourages the Department to explore ways in which the Clean Cities Program can leverage funding to provide greater support for electrification efforts, recognizing the strong emissions reduction and public health benefits delivered by electrification. The Committee further encourages the Department to prioritize projects in States where the transportation sector is responsible for a higher percentage of the State's total energy consumption and is the largest source of greenhouse gases. When issuing competitive grants, the Department is encouraged to include at least one Clean Cities coalition partner. Within Outreach, Deployment and Analysis, but outside of the Clean Cities Program, the Committee recommends \$20,000,000 for up to five competitive grant awards to develop Electric Vehicle Community Partner Projects that support implementation of community plans to deploy more electric vehicles and charging infrastructure.

Further, the Committee directs the Department to submit a plan to the Committee within 180 days after enactment of this act for establishing and implementing a Clean School Bus Grant Program. The purpose of the program would be to replace diesel school buses with electric school buses, deploy re-charging infrastructure, support workforce development and training, and provide planning and technical assistance to grant recipients. The plan shall prioritize award of funds to school districts serving disadvantaged communities and those that are located in air quality non-attainment areas. The plan shall include options for contracting, schedule, and funding that extend resources to the greatest number of school districts and students.

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

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/industry teams are eligible to apply.

With an abundant source of low-cost domestic natural gas, the Committee recognizes that this resource as a transportation fuel is becoming an alternative fuel of choice for high fuel use fleets and off-road vehicles, and provides a substantial reduction in nitrogen oxide emissions. Further research is needed on natural gas storage, engines, and fueling infrastructure optimization. Within available funds, the Committee recommends \$15,000,000 to address technical barriers to the increased use of natural gas vehicles, including medium- and heavy-duty on-road natural gas engine research and

development, energy efficiency improvements, emission after-treatment technologies, fuel system enhancements, new engine development, natural gas storage, natural gas engines, and fueling infrastructure optimization. The Committee previously directed the Department to undertake a comprehensive study, with stakeholder input, on natural gas vehicle deployment in on- and off-road transportation, identifying barriers to increased deployment of natural gas vehicles as part of the Energy and Water Development and Related Agencies Appropriations Act, 2019 (Public Law 115–244). The Committee directs the Department to provide an update to the Committees on the status of the study, and subsequently provide this study.

Within available funds, the Committee recommends \$5,000,000 to support research and development in advanced combustion and vehicle engine technology efficiency in propane engines used for light- and medium-duty applications, including research on direct injection, engine technology and the use of dimethyl ether for fuel applications.

The Committee recognizes novel engine designs can achieve significant efficiency improvements. Within available funds, the Committee recommends \$5,000,000 to support research and development on two-stroke opposed piston engines to be conducted by industry led teams.

The Committee believes that battery end-of-life management for electric vehicles, including recycling, is important in order to reduce imports of raw materials, including lithium and cobalt. Therefore, the Committee directs the Department to conduct a study on how to increase the reuse, recycling, and manufacturing of electric vehicle batteries in the United States. The Department shall submit the study to the Committee not later than 180 days after enactment of this act.

BIOENERGY TECHNOLOGIES

The Committee recommends \$244,500,000 for Bioenergy Technologies. The Committee directs the Department to recognize all commercially available feedstock in their research projects. 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 should take into account relevant global supply chains and should be coordinated with other Federal agencies, the aviation industry, national laboratories, and universities.

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 the Office of Fossil Energy in this area.

The Committee further recommends \$35,000,000 for Feedstock Supply and Logistics, \$50,000,000 for Demonstration and Market Transformation, \$9,500,000 for Analysis and Sustainability. Within funding available for Demonstration and Market Transformation,

not less than \$37,500,000 is recommended to support the multi-year strategy for pre-pilot, pilot, and demonstration projects and not less than \$12,500,000 is recommended for the Co-Optimization of Engine and Fuels Multi-Laboratory Consortium.

The Committee further recommends \$110,000,000 for Conversion Technologies, including \$20,000,000 to continue activities of the Agile Biology Foundry. Within available funds, the Committee directs the Department to continue efforts to make full and innovative use of biomass, municipally-derived biosolids, and other carbon already available and impacting the environment, such as municipal solid waste, plastics, and livestock waste.

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 recommends \$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.

Within available funds, the Committee supports research to develop the foundation for scalable techniques to use CO₂ produced in various plants, such as in biorefineries, to produce higher value fuels, chemicals or materials.

Renewable Natural Gas [RNG] is a low- to negative-carbon fuel which can be sourced from a variety of renewable pathways (e.g. biomass, digesters, landfills), but deployment has been limited due to cost, the availability of technologies that can be scaled up to meaningful production volumes and concerns regarding compatibility of existing transportation and distribution infrastructure. The Committee recommends up to \$10,000,000 to perform research and development to advance the deployment of conversion processes to advance the supply of RNG as a clean fuel option, to include the assessment of associated transportation and distribution infrastructure to enable RNG use across existing and planned natural gas transportation and infrastructure networks with particular emphasis on the infrastructure compatibility of the increased hydrogen content of biomass-derived RNG.

HYDROGEN AND FUEL CELL TECHNOLOGIES

The Committee recommends \$150,000,000 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 \$45,000,000 for technologies to advance hydrogen use for heavy-duty transportation and industrial applications.

Within available funds, the Committee recommends \$45,000,000 for Hydrogen Fuel Research and Development 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 recommends \$3,000,000 for Systems Analysis, including research on in-situ metrology for process control systems for manufacturing of key hydrogen system components.

Within available funds, \$25,000,000 is recommended for Hydrogen Infrastructure Research and Development with emphasis on large-scale hydrogen production, including liquefaction plants, hydrogen storage, and development of hydrogen, including pipelines. Further, the Department is directed to continue the H2@Scale Initiative, which couples current research efforts within the program with new opportunities for using hydrogen to provide grid resiliency and advance a wide range of industrial processes for the production of fuels, chemicals, and materials.

The Committee recommends \$35,000,000 for Technology Acceleration activities, including \$3,000,000 for manufacturing research and development, and \$7,000,000 for industry-led efforts to demonstrate a hydrogen-focused integrated renewable energy production, storage, transportation fuel distribution/retailing system, and fuel cell system deployment. Funding is recommended to support workforce development and training programs.

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.

SOLAR ENERGY

The Committee recommends \$233,800,000 for Solar Energy.

Within available funds, the Committee recommends \$40,300,000 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 \$35,000,000 for Balance of System Soft Costs efforts focused on reducing the time and costs for per-

mitting, inspecting, and interconnecting distributed solar and storage projects installed behind the customer's meter through standardized requirements and online application systems.

The Committee recommends not less than \$1,000,000 for the Solar Ready Vets program as a way to train America's veterans to fill the growing need for solar industry workers.

The Department is directed to continue the National Community Solar Partnership Program to increase access for community solar, particularly to individuals that do not have regular access to onsite solar, including low- and moderate-income individuals, businesses, nonprofit organizations, and States and local and Tribal Governments. The Department is directed to align the program with other existing Federal programs that serve low-income communities. The Department is further directed to provide technical assistance to States and local and Tribal Governments for projects to increase community solar, including assisting States and local and Tribal Governments in the development of new and innovative financial and business models that leverage competition in the marketplace in order to serve community solar, and use national laboratories to collect and disseminate data that assists private entities in the financing of, subscription to, and operation of community solar projects.

Further, the Committee recommends \$46,500,000 for Systems Integration and encourages the Department to address the technical barriers to increased solar penetration on the grid, including grid reliability, dispatchability, power electronics, and communications, including solar power capabilities to provide ancillary grid services.

The Committee recommends \$40,000,000 for Innovations in Manufacturing Competitiveness. Within available funds, the Committee recommends not less than \$20,000,000 for research and development focused on perovskites, including inherently scalable production methods, such as solution processing, roll-to-roll manufacturing, the science of inherent material stability, and ultra-high efficiency through tandem manufacturing.

The Department is further encouraged to develop modeling and planning tools for distributed energy resources and continue its focus within SunShot on the resilience and reliability of solar systems, as well as continue and expand programs to reduce both market barriers and soft costs, including through research on market and regulatory analysis and new techno-economic tools and methodologies for distributed energy resources.

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.

The Committee directs the Solar Energy Technologies Office, in coordination with the Office of Strategic Programs, the Wind Energy Technologies Office and the Office of Electricity, to submit a report to the Committee not later than 240 days of enactment of

this act, exploring the impact of alternative rate design options in scenarios with high penetrations of variable renewable energy.

Floating Solar Technologies.—Within available funds, the Committee recommends \$1,500,000 for competitively selected projects focused on floating solar powered aeration systems.

Rural Deployment Opportunities.—The Committee supports the continuing research and development of solar power technologies and, in particular, inquiry into the potential for expanded solar power generation across the rural landscape. Programs such as the Community Solar Power Choice Program may offer pathways to achieve both greater energy independence and support for rural communities. To promote that effort, further research is required to determine best methods to improve generation and access to markets through transmission and distribution within an economic framework to incentivize landowner participation. In addition, the Department is encouraged to consult with the Department of Agriculture to examine opportunities, across multiple mission areas, for collaboration toward this shared objective.

WIND ENERGY

The Committee recommends \$115,000,000 for Wind Energy. Within available funding, the Committee recommends \$31,800,000 for Land-Based Wind; \$68,200,000 for Off-Shore Wind; \$10,000,000 for Distributed Wind; and \$5,000,000 for Grid Integration and Analysis.

The Committee directs the Department to support the advancement of innovative technologies for offshore wind development, including freshwater, deep water, shallow water, and transitional depth installations. Within available funds, 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 accessing high-quality wind resources, on development that will enable these technologies to compete in the marketplace without the need for subsidies, and on activities that will accelerate fundamental offshore-specific research and development such as those that target technology and deployment challenges unique to U.S. waters.

In addition, the Department is directed to support the innovative offshore wind demonstration projects being carried out by the Department, for which funding has been allocated in fiscal years prior to fiscal year 2019, and further supports efforts 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 the offshore wind demonstration projects to help ensure success.

Within available funds, \$15,000,000 is recommended to continue work on next generation, high-efficiency lightweight turbine generators.

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 distrib-

uted wind. Within available funds, the Committee recommends \$10,000,000 for distributed wind.

The Committee supports research using high-performance computing, modeling and simulation, including improved models to understand atmospheric and wind power plant flow physics, and reliability and grid integration efforts. Further, the Department is directed to give priority to stewarding the assets and optimizing the operations of the Department-owned wind energy research and development facilities. Within available funds, the Committee recommends not less than \$30,000,000 for operations of research facilities at the National Wind Technology Center and not less than \$5,000,000 for research and operations of the Integrated Energy Systems at Scale [IESS], a large-scale research platform to support next-generation wind energy science, hybrid renewable energy systems manufacturing and systems integration of multiple energy generation, consumption, and storage technologies.

WATER POWER

The Committee recommends \$148,000,000 for Water Power. The Secretary is strongly encouraged to utilize existing authorities to waive cost share for small businesses and to maximize competitively awarded solicitations for industry-led research and development initiatives and project deployment.

Hydropower Technologies.—Within available funds, the Committee recommends \$39,000,000 for conventional hydropower and pumped storage activities, including \$7,000,000 for the purposes of section 242 of the Energy Policy Act of 2005 (Public Law 109–58). Within available funds, the Department is directed to continue research, development, and deployment efforts on pumped hydropower storage technologies and use cases. The Department is encouraged to continue science and modeling efforts to advance hydroelectric turbine design to increase energy production while reducing environmental impacts, including field data collection and improvements to fish tagging technology. The Committee recommends \$15,000,000 for hydropower and pumped storage modernization initiatives, including technologies, models and analytical capabilities to support integration of intermittent generation, increase grid resilience and reliability, and improve access to electricity in remote communities or those with inadequate service. Within available funds, not less than \$3,000,000 is recommended to identify opportunities for improvements in hydropower infrastructure, operations, and methods of deployment to provide benefits to other managed water systems, such as irrigation and municipal water supply. Further, within available funds, \$1,500,000 is recommended to accelerate development and demonstration of environmental mitigation technologies to address dissolved oxygen, water quality and fish passage, including for invasive species management. Furthermore, the Committee encourages close coordination between the Department and the U.S. Army Corps of Engineers, Bureau of Reclamation and other relevant agencies and industry to reduce the amount of time to permit and deploy new fish passage and invasive fish species removal technologies in rivers and waterways.

The Committee also recommends funding for new data collection and analysis to improve operations and maintenance by better understanding the impacts of changing operations on equipment failure rates, reduced availability and costs, including long-term and short-term inflow modeling work. The Committee recommends \$5,000,000 for small hydropower technology innovation and testing initiatives, including standardization, advanced materials/manufacturing and designs that reduce environmental impacts. Further, \$5,000,000 is recommended for pumped storage efforts including engineering design and physical validation for standardization of infrastructure components and civil works construction, including research in materials and manufacturing.

Marine and Hydrokinetic Technology Research, Development, and Deployment.—The Committee recommends \$109,000,000 for marine and hydrokinetic [MHK] research, development, and deployment activities, including \$60,000,000 million for a balanced portfolio of competitive solicitations to support industry-led and university research, development, demonstrations and commercialization of wave and current (ocean, river, tidal) systems and component technologies to increase energy capture, reliability, survivability, and integration into local or regional grids for lower costs and to assess and monitor environmental effects.

Within available funds, the Committee recommends not less than \$24,000,000 to support research and development, testing, and partnership activities for this new Powering the Blue Economy initiative. The Committee directs the Department to utilize existing core capabilities within its national laboratories to execute this work, in partnership with universities and industry. Further, the Department is encouraged to also focus on activities that address the integration of clean energy systems for remote communities and port electrification, including demonstration of marine energy, distributed wind, solar, energy storage, improved microgrids, and local production of zero-carbon fuels. Within available funds, \$5,000,000 is recommended 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 Federal Energy Regulatory Commission license.

The Committee recommends \$10,000,000 to continue the activities of the Testing Expertise and Access for Marine Energy Research [TEAMER] program and related infrastructure investments. Further, \$10,000,000 is recommended to prioritize infrastructure needs at marine and hydrokinetic technology testing sites operated by Marine Renewable Energy Centers.

The Committee recommends up to \$5,000,000 to continue operations at the recently awarded Atlantic Marine Energy Center to accelerate the transition of wave and tidal energy technologies to market.

The Department is directed to continue its coordination with the U.S. Navy on marine energy technology development for national security applications at the Wave Energy Test Site and other locations.

The Committee recognizes the challenges of decarbonizing remote communities and the maritime sector. The Department is encouraged to focus on activities that address 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.

GEOTHERMAL TECHNOLOGIES

The Committee recommends \$105,000,000 for Geothermal Technologies to focus on early- through late-stage research and development and market transformation activities to advance geothermal strategies and implementation of the recommendations outlined in the GeoVision study. The Committee also recommends focusing on developing and validating innovative and cost-competitive technologies and tools to support commercial development of enhanced geothermal systems, such as testing stimulation methods in new wells of opportunity and developing at least one additional Frontier Observatory for Research in Geothermal Energy [FORGE] site; supporting research and technology development to locate, access, and develop hidden geothermal resources; and investing in research and technology development efforts to use the subsurface for reservoir thermal energy storage as part the Department's Advanced Energy Systems initiative.

Within available funds, \$64,000,000 is recommended for Enhanced Geothermal Systems. To facilitate necessary technology development and expand understanding of subsurface dynamics, the Committee recommends \$20,000,000 for the continuation of activities of FORGE, with activities to include ongoing novel subsurface characterization, full-scale well drilling, and technology research and development to accelerate the commercial pathway to largescale enhanced geothermal systems power generation. The Committee further recommends not less than \$10,000,000 for the Wells of Opportunity program.

Further, the Committee recommends \$20,000,000 for Hydrothermal, \$15,000,000 for Low-Temperature and Co-produced Resources, and \$6,000,000 for Systems Analysis.

The Committee directs the Department to continue its efforts to identify prospective geothermal resources in areas with no obvious surface expressions. Within available funds, \$10,000,000 is recommended to fund at least one demonstration project in such an area with no obvious surface expressions, to develop deep, direct-use geothermal technologies to distribute ground-source heating through an integrated energy system or district heating system

RENEWABLE ENERGY GRID INTEGRATION

To facilitate the oversight of grid integration activities among renewable energy technologies, the Committee establishes a new funding line and 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 "energysched" 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 very substantial existing deployment of 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.

ADVANCED MANUFACTURING

The Committee recommends \$395,000,000 for Advanced Manufacturing.

The Committee recommends \$25,000,000 for operation of the Manufacturing Demonstration Facility and the Carbon Fiber Technology Facility. Within available funds for the Manufacturing Demonstration Facility, \$5,000,000 is recommended for the development of processes for hybrid materials solutions with prescribed microstructural and mechanical properties to enable precise property profiles for born qualified and certified components.

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

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 for wind turbine manufacturing.

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 \$5,000,000 to continue to develop and industrialize a low-cost polymer infiltration process for the fabrication of silicon carbide components. The Committee encourages the Department to leverage best practices from large-scale, high-rate commercial composite aero-structure manufacturing.

To remain globally competitive, the Committee recognizes the U.S. aerospace industry must continually increase efficiencies to meet increasing production rate demands and the Committee recognizes the Department’s success in partnering with industry to solve its most challenging problems, including the development and deployment of artificial intelligence and machine learning. Within available funds, the Committee recommends not less than \$5,000,000 to apply the Office of Science’s leadership computing facility expertise in machine learning to increase efficiencies in large-scale, high-rate aerostructures manufacturing.

Within available funds, the Committee recommends not less than \$10,000,000 to support research, development, and demonstration projects to advance the development and commercialization of direct air capture technologies. The program is directed to continue collaboration with the Office of Science and the Office of Fossil Energy in this area.

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 \$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 Manufacturing Demonstration Facility.

The Committee recognizes water and energy are critical resources that are inextricably linked, and that understanding the interdependencies and vulnerabilities is increasingly critical for the Department's mission. The Committee recommends \$25,000,000 for the fifth year of research and development efforts to lower the cost and energy intensity of technologies to provide clean, safe water through the Energy-Water Desalination Hub.

The Committee recommends \$42,000,000 to support the Clean Energy Manufacturing Institute [CEMI] program. Within available funds, the Committee recommends \$14,000,000 for the final year of funding for the recently awarded Cybersecurity in Energy Efficient Manufacturing Institute. Furthermore, within available funds, \$28,000,000 is provided to create two new institutes. The Committee supports the work of the CEMIs as integral to the growth and security of the Nation's manufacturing base. Further, the Committee strongly supports the REMADE Institute, specifically its five distinct research areas. However, the Committee objects to the Department's attempts to change originally agreed-upon and awarded areas of CEMI focus. The Department shall not require a CEMI, like REMADE, to spend appropriated funds within a specific timeframe that does not best support ongoing research and development. To that end, of amounts previously appropriated, \$35,000,000 shall be spent on projects awarded in the fourth round of solicitations, of which not more than \$15,000,000 shall be committed to the Plastics Innovation Challenge, and \$10,000,000 for a fifth solicitation. The Department is directed to provide a briefing to the Committee on its efforts to support ongoing projects at CEMIs within 60 days of enactment of this act.

The Committee recommends \$25,000,000 to continue the Critical Materials Institute. The Committee supports funding necessary to improve and increase activities at all levels of the critical materials supply chain, including technologies for mining and metallurgy.

The Committee directs the Department to produce a report on the opportunities for technological development in the production of advanced Si-C anode materials for Li-ion batteries and how the Department would promote integration of a domestic supply chain. The Department is directed to report to the Committee within 90 days of enactment of this act.

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 \$5,000,000 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 reminds the Department that biomass is a viable energy source for district energy and directs the Department to take that into consideration in its funding opportunity announcements. Therefore, within available funds, the Committee recommends \$10,000,000 for district heating, within which the Department shall make grants to support capital construction costs of demonstration projects that deploy community district heating projects in association with a biomass-fueled municipal generating station.

The Committee recommends \$45,000,000 for the Industrial Technical Assistance program. Within this amount, 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; \$12,000,000 for 32 Industrial Assessment Centers [IACs]; and \$3,000,000 for wastewater treatment technical assistance. The Committee encourages the Department to expand on the technical assistance provided by the IACs to address these needs, including by equipping the Directors of the IACs with the training and tools necessary to provide technical assistance on energy savings to these facilities. Within the funds provided for the IACs, the Department is encouraged to provide funding for applied technical assistance and the purchase of innovative technology developed through federally funded research, with an emphasis on technical demonstration of innovative water treatment at a greater than residential scale.

Within available funds, the Committee recommends up to \$10,000,000 to continue the development of alternatives to fossil-fuel based process heating technologies for use in manufacturing, including technologies that could be used to reduce emissions from industrial drying processes.

The Committee recognizes the importance of smart manufacturing technologies, which can enhance energy savings and improve the global competitiveness of American manufacturers. The Committee notes that it is still awaiting the national smart manufacturing plan directed in the Energy and Water Development and Related Agencies Appropriations Act, 2019 (Public Law 115-244),

and directs the Department to provide this plan to the Committee within 60 days of enactment of this act.

The Committee recognizes that meeting growing global demands for the use of more sustainable chemistry in consumer and commercial products has the potential to create significant economic opportunities for U.S. manufacturing that can be enhanced by ensuring that sustainability factors are considered in new chemicals development. Within available funds, the Committee recommends \$5,000,000 for activities to support chemistry research and development incorporating criteria of commercial need, energy efficiency and human health and environmental effects considerations for chemicals and chemical production processes.

BUILDING TECHNOLOGIES

The Committee recommends \$295,000,000 for Building Technologies.

Within available funds, the Committee recommends \$50,000,000 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.

Within available funds, the Committee recommends \$40,000,000 for the Residential Building Integration program. 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. Further, the Committee recommends funding to facilitate whole-house energy efficiency retrofits (including outreach, engagement and training to private sector contractors), including continuing efforts to advance smart home technology.

The Committee supports innovative housing research to encourage the design, construction and retrofitting of energy efficient, fire hardened and resilient residential homes and commercial buildings, and encourages the Building America Program to prioritize funding for wildfire/resiliency solutions that also meet the energy code and reach codes. The Committee encourages collaborative efforts between the Building America Program with the national laboratories, private industry, university-based wildfire researchers, community-based organizations and local communities that are making notable progress in developing construction techniques and identifying building materials to actively mitigate fire risk in areas susceptible to catastrophic wildland fire, including the wildland urban interface.

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 recommends not less than \$153,000,000 for the Emerging Technologies subprogram. The Committee appreciates the Department's efforts to expand field validation and testing of transactive energy systems technologies to continue moving this technology toward commercialization. The Department is encouraged to prioritize understanding of regional differences in energy systems and their impact on adoption of transactive energy technologies. The Committee recommends not less than \$30,000,000 for building-grid integration research and development consistent with a transactive energy system and in coordination with the Office of Electricity transactive energy systems program. Within available funds, \$8,000,000 is recommended to continue promoting regional demonstrations of new, utility-led, residential Connected Communities advancing smart grid systems. Further, within available funds for Emerging Technologies, the Committee recommends not less than \$18,000,000 for Heating, Ventilation, and Air Conditioning and Refrigeration Research and Development, including air sourced heat pumps, water heaters, and boilers. Further, the Department is encouraged to focus research and development efforts to address whole building energy performance and cost issues for air source heat pumps to inform efforts to advance electrification without compromising building energy performance. The Committee also recommends \$14,000,000 for Building Envelope and \$5,300,000 for Building Energy Modeling. The Committee encourages the Department to include field evaluation efforts in these programs.

Within available funds for Emerging Technologies, the Committee recommends \$30,000,000 for research, development, demonstration, field evaluation, and commercial application activities related to advanced solid-state lighting technology development. If the Secretary finds solid-state lighting technology eligible for the Twenty-First Century Lamp prize, specified under section 655 of the Energy Independence and Security Act of 2007 (Public Law 110-140), \$5,000,000 shall be made available to fund the prize or additional projects for solid-state lighting research and development.

The Committee notes that natural gas and propane gas play an important role in meeting the energy needs of U.S. homes and commercial buildings. 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 integration with renewables.

Thermally-driven heat pumps [THPs] offer the next generation of space conditioning and/or water heating for low-load buildings and have the potential to reduce greenhouse gas emissions by 40 percent or greater from a condensing gas efficiency baseline. Further work is needed to test and evaluate these technologies in the field.

The Committee encourages the Department to establish a Thermal Heat Pump Consortium, led by a non-profit, to integrate and deploy new THP technologies in a joint industry partnership.

Within available funds, the Committee recommends \$5,000,000 for novel earlier-stage research, development, and demonstration of technologies to advance energy efficient, high-rise Cross-Laminated Timber [CLT] building systems. The Committee directs the Department to support university research, in partnership with national labs, for developing, building, and evaluating CLT wall systems for embodied energy content, operating energy efficiency, wall moisture profiles, structural connector durability, and health monitoring sensors.

Within available funds, the Committee recommends \$10,000,000 for a competitive solicitation focused on the development and integration of energy efficient building techniques and technologies suitable for environments with extremely high or low temperatures. Priority shall be given to those with prior experience serving low-income residents living in extreme environments.

The Committee recommends \$52,000,000 for Equipment and Buildings Standards. The Committee recommends \$7,000,000 for the Building Energy Codes Program to provide technical assistance to States and municipal governments and to organizations that develop model codes and standards to improve building resilience as well as efficiency. The Committee notes that the Department is missing legal deadlines for over 25 energy efficiency standards mandated by Congress. The Committee directs the Department to finalize these standards as soon as practicable, and report to the Committee 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.

Within available funds, the Committee recommends \$5,000,000 to continue to demonstrate the use of ice storage technology to enable load-shifting to offset electrical grid capacity peaks at lower costs than electrochemical storage at public-use buildings such as State office buildings, hospitals, and schools.

FEDERAL ENERGY MANAGEMENT PROGRAM

The Committee recommends \$40,000,000 for the Federal Energy Management Program.

Within available funds, \$11,000,000 is recommended for the Assisting Federal Facilities with Energy Conservation Technologies program and \$28,000,000 for base funds

Within available funds, \$2,000,000 is recommended for the Performance Based Contract National Resource Collaborative Initiative. The Committee looks forward to receiving the report previously directed in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116-94), regarding the expansion of performance-based contracts nationwide.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAM

The Committee recommends \$372,500,000 for the Weatherization and Intergovernmental Program.

Within this amount, \$310,000,000 is recommended for the Weatherization Assistance Program [WAP], including \$305,000,000

for Weatherization Assistance Grants and \$5,000,000 for Training and Technical Assistance; and \$62,500,000 is recommended for State Energy Program 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. Further, 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 State Energy Program shall be obligated to States, Tribes, and other direct grantees not later than 60 days after enactment of this act. Similarly, in order for WAP to function effectively, it is important for States to provide funding to local weatherization implementers as quickly as appropriate, and for the local providers to implement projects as quickly as possible.

Within available funds, the Committee recommends \$1,000,000 for WAP grant recipients that have previously worked with the Department via the Weatherization Innovation Pilot Program to now implement and demonstrate programs to treat harmful substances, including vermiculite, at the State and regional level.

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 directs the Department to begin tracking the occurrence of window replacements, which supports the reduction of lead-based paint hazards in homes.

CORPORATE SUPPORT

Strategic Programs.—The Committee recommends \$14,500,000 for Strategic Programs. Within available funds, \$3,000,000 is recommended for the Energy Transition Initiative [ETI] to support initiatives 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 to leverage specialized, local expertise into commercial opportunity. The Committee directs the Department 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.

Facilities and Infrastructure.—The Committee directs the Department to proceed with project engineering and design for the Energy Materials and Processing at Scale research capability at

the National Renewable Energy Laboratory, which received Critical Decision-0 in December 2019. Not less than \$6,000,000 is recommended for Other Project Costs and to commence Project Engineering and Design. The design should enable and encourage partnerships with U.S. industry to incentivize waste reduction, reuse, and reduced persistence in the environment, as well as accelerate innovations to market viability.

CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE

Appropriations, 2020	\$156,000,000
Budget estimate, 2021	184,621,000
Committee recommendation	156,000,000

The Committee recommends \$156,000,000 for the Office of Cybersecurity, Energy Security, and Emergency Response, a decrease of \$28,621,000 below the budget request. Within available funds, the Committee recommends \$11,521,000 for program direction.

CYBERSECURITY FOR ENERGY DELIVERY SYSTEMS

The Committee recommends \$96,479,000 for Cybersecurity for Energy Delivery Systems.

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. This effort shall be closely coordinated with the Office of Electricity.

Within available funds, the Committee recommends \$5,000,000 for Consequence-driven Cyber-informed Engineering.

Within available funds, the Committee recommends \$4,000,000 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.

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 is supportive of 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.

INFRASTRUCTURE SECURITY AND ENERGY RESTORATION

The Committee recommends \$48,000,000 for Infrastructure Security and Energy Restoration.

Within available funds, the Committee recommends not less than \$6,000,000 for the continued advancement of EAGLE–I. The Committee supports further development of energy sector situational awareness capabilities through EAGLE–I, the Federal Government’s situational awareness tool for national power outages.

ELECTRICITY

Appropriations, 2020	\$190,000,000
Budget estimate, 2021	195,045,000
Committee recommendation	223,000,000

The Committee recommends \$223,000,000 for the Office of Electricity, an increase of \$27,955,000 above the budget request. Within available funds, the Committee recommends \$18,000,000 for program direction. The Committee supports planning and contingency analyses that address vulnerabilities in the North American energy system. This work will help to identify transmission infrastructure investments, strategic uses and placement of energy storage systems, and other strategies to help mitigate risk and ensure the security and resilience of the grid.

TRANSMISSION RELIABILITY AND RESILIENCE

The Committee recommends \$51,000,000 for Transmission Reliability and Resilience.

Within available funds, the Committee recommends \$10,000,000 for the Grid Research Integration and Demonstration Center to advance technologies in support of modernizing the electric delivery system and understanding the Nation’s electricity infrastructure using real-time data.

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.

The Committee looks forward to receiving the report previously directed in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116–94), outlining the barriers and opportunities for technologies that provide increased, more efficient, and/or more effective delivery over the existing transmission network.

RESILIENT DISTRIBUTION SYSTEMS

The Committee recommends \$58,000,000 for Resilient Distribution Systems.

Within available funds, the Committee recommends \$20,000,000 for the COMMANDER [Coordinated Management of Microgrids and Networked Distributed Energy Resources] National Test Bed Laboratory to establish a data link for a back-up operations center that can benefit utility companies across the country and support the North American Energy Resilience Model.

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 pursues 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 recommends that fuels commonly available across the United States—such as propane and other diesel alternatives—be evaluated.

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

Within available funds, the Committee recommends \$5,000,000 for a demonstration project with the Department's Grid Sensors and Sensor Analytics program. The demonstration should include a focus on utilizing data from distribution utilities that have deployed advanced metering infrastructure.

ENERGY STORAGE

The Committee recommends \$80,000,000 for Energy Storage, including \$30,000,000 for the Grid Storage Launchpad.

Within available funds, the Committee continues to support development of an operational energy storage test facility capable of performance-driven data in a utility environment.

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

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, the Committee recommends \$10,000,000 for battery storage demonstration projects that are 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 re-

lated natural disasters; and provide rate reduction and renewable energy benefits to businesses, farms, and residents in an economically-stressed rural area. Direct storage from solar generation may also be incorporated.

TRANSFORMER RESILIENCE AND ADVANCED COMPONENTS

The Committee recommends \$8,000,000 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 Department is directed to support research and development to find safe and effective capture and reuse technologies, or safe and effective alternatives, for the use of sulfur hexafluoride in power generation and transmission equipment, including circuit breakers, switchgear, and gas insulated lines.

NUCLEAR ENERGY

Appropriations, 2020	\$1,493,408,000
Budget estimate, 2021	1,179,931,000
Committee recommendation	1,505,300,000

The Committee recommends \$1,505,300,000 for Nuclear Energy, an increase of \$325,369,000 above the budget request. 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. While there is no practical way to combat greenhouse gas emissions without nuclear power as part of the solution, the nuclear industry continues to struggle. Reactor plants continue to close early, and new construction is almost nonexistent, primarily due to cost. Revitalization of our nuclear industry through technological advancement would have many benefits. First, it would enable replacement of aging nuclear plants in the United States with safe, affordable advanced reactors. For that to be possible, urgent action is required since a large portion of the current nuclear fleet reaches retirement over the next 15 years.

Second, a revitalized nuclear industry would give U.S. Industry the opportunity to compete as the global demand for nuclear power grows. The World Nuclear Association estimates there are nearly 30 countries planning or starting nuclear programs. International support of new reactor programs is dominated by China and Russia, while the U.S. presence is limited. Nuclear projects, such as building a nuclear power plant in a foreign country, will result in long-term relationships between governments that span several decades and have tremendous influence across the spectrum of geopolitical issues.

Finally, the United States has always been the international leader for nuclear safety and nonproliferation. To continue to lead,

we must have a role in the international growth in nuclear power. We need to participate in a meaningful way. Absent that, we cannot expect the high standards of safety and nonproliferation will be maintained outside of the United States.

The Department of Energy, in consultation with the National Nuclear Security Administration, is directed to contract with the National Academy of Sciences [NAS] not later than 60 days after enactment of this act to conduct a comprehensive, independent study on the non-proliferation and security risks and international safeguards challenges associated with advanced nuclear reactors and related fuel cycle technologies. The NAS shall convene a committee whose members have expertise in advanced nuclear reactors, nuclear non-proliferation and security, enrichment and reprocessing, and other areas of expertise that the NAS deems essential for completion of the study. The NAS committee's consensus study report shall also provide findings and recommendations that may consider policy options as long as they do not involve non-technical value judgments. The study shall include assessments of the proliferation implications of high-assay low-enriched uranium, uranium-plutonium mixed oxide fuel, and advanced fuel cycles that require separating plutonium from spent fuel. The study shall also address the extent to which advanced reactors and associated fuel cycle facilities, in their design and operations, support International Atomic Energy Agency safeguard activities, particularly those related to nuclear material accounting and control as well as containment, surveillance, monitoring, and timeliness of detection of diversion. Advanced reactor technologies shall include the designs under consideration by the Generation IV International Forum and by the Department of Energy and any related fuel cycle technologies. The study shall be submitted to the Committee within 18 months after the Department and NAS enter into a contractual agreement.

The Department of Energy can and should play a more active role in supporting the revitalization of the U.S. nuclear industrial base. Without a clear vision and broad commitment across government and industry, nuclear power in this country will become non-existent. The Committee recommends a realignment of funding across the Office of Nuclear Energy to focus on needed research, development and demonstration that supports the current nuclear fleet and enables a future for nuclear power.

INTEGRATED UNIVERSITY PROGRAM

The Committee recommends \$5,000,000 for the Integrated University Program.

The Committee notes the administration repeatedly attempts to defund this program, despite continued success in developing highly qualified nuclear specialists to meet national needs.

SUPERCRITICAL TRANSFORMATIONAL ELECTRIC POWER

The Committee recommends \$5,000,000 for Supercritical Transformational Electric Power Research and Development.

The Committee supports the collaborative efforts between the national laboratories and industry partners to develop test capabili-

ties and validate grid-compatible supercritical carbon dioxide Brayton cycle systems by April 2021.

NUCLEAR ENERGY ENABLING TECHNOLOGY

The Committee recommends \$135,369,000 for Nuclear Energy Enabling Technology.

Within Nuclear Energy Enabling Technology, the Committee recommends an additional \$2,000,000 to begin preconceptual 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 should complement and be compatible with irradiation tests and infrastructure for materials characterization and sample preparation at Idaho National Laboratory. 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, and extend the life of current reactors, and support development of new advanced reactors.

Joint Modeling and Simulation Program.—The Committee understands the importance of modeling and simulation nuclear energy applications, and recommends \$40,000,000 for the Joint Modeling and Simulation Program. Use and application of the codes and tools should 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 more economically competitive.

FUEL CYCLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$289,500,000 for Fuel Cycle Research, Development, and Demonstration.

Material Recovery and Waste Form Development.—The Committee recommends \$25,000,000 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 \$115,000,000 for development of nuclear fuels with enhanced accident-tolerant characteristics to significantly mitigate the potential consequences of a nuclear accident. Within the amounts for accident-tolerant fuels development, not less than \$55,600,000 is recommended to continue the participation of three industry-led teams in Phase 2B of the cost-shared research and development program; \$25,000,000 is recommended to support testing of these materials at Idaho National Lab and Oak Ridge National Lab, and also support the implementation of new and expanded capabilities in those labs (such as increased irradiation test capacity, improved instrumentation, and new post-irradiation examination capabilities); and not less than \$20,000,000 is recommended for industry-led efforts

in testing, code development, and licensing of higher-enriched and higher burnup fuels. Of the amount recommended for higher-enriched and higher burnup fuels not more than \$4,000,000 may be provided directly to the national laboratories. Further, not less than \$10,000,000 is recommended specifically for development of silica-carbide ceramic fuels for light water reactors. The Committee continues to place a high priority on this program and urges the Secretary to maintain focus and priority on achieving results in these efforts. The Committee 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 in the Energy and Water Development and Related Agencies Appropriations Act, 2020, and any negative schedule impacts caused by the delays in allocating or obligating funding.

TRISO and Graphite Materials.—Within the funds recommended Tristructural Isotropic fuels, \$10,000,000 is 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.

Used Nuclear Fuel Disposition.—The Committee continues to strongly support the recommendations of the Blue Ribbon Commission on America's Nuclear Future and believes that near-term action is needed to address the accumulating inventory of spent nuclear fuel. The Committee recommends \$27,500,000 for Nuclear Waste Disposal. Funding in this control point is recommended to implement plans to consolidate spent nuclear fuel from around the United States to one or more private or government interim central storage facilities. Priority shall be given to accepting spent nuclear fuel from shutdown reactors, and to accelerating the development of a transportation capability to move spent fuel from its current storage locations. Within funds recommended, the Committee recommends up to \$10,000,000 for the Secretary, within existing authorities, to contract for the management of spent nuclear fuel to which the Secretary holds the title or has a contract to accept title, which includes contracting with a private company for consolidated interim storage of spent nuclear fuel.

REACTOR CONCEPTS RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$197,000,000 for Reactor Concepts Research, Development, and Demonstration.

Advanced Small Modular Reactor Research, Development, and Demonstration.—The Committee recommends \$100,000,000 for ongoing work to support regulatory development, design, and deployment activities. Consistent with the budget request no funds are provided for the Joint Use Module Plant.

Advanced Reactor Concepts.—The Committee recommends \$20,000,000 to support current and previously awarded Advanced Reactor Concepts Industry agreements.

Microractor Siting and Workforce Development.—As DOE continues to support the research, development, demonstration, and deployment of microractor concepts, the Committee directs the De-

partment to submit a report to both the Committee within 90 days of enactment of this act outlining a strategy for siting a micro-reactor 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.

Light Water Reactor Sustainability.—The Committee recommends \$47,000,000 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. Therefore, the Committee recommends additional funding above the budget request for this activity as a priority.

ADVANCED REACTOR DEMONSTRATION PROGRAM

The Committee recommends \$280,000,000 for the Advanced Reactor Demonstration Program to demonstrate multiple advanced reactor designs.

The primary goal of this new 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. In fiscal year 2020, Congress directed the Secretary to commence the Advanced Reactor Demonstration Program. Congress strongly supports the Department's intent to move quickly on the solicitation and award of these demonstration programs, consequently the Committee recommends \$280,000,000 for the Advanced Reactor Demonstration Program to ensure that the program can continue in an accelerated manner.

NUCLEAR ENERGY INFRASTRUCTURE

ORNL Nuclear Facilities Operations and Maintenance.—The Committee recommends \$28,000,000 for Oak Ridge National Laboratory [ORNL] Nuclear Facilities Operations and Maintenance for continued safe operations and maintenance of ORNL hot cells.

Construction.—The Committee recommends \$18,000,000 for the Sample Prep Laboratory, \$5,000,000 for the Advanced Nuclear Materials Laboratory to begin the design once CD-0 is approved, and \$45,000,000 for the Versatile Test Reactor [VTR] project. The Committee is concerned that the Department is proceeding with plans for the VTR without having secured commitments from private companies or foreign governments for monetary and in-kind contributions. Such a delay significantly undermines the likelihood of success. Therefore, the Committee directs the Department to submit a plan for executing the VTR project via a public-private partnership with an option for a payment-for-milestones approach. The plan shall be submitted to the Committee no later than 30 days after enactment of this act.

URANIUM RESERVE PROGRAM

Appropriations, 2020	
Budget estimate, 2021	\$150,000,000
Committee recommendation	120,000,000

The Committee recommends \$120,000,000 for the Uranium Reserve Program, a decrease of \$30,000,000 below the budget request. Because the Uranium Reserve Program involves multiple mission areas within the Department, the Committee has recommended an additional \$30,000,000 in funding for this activity within the Defense Nuclear Nonproliferation accounts. Not later than 30 days after the enactment of this act, the Department is directed to provide a specific program plan for executing funds recommended for this activity as well as plans to consolidate this program with other existing uranium management activities within the Department to create efficiencies.

FOSSIL ENERGY RESEARCH AND DEVELOPMENT

Appropriations, 2020	\$750,000,000
Budget estimate, 2021	730,601,000
Committee recommendation	750,000,000

The Committee recommends \$750,000,000 for Fossil Energy Research and Development, an increase of \$19,399,000 above the budget request. Within available funds, the Committee recommends \$61,500,000 for program direction.

Research and Development.—The Committee rejects the approach to only provide funds for early-stage research. Such restrictions would cripple innovation and development, and would reduce the number of energy technologies adopted in the marketplace.

The Committee recommends \$20,000,000 for the research and development of negative emissions technologies, including not less than \$10,000,000 for direct air capture.

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

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. The Department was previously directed in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116–94), to submit a report and provide a briefing to the Committees on Appropriations of both Houses of Congress not later than 180 days after enactment on the recommendations for program structures that could best support and maximize the impact of expanded research, development, and demonstration efforts in three areas: decarbonization of the industrial sector, direct air capture, and carbon use. The Committee

looks forward to the briefing and receipt of this report. 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.

COAL CARBON CAPTURE STORAGE AND POWER SYSTEMS

The Committee recommends \$478,600,000 for Coal Carbon Capture Storage and Power Systems.

The Department is directed to use funds from Coal Carbon Capture Storage and Power Systems for research and development that utilizes either coal or natural gas based generation of electricity.

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 dioxide emissions.

The Committee supports 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.

The Committee reiterates the importance of adequate Federal support to promote design-related work and testing for a commercial scale, post-combustion carbon dioxide capture project on an existing coal-fueled generating unit as well as research, development and deployment of breakthrough technologies, including co-firing with agricultural and forest residue biomass to achieve net greenhouse gas emissions reductions.

The Committee supports the integrated carbon and energy management activities of the Offices of Nuclear Energy, Fossil Energy, and Energy Efficiency and Renewable Energy and collaboration on high-efficiency electrochemical conversion of fossil resources to monomers and chemicals utilizing nuclear reactor thermal energy.

Carbon Capture.—Within available funds for Carbon Capture, the Committee recommends not less than \$8,000,000 for research and optimization of carbon capture technologies for use at industrial facilities, and not less than \$10,000,000 for carbon capture research for natural gas power systems.

Within available funds, the Committee recommends not less than \$15,000,000 for a new solicitation for Front-End Engineering and

Design [FEED] studies of commercial-scale carbon capture projects that generate carbon dioxide suitable for geologic storage, with at least two of these studies supporting projects at industrial facilities such as a steel or cement facility.

Carbon Storage.—Within available funds for Carbon Storage, the Committee recommends not less than \$21,000,000 for Carbon Use and Reuse to continue research and development activities to support valuable and innovative uses for carbon.

Within available funds, the Committee recommends \$55,000,000 for Storage Infrastructure. The Committee recognizes the successful work of the Regional Carbon Sequestration Partnerships [RCSPs] and the important role they play for carbon utilization and storage. The Committee supports the focus on infrastructure development strategies that develop regionally relevant business models for implementation. The Committee recognizes the importance of expanding regional geological characterization, collecting and analyzing data, and addressing regional monitoring, permitting, and policy challenges, and the value of this work in supporting broad-scale commercial deployment efforts. The Committee recommends not less than \$20,000,000 to expand and continue the work of the RCSPs selected under fiscal year 2019 appropriations. Further, the Committee recommends \$30,000,000 for CarbonSAFE and directs the Department to fully fund the CarbonSAFE projects selected in fiscal year 2020 and within remaining funds solicit proposals for additional CarbonSAFE projects.

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.

The Committee encourages a competitive solicitation to conduct tests of technologies for carbon dioxide absorption integrated with algae systems for capturing and re-using carbon dioxide to produce renewable materials, giving priority for teams with university participants.

Advanced Energy Systems.—The Committee recommends not less than \$23,000,000 and up to \$30,000,000 for solid oxide fuel cell [SOFC] systems for distributed and central power generation, electrolysis, SOFC combined heat and power, and storage applications. Recognizing the significant progress made in system integration and lifetime extension, this activity builds on the focus of research and development to enable efficient, cost-effective electricity generation with minimal use of water. This can exploit abundant domestic coal and natural gas resources with low or near-zero atmospheric emissions of carbon dioxide and other pollutants. SOFCs are also capable of running on sustainable biogas that can be sourced from agricultural and municipal waste, animal manure, sewage,

and more. Moreover, central power generation applications of SOFC can be integrated with carbon capture and storage efforts to contribute to a secure low carbon energy future. Combined heat and power systems can utilize SOFC waste heat and increase already high efficiencies. Electrolysis cells make hydrogen and oxygen from water and power and reversible electrolysis has developed as a platform for efficient bulk energy storage. This funding will preserve U.S. leadership in SOFC technology and will benefit the economy through retention of high-tech jobs and exports. To ensure timely development of this important technology, which is cost-shared with industry, where applicable, not less than 75 percent of the total shall be allocated to the SOFC industry teams.

The Committee recommends \$25,000,000 for the Advanced Turbine program, which supports the development of advanced, high-temperature materials including ceramic matrix composites.

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 the Office of Fossil Energy to jointly issue a competitive solicitation to industry with the Office of Electricity 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 recognizes there is support for coal and coal biomass to both liquids and solids activities and encourages the Department to consider research and development to improve cost and efficiency of coal-to-fuels technology implementation and polygeneration.

The Committee recommends \$30,000,000 for Advanced Coal Processing to support early-stage research and development to enable the conversion of coal pitch and coal to carbon fiber and other value-added products for alternative advanced uses of coal. The Committee recommends not less than \$10,000,000 for utilizing coal as precursor for high-value added products at the Carbon Fiber Technology Facility.

Crosscutting Research.—Within available funds, the Committee recommends \$1,500,000 to accelerate development and deployment of wireless sensor systems for coal-fired power generation in order to improve generating efficiency, reduce emissions, and lower maintenance costs.

The Committee recommends \$16,000,000 for Advanced Ultra Supercritical Materials Research and Development to identify, test, qualify, and develop a domestic supply chain capable of producing components from high temperature steam materials.

National Energy Technology Laboratory [NETL] Coal Research and Development.—Within available funds, the Committee recommends not less than \$23,000,000 for 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 U.S. coal and coal byproduct sources. The Committee expects research to support pilot-scale and experimental activities for near-term applications, which encompass the extraction and recov-

ery of rare earth elements and minerals from conditionally-favorable U.S. coal and coal byproduct sources.

The Committee remains concerned that the United States continues to import all of its rare earth elements need from overseas and believes that finding near-term and future domestic sources is a top national security priority. Lignite coal can produce all 16 rare earth elements, as well as critical minerals such as germanium, and research has shown that most of the elements accumulate in top and bottom of the coal seam. 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 from lignite and expects the Department to fund a more detailed assessment of lignite resources and to devise cost-effective methods of removing rare earths from lignite.

NATURAL GAS TECHNOLOGIES

The Committee recommends \$55,000,000 for Natural Gas Technologies.

The Department was previously directed in the Energy and Water Development and Related Agencies Appropriations Act, 2019 (Public Law 155–244), to submit a report to the Committees on Appropriations of both Houses of Congress not later than 18 months after the date of enactment a study on the potential for natural gas demand response across energy sectors geographic regions. The Committee expects this report to be provided expeditiously.

The Committee encourages the department to work with regional universities to evaluate ways to create or add value to natural gas liquids in the Bakken and potential for use in the region.

Methane Hydrate Activities.—The Committee recommends \$25,000,000 for methane hydrates. The Committee encourages the Department to perform a long-term methane hydrate production test in the Arctic, as proposed in the Methane Hydrate Advisory Committee’s earlier recommendations (May 21, 2014) to the Department. Further, the Committee supports 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 \$12,000,000 for the Environmentally Prudent Development subprogram, including not less than \$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.

Emissions Mitigation from Midstream Infrastructure.—The Committee recommends \$12,000,000 for the Emissions Mitigation from Midstream Infrastructure subprogram. The Committee recommends funds to support natural gas infrastructure research, including advanced materials and novel sensor technologies.

Emissions Quantification from Natural Gas Infrastructure.—The Committee recommends \$6,000,000 for the Emissions Quantification from Natural Gas Infrastructure research subprogram.

UNCONVENTIONAL FOSSIL ENERGY TECHNOLOGIES

The Committee recommends \$46,000,000 for Unconventional Fossil Energy Technologies.

The Committee notes the importance of providing research support that will assure sustainable, reliable, affordable, and environmentally sound supplies of domestic unconventional fossil energy resources.

Within available funds, the Committee recommends \$20,000,000 for research that develops improved enhanced recovery technologies. These technologies are essential to maximizing the value of shale oil, low permeability reservoirs, residual oil zone reservoirs, fractured reservoirs, and conventional oil reservoirs, and should advance technologies related to wellbore integrity, artificial lift, well production operations, and applicability with data analytics. In continuing with prior direction, the Department shall ensure these funds are awarded to universities and not-for-profit research organizations.

The Committee previously directed the Department in the Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116–94), to provide a report to the Committees on Appropriations of both houses of Congress that outlines the Department’s efforts to maintain a stable petroleum engineering workforce and knowledge base, as well as future activities the Department can undertake to strengthen it. The Committee looks forward to receipt of the report.

The Department is encouraged to explore research and development for safe drilling and completion technologies that use no fresh water and can be deployed in horizontal wells.

The Committee recommends not less than \$19,000,000 for the Unconventional Field Test Sites. The Committee supports leveraging these field test sites to test methods for improving recoveries from the growing inventory of existing wells, via well stimulation and/or enhanced recovery techniques that will lessen the need for large numbers of new wells to meet supply demands. Continued research focused on produced water management and beneficial re-use, and methane emissions (particularly flaring) capture and beneficial re-use, are also needed.

The Committee recommends not less than \$4,000,000 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 not less \$2,000,000 is recommended 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 the energy producing industry to identify and develop commercial-scale technologies that can characterize, clean and effectively treat produced water to have beneficial reuse.

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 \$50,000,000 for NETL Research and Operations and \$58,000,000 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.

NAVAL PETROLEUM AND OIL SHALE RESERVES

Appropriations, 2020	\$14,000,000
Budget estimate, 2021	13,006,000
Committee recommendation	13,006,000

The Committee recommends \$13,006,000 for Naval Petroleum and Oil Shale Reserves, the same as the budget request.

STRATEGIC PETROLEUM RESERVE

Appropriations, 2020	\$195,000,000
Budget estimate, 2021	187,081,000
Committee recommendation	187,081,000

The Committee recommends \$187,081,000 for the Strategic Petroleum Reserve, the same as the budget request.

SPR PETROLEUM ACCOUNT

Appropriations, 2020	\$10,000,000
Budget estimate, 2021	-68,000,000
Committee recommendation	1,000,000

The Committee recommends \$1,000,000 for the SPR Petroleum Account, an increase of \$69,000,000 above the budget request.

NORTHEAST HOME HEATING OIL RESERVE

Appropriations, 2020	\$10,000,000
Budget estimate, 2021	-84,000,000
Committee recommendation	10,000,000

The Committee recommends \$94,000,000 for the Northeast Home Heating Oil Reserve, an increase of \$10,000,000 above the budget request.

ENERGY INFORMATION ADMINISTRATION

Appropriations, 2020	\$126,800,000
Budget estimate, 2021	128,710,000
Committee recommendation	126,800,000

The Committee recommends \$126,800,000 for the Energy Information Administration [EIA], a decrease of \$1,910,000 from the budget request.

The Committee recognizes the importance of building energy information and the opportunity for better data collection presented by new technologies. The Department is encouraged to upgrade the Commercial Buildings Energy Consumption Surveys to a real-time

data collection system with rapid reporting of results, without compromising statistical validity or data security.

The Committee directs EIA to provide a report to the Committees on Appropriations of Houses of Congress not later than 180 days after enactment of this act outlining resources necessary to further develop National Energy Modeling System capabilities to be able to simulate deep decarbonization scenarios, including economy-wide net-zero emissions policies.

Within available funds, the Committee directs the Department to evaluate including requirements within agreements with state energy offices and state regulatory agencies to gather data on the delivered generation resource mix and emissions rates for every load-serving entity as defined in 16 U.S.C. §824q(2). The Department is directed to provide to the Committee not later than 90 days after enactment of this act an evaluation to include estimated cost, schedule, and overall feasibility of collecting and analyzing the data described above on an annual basis.

NON-DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2020	\$319,200,000
Budget estimate, 2021	275,820,000
Committee recommendation	326,000,000

The Committee recommends \$326,000,000 for Non-Defense Environmental Cleanup, an increase of \$50,180,000 above the budget request.

Small Sites.—The Committee recommends \$119,833,000 for Small Sites. Within the available funds, the Committee recommends \$22,000,000 to continue work at Lawrence Berkeley National Laboratory, \$19,000,000 for Energy Technology Engineering Center, \$47,833,000 for Moab, \$10,000,000 for excess Office of Science facilities, and \$10,000,000 to continue work required pursuant to the agreement reached in 2012 between the Department, the Advisory Council on Historic Preservation, and State and local governments to complete the demolition of K-25 in exchange for preserving the historic contributions made by the K-25 site to the Manhattan Project.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND

Appropriations, 2020	\$881,000,000
Budget estimate, 2021	806,244,000
Committee recommendation	848,000,000

The Committee recommends \$848,000,000 for Uranium Enrichment Decontamination and Decommissioning [UED&D] activities, an increase of \$41,756,000 above the budget request.

The Committee recommendation includes \$134,701,000 for East Tennessee Technology Park to continue cleanup and demolition of all remaining facilities including the K-1200 complex and the K-1600 complex, and to conduct remedial actions, and site closure activities. The Committee also recommends \$240,000,000 for Paducah, and \$430,332,000 for Portsmouth. The Department shall not barter, transfer, or sell uranium during fiscal year 2021 to generate additional funding for Portsmouth cleanup that is in excess of the

amount of funding recommended. Within funds available for Pensions and Community and Regulatory Support, the Committee recommends an additional \$10,000,000 above the budget request to ensure contractor pensions are adequately funded.

SCIENCE

Appropriations, 2020	\$7,000,000,000
Budget estimate, 2021	5,837,806,000
Committee recommendation	7,026,000,000

The Committee recommends \$7,026,000,000 for Science, an increase of \$1,188,194,000 above the budget request. The recommendation includes \$188,000,000 for program direction.

Distinguished Scientist Program.—The Committee recommends \$4,000,000 to support the Department’s Distinguished Scientist Program, as authorized in section 5011 of Public Law 110–69, to promote scientific and academic excellence through collaborations between institutions of higher education and national laboratories to be funded from across all Office of Science programs.

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 of the Future 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 \$270,541,000 from across the Office of Science programs to advance early-stage fundamental research in this field of science, including activities authorized in section 401 and the continuation of up to five National Quantum Information Science Research Centers authorized in section 402. To the greatest extent practical, this effort shall be undertaken in coordination with the National Science Foundation and the National Institute of Standards and Technology. Further, the Department is directed to collaborate with private sector stakeholders, the user community and interagency partners, to develop a roadmap to provide researchers access to quantum systems so as to enhance the U.S. quantum research enterprise, stimulate the fledgling U.S. quantum computing industry, educate the future quantum computing workforce, and accelerate advancement of quantum computer capabilities. The Department is directed to brief the Committee within 90 days of the enactment of this act on such a roadmap.

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.

Office of Science Carbon Dioxide Removal.—The Committee recommends not less than \$20,000,000 in Basic Energy Sciences and Biological and Environmental Research for research and development of negative emissions technologies, including not less than \$5,000,000 for direct air capture. The Office of Science is directed to continue to collaborate with the Office of Fossil Energy and the Office of Energy Efficiency and Renewable Energy to support research, development, and demonstration projects to advance the development and commercialization of carbon removal technologies on a significant scale.

Collaborative Research.—Collaborative research efforts between the Department and the National Institutes of Health [NIH] are developing breakthroughs in health research, including drug discovery, brain research, diagnostic technologies, imaging, and other biomedical research areas. The Department is encouraged to expand its relationships with NIH in order to work together more strategically to leverage the Department's Scientific User Facilities and research capabilities, including instrumentation, materials, modeling and simulation, and data science.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee recommends \$1,029,000,000 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 \$168,945,000 for the Exascale Computing Project. In addition, the Committee recommends \$230,000,000 for the Oak Ridge Leadership Computing Facility, \$155,000,000 for the Argonne Leadership Computing Facility, \$110,000,000 for the National Energy Research Scientific Computing Center, and \$90,000,000 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 \$254,977,000 for Mathematical, Computational, and Computer Sciences Research. Further, the Committee recommends not less than \$10,000,000 for the Computational Sciences Graduate Fellowship.

BASIC ENERGY SCIENCES

The Committee recommends \$2,215,000,000 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 \$525,000,000 to provide for operations at the five BES light sources and \$292,000,000 for the high-flux neutron sources. The Committee recommends not less than \$115,000,000 for the Energy Frontier Research Centers to continue multi-disciplinary, fundamental research needed to address scientific grand challenges. The Committee recommends not less than \$139,000,000 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 \$24,088,000 for the Batteries and Energy Storage Hub, the Joint Center for Energy Storage Research [JCESR], and \$20,000,000 for the Fuels from Sunlight Hub.

The Committee encourages the Department to continue funding to support research and development needs of graduate and post-graduate science programs at Historically Black Colleges and Universities.

The Committee recommends \$26,000,000 for exascale systems.

Not less than \$19,000,000 is recommended for Other Project Costs, of which \$2,000,000 is for the High Energy Upgrade at LCLS-II; \$13,000,000 is for the Second Target Station; \$3,000,000 is for the Proton Power Upgrade project at the Spallation Neutron Source; and \$1,000,000 is for the Cryomodule Repair and Maintenance Facility. The Committee recommends \$5,000,000 for the NSRC Recapitalization Project. Further, the Committee recommends not less than \$5,500,000 for the NSLS II Experimental Tools II Major Item of Equipment [MIE]. 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 \$750,000,000 for Biological and Environmental Research.

The Department is directed to give priority to optimizing the operation of Biological and Environmental Research User Facilities.

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 recommends not less than \$78,000,000 for Environmental System Science. Within available funds for Earth and Environmental Systems Sciences, the Committee recommends not less than \$10,000,000 is for Next Generation Ecosystem Experiments Arctic; \$8,300,000 is for the Spruce and Peatland Responses Under Changing Environments field site; \$5,000,000 is to initiate planning and pilot studies for new Terrestrial Ecosystem Science manipulation experiments; \$7,000,000 for Next Generation Ecosystem Experiments Tropics; and \$5,100,000 for AmeriFLUX Long-Term Earth System Observations. Further, within available funding the Committee recommends not less than \$3,500,000 to support ongoing research and discovery related to mercury biogeochemical transformations in the environment and \$6,800,000 for Watershed Function Science Focus Area.

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, 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.

Due to the importance of snowmelt-dominated mountainous systems to Western U.S. water resources, the Committee encourages the Department to develop an integrated mountainous hydrology focus, which extends observations and models and leverages collaborations supported by other Federal agencies.

The Committee recommends up to \$6,000,000 to advance biological and environmental capabilities through the development and prototyping of fabricated ecosystems and sensors that enable interrogation of biological-environmental interactions across molecular to ecosystem-relevant scales under controlled laboratory conditions.

The Committee recommends \$15,000,000 to support the exascale computing initiative. The Committee encourages the Department to enhance investments in machine learning as needed to improve prediction of watershed and ecosystem dynamics using diverse and distributed databases.

The Committee encourages the Department to increase its 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 is aware that reducing uncertainty in understanding cloud aerosol effects requires investment in observational studies, modeling, and computing. The Committee recommends \$15,000,000 for cloud-aerosol research and computing.

FUSION ENERGY SCIENCES

The Committee recommends \$640,000,000 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 \$54,000,000 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 \$25,000,000 for the Material Plasma Exposure eXperiment.

The Committee is aware of the increase in global investment in private fusion energy companies developing advanced technology approaches with a focus on commercialization. The U.S. has an opportunity to seize global leadership in this transformational energy sector and attract global industry stakeholders by building on the Department's laboratory capabilities and world class fusion science talent while partnering with these private fusion companies. The Committee supports the Department's Innovation Network for Fusion Energy [INFUSE] research and development program that is advancing enabling fusion energy commercialization technologies through partnerships with industry, labs and universities, and recommends \$4,000,000 for the continuation of the INFUSE program.

Further, the Committee previously directed the Fusion Energy Sciences Advisory Committee to give full consideration to the establishment of a cost-share program for reactor technologies as part of the ongoing long-range strategic planning activity. The Committee looks forward to receipt of the long-range strategic plan from the Fusion Energy Sciences Advisory Committee.

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. 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 \$1,050,000,000 for High Energy Physics.

Within Major Items of Equipment [MIE], and Other Project Costs, the Committee recommends \$30,000,000 for the Sanford Underground Research Facility; \$99,000,000 for the HL-LHC Upgrade projects; \$16,000,000 for the Facility for Advanced Accelerator Experimental Tests-II; and \$2,000,000 for the Cosmic Microwave Background-Stage 4 MIE; \$12,000,000 for the Dark Energy Spectroscopy Instrument; and \$6,000,000 for Lux Zeplin.

The Committee recommends not less than \$18,500,000 for Vera C. Rubin Observatory operations. The Committee acknowledges the longstanding planning and contributions of resources by partner organizations with respect to data management on the Vera C. Rubin Observatory. The Committee directs the Department to employ the computational expertise and existing capabilities in data management of those organizations-potentially in partnership with the national laboratories-to ensure the successful operation of this project and access for the broad research community. The Department is directed to provide a briefing to the Committee on the status of the project, including plans for management of the data facility, within 30 days of enactment of this act.

NUCLEAR PHYSICS

The Committee recommends \$725,000,000 for Nuclear Physics.

The Committee recommends optimal operations for all Nuclear Physics user facilities.

Within Major Items of Equipment and Other Project Costs, the Committee recommends \$6,600,000 for the Gamma-Ray Energy Tracking Array; \$5,530,000 for sPHENIX; \$5,000,000 for MOLLER; \$1,400,000 for Ton-Scale Neutrino-less Double Beta Decay; \$17,000,000 for the Electron Ion Collider; and \$1,000,000 for the High Rigidity Spectrometer; and \$3,000,000 for the U.S. Stable Isotope Production and Research Center.

Within available funds, not less than \$1,000,000 is recommended to establish a traineeship program for students to develop the future workforce of radioisotope production. Further, the Department is directed to provide, within 180 days of enactment of this act, a plan to develop a consortium of research universities to apply advanced manufacturing techniques to radioisotope production, including automation, digitalization, artificial intelligence, fabrication, and state-of-the-art characterization instrumentation.

WORKFORCE DEVELOPMENT FOR TEACHERS AND SCIENTISTS

The Committee recommends \$28,500,000 for Workforce Development for Teachers and Scientists. Within available funds, the Committee recommends \$13,600,000 for Science Undergraduate Laboratory Internships; \$1,700,000 for Community College Internships; \$4,500,000 for the Graduate Student Research Program; \$1,800,000

for the Visiting Faculty Program; \$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 Committee directs the Department to provide a report and briefing to the Committee within 180 days of enactment of this act on a plan to meet universities educational curriculum needs to support this future scientific workforce.

Further, the Department was previously directed in the Energy and Water Development and Related Agencies Appropriations Act (Public Law 116-94), 2020, to provide a report to the Committees on Appropriations of both Houses of Congress on the how the Office of Science plans to comply with Executive Order 13853 to develop a pipeline to meet future needs in trade craft requirements and workforce development in coordination with the national laboratories not later than 60 days after enactment. The Committee has not received the report and looks forward to receiving it expeditiously.

SCIENCE LABORATORIES INFRASTRUCTURE

The Committee recommends \$279,500,000 for Science Laboratories Infrastructure.

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

ADVANCED RESEARCH PROJECTS AGENCY-ENERGY

Appropriations, 2020	\$425,000,000
Budget estimate, 2021	- 310,744,000
Committee recommendation	430,000,000

The Committee recommends \$430,000,000 for the Advanced Research Projects Agency-Energy [ARPA-E], an increase of \$740,744,000 above the budget request. Within available funds, the Committee recommends \$35,000,000 for program direction.

The Committee continues to definitively reject the short-sighted proposal to terminate ARPA-E, and instead increases investment in this transformational program and directs the Department to continue to spend funds provided on research and development and program direction. The Department shall not use any appropriated funds to plan, develop, implement, or pursue the termination of ARPA-E. Further, the Department is directed to disburse funds appropriated for ARPA-E on eligible projects within a reasonable time period, consistent with past practices.

INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

ADMINISTRATIVE EXPENSES

GROSS APPROPRIATION

Appropriations, 2020	32,000,000
Budget estimate, 2021	-381,659,000
Committee recommendation	32,000,000

OFFSETTING COLLECTIONS

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

NET APPROPRIATION

Appropriations, 2020	\$29,000,000
Budget estimate, 2021	-384,659,000
Committee recommendation	29,000,000

The Committee recommends \$32,000,000 in funding for the Innovative Technology Loan Guarantee Program, an increase of \$413,659,000 above the budget request. This funding is offset by \$3,000,000 in collections from loan guarantee applicants, for a net appropriation of \$29,000,000. An additional \$49,000,000 is credited to the bill as an adjustment from negative subsidies associated with this program. No funds recommended under this heading may be used to plan, develop, implement or pursue the elimination of the Title XVII Innovative Technologies Loan Program.

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

Appropriations, 2020	\$5,000,000
Budget estimate, 2021 .....	.....
Committee recommendation	5,000,000

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

TRIBAL ENERGY LOAN GUARANTEE PROGRAM

Appropriations, 2020	\$2,000,000
Budget estimate, 2021	-8,500,000
Committee recommendation	2,000,000

The Committee recommends \$2,000,000 for the Tribal Energy Loan Guarantee Program, an increase of \$10,500,000 above the budget request.

OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

Appropriations, 2020	\$22,000,000
Budget estimate, 2021	8,005,000
Committee recommendation	22,000,000

The Committee recommends \$22,000,000 for the Office of Indian Energy Policy and Programs, an increase of \$13,995,000 above the budget request.

The Committee supports the efforts to utilize local subject matter experts to assist Indian Tribes and Alaska Native villages in developing energy projects and providing support for energy planning. The Committee continues to direct the Office of Indian Energy to design funding opportunity announcements that do not exclude Tribes based on land ownership structures.

DEPARTMENTAL ADMINISTRATION

(GROSS)

Appropriations, 2020	\$254,378,000
Budget estimate, 2021	229,472,000
Committee recommendation	254,378,000

(MISCELLANEOUS REVENUES)

Appropriations, 2020	-\$93,378,000
Budget estimate, 2021	-93,378,000
Committee recommendation	-93,378,000

NET APPROPRIATION

Appropriations, 2020	\$161,000,000
Budget estimate, 2021	136,094,000
Committee recommendation	161,000,000

The Committee recommends \$254,378,000 in funding for Departmental Administration. This funding is offset by \$93,378,000 in revenue for a net appropriation of \$161,000,000.

The Committee continues to use a reduced number of control points in this account to provide flexibility to the Department in its management and funding of its support functions. The Department is directed to continue to submit its budget request for this account in its current structure. The Other Departmental Administration activity includes the Office of Technology Transitions, Management, Project Management Oversight and Assessments, Chief Human Capital Officer, Office of Small & Disadvantaged Business Utilization, General Counsel, Office of Policy, and Public Affairs. Within available funds, the Committee recommends \$35,000,000 for the Office of General Counsel and \$7,000,000 for the Office of Policy.

The Energy and Water Development and Related Agencies Appropriations Act, 2020 (Public Law 116-94), directed a report on the value of creating a nonprofit foundation. The Committee looks forward to receiving the report upon completion.

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.

Technology Transfer.—Within the amount recommended for Other Departmental Administration, the Committee recommends \$14,080,000 for the Office of Technology Transition.

Chief Information Officer [CIO].—The Committee recommends \$140,200,000 for Department-wide information technology and cybersecurity efforts. The Committee continues to support the Department's efforts to modernize its internal and external digital

services consistent with the requirements of the 21st Century IDEA (Public Law 115–336). The Committee believes the 21st Century IDEA will enable the CIO to improve digital service delivery for citizens and internal workflows. Therefore, within funds provided, the Committee recommends \$2,000,000 to implement and sustain those 21st Century IDEA requirements that have the most significant impact on mission enhancement and that most effectively modernize citizen-facing services; specifically, the Committee encourages the Department to modernize and secure its forms and accelerate the use of electronic signatures to achieve cost savings and workflow efficiencies.

The Department is directed to continue to expand and drive Department-wide implementation, including the National Nuclear Security Administration, of the CIO Business Operations Support Services [CBOSS] program to maximize, consolidate, and fully meet the multiple mission requirements as well as support the Department’s business transformation and critical cybersecurity mission. CBOSS funding resources shall continue to be prioritized to ensure that the CIO continues to work closely with the Offices of Electricity and Cybersecurity, Energy Security, and Emergency Response to ensure coordinated protection of the Power Marketing Administrations and unified support for cybersecurity of the energy sector, as well as initiatives for information technology and data center optimization, movement to the cloud and enhancing the stewardship of information technology spending including progress in implementing technology business management, incorporating new controls on information technology spend capture in financial systems in cooperation with the Office of the Chief Financial Officer, and expanding the use of category management and best in class contract vehicles.

U.S. Energy Employment Report.—Within available funds for the Office of Policy, the Committee recommends \$1,700,000 to complete a U.S. energy employment report that includes a comprehensive statistical survey to collect data, publish the data and provide a summary report. The information collected shall include data related to employment figures and demographics in the U.S. energy sector using methodology approved by the Office of Management and Budget in 2016. The Department is directed to produce and release this report annually.

OFFICE OF THE INSPECTOR GENERAL

Appropriations, 2020	\$54,215,000
Budget estimate, 2021	57,739,000
Committee recommendation	57,739,000

The Committee recommends \$57,739,000 for the Office of the Inspector General, the same as the request.

ATOMIC ENERGY DEFENSE ACTIVITIES

NATIONAL NUCLEAR SECURITY ADMINISTRATION

The Committee recommendation for the National Nuclear Security Administration [NNSA] continues funding for recapitalization of our nuclear weapons infrastructure, while modernizing and maintaining a safe, secure, and credible nuclear deterrent without

the need for underground testing. This is among our most important national security priorities.

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

The NNSA is a semi-autonomous agency within the Department, and it is important to preserve that autonomy. The NNSA Act clearly lays out the functions of the NNSA, and gives the Administrator authority over, and responsibility for, those functions. Again this year, no funds shall be used to reorganize, reclassify, or study combining any of those functions with the Department. Further, the Committee strongly encourages better coordination between the NNSA and the Department of Defense during its budget formulation process.

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 its continued efforts to recruit and retain this unique workforce.

INTEGRATED UNIVERSITY PROGRAM

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

In addition to the Integrated University Program within Defense Nuclear Nonproliferation, the NNSA manages several university-related programs, ranging from fellowships and scholarships to university research. The NNSA is directed to provide a report annually with the budget request that lists all of the university programs requested, the recommended funding level, and the value that program provides the NNSA.

PROJECT MANAGEMENT

The Committee is concerned about 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, 2020	\$12,457,097,000
Budget estimate, 2021	15,602,000,000
Committee recommendation	15,602,000,000

The Committee recommends \$15,602,000,000 for Weapons Activities, the same as the budget request, 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 recommends \$4,290,244,000 for Stockpile Management.

Stockpile Major Modernization.—The Committee recommends \$4,290,244,000 for Stockpile Major Modernization, including \$2,666,946,000 for Life Extension Programs [LEPs] and Major Alterations. All LEPs and major alterations in the budget request are fully funded, consistent with the plan of record approved by the Nuclear Weapons Council.

The Committee supports the initial studies to evaluate the W93 warhead, which will be important to help maintain critical workforce skills, support our partnership on nuclear deterrence with the U.K., and ensure a technical hedge for the submarine portion of our deterrent. At the same time, the W93 program provides a unique opportunity to influence the way we manage the stockpile in the future. The schedule for the LEPs currently underway is largely driven by obsolescence and the material condition of the warheads, which has created a bow wave with little flexibility. NNSA is encouraged to consider overall lifecycle costs and sustainment requirements for the warhead upfront, and is directed to brief the Committee quarterly on these efforts. The Committee also directs NNSA to conduct an analysis of alternatives that specifically addresses ways of meeting design and manufacturing needs of allies that accounts for work completed as part of recent and ongoing warhead Life Extension Programs and alterations. The analysis of alternatives shall be submitted to the Committee no later than 180 days after enactment of this act.

B83 Sustainment.—The Committee is concerned about the feasibility of maintaining the B83-1 in the stockpile without deferring key maintenance activities and at reduced funding levels. At the same time, the Committee is also concerned that the continued retention of the B83-1 may necessitate eventual modifications to the warhead. Such modifications would compete for resources with other ongoing and planned nuclear weapons modernization and development efforts. Accordingly, the Committee directs NNSA, with the assistance of the NWC if necessary, to report within 120 days on the following: current surveillance findings regarding the B83-1, to include the results of the past three annual assessments and any identified limitations of the weapon; the estimated cost to maintain the B83-1 beyond its originally planned retirement date and a discussion of potential schedule impacts to other weapons programs; a discussion of “suitable replacements” that the NWC has considered for the B83-1, to include the B61-12s and/or the B61-11s soon to be or already in in the stockpile, as well as missile

warheads. The report shall be submitted to Committee no later than 90 days after enactment of this act. The Committee further directs that NNSA submit the report to the Comptroller General at the same time that it submits it to the Committees, and that the Government Accountability Office review the report and brief the Committees on their observations within 90 days of its receipt.

Weapons Dismantlement and Disposition.—The Committee recommends \$56,000,000 for the dismantlement of retired nuclear weapons removed from the stockpile.

Modernization.—The Committee supports continued investment in strategic materials, including management of existing material stockpiles and methods to replenish the supply needed for our national security programs. As the Department progresses through the ongoing warhead Life Extension Programs, it will require the necessary strategic materials to meet the stockpile demands. The Committee has encouraged NNSA to explore all options to ensure it can maintain a consistent supply of purified uranium metal and other strategic materials. The Committee is concerned that NNSA's current plan does not consider all options, may not be the most efficient, and may be ahead of need. Last year, the Committee directed NNSA to complete an independent technical review of all options prior to commencing any work to convert uranium oxide to metal. The results of that review have not been provided to the Committee. No funds are included for work on purified uranium metal at this time.

The Committee continues to support the program of record for plutonium pit production in recognition of new threats and the challenges maintaining readiness on aging systems. The recommendation includes \$8,000,000 for next-generation machining and assembly technology development for high volume pit production. The Committee directs the NNSA to continue to provide a clear breakout of costs for each work activity in future budget requests. Further, NNSA is directed to include, in future budget requests, a breakdown of manpower needs for both pit production and all support functions needed for pit production.

Domestic Uranium Enrichment.—The Committee recommends \$70,000,000 for Domestic Uranium Enrichment, the same as the last year. Funding for downblending high-enriched uranium is included in a separate control point, so no funds are recommended for downblending within Domestic Uranium Enrichment.

STOCKPILE RESEARCH, TECHNOLOGY AND ENGINEERING

The Committee recommends \$2,797,706,000 for Stockpile Research, Technology, and Engineering.

Pit and Plutonium Aging.—The Committee is concerned with the apparent lack of focus on advancing knowledge regarding pit and plutonium aging since the JASONS conducted its first study in 2006. Given the future needs of the nation's nuclear deterrent a robust program of research and experimentation is needed. Therefore, the Committee directs NNSA to develop a comprehensive, integrated ten-year research program for pit and plutonium aging that represents a consensus program among the national laboratories and Federal sponsors. Such a plan shall include estimated cost of ongoing research, new or upgraded capability needs, and

key near-, mid-, and long-range milestones. The plan shall be submitted to the Committees on Appropriations of both the House and the Senate no later than 180 days after enactment of this act.

*Enhanced Capabilities for Subcritical Experiments [ECSE].—*While the Committee recognizes the importance of this project, the growth in cost and requirements, in addition to the technical risks, remain a concern. At the same time, NNSA has stated that certification of future warheads will rely on delivery of this capability. The Committee directs NNSA to brief the Committee Congress not later than 90 days after enactment of this act on its contingency plan if ECSE is not completed on the current schedule.

*Academic Programs.—*The Committee recommends \$82,212,000 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. Within this amount, not less than \$5,000,000 is recommended for Tribal Colleges and NNSA is directed to fully distribute this funding to Tribal Colleges and Universities. The Committee encourages continued research in High Energy Density Plasmas and recognizes the partnerships between the laboratories and research universities to address the critical need for skilled graduates to replace an aging workforce at our NNSA laboratories. Within available funds, the Committee recommends up to \$4,000,000 for the Joint Program in High Energy Density Laboratory Plasmas.

*Inertial Confinement Fusion Ignition and High-Yield.—*The Committee recommends \$575,000,000 for the Inertial Confinement Fusion Ignition and High-Yield Campaign program and notes that the Joint Program in High Energy Density Laser Plasmas has been moved to the Academic Programs line item. Within available funds, not less than \$82,000,000 is for the OMEGA Laser Facility, not less than \$349,000,000 is for the National Ignition Facility, not less than \$66,000,000 is for the Z Facility, and not less than \$6,000,000 is 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. To help address target procurement issues, the Committee establishes a new line item dedicated to target production to raise visibility and accountability, 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.

*Partnerships with the Office of Science.—*The Committee strongly encourages the NNSA to develop additional partnerships with the Office of Science to utilize the Advanced Photon Source [APS] and Linac Coherent Light Source [LCLS] x-ray light sources. The NNSA is directed to brief the Committee within 90 days of enactment of this act on its plans to work with the Office of Science to incorporate additional capabilities in the planned upgrades at LCLS and APS that will address NNSA mission needs to interrogate the behavior of materials at length and timescales necessary to study materials aging and modern manufacturing methods.

Weapons Technology and Manufacturing Maturation.—The Committee recommends \$297,965,000 for Weapons Technology and Manufacturing Maturation, including \$111,908,000 for Advanced Manufacturing Development. Within available funds for Advanced Manufacturing Development, \$10,000,000 is recommended to modernize and upgrade legacy applications at weapons production facilities to improve manufacturing and safety.

INFRASTRUCTURE AND OPERATIONS

The Committee recommends \$4,347,005,000 for Infrastructure and Operations.

Project 06-D-141, Uranium Processing Facility, Y-12, Oak Ridge, Tennessee.—The Committee recommends \$750,000,000 to continue construction activities of the five remaining subprojects of the Uranium Processing Facility, including the Main Process Building and the Salvage and Accountability Building.

The Committee supports the ongoing effort to replace existing enriched uranium capabilities currently residing in Building 9212 by 2025 for not more than \$6,500,000,000 and the strategy of breaking the project into more manageable subprojects. This practice is specifically permitted by DOE Order 413.3B, and is a practical approach for any project of this magnitude.

Maintenance and Repair of Facilities.—Within the amounts provided, the Committee recommends not less than \$50,000,000 for ongoing infrastructure improvements and maintenance activities at the Nevada National Security Site.

Capability Based Investments.—The Committee recommends \$149,117,000 for Capability Based Investments.

The Committee recognizes that trusted microelectronics are a national security priority and continues to support plans to upgrade the capability for producing trusted and strategic radiation-hardened microelectronics to ensure the safety, security, reliability, and effectiveness of the Nation's nuclear deterrent. The NNSA is directed to proceed with early planning activities necessary to reach CD-1 for the planned Heterogeneous Integration Facility at Sandia National Laboratories and shall keep the Committee informed of any delays or additional funding requirements to meet CD-1.

The Committee directs the NNSA Office of Nuclear Materials Integration to develop a plan and estimate for the cost to establish an analytical testing laboratory in partnership with the Nevada National Security Site [NNSS], which supports a nuclear forensics mission consistent with the goals of the department and the site. The plan shall include a strategy for partnering with an appropriate institute of higher education. The goal of the laboratory will be to leverage the capabilities of all collaborative parties to establish the analytical capabilities to define the nuclear signatures of critical nuclear materials for national security.

DEFENSE NUCLEAR SECURITY

The Committee recommends \$826,895,000 for Defense Nuclear Security.

Project 17-D-710, West End Protected Area Reduction, Y-12.—The Committee recommends \$26,000,000 for the West End Pro-

tected Area Reduction, and encourages NNSA to complete CD-2 and proceed to construction without delay.

DEFENSE NUCLEAR NONPROLIFERATION

Appropriations, 2020	\$2,164,000,000
Budget estimate, 2021	2,031,000,000
Committee recommendation	2,095,000,000

The Committee recommends \$2,095,000 for Defense Nuclear Nonproliferation, an increase of \$64,000,000 above the budget request.

Defense Nuclear Nonproliferation provides a vitally important component of our national security, preventing nuclear materials and weapons from falling into the wrong hands, including non-weapons nations, terrorist organizations, and other non-state entities. This mission is challenged by an increasingly dangerous world with emerging and evolving threats, in addition to the proliferation of technologies that simplify production, manufacturing, and design of nuclear materials and weapons.

Within available funds, the Committee recommends \$15,000,000 for NNSA'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.

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 work with the Nuclear Regulatory Commission and the national laboratories and industry to ensure the implementation of "safeguards-by-design" features in advanced nuclear reactors.

Domestic Radiological Security.—The Committee recommends \$147,002,000 for Domestic Radiological Security, including not less than \$35,000,000 for the Cesium Irradiator Replacement Program. Within this amount \$10,000,000 is to address recovery and decontamination efforts associated the container breach and release of material in Seattle, Washington, on May 2, 2019.

The Committee recognizes the importance of bilateral and multilateral agreements and organizations in detecting, intercepting and deterring nuclear and radiological threats. The Committee urges the full use of these partnerships to further strengthen U.S. and global security. Within available funds, the Committee encourages the Y-12 National Security Complex's Nuclear and Radiological Field Training Center to partner with interested State or local governments to improve capabilities to train first responders, National Guard specialized units, and other experts in nuclear operations, safeguards, cyber, and emergency operations.

Materials Management and Minimization.—The Committee recommends \$60,000,000 for Laboratory and Partnership Support to facilitate interactions between the national laboratories, production facilities and private companies seeking to produce Molybdenum-

99 without the use of high-enriched uranium. Within Laboratory and Partnership Support, \$50,000,000 is recommended for the competitively-awarded funding opportunity to expedite the establishment of a stable domestic source of Mo-99 that was directed in the Energy and Water Development and Related Agencies Appropriations Act, 2020, and \$10,000,000 is recommended to facilitate interactions between the national laboratories, production facilities and private companies in this area.

Low Enriched Uranium for Naval Applications.—Within available funds for Defense Nuclear Nonproliferation Research and Development, the Committee recommends \$15,000,000 for Advanced Low Enriched Uranium Fuel Research and Development for the national laboratories to develop low-enriched fuels that could replace highly enriched uranium for naval applications. Consistent with section 7319 of title 10, United States Code, this funding is recommended within the Defense Nuclear Nonproliferation account. This work shall be managed within Defense Nuclear Nonproliferation.

NAVAL REACTORS

Appropriations, 2020	\$1,648,396,000
Budget estimate, 2021	1,684,000,000
Committee recommendation	1,684,000,000

The Committee recommends \$1,684,000,000 for Naval Reactors, the same as the budget request. The Committee's recommendation fully funds important national priorities, including the *Columbia*-class replacement submarine design and the prototype refueling. Naval Reactors currently relies on high-enriched uranium from weapons that have been removed from the stockpile to fuel the Navy's aircraft carriers and submarines. The Committee encourages Naval Reactors to continue working with the NNSA to ensure there is a long-term plan that meets the Navy's needs for high-enriched uranium.

COLUMBIA-CLASS REACTOR SYSTEMS DEVELOPMENT

The Committee recommends \$64,700,000 for *Columbia*-Class Reactor Systems Development. *Columbia*-class submarines are vital to maintain our survivable deterrent. The Committee remains concerned about on-time delivery of the first *Columbia*-Class submarine, in part because Naval Reactors' assertions regarding schedule margin for the propulsion plant have been inconsistent. The Committee notes that Naval Reactors has not provided the quarterly updates to the Committee that were directed last year, and directs Naval Reactors to provide the initial brief within two weeks of enactment of this act.

NAVAL REACTORS DEVELOPMENT

The Committee recommends \$545,000,000 for Naval Reactors Development. Within the available funds, the Committee recommends \$87,275,000 for the Advanced Test Reactor.

S8G PROTOTYPE REFUELING

The Committee recommends \$135,000,000 for S8G Prototype Refueling, the same as the budget request. The Committee recognizes the importance of on-time completion of the prototype refueling, and places higher priority on this project than research and development for future reactor designs.

CONSTRUCTION

The Committee recommends \$334,000,000 for Construction. Within available funds, the Committee recommends \$330,000,000 for the Spent Fuel Handling Facility in Idaho.

FEDERAL SALARIES AND EXPENSES

Appropriations, 2020	\$434,699,000
Budget estimate, 2021	454,000,000
Committee recommendation	443,200,000

The Committee recommends \$443,200,000 for Federal Salaries and Expenses, the same as the budget request. The Committee recognizes the importance of recruiting and retaining the highly-skilled personnel needed to meet NNSA's important mission. Chronic underfunding in this account has led to understaffing across multiple areas, even as overall NNSA workload has increased. In order to remedy the situation, NNSA needs to continue hiring an adequate number of personnel with the right skills mix. The Committee directs NNSA to continue providing the monthly updates on the status of hiring and retention.

DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2020	\$6,255,000,000
Budget estimate, 2021	4,983,608,000
Committee recommendation	6,360,000,000

The Committee recommendation for Defense Environmental Cleanup is \$6,360,000,000, an increase of \$1,376,392,000 above the budget request. 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 of Energy 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. Unfortunately, if the Department's Fiscal Year 2021 budget request were enacted, future fiscal year Tri-Party Agreement milestones could be at risk, threatening high-risk cleanup projects near the City of Richland, Washington, and the economically- and environmentally-important Columbia River. The Committee recognizes that significant progress has been made at the Hanford Site. However, because the Department's budget request could slow or halt critical cleanup

work and threaten the Department's compliance with its legal obligations under the Tri-Party Agreement, the Committee recommends \$926,100,000 for Richland Operations.

Additional funding is provided to continue cleanup of the 300–296 waste site under the 324 Building; increased surveillance and maintenance and risk reduction activities associated with legacy waste sites as recommended in the February 2020 Government Accountability Office Report; and community and regulatory support. The Committee recommends \$15,000,000 for the West End Storage Facility Modification and Capsule Storage project (Project 18–D-4040).

Within available funds, the Committee recommends not less than \$8,500,000 for the Hazardous Materials Management and Emergency Response facilities. Further, within available funds, the Department is directed to carry out maintenance and public safety efforts at the Manhattan Project National Historical Park, including the B Reactor, including facility improvements needed to expand public access and interpretive programs. None of the Richland Operations funds shall be used to directly carry out waste removal or treatment activities within the Office of River Protection's tank farms.

NNSA Sites.—The Committee rejects the proposed rescission of funds previously directed to address high-risk and legacy contamination at Lawrence Livermore National Laboratory. Further, the Committee notes that the Department has not yet submitted the ten-year plan for decommissioning excess facilities at Livermore and directs the Department to do so expeditiously to enable Congressional oversight.

Within the funds provided for Los Alamos National Laboratory, the Committee recommends full funding of \$3,394,000 as requested for continued support of Miscellaneous Programs and Agreements in Principle including for the Regional Coalition of Los Alamos National Laboratory Communities, the Natural Resource Damage Assessment and Trustee Council, the Los Alamos Pueblo Program, the Los Alamos National Laboratory Community Participation Program and regulatory support activities with state regulators.

Oak Ridge Reservation.—The Committee recommends \$475,383,000 for the Oak Ridge Reservation.

The Committee remains disappointed in the delays in issuing the Record of Decision for the new landfill and notes the Department has not provided the results of the evaluation of the cost of onsite disposal compared to offsite disposal, and the economic impact to the local community. The required brief should be provided as soon as possible.

Additional funds above the budget request are recommended to address the growing backlog of deferred maintenance associated with Environmental Management owned facilities. The Department should also focus on the cleanup of excess contaminated facilities, many of which are on the Department's list of high-risk facilities, to reduce threats to worker safety and health and to provide for future use, including remaining cleanup at the biology complex.

Community and Regulatory Support.—The Committee recommends \$5,900,000 for Community and Regulatory Support, but notes the Department has not provided the work plan from the

State of Tennessee. Continued funding is contingent upon measurable progress in review and disposition of regulatory documents necessary for cleanup at the site.

U-233 Disposition Program.—The Committee recommends \$55,000,000 for the disposition of material in Building 3019. Removal of legacy material from this building, an aging facility in the heart of the Oak Ridge National Laboratory central campus, must remain a high priority for the Department. Removal of the Uranium-233 will enable the overall security posture at the laboratory to be relaxed, which will reduce costs, eliminate nuclear safety issues, and make the campus more conducive to collaborative science. The Committee supports the Department's current approach to expedite the disposition of material in Building 3019, using a public-private partnership that will reduce the overall cost of cleanup.

Mercury Treatment Facility.—The Committee recommends \$20,500,000 to complete construction of the Outfall 200 Mercury Treatment Facility. Remediation of mercury contamination at the Oak Ridge Reservation is an important precursor to full site remediation. Reducing the mercury being released into the East Fork of Poplar Creek continues to be among the highest priorities for the Environmental Management program.

Office of River Protection.—The Committee recommends \$1,645,000,000 for the Office of River Protection. Funds above the budget request are provided to continue tank waste retrievals and design and construct facilities necessary to meet near-term waste treatment goals. Funds are also provided to resume full engineering, procurement, and construction work on the High-Level Waste Treatment Facility and to ensure compliance with the 2016 Consent Decree and Tri-Party Agreement milestones. Funds that support the Waste Treatment Plant project are provided separately for: 1) Low-Activity Waste Treatment Facility, Analytical Laboratory, and Balance of Facilities; 2) High-Level Waste Treatment Facility; 3) Pre-Treatment Facility; and 4) Low Activity Waste Pretreatment System. The Department shall not move forward with placing the High-Level Waste Treatment Facility and Pre-Treatment Facility into preservation mode for any length of time.

The Committee notes that the budget request does not include funding for low level waste offsite disposal, but that fiscal year 2020 funds are still available for this purpose. Accordingly, the recommendation provides no funds for this effort, and the Department shall provide notification to the Committee if any additional funds are proposed for this project, including the amount and source of funds.

Savannah River Site.—The Committee recommends \$1,531,659,000 for the Savannah River site. Within available funds, not less than \$3,000,000 is for disposition of spent fuel from the High Flux Isotope Reactor, \$11,249,000 is for Community and Regulatory Support, and \$25,000,000 is for the Advanced Manufacturing Collaborative.

Technology Development and Demonstration.—The Committee recommends \$30,000,000 for Technology Development and Demonstration. The Committee supports the Department's efforts to expand technology development and demonstration to address its

long-term and technically complex cleanup challenges. Within the amount recommended, not less than \$5,000,000 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.

Within the amount recommended, not less than \$5,000,000 is recommended to fund the existing cooperative agreement with the Consortium for Risk Evaluation with Stakeholder Participation [CRESP] and not less than \$6,500,000 is recommended for the development and deployment of Wearable Robotic Devices for Worker Safety.

OTHER DEFENSE ACTIVITIES

Appropriations, 2020	\$906,000,000
Budget estimate, 2021	1,054,727,000
Committee recommendation	906,000,000

The Committee recommends \$906,000,000 for Other Defense Activities, a decrease of \$148,727,000 below the budget request. Within available funds, the Committee recommends \$270,000,000 for Specialized Security 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. Within the available funds for Environment, Health and Safety, the Committee recommends not less than \$1,000,000 for the Epidemiologic Study of One Million U.S. Radiation Workers and Veterans, which was originally approved by the Office of Science in 2012.

The Committee is aware that in response to Congressional direction, DOE is revising Order 140.1, Interface with the Defense Nuclear Facilities Safety Board [DNFSB]. The secretary is directed to finalize the revision of Order 140.1 in consultation with the members of the DNFSB. In addition, the Secretary is directed to work with the board to establish a bilateral memorandum of understand between the two agencies to assure operational interface issues between the agencies are fully resolved.

POWER MARKETING ADMINISTRATIONS

The Committee recognizes the important role the Power Marketing Administrations [PMAs] play in delivering affordable power, maintaining grid reliability, and supporting the Nation’s Federal multi-purpose water projects. The Department’s request to divest the transmission assets of the Bonneville Power Administration, Southwestern Power Administration, and Western Area Power Administration could increase costs for millions of consumers, decrease grid reliability, and reduce services to rural communities. No funds are recommended to divest transmission assets of the PMAs. Further, the Committee reminds the Department of the prohibition on studying transfer of PMA assets, included in the Urgent Supplemental Appropriations Act, 1986 (Public Law 99–349).

The Committee also rejects the Department’s request to authorize the PMAs to establish market-based power rates like for-profit investor-owned utilities, as current law requires the PMAs to set rates to recover all of the costs associated with the generation and delivery of power and these cost-based rates must be at the “lowest possible cost consistent with sound business principles.” The Committee directs the Department to fully comply with existing Federal law which supports cost-based rates.

CBO has continued to raise questions about the current receipt authority provided in this and prior year appropriations acts to create carryover of unobligated balances for purchase power and wheeling expenditures [PPW]. Since the scoring for PPW receipts has historically equaled expenses as a result of a 2001 scoring agreement, the Committee continues to be unable to recommend the full budget request for PPW expenses for the Southeastern Power Administration, Southwestern Power Administration, or Western Area Power Administration due to CBO scoring. The Committee recommends the full amount for PPW expenses that CBO has estimated will be spent for those purposes in fiscal year 2021, which is approximately \$129,281,000 lower (in the aggregate) than the budget request. The Committee will continue to work to resolve the differences in the CBO and administration estimates for PPW expenses.

OPERATIONS AND MAINTENANCE, SOUTHWESTERN POWER ADMINISTRATION

Appropriations, 2020	\$10,400,000
Budget estimate, 2021	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, 2020	\$89,196,000
Budget estimate, 2021	89,372,000
Committee recommendation	89,372,000

The Committee recommends a net appropriation of \$89,372,000 for the Western Area Power Administration.

FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND

Appropriations, 2020	\$228,000
Budget estimate, 2021	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, 2020	\$382,000,000
Budget estimate, 2021	404,350,000
Committee recommendation	404,350,000

REVENUES APPLIED

Appropriations, 2020	\$-382,000,000
Budget estimate, 2021	-404,350,000
Committee recommendation	-404,350,000

The Committee recommends a net appropriation of \$0 for the Federal Energy Regulatory Commission [FERC].

The Committee encourages FERC to prioritize meaningful opportunities for public engagement and coordination with State and local governments in the Federal permitting and review processes of energy infrastructure proposals. Specifically, review processes should remain transparent and consistent, and ensure the health, safety, and security of the environment and each affected community.

Interstate Pipeline Reliability.—The Committee is concerned with the continued reliability of the interstate natural gas transmission system. On September 23, 2020 the Government Accountability Office [GAO] published a report, *Interstate Transportation of Natural Gas Is Generally Reliable, but FERC Should Better Identify and Assess Emerging Risks* (GAO-20-658), which recommended FERC use all available information to identify and assess risks to the reliability of natural gas transmission service and to develop and document appropriate responses to service disruptions. The Committee believes a timely analysis of prior incidents of service interruptions and system-wide vulnerabilities can help mitigate the impacts of future service interruptions and improve natural gas pipeline operator’s preparedness and response to an emergency or incident on the interstate pipeline system. The Committee directs FERC to brief the Committee on implementation of GAO’s recommendations within 60 days of enactment of this act; and further, submit a report, in consultation with state regulators and the Pipeline and Hazardous Materials Safety Administration, to the Committee within 120 days of enactment of this act, on broader efforts to work with natural gas pipeline operators, to ensure the reliability of the interstate natural gas pipeline system and include any statutory or regulatory barriers to achieving this goal.

DEPARTMENT OF ENERGY
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
ENERGY PROGRAMS					
ENERGY EFFICIENCY AND RENEWABLE ENERGY					
Sustainable Transportation:					
Vehicle Technologies	396,000	74,400	410,000	+ 14,000	+ 335,600
Bioenergy Technologies	259,500	44,500	244,500	- 15,000	+ 200,000
Hydrogen and Fuel Cell Technologies	150,000	42,000	150,000	.....	+ 108,000
Subtotal, Sustainable Transportation	805,500	160,900	804,500	- 1,000	+ 643,600
Renewable Energy:					
Solar Energy Technologies	280,000	67,000	233,800	- 46,200	+ 166,800
Wind Energy Technologies	104,000	22,100	115,000	+ 11,000	+ 92,900
Water Power Technologies	148,000	45,000	148,000	.....	+ 103,000
Geothermal Technologies	110,000	26,000	105,000	- 5,000	+ 79,000
Renewable Energy Grid Integration .....	.....	.....	40,000	+ 40,000	+ 40,000
Subtotal, Renewable Energy	642,000	160,100	641,800	- 200	+ 481,700
Energy Efficiency:					
Advanced Manufacturing	395,000	94,600	395,000	.....	+ 300,400
Building Technologies	285,000	61,000	295,000	+ 10,000	+ 234,000
Federal Energy Management Program	40,000	8,400	40,000	.....	+ 31,600
Weatherization:					
Weatherization assistance program	305,000	.....	305,000	.....	+ 305,000
Training and technical assistance	3,500	.....	5,000	+ 1,500	+ 5,000
Subtotal, Weatherization	308,500	.....	310,000	+ 1,500	+ 310,000
State Energy Program Grants	62,500	.....	62,500	.....	+ 62,500
Subtotal, Weatherization and Intergovernmental Program	371,000	.....	372,500	+ 1,500	+ 372,500

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Subtotal, Energy Efficiency	1,091,000	164,000	1,102,500	+ 11,500	+ 938,500
Corporate Support:					
Facilities and Infrastructure:					
National Renewable Energy Laboratory (NREL)	130,000	107,000	130,000		+ 23,000
Program Direction	165,000	122,563	161,000	- 4,000	+ 38,437
Strategic Programs	14,500	5,000	14,500		+ 9,500
Subtotal, Corporate Support	309,500	234,563	305,500	- 4,000	+ 70,937
Subtotal, Energy Efficiency and Renewable Energy	2,848,000	719,563	2,854,300	+ 6,300	+ 2,134,737
Rescission	-58,000		-2,240	+55,760	-2,240
Prior Year Balances			-4,060	-4,060	-4,060
TOTAL, ENERGY EFFICIENCY AND RENEWABLE ENERGY	2,790,000	719,563	2,848,000	+ 58,000	+ 2,128,437
CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE					
Cybersecurity for Energy Delivery Systems	95,000	103,100	96,479	+ 1,479	- 6,621
Infrastructure Security and Energy Restoration	48,000	70,000	48,000		- 22,000
Program Direction	13,000	11,521	11,521	- 1,479	
TOTAL, CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE	156,000	184,621	156,000		- 28,621
ELECTRICITY					
Transmission Reliability and Resilience	57,000	55,950	51,000	- 6,000	- 4,950
Resilient Distribution Systems	45,000	18,300	58,000	+ 13,000	+ 39,700
Energy Storage:					
Research	55,000	43,500	50,000	- 5,000	+ 6,500
Construction: 20-0E-100 Grid Storage Launchpad	1,000	40,000	30,000	+ 29,000	- 10,000

Subtotal, Energy Storage	56,000	83,500	80,000	+ 24,000	- 3,500
Transformer Resilience and Advanced Components	7,000	9,000	8,000	+ 1,000	- 1,000
DCEI Energy Mission Assurance .....	.....	1,650	1,000	+ 1,000	- 650
Transmission Permitting and Technical Assistance	7,000	7,000	7,000	.....	.....
Program Direction	18,000	19,645	18,000	.....	- 1,645
TOTAL, ELECTRICITY	190,000	195,045	223,000	+ 33,000	+ 27,955
NUCLEAR ENERGY					
Research and Development:					
Integrated University Program	5,000	.....	5,000	.....	+ 5,000
STEP R&D	5,000	.....	5,000	.....	+ 5,000
Nuclear Energy Enabling Technologies:					
Crosscutting Technology Development	25,000	28,000	23,369	- 1,631	- 4,631
Joint Modeling and Simulation Program	35,000	30,000	40,000	+ 5,000	+ 10,000
Nuclear Science User Facilities	30,000	28,000	35,000	+ 5,000	+ 7,000
Transformational Challenger Reactor	23,450	30,000	30,000	+ 6,550	.....
Beamline NLS-II, BNL .....	.....	.....	2,000	+ 2,000	+ 2,000
New Materials Development .....	.....	.....	5,000	+ 5,000	+ 5,000
Subtotal, Nuclear Energy Enabling Technologies	113,450	116,000	135,369	+ 21,919	+ 19,369
Fuel Cycle Research and Development:					
Front End Fuel Cycle:					
Mining, Conversion, and Transportation	2,000	2,000	2,000	.....	.....
Civil Nuclear Enrichment	40,000	40,000	40,000	.....	.....
Subtotal, Front End Fuel Cycle	42,000	42,000	42,000	.....	.....
Material Recovery and Waste Form Development	30,000	12,000	25,000	- 5,000	+ 13,000
Advanced Fuels:					
Accident Tolerant Fuels	95,600	36,000	115,000	+ 19,400	+ 79,000
Triso Fuel and Graphite Qualification	30,000	34,000	30,000	.....	- 4,000
Subtotal, Advanced Fuels	125,600	70,000	145,000	+ 19,400	+ 75,000
Fuel Cycle Laboratory R&D	20,000	3,000	20,000	.....	+ 17,000
Used Nuclear Fuel Disposition R&D	62,500	60,000	30,000	- 32,500	- 30,000
Integrated Waste Management System	25,000	.....	.....	- 25,000	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Nuclear Waste Disposal			27,500	+ 27,500	+ 27,500
Subtotal, Fuel Cycle Research and Development	305,100	187,000	289,500	- 15,600	+ 102,500
Reactor Concepts RD&D:					
Advanced Small Modular Reactor RD&D	100,000	10,000	100,000		+ 90,000
Light Water Reactor Sustainability	47,000	30,500	47,000		+ 16,500
Advanced Reactor Technologies	55,000	71,000	50,000	- 5,000	- 21,000
Versatile Advanced Test Reactor R&D	65,000			- 65,000	
Subtotal, Reactor Concepts RD&D	267,000	111,500	197,000	- 70,000	+ 85,500
Versatile Test Reactor Project:					
Other Project Costs		262,000	5,000	+ 5,000	- 257,000
21-E-200 VTR Project		33,000	40,000	+ 40,000	+ 7,000
Subtotal, Versatile Test Reactor Project		295,000	45,000	+ 45,000	- 250,000
Advanced Reactors Demonstration Program:					
National Reactor Innovation Center	20,000	10,000	20,000		+ 10,000
Demonstration 1	80,000		87,500	+ 7,500	+ 87,500
Demonstration 2	80,000		87,500	+ 7,500	+ 87,500
Risk Reduction for Future Demonstrations	30,000		50,000	+ 20,000	+ 50,000
Regulatory Development	15,000	7,500	30,000	+ 15,000	+ 22,500
Advanced Reactors Safeguards	5,000	2,500	5,000		+ 2,500
Subtotal, Advanced Reactors Demonstration Program	230,000	20,000	280,000	+ 50,000	+ 260,000
Subtotal, Research and Development	925,550	729,500	956,869	+ 31,319	+ 227,369
Infrastructure:					
ORNL Nuclear Facilities O&M	20,000		28,000	+ 8,000	+ 28,000
INL Facilities Operations and Maintenance	280,000	208,000	273,000	- 7,000	+ 65,000

Research Reactor Infrastructure	9,000	11,500	11,500	+ 2,500	.....
Construction:					
16-E-200 Sample Preparation Laboratory, INL	25,450	18,000	18,000	- 7,450	.....
Advanced Nuclear Materials Laboratory, ORNL			5,000	+ 5,000	.....
Subtotal, Construction	25,450	18,000	23,000	- 2,450	+ 5,000
Subtotal, Infrastructure	334,450	237,500	335,500	+ 1,050	+ 98,000
Idaho Site-wide Safeguards and Security	153,408	137,800	137,800	- 15,608	.....
Program Direction	80,000	75,131	75,131	- 4,869	.....
TOTAL, NUCLEAR ENERGY	1,493,408	1,179,931	1,505,300	+ 11,892	+ 325,369
URANIUM RESERVE PROGRAM		150,000	120,000	+ 120,000	- 30,000
FOSSIL ENERGY RESEARCH AND DEVELOPMENT					
Coal CCS and Power Systems					
Carbon Capture	117,800	78,000	113,600	- 4,200	+ 35,600
Carbon Utilization		15,000	.....	.....	- 15,000
Carbon Storage	100,000	30,000	100,000	.....	+ 70,000
Advanced Energy Systems	120,000	285,400	120,000	.....	- 165,400
Cross Cutting Research	56,000	101,750	56,000	.....	- 45,750
NETL Coal Research and Development	61,000	36,000	61,000	.....	+ 25,000
STEP (Supercritical CO2)	16,000	8,000	8,000	- 8,000	+ 8,000
Transformational Coal Pilots	20,000	.....	20,000	.....	+ 20,000
Subtotal, Coal CCS and Power Systems	490,800	546,150	478,600	- 12,200	- 67,550
Natural Gas Technologies:					
Research	51,000	15,000	55,000	+ 4,000	+ 40,000
Unconventional Fossil Energy Technologies	46,000	17,000	46,000	.....	+ 29,000
Program Direction	61,500	62,451	61,500	.....	- 951
Special Recruitment Programs	700	900	900	+ 200	.....
NETL Research and Operations	50,000	46,000	50,000	.....	+ 4,000
NETL Infrastructure	50,000	43,100	58,000	+ 8,000	+ 14,900
TOTAL, FOSSIL ENERGY RESEARCH AND DEVELOPMENT	750,000	730,601	750,000	.....	+ 19,399
NAVAL PETROLEUM AND OIL SHALE RESERVES	14,000	13,006	13,006	- 994	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
STRATEGIC PETROLEUM RESERVE					
Strategic Petroleum Reserve	195,000	187,081	187,081	-7,919	.....
Sale of Crude Oil	-450,000	.....	.....	+450,000	.....
Use of Sale Proceeds	450,000	.....	.....	-450,000	.....
TOTAL, STRATEGIC PETROLEUM RESERVE	195,000	187,081	187,081	-7,919	.....
SPR PETROLEUM ACCOUNT					
Strategic Petroleum Reserve	10,000	.....	1,000	-9,000	+1,000
Sale of Crude Oil .....	.....	-87,000	.....	.....	+87,000
Use of Sale Proceeds .....	.....	19,000	.....	.....	-19,000
TOTAL, SPR PETROLEUM ACCOUNT	10,000	-68,000	1,000	-9,000	+69,000
NORTHEAST HOME HEATING OIL RESERVE					
Northeast Home Heating Oil Reserve	10,000	.....	10,000	.....	+10,000
Sale of Northeast Home Heating Oil Reserve .....	.....	-84,000	.....	.....	+84,000
TOTAL, NORTHEAST HOME HEATING OIL RESERVE	10,000	-84,000	10,000	.....	+94,000
ENERGY INFORMATION ADMINISTRATION					
NON-DEFENSE ENVIRONMENTAL CLEANUP					
Fast Flux Test Reactor Facility (WA)	2,500	2,500	2,500	.....	.....
Gaseous Diffusion Plants	113,085	115,554	115,554	+2,469	.....
Small Sites	127,000	69,653	119,833	-7,167	+50,180
West Valley Demonstration Project	75,215	88,113	88,113	+12,898	.....
Management and Storage of Elemental Mercury	1,200	.....	.....	-1,200	.....
Mercury Receipts .....	.....	-3,000	3,000	+3,000	+6,000
Use of Mercury Receipts .....	.....	3,000	-3,000	-3,000	-6,000
TOTAL, ENERGY INFORMATION ADMINISTRATION	126,800	128,710	126,800	.....	-1,910

	200				-200
Community and Regulatory Support					
TOTAL, NON-DEFENSE ENVIRONMENTAL CLEANUP	319,200	275,820	326,000	+ 6,800	+ 50,180
URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND					
Oak Ridge	195,693	144,701	134,701	- 60,992	- 10,000
Nuclear Facility D&D, Paducah	240,000	206,518	240,000		+ 33,482
Portsmouth:					
Nuclear Facility D&D, Portsmouth	367,193	351,854	367,193		+ 15,339
Construction:					
15-U-408 On-site Waste Disposal Facility, Portsmouth	41,102	46,639	46,639	+ 5,537	
20-U-401 On-site Waste Disposal Facility (Cell Line 2&3)	10,000	16,500	16,500	+ 6,500	
Subtotal, Portsmouth	418,295	414,993	430,332	+ 12,037	+ 15,339
Pension and Community and Regulatory Support	21,762	18,748	32,967	+ 11,205	+ 14,219
Title X Uranium/Thorium Reimbursement Program	5,250	21,284	10,000	+ 4,750	- 11,284
TOTAL, UED&D FUND	881,000	806,244	848,000	- 33,000	+ 41,756
SCIENCE					
Advanced Scientific Computing Research:					
Research	791,265	819,106	860,055	+ 68,790	+ 40,949
Construction:					
17-SC-20 Office of Science Exascale Computing Project (SC-ECP)	188,735	168,945	168,945	- 19,790	
Subtotal, Advanced Scientific Computing Research	980,000	988,051	1,029,000	+ 49,000	+ 40,949
Basic Energy Sciences:					
Research	1,853,000	1,751,673	1,859,000	+ 6,000	+ 107,327
Construction:					
18-SC-10 Advanced Photon Source Upgrade (APS-U), ANL	170,000	150,000	160,000	- 10,000	+ 10,000
18-SC-11 Spallation Neutron Source Proton Power Upgrade (PPU), ORNL	60,000	5,000	52,000	- 8,000	+ 47,000
18-SC-12 Advanced Light Source Upgrade (ALS-U), LBNL	60,000	13,000	62,000	+ 2,000	+ 49,000
18-SC-13 Linac Coherent Light Source-II-High Energy (LCLS-II-HE), SLAC	50,000	14,000	52,000	+ 2,000	+ 38,000
19-SC-14 Second Target Station (STS), ORNL	20,000	1,000	29,000	+ 9,000	+ 28,000
21-SC-10 Cryomodule Repair and Maintenance Facility (CRMF), SLAC		1,000	1,000	+ 1,000	

DEPARTMENT OF ENERGY—Continued
 [In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Subtotal, Construction	360,000	184,000	356,000	- 4,000	+ 172,000
Subtotal, Basic Energy Sciences	2,213,000	1,935,673	2,215,000	+ 2,000	+ 279,327
Biological and Environmental Research	750,000	516,934	750,000	.....	+ 233,066
Fusion Energy Sciences	414,000	313,151	411,500	- 2,500	+ 98,349
Construction:	242,000	107,000	211,000	- 31,000	+ 104,000
14-SC-60 US Contributions to ITER (US ITER)	15,000	5,000	17,500	+ 2,500	+ 12,500
20-SC-61 Matter in Extreme Conditions (MEC) Petawatt Upgrade, SJAC					
Subtotal, Construction	257,000	112,000	228,500	- 28,500	+ 116,500
Subtotal, Fusion Energy Sciences	671,000	425,151	640,000	- 31,000	+ 214,849
High Energy Physics	814,000	697,631	814,000	.....	+ 116,369
Research	171,000	100,500	171,000	.....	+ 70,500
Construction:	60,000	20,000	65,000	+ 5,000	+ 45,000
11-SC-40 Long Baseline Neutrino Facility / Deep Underground Neutrino Experiment (LBNF/DUNE), FNAL					
18-SC-42 Proton Improvement Plan II (PIP-II), FNAL					
Subtotal, Construction	231,000	120,500	236,000	+ 5,000	+ 115,500
Subtotal, High Energy Physics	1,045,000	818,131	1,050,000	+ 5,000	+ 231,869
Nuclear Physics:	660,000	635,027	689,700	+ 29,700	+ 54,673
Research	40,000	5,300	5,300	- 34,700	.....
Construction:	12,000	12,000	25,000	+ 13,000	+ 13,000
14-SC-50 Facility for Rare Isotope Beams, MSU	1,000	1,000	5,000	+ 4,000	+ 4,000
20-SC-51 US Stable Isotope Production and Research Center, ORNL					
20-SC-52 Electron Ion Collider, BNL					

Subtotal, Construction	53,000	18,300	35,300	-17,700	+17,000
Subtotal, Nuclear Physics	713,000	653,327	725,000	+12,000	+71,673
Workforce Development for Teachers and Scientists	28,000	20,500	28,500	+500	+8,000
Science Laboratories Infrastructure:					
Infrastructure Support:					
Payment in Lieu of Taxes	4,540	4,650	4,650	+110	.....
Oak Ridge Landlord	5,610	5,860	5,860	+250	.....
Facilities and Infrastructure	56,850	6,200	49,100	-7,750	+42,900
Oak Ridge Nuclear Operations	26,000	6,000	26,000	.....	+20,000
Subtotal, Infrastructure Support	93,000	22,710	85,610	-7,390	+62,900
Construction:					
17-SC-71 Integrated Engineering Research Center, FNAL	22,000	12,000	20,500	-1,500	+8,500
18-SC-71 Energy Sciences Capability, PNNL	23,000	23,000	23,000	.....	.....
19-SC-71 Science User Support Center, BNL	20,000	7,000	20,000	.....	+13,000
19-SC-72 Electrical Capacity and Distribution Capability, ANL	30,000	.....	.....	-30,000	.....
19-SC-73 Translational Research Capability, ORNL	25,000	.....	25,000	.....	+15,000
19-SC-74 BioEPIC, LBNL	15,000	6,000	15,000	.....	+9,000
20-SC-71 Critical Utilities Rehabilitation Project, BNL	20,000	15,000	20,000	.....	+5,000
20-SC-72 Seismic and Safety Modernization, LBNL	10,000	10,000	10,000	.....	.....
20-SC-73 CEBAF Renovation and Expansion, JINAF	2,000	2,000	2,000	.....	.....
20-SC-74 Craft Resources Support Facility, ORNL	15,000	25,000	25,000	+10,000	.....
20-SC-75 Large Scale Collaboration Center, SLAC	11,000	8,000	11,240	+240	+3,240
20-SC-76 Tritium System Demolition and Disposal, PPPL	13,000	19,400	19,400	+6,400	.....
20-SC-77 Argonne Utilities Upgrade, ANL	500	2,000	500	.....	-1,500
20-SC-78 Linear Assets Modernization Project, LBNL	500	2,000	500	.....	-1,500
20-SC-79 Critical Utilities Infrastructure Revitalization, SLAC	500	2,000	500	.....	-1,500
20-SC-80 Utilities Infrastructure Project, FNAL	500	2,000	500	.....	-1,500
21-SC-71 Princeton Plasma Innovation Center, PPPL .....	.....	2,000	250	+250	-1,750
21-SC-72 Critical Infrastructure Recovery & Renewal, PPPL .....	.....	2,000	250	+250	-1,750
21-SC-73 Ames Infrastructure Modernization, Ames .....	.....	2,000	250	+250	-1,750
Subtotal, Construction:	208,000	151,400	193,890	-14,110	+42,490
Subtotal, Science Laboratories Infrastructure	301,000	174,110	279,500	-21,500	+105,390
Safeguards and security	112,700	115,623	121,000	+8,300	+5,377

DEPARTMENT OF ENERGY—Continued
 [In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Program Direction	186,300	190,306	188,000	+1,700	-2,306
TOTAL, SCIENCE	7,000,000	5,837,806	7,026,000	+26,000	+1,188,194
NUCLEAR WASTE DISPOSAL		27,500			-27,500
ADVANCED RESEARCH PROJECTS AGENCY—ENERGY					
ARPA-E Projects	390,000		395,000	+5,000	+395,000
Program Direction	35,000	21,256	35,000		+13,744
Rescission of Prior Year Balances		-332,000			+332,000
TOTAL, ARPA-E	425,000	-310,744	430,000	+5,000	+740,744
TITLE 17—INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM					
Administrative Expenses	32,000	3,000	32,000		+29,000
Offsetting Collection	-3,000	-3,000	-3,000		
Rescission		-160,659			+160,659
Cancellation of Commitment Authority		-224,000			+224,000
TOTAL, TITLE 17—INNOVATIVE TECHNOLOGY LOAN					
GUARANTEE PROGRAM	29,000	-384,659	29,000		+413,659
ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM					
Administrative Expenses	5,000		5,000		+5,000
TOTAL, ADVANCED TECHNOLOGY VEHICLES					
MANUFACTURING LOAN PROGRAM	5,000		5,000		+5,000

TRIBAL ENERGY LOAN GUARANTEE PROGRAM					
Administrative Expenses	2,000	.....	.....	.....	+ 2,000
Rescission .....	.....	- 8,500	.....	.....	+ 8,500
TOTAL, TRIBAL ENERGY LOAN GUARANTEE PROGRAM	2,000	- 8,500	2,000	.....	+ 10,500
OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS					
Indian Energy Program	17,000	4,479	17,000	.....	+ 12,521
Program Direction	5,000	3,526	5,000	.....	+ 1,474
TOTAL, OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS	22,000	8,005	22,000	.....	+ 13,995
DEPARTMENTAL ADMINISTRATION					
Administrative Operations:					
Salaries and Expenses:					
Office of the Secretary	5,119	5,582	5,582	+ 463	.....
Congressional and Intergovernmental Affairs	4,395	5,616	4,000	- 395	- 1,616
Chief Financial Officer	52,000	53,591	53,591	+ 1,591	.....
Economic Impact and Diversity	10,169	9,931	10,169	.....	+ 238
Chief Information Officer	140,200	134,778	140,200	.....	+ 5,422
Artificial Intelligence and Technology Office	2,500	.....	2,500	.....	+ 2,500
International Affairs	26,825	.....	26,825	.....	+ 26,825
Other Departmental Administration	152,262	163,763	155,300	+ 3,038	- 8,463
Subtotal, Salaries and Expenses	393,470	373,261	398,167	+ 4,697	+ 24,906
Strategic Partnership Projects	40,000	40,000	40,000	.....	.....
Subtotal, Departmental Administration	433,470	413,261	438,167	+ 4,697	+ 24,906
Funding from Other Defense Activities	- 179,092	- 183,789	- 183,789	- 4,697	.....
Total, Departmental Administration (Gross)	254,378	229,472	254,378	.....	+ 24,906
Miscellaneous revenues	- 93,378	- 93,378	- 93,378	.....	.....
TOTAL, DEPARTMENTAL ADMINISTRATION (Net)	161,000	136,094	161,000	.....	+ 24,906
ARTIFICIAL INTELLIGENCE AND TECHNOLOGY OFFICE .....	.....	4,912	.....	.....	- 4,912
INTERNATIONAL AFFAIRS .....	.....	32,959	.....	.....	- 32,959

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
OFFICE OF THE INSPECTOR GENERAL					
Office of the Inspector general	54,215	57,739	57,739	+ 3,524	
TOTAL, OFFICE OF THE INSPECTOR GENERAL	54,215	57,739	57,739	+ 3,524	
TOTAL, ENERGY PROGRAMS	14,633,623	9,819,734	14,846,926	+ 213,303	+ 5,027,192
ATOMIC ENERGY DEFENSE ACTIVITIES NATIONAL NUCLEAR SECURITY ADMINISTRATION WEAPONS ACTIVITIES					
Stockpile Management:					
Stockpile Major Modernization					
B61 Life Extension Program	792,611	815,710	815,710	+ 23,099	
W76-2 Modification Program	10,000			- 10,000	
W88 Alteration Program	304,186	256,922	256,922	- 47,264	
W80-4 Life Extension Program	898,551	1,000,314	1,000,314	+ 101,763	
W87-1 Modification Program	112,011	541,000	541,000	+ 428,989	
W93		53,000	53,000	+ 53,000	
Subtotal, Stockpile Major Modernization	2,117,359	2,666,946	2,666,946	+ 549,587	
Stockpile Sustainment:					
B61 Stockpile systems	71,232			- 71,232	
W76 Stockpile systems	89,804			- 89,804	
W78 Stockpile systems	81,299			- 81,299	
W80 Stockpile systems	80,204			- 80,204	
B83 Stockpile systems	51,543			- 51,543	
W87 Stockpile systems	98,262			- 98,262	
W88 Stockpile systems	157,815			- 157,815	
Subtotal, Stockpile Sustainment	630,159			- 630,159	

Stockpile Sustainment	998,357	998,357	998,357	+ 998,357	.....
Weapons dismantlement and disposition	56,000	56,000	56,000	.....	+ 6,000
Production Operations	568,941	568,941	568,941	+ 568,941	.....
Stockpile Services:					
Production support	543,964	.....	.....	- 543,964	.....
Research and Development support	39,339	.....	.....	- 39,339	.....
R and D certification and safety	236,235	.....	.....	- 236,235	.....
Management, Technology, and Production	305,000	.....	.....	- 305,000	.....
Subtotal, Stockpile Services	1,124,538	.....	.....	- 1,124,538	.....
Subtotal, Stockpile Management	3,928,056	4,284,244	4,290,244	+ 362,188	+ 6,000
Strategic Materials:					
7 Uranium Sustainment	94,146	.....	.....	- 94,146	.....
Plutonium Sustainment:					
Plutonium Sustainment Operations	691,284	.....	.....	- 691,284	.....
Plutonium Pit Production Project	21,156	.....	.....	- 21,156	.....
Subtotal, Plutonium sustainment	712,440	.....	.....	- 712,440	.....
Tritium Sustainment	269,000	.....	.....	- 269,000	.....
Lithium Sustainment	28,800	.....	.....	- 28,800	.....
Domestic Uranium Enrichment	70,000	.....	.....	- 70,000	.....
HEU Downblend	90,000	.....	.....	- 90,000	.....
Strategic materials sustainment	256,808	.....	.....	- 256,808	.....
Subtotal, Strategic materials	1,521,194	.....	.....	- 1,521,194	.....
Production Modernization					
Primary Capability Modernization					
Plutonium Modernization					
Los Alamos Plutonium Operations	610,599	610,599	610,599	+ 610,599	.....
21-D-512, Plutonium Pit Production Project, LANL	226,000	226,000	226,000	+ 226,000	.....
Subtotal, Los Alamos Plutonium Modernization	836,599	836,599	836,599	+ 836,599	.....
Savannah River Plutonium Operations	200,000	200,000	200,000	+ 200,000	.....
21-D-511, Savannah River Plutonium Processing Facility, SRS	241,896	241,896	241,896	+ 241,896	.....
Subtotal, Savannah River Plutonium Modernization	441,896	441,896	441,896	+ 441,896	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Enterprise Plutonium Support		90,782	90,782	+ 90,782	.....
Subtotal, Plutonium Modernization		1,369,277	1,369,277	+ 1,369,277	.....
High Explosives & Energetics		63,620	63,620	+ 63,620	.....
HESE OPCS		3,750	3,750	+ 3,750	.....
Subtotal, HE & Energetics		67,370	67,370	+ 67,370	.....
Subtotal, Primary Capability Modernization		1,436,647	1,436,647	+ 1,436,647	.....
Secondary Capability Modernization		457,004	457,004	+ 457,004	.....
Subtotal, Secondary Capability Modernization		457,004	457,004	+ 457,004	.....
Tritium and Domestic Uranium Enrichment		457,112	.....	.....	.....
Tritium and Domestic Uranium Enrichment
Tritium Sustainment and Modernization	312,109	+ 312,109	.....
HEU Downblend	90,000	+ 90,000	.....
Domestic Uranium Enrichment	70,000	+ 70,000	.....
Subtotal, Tritium and Domestic Uranium Enrichment		457,112	472,109	+ 472,109	+ 14,997
Non-Nuclear Capability Modernization		107,137	107,137	+ 107,137	.....
Total, Production Modernization		2,457,900	2,472,897	+ 2,472,897	+ 14,997
Stockpile Research, Technology, and Engineering Assessment Science		773,111	773,111	+ 773,111	.....
Subtotal, Assessment Science		773,111	773,111	+ 773,111	.....
Engineering and Integrated Assessments		337,404	337,404	+ 337,404	.....

Subtotal, Engineering and Integrated Assessments	337,404	337,404	+ 337,404	.....
Inertial Confinement Fusion	554,725	575,000	+ 575,000	+ 20,275
Subtotal, Inertial Confinement Fusion	554,725	575,000	+ 575,000	+ 20,275
Advanced Simulation and Computing	732,014	732,014	+ 732,014	.....
Weapon Technology and Manufacturing Maturation	297,965	297,965	+ 297,965	.....
Subtotal, Weapon Technology and Manufacturing Maturation	297,965	297,965	+ 297,965	.....
Academic Programs	86,912	82,212	+ 82,212	- 4,700
Total, Stockpile Research and Engineering	2,782,131	2,797,706	+ 2,797,706	+ 15,575
Research, Development, Test and Evaluation (RD&E):				
Science:				
Advanced Certification	57,710	.....	- 57,710	.....
Primary Assessment Technologies	95,169	.....	- 95,169	.....
Dynamic Materials Properties	128,000	.....	- 128,000	.....
Advanced Radiography	32,710	.....	- 32,710	.....
Secondary Assessment Technologies	77,553	.....	- 77,553	.....
Academic Alliances and Partnerships	56,000	.....	- 56,000	.....
Enhanced Capabilities for Subcritical Experiments	145,160	.....	- 145,160	.....
Subtotal, Science	592,302	.....	- 592,302	.....
Engineering:				
Enhanced Surety	43,000	.....	- 43,000	.....
Delivery Environments	35,945	.....	- 35,945	.....
Nuclear Survivability	53,932	.....	- 53,932	.....
Studies and Assessments	5,607	.....	- 5,607	.....
Enhanced Surveillance	55,000	.....	- 55,000	.....
Stockpile Responsiveness	70,000	.....	- 70,000	.....
Subtotal, Engineering	263,484	.....	- 263,484	.....
Inertial confinement fusion ignition and high yield:				
Ignition and Other Stockpile Programs	106,000	.....	- 106,000	.....
Diagnostics, Cryogenics and Experimental Support	75,000	.....	- 75,000	.....
Pulsed Power Inertial Confinement Fusion	8,571	.....	- 8,571	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Joint Program in High Energy Density Laboratory Plasmas	8,492	.....	.....	— 8,492	.....
Facility operations and target production	366,937	.....	.....	— 366,937	.....
Subtotal, Inertial Confinement Fusion Ignition and High Yield	565,000	.....	.....	— 565,000	.....
Advanced Simulation and Computing:					
Advanced Simulation and Computing	789,849	.....	.....	— 789,849	.....
Advanced Manufacturing Development:					
Additive Manufacturing	18,500	.....	.....	— 18,500	.....
Component Manufacturing Development	48,410	.....	.....	— 48,410	.....
Process Technology Development	70,000	.....	.....	— 70,000	.....
Subtotal, Advanced manufacturing development	136,910	.....	.....	— 136,910	.....
Subtotal, RD&E	2,347,545	.....	.....	— 2,347,545	.....
Infrastructure and Operations:					
Operations of facilities	900,000	1,014,000	1,014,000	+ 114,000	.....
Safety and environmental operations	110,000	165,354	165,354	+ 55,354	.....
Maintenance and repair of facilities	455,000	792,000	755,428	+ 299,428	— 36,572
Subtotal, Operations	1,465,000	1,971,354	1,934,782	+ 468,782	— 36,572
Recapitalization:					
Infrastructure and safety	447,657	670,000	670,000	+ 222,343	.....
Capability based investments	135,341	149,117	149,117	+ 13,776	.....
Planning for Programmatic Construction (Pre-CD-1) .....	.....	84,787	84,787	+ 84,787	.....
Subtotal, Recapitalization	582,998	903,904	903,904	+ 320,906	.....
I&O Construction:					
Programmatic Construction	745,000	750,000	750,000	+ 5,000	.....
06-D-141 Uranium Processing Facility, Y-12 .....	.....	.....	.....	.....	.....

07-D-220-04 TRU Liquid Waste Facility, LANL	36,687	36,687	+ 36,687	.....
15-D-301 HE Science & Engineering Facility, PX	43,000	43,000	- 37,000	.....
15-D-302 TA-55 Reinvestment project III, LANL	30,000	30,000	+ 30,000	.....
17-D-640 U1a complex enhancements project, NNSA	160,600	160,600	+ 125,600	.....
18-D-620 Exascale Computing Facility Modernization Project, LLNL	29,200	29,200	- 20,800	.....
18-D-650 Tritium Finishing Facility, SRS	27,000	27,000	.....	.....
18-D-690, Lithium processing facility, Y-12	109,405	109,405	+ 77,405	.....
21-D-510 HE Synthesis, Formulation, and Production, PX	31,000	31,000	+ 31,000	.....
Chemistry and Metallurgy Replacement (CMRR):				
04-D-125 Chemistry and metallurgy replacement project, LANL	168,444	169,427	+ 983	.....
Subtotal, Programmatic Construction and CMMR	1,137,444	1,386,319	+ 248,875	.....
Mission Enabling				
15-D-611 Emergency Operations Center, SNL	4,000	36,000	+ 32,000	.....
15-D-612 Emergency Operations Center, LLNL	5,000	27,000	+ 22,000	.....
19-D-670 138KV Power Transmission System Replacement, NNSA	6,000	59,000	+ 53,000	.....
Subtotal, Mission Enabling	15,000	122,000	+ 107,000	.....
Subtotal, I&O Construction:	1,152,444	1,508,319	+ 355,875	.....
Subtotal, Infrastructure and Operations	3,201,442	4,347,005	+ 1,145,563	- 36,572
Secure Transportation Asset:				
STA Operations and Equipment	185,000	266,390	+ 81,390	.....
Program Direction	107,660	123,684	+ 16,024	.....
Subtotal, Secure Transportation Asset	292,660	390,074	+ 97,414	.....
Defense Nuclear Security:				
Defense Nuclear Security (DNS)	750,000	800,895	+ 50,895	- 15,000
Construction:				
17-D-710 West End Protected Area Reduction Project, Y-12	25,000	26,000	+ 1,000	+ 15,000
Subtotal, Defense Nuclear Security	775,000	826,895	+ 51,895	.....
Subtotal, Defense Nuclear Security (DNS)	775,000	826,895	+ 51,895	.....
Information Technology and Cyber Security	300,000	375,511	+ 75,511	.....
Legacy Contractor Pensions (WPA)	91,200	101,668	+ 10,468	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Subtotal, Weapons Activities	12,457,097	15,602,000	15,602,000	+ 3,144,903	.....
TOTAL, WEAPONS ACTIVITIES	12,457,097	15,602,000	15,602,000	+ 3,144,903	.....
DEFENSE NUCLEAR NONPROLIFERATION					
Defense Nuclear Nonproliferation Programs:					
Material Management and Minimization:					
Conversion	99,000	170,000	105,000	+ 6,000	— 65,000
Nuclear Material Removal	32,925	40,000	40,000	+ 7,075	.....
Material Disposition	186,608	190,711	190,711	+ 4,103	.....
Laboratory and Partnership Support	45,000	.....	60,000	+ 15,000	+ 60,000
Uranium Reserve Program .....	.....	.....	30,000	+ 30,000	+ 30,000
Subtotal, Material Management and Minimization	363,533	400,711	425,711	+ 62,178	+ 25,000
Global Material Security:					
International Nuclear Security	58,000	66,391	58,000	.....	— 8,391
Domestic Radiologic Security	147,002	101,000	147,002	.....	+ 46,002
International Radiologic Security	78,907	73,340	78,907	.....	+ 5,567
Nuclear Smuggling Detection and Deterrence	159,000	159,749	159,749	+ 749	.....
Subtotal, Global Material Security	442,909	400,480	443,658	+ 749	+ 43,178
Nonproliferation and Arms Control:					
National Technical Nuclear Forensics R&D	140,000	138,708	140,000	.....	+ 1,292
.....	.....	40,000	20,000	+ 20,000	— 20,000
Defense Nuclear Nonproliferation R&D:					
Proliferation Detection	299,046	235,220	255,220	— 43,826	+ 20,000
Nuclear Detonation Detection	196,617	236,531	236,531	+ 39,914	.....
Nonproliferation Fuels Development	15,000	.....	15,000	.....	+ 15,000
Nonproliferation Stewardship Program	22,500	59,900	59,900	+ 37,400	.....
Subtotal, Defense Nuclear Nonproliferation R&D	533,163	531,651	566,651	+ 33,488	+ 35,000

Nonproliferation Construction:						
99-D-143 Mixed Oxide (MOX) Fuel Fabrication Facility, SRS	220,000	148,589	148,589	148,589	-220,000	
18-D-150 Surplus Plutonium Disposition Project, SRS	79,000				+69,589	
Subtotal, Nonproliferation Construction	299,000	148,589	148,589	148,589	-150,411	
Nuclear Counterterrorism and Incident Response:						
Emergency Operations	35,545	36,000	36,000	36,000	+455	
Counterterrorism and Counterproliferation	336,550	341,513	341,513	321,513	-15,037	-20,000
Subtotal, Nuclear counterterrorism and incident response	372,095	377,513	377,513	357,513	-14,582	-20,000
Legacy contractor pensions	13,700	14,348	14,348	14,348	+648	
Use of prior-year balances		-21,000	-21,000	-21,470	-21,470	-470
TOTAL, DEFENSE NUCLEAR NONPROLIFERATION	2,164,400	2,031,000	2,095,000	2,095,000	-69,400	+64,000
NAVAL REACTORS						
Naval Reactors Development	516,205	590,306	590,306	545,000	+28,795	-45,306
Columbia-class Reactor Systems Development	75,500	64,700	64,700	64,700	-10,800	
S8G Prototype Refueling	170,000	135,000	135,000	135,000	-35,000	
Naval Reactors Operations and Infrastructure	553,591	506,294	506,294	553,600	+9	+47,306
Program Direction	50,500	53,700	53,700	51,700	+1,200	-2,000
Construction:						
14-D-901 Spent Fuel Handling Recapitalization project, NRF	238,000	330,000	330,000	330,000	+92,000	
19-D-930 KS Overhead Piping	20,900				-20,900	
20-D-931, KL Fuel Development Laboratory	23,700				-23,700	
21-D-530 KL Steam and Condensate Upgrades		4,000	4,000	4,000	+4,000	
Subtotal, Construction	282,600	334,000	334,000	334,000	+51,400	
TOTAL, NAVAL REACTORS	1,648,396	1,684,000	1,684,000	1,684,000	+35,604	
FEDERAL SALARIES AND EXPENSES	434,699	454,000	443,200	443,200	+8,501	-10,800
TOTAL, NATIONAL NUCLEAR SECURITY ADMINISTRATION	16,704,592	19,771,000	19,824,200	19,824,200	+3,119,608	+53,200
Closure Sites Administration	4,987	4,987	4,987	4,987		
DEFENSE ENVIRONMENTAL CLEANUP						

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Richland:					
River Corridor and Other Cleanup Operations	236,102	54,949	236,100	-2	+ 181,151
Central Plateau Remediation	654,800	498,335	664,800	+ 10,000	+ 166,465
RL Community and Regulatory Support	10,121	2,500	10,200	+ 79	+ 7,700
Construction:					
18-D-404 WESF Modifications and Capsule Storage	11,000	.....	15,000	+ 4,000	+ 15,000
Subtotal, Construction	11,000	.....	15,000	+ 4,000	+ 15,000
Subtotal, Richland	912,023	555,784	926,100	+ 14,077	+ 370,316
Office of River Protection:					
Waste Treatment and Immobilization Plant Commissioning	15,000	50,000	50,000	+ 35,000	.....
Rad Liquid Tank Waste Stabilization and Disposition	775,000	597,757	775,000	.....	+ 177,243
Construction:					
01-D-16 D High-level Waste Facility	25,000	.....	50,000	+ 25,000	+ 50,000
01-D-16 E Pretreatment Facility	15,000	.....	.....	- 15,000	.....
18-D-16 Waste Treatment and Immobilization Plant—LBL/Direct Feed LAW	776,000	609,924	770,000	- 6,000	+ 160,076
Subtotal, Construction	816,000	609,924	820,000	+ 4,000	+ 210,076
ORP Low-level Waste Offsite Disposal	10,000	.....	.....	- 10,000	.....
Subtotal, Office of River Protection	1,616,000	1,257,681	1,645,000	+ 29,000	+ 387,319
Idaho National Laboratory:					
Idaho Cleanup and Waste Disposition	430,000	257,554	400,000	- 30,000	+ 142,446
Idaho Community and Regulatory Support	3,500	2,400	3,500	.....	+ 1,100
Total, Idaho National Laboratory	433,500	259,954	403,500	- 30,000	+ 143,546
NNSA Sites and Nevada Offsites:					
Lawrence Livermore National Laboratory	1,727	1,764	1,764	+ 37	.....

Separations Process Research Unit Nevada	15,000	15,000	15,000	— 300	.....
Sandia National Laboratory	60,737	60,737	60,737	+ 2,208	.....
Los Alamos National Laboratory	2,652	4,860	4,860	.....	.....
LLNL Excess Facilities D&D	220,000	120,000	220,000	— 30,000	+ 100,000
	65,000	.....	35,000	.....	+ 35,000
Total, NNSA Sites and Nevada Off-sites	365,416	202,361	337,361	— 28,055	+ 135,000
Oak Ridge Reservation:					
OR Nuclear Facility D&D	213,000	109,077	232,723	+ 19,723	+ 123,646
U233 Disposition Program	55,000	45,000	55,000	.....	+ 10,000
OR Cleanup and disposition	101,100	58,000	133,880	+ 32,780	+ 75,880
Construction:					
14-D-403 Outfall 200 Mercury Treatment Facility	70,000	20,500	20,500	— 49,500	.....
17-D-401 On-site Waste Disposal Facility	.....	22,380	22,380	+ 22,380	.....
Subtotal, Construction	70,000	42,880	42,880	— 27,120	.....
OR Community & Regulatory Support	5,900	4,930	5,900	.....	+ 970
OR Technology Development and Deployment	5,000	3,000	5,000	.....	+ 2,000
Total, Oak Ridge Reservation	450,000	262,887	475,383	+ 25,383	+ 212,496
Savannah River Site:					
SR Site Risk Management Operations:					
SR Site Risk Management Operations	506,366	455,122	455,122	— 51,244	.....
Construction:					
18-D-402 Emergency Operations Center Replacement, SR	6,792	.....	.....	— 6,792	.....
Total, SR Site Risk Management Operations	513,158	455,122	455,122	— 58,036	.....
SR Community and Regulatory Support	11,249	4,989	11,249	.....	+ 6,260
SR Radioactive Liquid Tank Waste Stabilization and Disposition	820,106	970,332	964,072	+ 143,966	— 6,260
Construction:					
05-D-405 Salt Waste Processing Facility, SRS	21,200	.....	.....	— 21,200	.....
17-D-402 Saltstone Disposal Unit #7, SRS	40,034	10,716	10,716	— 29,318	.....
18-D-402 Saltstone Disposal unit #8/9	20,000	65,500	65,500	+ 45,500	.....
19-D-701 SR Security System Replacement	4,525	.....	.....	— 4,525	.....
20-D-401 Saltstone Disposal Unit #10, 11, 12	500	.....	.....	— 500	.....
20-D-402 Advanced Manufacturing Collaborative Facility (AMC)	25,000	25,000	25,000	.....	.....

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Subtotal, Construction	111,259	101,216	101,216	- 10,043	.....
Total, Savannah River Site	1,455,772	1,531,659	1,531,659	+ 75,887	.....
Waste Isolation Pilot Plant:					
Waste Isolation Pilot Plant	294,353	323,260	323,260	+ 28,907	.....
Construction:					
15-D-411 Safety Significant Confinement Ventilation System, WIPP	58,054	.....	.....	- 58,054	.....
15-D-412 Exhaust Shaft, WIPP	44,500	50,000	50,000	+ 5,500	.....
21-D-401 Hoisting Capability Project .....	.....	10,000	10,000	+ 10,000	.....
Total, Waste Isolation Pilot Plant	396,907	383,260	383,260	- 13,647	.....
Program Direction	281,119	275,285	289,000	+ 7,881	+ 13,715
Program Support	12,979	12,979	12,979	.....	.....
Safeguards and Security	313,097	320,771	320,771	+ 7,674	.....
Technology Development	25,000	25,000	30,000	+ 5,000	+ 5,000
Use of Prior-Year Balances	- 11,800	.....	.....	+ 11,800	.....
Subtotal, Defense Environmental Cleanup	6,255,000	5,092,608	6,360,000	+ 105,000	+ 1,267,392
Rescission .....	.....	- 109,000	.....	.....	+ 109,000
TOTAL, DEFENSE ENVIRONMENTAL CLEANUP	6,255,000	4,983,608	6,360,000	+ 105,000	+ 1,376,392
OTHER DEFENSE ACTIVITIES					
Environment, Health, Safety and Security:					
Environment, Health, Safety and Security	136,839	134,320	134,000	- 2,839	- 320
Program Direction—Environment, Health, Safety and Security	71,000	75,368	71,000	.....	- 4,368
Subtotal, Environment, Health, safety and security	207,839	209,688	205,000	- 2,839	- 4,688

Enterprise Assessments:							
Enterprise Assessments	24,068	26,949	25,000	+ 932	- 1,949		
Program Direction	54,711	54,635	54,635	- 76			
Subtotal, Enterprise Assessments	78,779	81,584	79,635	+ 856	- 1,949		
Specialized security activities	273,409	258,411	270,000	- 3,409	+ 11,589		
Office of Legacy Management:							
Legacy Management Activities—Defense	142,767	293,873	143,873	+ 1,106	- 150,000		
Program Direction—Legacy Management	19,262	23,120	19,441	+ 179	- 3,679		
Subtotal, Office of Legacy Management	162,029	316,993	163,314	+ 1,285	- 153,679		
Defense Related Administrative Support	179,092	183,789	183,789	+ 4,697			
Office of Hearings and Appeals	4,852	4,262	4,262	- 590			
TOTAL, OTHER DEFENSE ACTIVITIES	906,000	1,054,727	906,000		- 148,727		
TOTAL, ATOMIC ENERGY DEFENSE ACTIVITIES	23,865,592	25,809,335	27,090,200	+ 3,224,608	+ 1,280,865		
POWER MARKETING ADMINISTRATIONS ¹							
SOUTHEASTERN POWER ADMINISTRATION							
Operation and Maintenance	70,704	85,401	66,163	- 4,541	- 19,238		
Purchase Power and Wheeling	6,597	11,246	11,246	+ 4,649			
Program Direction							
Subtotal, Operation and Maintenance	77,301	96,647	77,409	+ 108	- 19,238		
Less Alternative Financing (for PPW)	- 14,704	- 14,163	- 14,163	+ 541			
Less Alternative Financing (for PD)		- 4,000	- 4,000	- 4,000			
Offsetting Collections (for PPW)	- 56,000	- 71,238	- 52,000	+ 4,000	+ 19,238		
Offsetting Collections (for PD)	- 6,597	- 7,246	- 7,246	- 649			
SOUTHWESTERN POWER ADMINISTRATION							
Operation And Maintenance	13,639	13,292	13,292	- 347			
Operation And Maintenance	68,000	95,000	40,000	- 28,000	- 55,000		
Purchase Power And Wheeling	35,157	35,635	35,635	+ 478			
Program Direction	15,067	13,267	13,267	- 1,800			
Construction							

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Subtotal, Operation and Maintenance	131,863	157,194	102,194	-29,669	-55,000
Less Alternative Financing (for O&M)	-6,018	-5,635	-5,635	+383	.....
Less Alternative Financing (for PPW)	-25,000	-25,000	-25,000	.....	.....
Less Alternative Financing (for Construction)	-10,070	-8,167	-8,167	+1,903	.....
Less Alternative Financing (for PD) .....	.....	-852	-852	-852	.....
Offsetting Collections (for PD)	-31,467	-31,483	-31,483	-16	.....
Offsetting Collections (for O&M)	-5,908	-5,657	-5,657	+251	.....
Offsetting Collections (for PPW)	-43,000	-70,000	-15,000	+28,000	+55,000
TOTAL, SOUTHWESTERN POWER ADMINISTRATION	10,400	10,400	10,400	.....	.....
WESTERN AREA POWER ADMINISTRATION					
Operation and Maintenance:					
Construction And Rehabilitation	45,887	26,251	26,251	-19,636	.....
Operation And Maintenance	72,176	77,874	77,874	+5,698	.....
Purchase Power And Wheeling	515,769	520,933	465,890	-49,879	-55,043
Program Direction	250,091	253,575	253,575	+3,484	.....
Subtotal, Operation and Maintenance	883,923	878,633	823,590	-60,333	-55,043
Less Alternative Financing (for O&M)	-6,600	-6,297	-6,297	+303	.....
Less Alternative Financing (for Construction)	-39,922	-20,353	-20,353	+19,569	.....
Less Alternative Financing (for PD)	-44,719	-48,546	-48,546	-3,827	.....
Less Alternative Financing (for PPW)	-288,769	-293,890	-293,890	-5,121	.....
Offsetting Collections (for PD)	-149,142	-145,010	-145,010	+4,132	.....
Offsetting Collections (for O&M)	-24,445	-24,744	-24,744	-299	.....
Purchase Power & Wheeling Financed from Offsetting (PL 108-447/109-103)	-227,000	-227,043	-172,000	+55,000	+55,043
Offsetting Collections—Colorado River Dam (PL 98-381)	-8,954	-8,378	-8,378	+576	.....
Use of Prior-Year Balances	-5,000	-15,000	-15,000	-10,000	.....
Rescission of Prior-Year Balances	-176	.....	.....	+176	.....

TOTAL, WESTERN AREA POWER ADMINISTRATION	89,196	89,372	89,372	+ 176	.....
FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND						
Falcon And Amistad Operation And Maintenance	5,647	7,302	7,302	+ 1,655	.....
Offsetting Collections—Falcon and Amistad Fund	-2,932	-5,548	-5,548	-2,616	.....
Less Alternative Financing—Falcon and Amistad Fund	-1,187	-1,526	-1,526	-339	.....
Use of Prior-Year Balances	-1,300	.....	.....	+ 1,300	.....
TOTAL, FALCON AND AMISTAD O&M FUND	228	228	228	.....	.....
TOTAL, POWER MARKETING ADMINISTRATIONS	99,824	100,000	100,000	+ 176	.....
FEDERAL ENERGY REGULATORY COMMISSION						
Federal Energy Regulatory Commission	382,000	404,350	404,350	+ 22,350	.....
FERC Revenues	-382,000	-404,350	-404,350	-22,350	.....
GENERAL PROVISIONS						
Energy Programs Rescission	-12,723	.....	.....	+ 12,723	.....
Colorado River Basin Fund (305(b)) .....	.....	.....	2,000	+ 2,000	.....
Total, General Provisions	-12,723	.....	2,000	+ 14,723	.....
GRAND TOTAL DEPARTMENT OF ENERGY	38,586,316	35,729,069	42,039,126	+ 3,452,810	+ 6,310,057	
(Total amount appropriated)	(38,657,215)	(36,563,228)	(42,041,366)	(+ 3,384,151)	(+ 5,478,138)	
(Rescissions)	(- 70,899)	(- 834,159)	(- 2,240)	(+ 68,659)	(+ 831,919)	
SUMMARY OF ACCOUNTS						
Energy Efficiency and Renewable Energy	2,790,000	719,563	2,848,000	+ 58,000	+ 2,128,437	
Cybersecurity, Energy Security, and Emergency Response	156,000	184,621	156,000	.....	- 28,621
Electricity	190,000	195,045	223,000	+ 33,000	+ 27,955	
Nuclear Energy	1,493,408	1,179,931	1,505,300	+ 11,892	+ 325,369	
Uranium Reserve Program .....	.....	150,000	120,000	+ 120,000	- 30,000
Fossil Energy Research and Development	750,000	730,601	750,000	.....	+ 19,399
Naval Petroleum & Oil Shale Reserves	14,000	13,006	13,006	- 994	.....
Strategic Petroleum Reserve	195,000	187,081	187,081	- 7,919	.....
SPR Petroleum Account	10,000	- 68,000	1,000	- 9,000	+ 69,000	
Northeast Home Heating Oil Reserve	10,000	- 84,000	10,000	.....	+ 94,000
Energy Information Administration	126,800	128,710	126,800	.....	- 1,910
Non-Defense Environmental Cleanup	319,200	275,820	326,000	+ 6,800	+ 50,180	

DEPARTMENT OF ENERGY—Continued
[In thousands of dollars]

	2020 appropriations	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				2020 appropriations	Budget estimate
Uranium Enrichment D&D Fund	881,000	806,244	848,000	- 33,000	+ 41,756
Science	7,000,000	5,837,806	7,026,000	+ 26,000	+ 1,188,194
Nuclear Waste Disposal	425,000	27,500	430,000	+ 5,000	- 27,500
Advanced Research Projects Agency—Energy	29,000	- 310,744	29,000	+ 5,000	+ 740,744
Title 17 Innovative technology loan guarantee program	5,000	- 384,659	5,000	.....	+ 413,659
Advanced Technology Vehicles Manufacturing Loan Program	2,000	.....	2,000	.....	+ 5,000
Tribal Energy Loan Guarantee program	22,000	- 8,500	22,000	.....	+ 10,500
Office of Indian Energy Policy and Programs	161,000	8,005	161,000	.....	+ 13,995
Departmental administration	54,215	136,094	57,739	.....	+ 24,906
Office of the Inspector General .....	.....	32,959	.....	+ 3,524	.....
International Affairs .....	.....	4,912	.....	.....	- 32,959
Artificial Intelligence and Technology Office .....	.....	.....	.....	.....	- 4,912
Atomic energy defense activities:					
National Nuclear Security Administration:					
Weapons activities	12,457,097	15,602,000	15,602,000	+ 3,144,903	.....
Defense nuclear nonproliferation	2,164,400	2,031,000	2,095,000	- 69,400	+ 64,000
Naval reactors	1,648,396	1,684,000	1,684,000	+ 35,604	.....
Federal Salaries and Expenses	434,699	454,000	443,200	+ 8,501	- 10,800
Subtotal, National Nuclear Security Admin	16,704,592	19,771,000	19,824,200	+ 3,119,608	+ 53,200
Defense Environmental Cleanup	6,255,000	4,983,608	6,360,000	+ 105,000	+ 1,376,392
Other Defense Activities	906,000	1,054,727	906,000	.....	- 148,727
Total, Atomic Energy Defense Activities	23,865,592	25,809,335	27,090,200	+ 3,224,608	+ 1,280,865
Power Marketing Administrations: 1					
Southwestern Power Administration	10,400	10,400	10,400	.....	.....
Western Area Power Administration	89,196	89,372	89,372	+ 176	.....
Falcon and Amistad Operating and Maintenance Fund	228	228	228	.....	.....
Total, Power Marketing Administrations	99,824	100,000	100,000	+ 176	.....

Federal Energy Regulatory Commission:					
Salaries and Expenses	382,000	404,350	404,350	+ 22,350	.....
Revenues	-382,000	-404,350	-404,350	-22,350	.....
General Provisions:					
Energy Programs Rescission	-12,723	.....	.....	+ 12,723	.....
Colorado River Basin Fund (305(b)) .....	.....	.....	2,000	+ 2,000	+ 2,000
Subtotal, General Provisions	-12,723	.....	2,000	+ 14,723	+ 2,000
Total Summary of Accounts, Department of Energy	38,586,316	35,729,069	42,039,126	+ 3,452,810	+ 6,310,057

† 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 2021 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 regarding environmental stewardship and endangered species recovery efforts.

Section 306. The bill includes a provision regarding a pilot program for storage of used nuclear fuel.

Section 307. The bill includes a provision regarding refined petroleum product from the Strategic Petroleum Reserve.

TITLE IV

INDEPENDENT AGENCIES

The budget request again proposes to eliminate the Delta Regional Authority, Denali Commission, and Northern Border Regional Commission. The budget requests funding to conduct close-out of the agencies in fiscal year 2021. The Committee strongly opposes the termination of these agencies, and recommends funding to continue their activities. The administration shall continue all activities funded by this act, as well as follow directive language included in this explanatory statement. No funds shall be used for the planning of or implementation of termination of these agencies.

APPALACHIAN REGIONAL COMMISSION

Appropriations, 2020	\$175,000,000
Budget estimate, 2021	165,000,000
Committee recommendation	180,000,000

The Committee recommends \$180,000,000 for the Appalachian Regional Commission [ARC], an increase of \$15,000,000 above the budget request.

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

The Committee recommends \$10,000,000 to address the substance abuse crisis that disproportionately affects Appalachia.

The Committee recommends not less than \$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 \$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 \$5,000,000 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, 2020	\$31,000,000
Budget estimate, 2021	28,836,000
Committee recommendation	31,000,000

The Committee recommends \$31,000,000 for the Defense Nuclear Facilities Safety Board, an increase of \$2,164,000 above the budget request. 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 \$1,206,000 within the Office of Inspector General of the Nuclear Regulatory Commission to perform these services.

DELTA REGIONAL AUTHORITY

Appropriations, 2020	\$30,000,000
Budget estimate, 2021	2,500,000
Committee recommendation	30,000,000

The Committee recommends \$30,000,000 for the Delta Regional Authority [DRA], an increase of \$27,500,000 above the budget request.

Within available funds, not less than \$15,000,000 is recommended for flood control, basic public infrastructure development and transportation improvements, which shall be allocated separate from the State formula funding method. The Committee does not include a statutory waiver with regard to DRA's priority of funding, and directs DRA to focus on activities relating to basic public infrastructure and transportation infrastructure before allocating funding toward other priority areas.

DENALI COMMISSION

Appropriations, 2020	\$15,000,000
Budget estimate, 2021	7,300,000
Committee recommendation	15,000,000

The Committee recommends \$15,000,000 for the Denali Commission, an increase of \$7,700,000 above the budget request.

NORTHERN BORDER REGIONAL COMMISSION

Appropriations, 2020	\$25,000,000
Budget estimate, 2021	850,000
Committee recommendation	30,000,000

The Committee recommends \$30,000,000 for the Northern Border Regional Commission, an increase of \$29,150,000 above the budget request. 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 (Public Law 115-334).

NUCLEAR REGULATORY COMMISSION

SALARIES AND EXPENSES

Appropriations, 2020	\$842,236,000
Budget estimate, 2021	849,900,000
Committee recommendation	849,900,000

REVENUES

Appropriations, 2020	-\$717,125,000
Budget estimate, 2021	- 729,293,000
Committee recommendation	- 729,293,000

NET APPROPRIATION

Appropriations, 2020	\$125,111,000
Budget estimate, 2021	120,607,000
Committee recommendation	120,607,000

The Committee recommends \$849,900,000 for the Nuclear Regulatory Commission [Commission], the same as the budget request. This amount is offset by estimated revenues of -\$729,293,000, resulting in a net appropriation of \$120,607,000. In developing this recommendation, the Committee has consulted with the Commission to ensure it maintains its gold-standard health and safety mission while reducing low-priority work.

Advanced Nuclear Reactor Regulatory Infrastructure.—The recommendation includes \$17,100,000 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 Control Points.—The recommendation includes budget control points for fiscal year 2021 to ensure the Commission's budget execution follows congressional intent. These budget control points are included in the table following the heading of Office of Inspector General. As it did for fiscal year 2020, the Committee includes statutory language incorporating the new control points by reference into law, and notes that any breaches are subject to the reporting requirements and remedies of the Antideficiency Act contained in title 31 of the United States Code.

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

Reprogramming Authority.—Section 402 continues reprogramming authority included in the Energy and Water Development and Related Agencies Appropriations Act, 2020, for the Commission between the budget control points, subject to prior congressional approval, with a provision made for emergency circumstances. This

reprogramming authority supersedes the Commission’s existing guidance on internal reprogrammings. The Committee notes that any remaining unobligated balances carried forward from prior years are subject to the reprogramming guidelines in section 402, and shall only be used to supplement appropriations consistent with those guidelines.

Integrated University Program.—The Commission is directed to use \$16,000,000 of prior year, unobligated balances for the Integrated University Program 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.

Digital Technologies.—The Committee remains interested with the pace of Commission progress on the advancement of a risk-informed, predictable and efficient regulatory infrastructure for digital technologies. The Commission shall provide a briefing to the Committee not later than 30 days after the enactment of this act on the progress of its efforts to enable safe and efficient design options that allow licensees to deploy digital technologies.

Commission Workforce.—Not later than 30 days after the enactment of this act, the Commission is directed to provide a briefing to the Committee on its efforts to maintain its workforce, including recruiting, hiring, and training scientists and engineers to meet its mission today and in the future.

OFFICE OF INSPECTOR GENERAL

GROSS APPROPRIATION

Appropriations, 2020	\$13,314,000
Budget estimate, 2021	13,499,000
Committee recommendation	13,499,000

REVENUES

Appropriations, 2020	-\$10,129,000
Budget estimate, 2021	- 11,106,000
Committee recommendation	- 11,106,000

NET APPROPRIATION

Appropriations, 2020	\$2,385,000
Budget estimate, 2021	2,393,000
Committee recommendation	2,393,000

The Committee recommends \$13,499,000 for the Office of Inspector General, the same as the budget request, which is offset by rev-

enues estimated at \$11,106,000 for a net appropriation of \$2,293,000 The Office of Inspector General serves both the Nuclear Regulatory Commission and the Defense Nuclear Facilities Safety Board, and the recommendation includes \$1,206,000 for that purpose, which is not available from fee revenues.

NUCLEAR REGULATORY COMMISSION

[In thousands of dollars]

Item	Budget estimate	Committee recommendation	Committee recommendation compared to budget estimate
SALARIES AND EXPENSES			
NUCLEAR REACTOR SAFETY	452,800	452,800	
OPERATING REACTORS	372,800	372,800	
NEW REACTORS	80,000	80,000	
NUCLEAR MATERIALS AND WASTE STORAGE	125,600	125,600	
SPENT FUEL STORAGE AND TRANSPORTATION	28,100	28,100	
NUCLEAR MATERIALS USERS	55,500	55,500	
DECOMMISSIONING AND LOW-LEVEL WASTE	22,800	22,800	
FUEL FACILITIES	19,300	19,300	
CORPORATE SUPPORT	271,400	271,400	
REVENUES	-729,293	-729,293	
SUBTOTAL	120,607	120,607	
OFFICE OF INSPECTOR GENERAL	13,499	13,499	
REVENUES	-11,106	-11,106	
SUBTOTAL	2,393	2,393	
TOTAL, NUCLEAR REGULATORY COMMISSION	123,000	123,000	

NUCLEAR WASTE TECHNICAL REVIEW BOARD

Appropriations, 2020	\$3,600,000
Budget estimate, 2021	5,600,000
Committee recommendation	3,600,000

The Committee recommends \$3,600,000 for the Nuclear Waste Technical Review Board [Board] to be derived from the Nuclear Waste Fund, a decrease of \$2,000,000 below the budget request.

The budget request included \$2,000,000 for new activities contingent upon the enactment of legislation expanding the functions of the Board. Congress has not yet acted on the Board's legislative proposal. Accordingly, the Committee does not recommend funds for this request at this time.

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.

PROGRAM, PROJECT, AND ACTIVITY

In fiscal year 2021, for purposes of the Balanced Budget and Emergency Deficit Control Act of 1985 (Public Law 99–177), as amended, the following information provides the definition of the term “program, project or activity” for departments and agencies under the jurisdiction of the Energy and Water Development and Related Agencies 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, 2021, and the explanatory statement accompanying the bill.

If a sequestration order is necessary, in implementing the Presidential order, departments and agencies shall apply any percentage reduction required for fiscal year 2021 pursuant to the provisions of Public Law 99–177 to all items specified in the explanatory statement accompanying the bill by the Senate Committee on Appropriations in support of the fiscal year 2021 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 2021:

APPROPRIATIONS NOT AUTHORIZED BY LAW—FISCAL YEAR 2021

[Dollars in thousands]

Agency/Program	Last Year of Authorization	Authorization Level	Appropriation in Last Year of Authorization	Net Appropriation in this Bill
Corps FUSRAP				250,000
EERE Program Direction	2006	110,500	164,198	161,000
EERE Weatherization Activities	2012	1,400,000	68,000	310,000
EERE State Energy Programs	2012	125,000	50,000	62,500
Nuclear Energy	2009	495,000	792,000	1,367,500
Nuclear Energy Infrastructure and Facilities	2009	145,000	245,000	335,500
Fossil Energy	2009	641,000	727,320	750,000
Naval Petroleum and Oil Shale Reserves	2019	10,000	10,000	13,006
Strategic Petroleum Reserve	2003	Not Specified	172,856	187,081
Northeast Home Heating Oil Reserve	2003	Not Specified	6,000	10,000
Energy Information Administration	1984	Not Specified	55,870	126,800
Office of Science	2013	6,007,000	4,876,000	7,026,000
Advanced Technology Vehicle Manufacturing Program	2012	Not Specified	6,000	5,000
Non-Defense Environmental Cleanup:				
West Valley Demonstration	1981	5,000	5,000	88,113
Departmental Administration	1984	246,963	185,682	161,000
Atomic Energy Defense Activities:				
National Nuclear Security Administration:				
Weapons Activities	2020	12,444,780	12,457,097	15,602,000
Defense Nuclear Nonproliferation	2020	2,020,814	2,164,400	2,095,000
Naval Reactors	2020	1,633,396	1,648,396	1,684,000
Federal Salaries and Expenses	2020	434,699	434,699	443,200
Defense Environmental Cleanup	2020	5,527,732	6,255,000	6,360,000
Other Defense Activities	2020	885,839	906,000	906,000
Power Marketing Administrations:				
Southwestern	1984	40,254	36,229	10,400
Western Area	1984	259,700	194,630	89,372
Federal Energy Regulatory Commission	1984	Not Specified	29,582	0
Defense Nuclear Facilities Safety Board	2020	29,450	31,000	31,000
Delta Regional Authority	2018	30,000	25,000	30,000
Northern Border Regional Commission	2018	30,000	15,000	30,000
Nuclear Regulatory Commission	1985	460,000	488,200	123,000

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

Pursuant to paragraph 7(c) of rule XXVI, on September 00, 2020, the Committee ordered favorably reported a bill (S. 0000) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2021, and for other purposes, provided, that the bill be subject to amendment and that the bill be consistent with its budget allocation, and provided that the Chairman of the Committee or his designee be authorized to offer the substance of the original bill as a Committee amendment in the nature of a substitute to the House companion measure, by a recorded vote of 00–00, a quorum being present. The vote was as follows:

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.”

The Committee bill as recommended contains no such provisions.

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2020 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL FOR FISCAL YEAR 2021
 (In thousands of dollars)

Item	2020 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2020 appropriation	Budget estimate
TITLE I—DEPARTMENT OF DEFENSE—CIVIL					
DEPARTMENT OF THE ARMY					
Corps of Engineers—Civil					
Investigations	151,000	102,635	151,149	+ 149	+ 48,514
Construction	2,681,000	2,173,189	2,661,000	- 20,000	+ 487,811
Mississippi River and Tributaries	375,000	209,863	395,000	+ 20,000	+ 185,137
Operation and Maintenance	3,790,000	1,996,499	3,781,000	- 9,000	+ 1,784,501
Regulatory Program	210,000	200,000	210,000		+ 10,000
Formerly Utilized Sites Remedial Action Program (FUSRAP)	200,000		250,000	+ 50,000	+ 250,000
Flood Control and Coastal Emergencies	35,000	77,000	35,000		- 42,000
Expenses	203,000	187,000	211,000	+ 8,000	+ 24,000
Office of Assistant Secretary of the Army (Civil Works)	5,000	5,000	3,000	- 2,000	- 2,000
Water Infrastructure Finance and Innovation Program Account			25,000	+ 25,000	+ 25,000
Harbor Maintenance Trust Fund		1,015,000			- 1,015,000
Total, title I, Department of Defense—Civil	7,650,000	5,966,186	7,722,149	+ 72,149	+ 1,755,963
TITLE II—DEPARTMENT OF THE INTERIOR					
Central Utah Project					
Central Utah Project Completion Account	20,000	10,000	20,000		+ 10,000
Bureau of Reclamation					
Water and Related Resources	1,512,151	979,000	1,521,125	+ 8,974	+ 542,125
Central Valley Project Restoration Fund	54,849	55,875	55,875	+ 1,026	
California Bay-Delta Restoration	33,000	33,000	33,000		
Policy and Administration	60,000	60,000	60,000		

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2020 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2021—Continued

[In thousands of dollars]

Item	2020 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2020 appropriation	Budget estimate
Total, Bureau of Reclamation	1,660,000	1,127,875	1,670,000	+ 10,000	+ 542,125
Total, title II, Department of the Interior	1,680,000	1,137,875	1,690,000	+ 10,000	+ 552,125
TITLE III—DEPARTMENT OF ENERGY					
Energy Programs					
Energy Efficiency and Renewable Energy	2,848,000	719,563	2,850,240	+ 2,240	+ 2,130,677
Rescission	- 58,000	.....	- 2,240	+ 55,760	- 2,240
Subtotal	2,790,000	719,563	2,848,000	+ 58,000	+ 2,128,437
Cybersecurity, Energy Security, and Emergency Response	156,000	184,621	156,000	.....	- 28,621
Electricity	190,000	195,045	223,000	+ 33,000	+ 27,955
Nuclear Energy	1,340,000	1,042,131	1,367,500	+ 27,500	+ 325,369
Defense function	153,408	137,800	137,800	- 15,608	.....
Subtotal	1,493,408	1,179,931	1,505,300	+ 11,892	+ 325,369
Uranium Reserve .....	.....	150,000	120,000	+ 120,000	- 30,000
Fossil Energy Research and Development	750,000	730,601	750,000	.....	+ 19,399
Naval Petroleum and Oil Shale Reserves	14,000	13,006	13,006	- 994	.....
Sale of Petroleum product .....	.....	- 242,000	.....	.....	+ 242,000
Use of sale of petroleum product .....	.....	242,000	.....	.....	- 242,000
Strategic Petroleum Reserve	195,000	187,081	187,081	- 7,919	.....
Sale of crude oil	- 450,000	.....	.....	+ 450,000	.....
Use of sale proceeds	450,000	.....	.....	- 450,000	.....
Subtotal	195,000	187,081	187,081	- 7,919	.....
SPR Petroleum Account	10,000	.....	1,000	- 9,000	+ 1,000
Sale from Strategic Petroleum Reserve .....	.....	- 87,000	.....	.....	+ 87,000

Use of sale proceeds		19,000							
Subtotal	10,000		1,000						- 19,000
Northeast Home Heating Oil Reserve	10,000		10,000						+ 69,000
Sale of Home Heating Oil Reserve									+ 10,000
Subtotal	10,000								+ 84,000
Energy Information Administration	10,000		10,000						+ 94,000
Non-defense Environmental Cleanup	126,800		126,800						- 1,910
Mercury receipts	319,200		275,820						+ 50,180
Use of Mercury receipts			3,000						
Subtotal	319,200		275,820						+ 50,180
Uranium Enrichment Decontamination and Decommissioning Fund	881,000		806,244						+ 41,756
Science	7,000,000		5,837,806						+ 1,188,194
Nuclear Waste Disposal			27,500						- 27,500
Advanced Research Projects Agency-Energy	425,000		21,256						+ 408,744
Rescission			- 332,000						+ 332,000
Subtotal	425,000		- 310,744						+ 740,744
Title 17 Innovative Technology Loan Guarantee Program	32,000		3,000						+ 29,000
Offsetting collection	- 3,000		- 3,000						
Rescission			- 160,659						+ 160,659
Cancellation of Commitment Authority			- 224,000						+ 224,000
Subtotal	29,000		- 384,659						+ 413,659
Advanced Technology Vehicles Manufacturing Loans Program	5,000		5,000						+ 5,000
Tribal Energy Loan Guarantee Program	2,000		2,000						+ 2,000
Rescission			- 8,500						+ 8,500
Subtotal	2,000		- 8,500						+ 10,500
Office of Indian Energy Policy and Programs	22,000		8,005						+ 13,995
Departmental Administration	254,378		229,472						+ 24,906
Miscellaneous revenues	- 93,378		- 93,378						
Net appropriation	161,000		136,094						+ 24,906
International Affairs			32,959						- 32,959

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2020 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2021—Continued

[In thousands of dollars]

Item	2020 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2020 appropriation	Budget estimate
Artificial Intelligence and Technology Office	54,215	4,912	57,739	.....	- 4,912
Office of the Inspector General .....	.....	57,739	.....	+ 3,524	.....
Total, Energy programs	14,633,623	9,819,734	14,846,926	+ 213,303	+ 5,027,192
Atomic Energy Defense Activities					
National Nuclear Security Administration					
Weapons Activities	12,457,097	15,602,000	15,602,000	+ 3,144,903	.....
Defense Nuclear Nonproliferation	2,164,400	2,031,000	2,095,000	- 69,400	+ 64,000
Naval Reactors	1,648,396	1,684,000	1,684,000	+ 35,604	.....
Federal Salaries and Expenses	434,699	454,000	443,200	+ 8,501	- 10,800
Total, National Nuclear Security Administration	16,704,592	19,771,000	19,824,200	+ 3,119,608	+ 53,200
Environmental and Other Defense Activities					
Defense Environmental Cleanup	6,255,000	5,092,608	6,360,000	+ 105,000	+ 1,267,392
Rescission .....	.....	- 109,000	.....	.....	+ 109,000
Subtotal	6,255,000	4,983,608	6,360,000	+ 105,000	+ 1,376,392
Other Defense Activities	906,000	1,054,727	906,000	.....	- 148,727
Total, Environmental and Other Defense Activities	7,161,000	6,038,335	7,266,000	+ 105,000	+ 1,227,665
Total, Atomic Energy Defense Activities	23,865,592	25,809,335	27,090,200	+ 3,224,608	+ 1,280,865
Power Marketing Administrations ¹					
Operation and maintenance, Southeastern Power Administration	6,597	7,246	7,246	+ 649	.....

Offsetting collections	-6,597	-7,246	-7,246	-649	.....
Subtotal .....	.....	.....	.....	.....	.....
Operation and maintenance, Southwestern Power Administration	47,775	47,540	47,540	-235	.....
Offsetting collections	-37,375	-37,140	-37,140	+235	.....
Subtotal	10,400	10,400	10,400	.....	.....
Construction, Rehabilitation, Operation and Maintenance, Western Area Power Administration	262,959	259,126	259,126	-3,833	.....
Offsetting collections	-173,587	-169,754	-169,754	+3,833	.....
Rescission	-176	.....	.....	+176	.....
Subtotal	89,196	89,372	89,372	+176	.....
Falcon and Amistad Operating and Maintenance Fund	3,160	5,776	5,776	+2,616	.....
Offsetting collections	-2,932	-5,548	-5,548	-2,616	.....
Subtotal	228	228	228	.....	.....
Total, Power Marketing Administrations	99,824	100,000	100,000	+176	.....
Federal Energy Regulatory Commission					
Salaries and expenses	382,000	404,350	404,350	+22,350	.....
Revenues applied	-382,000	-404,350	-404,350	-22,350	.....
Subtotal .....	.....	.....	.....	.....	.....
General Provisions—Department of Energy					
Energy Programs Rescission (rescission)	-12,723	.....	.....	+12,723	.....
Colorado River Basin Fund (Sec. 305(a)) .....	.....	.....	.....	.....	.....
Colorado River Basin Fund (Sec. 305(b)) .....	.....	.....	2,000	+2,000	+2,000
Sale of Petroleum product .....	.....	-607,000	.....	.....	+607,000
Total, General Provisions	-12,723	-607,000	2,000	+14,723	+609,000
Total, title III, Department of Energy	38,586,316	35,122,069	42,039,126	+3,452,810	+6,917,057
Appropriations	(38,657,215)	(35,732,228)	(42,041,366)	(+3,384,151)	(+6,309,138)
Rescissions	(-70,899)	(-610,159)	(-2,240)	(+68,659)	(+607,919)

COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2020 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2021—Continued
[In thousands of dollars]

Item	2020 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2020 appropriation	Budget estimate
TITLE IV—INDEPENDENT AGENCIES					
Appalachian Regional Commission	175,000	165,000	180,000	+ 5,000	+ 15,000
Defense Nuclear Facilities Safety Board	31,000	28,836	31,000	.....	+ 2,164
Delta Regional Authority	30,000	2,500	30,000	.....	+ 27,500
Denali Commission	15,000	7,300	15,000	.....	+ 7,700
Northern Border Regional Commission	25,000	850	30,000	+ 5,000	+ 29,150
Southeast Crescent Regional Commission	250	.....	.....	- 250	.....
Nuclear Regulatory Commission:					
Salaries and expenses	842,236	849,900	849,900	+ 7,664	.....
Revenues	- 717,125	- 729,293	- 729,293	- 12,168	.....
Subtotal	125,111	120,607	120,607	- 4,504	.....
Office of Inspector General	13,314	13,499	13,499	+ 185	.....
Revenues	- 10,929	- 11,106	- 11,106	- 177	.....
Subtotal	2,385	2,393	2,393	+ 8	.....
Total, Nuclear Regulatory Commission	127,496	123,000	123,000	- 4,496	.....
Nuclear Waste Technical Review Board	3,600	3,600	3,600	.....	.....
Legislative Proposal .....	.....	2,000	.....	.....	- 2,000
Subtotal	3,600	5,600	3,600	.....	- 2,000
Total, title IV, Independent agencies	407,346	333,086	412,600	+ 5,254	+ 79,514

OTHER APPROPRIATIONS			
EMERGENCY APPROPRIATIONS FOR CORONAVIRUS HEALTH RESPONSE AND AGENCY OPERATIONS (PUBLIC LAW 116-136 DIV B)			
DEPARTMENT OF DEFENSE—CIVIL			
Corps of Engineers—Civil			
Operation and Maintenance (emergency)	50,000		50,000
Expenses (emergency)	20,000		20,000
Total, Corps of Engineers—Civil	70,000		70,000
DEPARTMENT OF THE INTERIOR			
Central Utah Project			
Central Utah Project Completion Account (emergency)	(500)		(500)
(by transfer) (emergency)			
Bureau of Reclamation			
Water and Related Resources (emergency)	12,500		12,500
(transfer out) (emergency)	(500)		(500)
Policy and Administration (emergency)	8,100		8,100
Total, Bureau of Reclamation	20,600		20,600
Total, Department of the Interior	20,600		20,600
DEPARTMENT OF ENERGY			
Energy Programs			
Science (emergency)	99,500		99,500
Departmental Administration (emergency)	28,000		28,000
Total, Energy Programs	127,500		127,500
Total, Department of Energy	127,500		127,500
OTHER INDEPENDENT AGENCIES			
Nuclear Regulatory Commission:			
Salaries and Expenses	3,300		3,300

**COMPARATIVE STATEMENT OF NEW BUDGET (OBLIGATIONAL) AUTHORITY FOR FISCAL YEAR 2020 AND BUDGET ESTIMATES AND AMOUNTS RECOMMENDED IN THE BILL
FOR FISCAL YEAR 2021—Continued**

[In thousands of dollars]

Item	2020 appropriation	Budget estimate	Committee recommendation	Senate Committee recommendation compared with (+ or -)	
				2020 appropriation	Budget estimate
GENERAL PROVISIONS					
Postponement of SPR sale (Sec. 14002) (emergency)					
Total, Emergency Appropriations for Coronavirus Health Response and Agency Operations	221,400			-221,400	
Grand total					
Appropriations	48,545,062	42,559,216	51,863,875	+ 3,318,813	+ 9,304,659
Emergency appropriations	(48,394,561)	(43,169,375)	(51,866,115)	(+ 3,471,554)	(+ 8,696,740)
Rescissions	(221,400)			(- 221,400)	
Grand total less Emergency appropriations	(- 70,899)	(- 610,159)	(- 2,240)	(+ 68,659)	(+ 607,919)
	48,323,662	42,559,216	51,863,875	+ 3,540,213	+ 9,304,659

¹ Totals 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.